## WEBVTT

NOTE duration: "01:38:17.3440000"

NOTE language:en-us

NOTE Confidence: 0.82207596

00:00:05.470 --> 00:00:09.395 OK, welcome everybody to our third

NOTE Confidence: 0.82207596

 $00:00:09.395 \longrightarrow 00:00:12.740$  smilow shares lecture in our

NOTE Confidence: 0.82207596

 $00:00:12.860 \longrightarrow 00:00:16.558$  series of survivorship. Lectures this

NOTE Confidence: 0.82207596

 $00:00:16.558 \longrightarrow 00:00:20.910$  are third out of 4th and we are.

NOTE Confidence: 0.82207596

 $00{:}00{:}20.910 \dashrightarrow 00{:}00{:}22.932$  Doing this this survivorship series in

NOTE Confidence: 0.82207596

00:00:22.932 --> 00:00:25.090 honor of National Cancer Survivors Day,

NOTE Confidence: 0.82207596

 $00{:}00{:}25.090 \dashrightarrow 00{:}00{:}27.169$  which here at Smilow we decided to

NOTE Confidence: 0.82207596

 $00{:}00{:}27.169 \dashrightarrow 00{:}00{:}29.610$  turn into a month long celebration.

NOTE Confidence: 0.82207596

 $00:00:29.610 \longrightarrow 00:00:30.998$  Can't believe it's already

NOTE Confidence: 0.82207596

00:00:30.998 --> 00:00:32.733 the third out of four,

NOTE Confidence: 0.82207596

 $00{:}00{:}32.740 \dashrightarrow 00{:}00{:}35.524$  so our third week out of four weeks.

NOTE Confidence: 0.82207596

 $00:00:35.530 \longrightarrow 00:00:37.270$  My name is Heather Studwell.

NOTE Confidence: 0.82207596

 $00:00:37.270 \longrightarrow 00:00:39.166$  I'm the survivorship coordinator.

NOTE Confidence: 0.82207596

00:00:39.166 --> 00:00:41.536 At the Smilow Cancer Care

00:00:41.536 --> 00:00:43.669 Center at Greenwich Hospital.

NOTE Confidence: 0.82207596

 $00:00:43.670 \longrightarrow 00:00:46.365$  Our survivorship is an area that cancer

NOTE Confidence: 0.82207596

 $00:00:46.365 \longrightarrow 00:00:49.936$  care that I hold near and dear to my heart.

NOTE Confidence: 0.82207596

 $00:00:49.940 \longrightarrow 00:00:52.244$  Having worked as an occupational therapist

NOTE Confidence: 0.82207596

00:00:52.244 --> 00:00:54.739 at Greenwich Hospital for nearly 20 years,

NOTE Confidence: 0.82207596

00:00:54.740 --> 00:00:56.684 treating cancer survivors and

NOTE Confidence: 0.82207596

 $00:00:56.684 \longrightarrow 00:00:59.114$  those who are surviving cancer.

NOTE Confidence: 0.82207596

00:00:59.120 --> 00:01:02.144 And it's my pleasure to be facilitating this

NOTE Confidence: 0.82207596

 $00:01:02.144 \longrightarrow 00:01:04.860$  panel tonight on supplements and nutrition.

NOTE Confidence: 0.82207596

 $00:01:04.860 \longrightarrow 00:01:07.058$  Going to give you a few housekeeping

NOTE Confidence: 0.82207596

 $00:01:07.058 \longrightarrow 00:01:08.660$  items as we go along.

NOTE Confidence: 0.82207596

 $00:01:08.660 \dashrightarrow 00:01:11.190$  There is a Q&A box down at the bottom of

NOTE Confidence: 0.82207596

 $00{:}01{:}11.260 \dashrightarrow 00{:}01{:}13.740$  every body zoom screen so you can use that

NOTE Confidence: 0.82207596

 $00:01:13.740 \longrightarrow 00:01:16.267$  to type in your questions throughout.

NOTE Confidence: 0.82207596

00:01:16.270 --> 00:01:18.806 You don't have to wait till the end,

 $00:01:18.810 \longrightarrow 00:01:21.274$  but we will have all of our presenters

NOTE Confidence: 0.82207596

 $00:01:21.274 \longrightarrow 00:01:23.466$  present and then we'll go through the

NOTE Confidence: 0.82207596

 $00:01:23.466 \longrightarrow 00:01:25.780$  questions at the end of the lecture,

NOTE Confidence: 0.82207596

 $00:01:25.780 \longrightarrow 00:01:28.174$  but also a few questions at the

NOTE Confidence: 0.82207596

 $00:01:28.174 \longrightarrow 00:01:30.720$  end of each of the presenters.

NOTE Confidence: 0.82207596

 $00:01:30.720 \longrightarrow 00:01:34.540$  Lectures so we have a lot of

NOTE Confidence: 0.82207596

 $00:01:34.540 \longrightarrow 00:01:35.720$  people joining us tonight.

NOTE Confidence: 0.82207596

00:01:35.720 --> 00:01:37.200 Welcome to everybody if you.

NOTE Confidence: 0.8099853

00:01:39.570 --> 00:01:42.445 Let's see, I just want to

NOTE Confidence: 0.8099853

 $00:01:42.445 \longrightarrow 00:01:44.840$  see where we're still good.

NOTE Confidence: 0.8099853

 $00{:}01{:}44.840 \dashrightarrow 00{:}01{:}47.222$  OK so our first presenter to night

NOTE Confidence: 0.8099853

 $00:01:47.222 \longrightarrow 00:01:50.514$  is Annette Hood and that is a

NOTE Confidence: 0.8099853

 $00:01:50.514 \longrightarrow 00:01:52.674$  clinical pharmacist specializing in

NOTE Confidence: 0.8099853

 $00{:}01{:}52.674 \dashrightarrow 00{:}01{:}54.900$  women's oncology including breast,

NOTE Confidence: 0.8099853

00:01:54.900 --> 00:01:56.074 ovarian, uterine,

NOTE Confidence: 0.8099853

 $00:01:56.074 \longrightarrow 00:02:00.183$  and cervical cancers on the main campus.

 $00:02:00.190 \dashrightarrow 00:02:03.949$  Of. Smilow Cancer Hospital in New Haven.

NOTE Confidence: 0.8099853

 $00{:}02{:}03.950 \dashrightarrow 00{:}02{:}05.765$  She completed her Doctor of

NOTE Confidence: 0.8099853

00:02:05.765 --> 00:02:07.580 Pharmacy degree from the University

NOTE Confidence: 0.8099853

 $00:02:07.647 \dashrightarrow 00:02:09.377$  of Connecticut and a residency

NOTE Confidence: 0.8099853

00:02:09.377 --> 00:02:11.107 at Saint Francis Hospital and

NOTE Confidence: 0.8099853

 $00:02:11.170 \longrightarrow 00:02:12.730$  Medical Center in Hartford.

NOTE Confidence: 0.8099853

00:02:12.730 --> 00:02:15.061 Her main role is to review chemotherapy

NOTE Confidence: 0.8099853

00:02:15.061 --> 00:02:17.119 orders for all clinic patients,

NOTE Confidence: 0.8099853

 $00{:}02{:}17.120 \dashrightarrow 00{:}02{:}18.950$  provide counseling to patients on

NOTE Confidence: 0.8099853

 $00:02:18.950 \longrightarrow 00:02:20.414$  chemotherapy and supportive care.

NOTE Confidence: 0.8099853

 $00:02:20.420 \longrightarrow 00:02:22.610$  She also works with Doctor Sopher,

NOTE Confidence: 0.8099853

 $00{:}02{:}22.610 \dashrightarrow 00{:}02{:}25.146$  an integrative medicine clinic

NOTE Confidence: 0.8099853

00:02:25.146 --> 00:02:27.048 to review supplements.

NOTE Confidence: 0.8099853

 $00:02:27.050 \longrightarrow 00:02:29.786$  So I'm going to have you start off.

NOTE Confidence: 0.92683214

 $00:02:30.830 \longrightarrow 00:02:31.960$  Let me share my screen.

 $00:02:42.870 \longrightarrow 00:02:45.100$  Let's see, actually.

NOTE Confidence: 0.7393466

 $00:02:58.300 \longrightarrow 00:03:00.406$  Snap the right screen on the 2nd.

NOTE Confidence: 0.5284975

 $00{:}03{:}10.250 \dashrightarrow 00{:}03{:}13.270$  Think. Can you see Presenter

NOTE Confidence: 0.5284975

00:03:13.270 --> 00:03:15.420 view or are you seeing?

NOTE Confidence: 0.5284975

 $00:03:15.420 \longrightarrow 00:03:16.950$  The entire slide show view,

NOTE Confidence: 0.77511674

 $00{:}03{:}16.950 \dashrightarrow 00{:}03{:}19.085$  but now we're getting your presenter view.

NOTE Confidence: 0.77511674

00:03:19.090 --> 00:03:21.230 You're just going to centerview, OK, perfect.

NOTE Confidence: 0.8730204 00:03:24.580 --> 00:03:25.350 OK.

NOTE Confidence: 0.80800885

 $00{:}03{:}27.380 \to 00{:}03{:}29.490$  Second, too many screens here.

NOTE Confidence: 0.8813192

00:03:36.970 --> 00:03:39.410 OK, great. OK,

NOTE Confidence: 0.8606665

 $00{:}03{:}39.410 \dashrightarrow 00{:}03{:}41.298$  so thank you for having me today on

NOTE Confidence: 0.8606665

00:03:41.298 --> 00:03:43.426 this very important talk about dietary

NOTE Confidence: 0.8606665

 $00:03:43.426 \longrightarrow 00:03:45.026$  supplements in cancer survivors.

NOTE Confidence: 0.8606665

 $00:03:45.030 \longrightarrow 00:03:47.230$  I know that this is a topic that

NOTE Confidence: 0.8606665

 $00:03:47.230 \longrightarrow 00:03:49.707$  many of you are very interested in,

NOTE Confidence: 0.8606665

 $00{:}03{:}49.710 \dashrightarrow 00{:}03{:}51.887$  so I'm glad that you're here to night.

 $00{:}03{:}51.890 \dashrightarrow 00{:}03{:}53.654$  To night I'm going to talk about

NOTE Confidence: 0.8606665

 $00:03:53.654 \longrightarrow 00:03:54.830$  some general information about

NOTE Confidence: 0.8606665

00:03:54.883 --> 00:03:56.259 supplements and their safety,

NOTE Confidence: 0.8606665

 $00:03:56.260 \longrightarrow 00:03:58.510$  and then debunk some myths surrounding

NOTE Confidence: 0.8606665

 $00:03:58.510 \longrightarrow 00:04:00.343$  dietary supplements and then later

NOTE Confidence: 0.8606665

 $00:04:00.343 \longrightarrow 00:04:02.226$  on Doctor Boyd is going to really

NOTE Confidence: 0.8606665

 $00:04:02.226 \longrightarrow 00:04:04.110$  get into more of the specifics.

NOTE Confidence: 0.8606665

 $00:04:04.110 \longrightarrow 00:04:07.094$  Next on the safety and effectiveness

NOTE Confidence: 0.8606665

 $00:04:07.094 \longrightarrow 00:04:08.738$  of the dietary supplements.

NOTE Confidence: 0.70207

 $00:04:18.110 \longrightarrow 00:04:22.936$  OK. So first let's talk about some background

NOTE Confidence: 0.70207

 $00:04:22.936 \longrightarrow 00:04:24.500$  information on dietary supplements.

NOTE Confidence: 0.83248174

 $00:04:24.500 \longrightarrow 00:04:26.460$  So what are they so?

NOTE Confidence: 0.83248174

 $00:04:26.460 \longrightarrow 00:04:28.734$  These include our vitamins which could

NOTE Confidence: 0.83248174

 $00:04:28.734 \longrightarrow 00:04:31.110$  be multi vitamin products which include

NOTE Confidence: 0.83248174

00:04:31.110 --> 00:04:33.100 you know several different multi,

 $00:04:33.100 \longrightarrow 00:04:35.060$  several different vitamins and minerals.

NOTE Confidence: 0.83248174

 $00{:}04{:}35.060 \dashrightarrow 00{:}04{:}38.021$  Or I could just include single vitamins

NOTE Confidence: 0.83248174

 $00:04:38.021 \longrightarrow 00:04:40.530$  such as vitamin A or vitamin D.

NOTE Confidence: 0.83248174

 $00:04:40.530 \longrightarrow 00:04:42.485$  It also includes minerals like

NOTE Confidence: 0.83248174

 $00{:}04{:}42.485 \dashrightarrow 00{:}04{:}44.440$  calcium and herbs or botanicals.

NOTE Confidence: 0.83248174

 $00:04:44.440 \longrightarrow 00:04:46.906$  We can think avec anicia or

NOTE Confidence: 0.83248174

 $00:04:46.906 \longrightarrow 00:04:49.098$  valerian root as another example

NOTE Confidence: 0.83248174

 $00{:}04{:}49.098 \dashrightarrow 00{:}04{:}51.876$  and it also includes a mino acids.

NOTE Confidence: 0.83248174

 $00{:}04{:}51.880 --> 00{:}04{:}53.750$  So as the name suggests,

NOTE Confidence: 0.83248174

 $00:04:53.750 \longrightarrow 00:04:55.246$  dietary supplements really are

NOTE Confidence: 0.83248174

 $00{:}04{:}55.246 \dashrightarrow 00{:}04{:}57.116$  intended to supplement the diet.

NOTE Confidence: 0.83248174

 $00:04:57.120 \longrightarrow 00:04:59.232$  They are not intended to diagnose

NOTE Confidence: 0.83248174

 $00:04:59.232 \longrightarrow 00:05:01.600$  any illnesses to cure any illnesses,

NOTE Confidence: 0.83248174

 $00:05:01.600 \longrightarrow 00:05:04.218$  or to treat or prevent a disease.

NOTE Confidence: 0.83248174

 $00:05:04.220 \longrightarrow 00:05:06.691$  An if the label of a certain

NOTE Confidence: 0.83248174

00:05:06.691 --> 00:05:08.340 product makes these claims,

00:05:08.340 --> 00:05:10.578 it's actually in violation of DESHAY,

NOTE Confidence: 0.83248174

 $00:05:10.580 \longrightarrow 00:05:12.445$  which is the dietary supplement

NOTE Confidence: 0.83248174

00:05:12.445 --> 00:05:14.690 health and Education Act of 1994,

NOTE Confidence: 0.83248174

 $00:05:14.690 \longrightarrow 00:05:17.204$  which will talk a little bit

NOTE Confidence: 0.83248174

 $00:05:17.204 \longrightarrow 00:05:19.979$  more about in the next slide.

NOTE Confidence: 0.83248174

 $00{:}05{:}19.980 \dashrightarrow 00{:}05{:}22.157$  So let's get into our first myth.

NOTE Confidence: 0.85004616

 $00:05:25.420 \longrightarrow 00:05:27.340$  So myth number one supplements are

NOTE Confidence: 0.85004616

 $00:05:27.340 \longrightarrow 00:05:29.960$  regulated by the FDA just like other drugs.

NOTE Confidence: 0.86333996

 $00:05:33.340 \longrightarrow 00:05:34.835$  And actually, dietary supplements

NOTE Confidence: 0.86333996

 $00:05:34.835 \longrightarrow 00:05:36.710$  are regulated more as foods,

NOTE Confidence: 0.86333996

 $00:05:36.710 \longrightarrow 00:05:38.685$  not like the prescription medications

NOTE Confidence: 0.86333996

 $00{:}05{:}38.685 \dashrightarrow 00{:}05{:}40.660$  or over the counter medications

NOTE Confidence: 0.86333996

 $00{:}05{:}40.717 \dashrightarrow 00{:}05{:}42.841$  that we think about where those

NOTE Confidence: 0.86333996

 $00:05:42.841 \longrightarrow 00:05:44.257$  manufacturers actually have to

NOTE Confidence: 0.86333996

 $00:05:44.324 \longrightarrow 00:05:46.124$  submit clinical trials proving the

00:05:46.124 --> 00:05:48.303 safety and efficacy of their product

NOTE Confidence: 0.86333996

 $00{:}05{:}48.303 \dashrightarrow 00{:}05{:}50.914$  before it gets approved by the FDA,

NOTE Confidence: 0.86333996

 $00{:}05{:}50.920 \dashrightarrow 00{:}05{:}54.584$  or and then before it comes to market.

NOTE Confidence: 0.86333996

 $00:05:54.590 \longrightarrow 00:05:56.810$  So any supplement that was already

NOTE Confidence: 0.86333996

 $00:05:56.810 \longrightarrow 00:05:59.519$  on the market prior to DESHAY prior

NOTE Confidence: 0.86333996

 $00:05:59.519 \longrightarrow 00:06:01.439$  to 1994 is actually grandfathered

NOTE Confidence: 0.86333996

 $00:06:01.439 \longrightarrow 00:06:03.892$  in and therefore does not have to

NOTE Confidence: 0.86333996

00:06:03.892 --> 00:06:06.434 prove to the FDA any safety or

NOTE Confidence: 0.86333996

 $00{:}06{:}06.434 \to 00{:}06{:}09.206$  effectiveness before going to the market.

NOTE Confidence: 0.86333996

00:06:09.210 --> 00:06:10.740 So only once it's marketed,

NOTE Confidence: 0.86333996

 $00{:}06{:}10.740 \dashrightarrow 00{:}06{:}13.211$  then the FDA has to actually prove

NOTE Confidence: 0.86333996

 $00:06:13.211 \longrightarrow 00:06:15.530$  that the product is not safe in

NOTE Confidence: 0.86333996

 $00{:}06{:}15.530 \dashrightarrow 00{:}06{:}17.749$  order to restrict its use or remove

NOTE Confidence: 0.86333996

 $00:06:17.749 \longrightarrow 00:06:19.189$  it from the market.

NOTE Confidence: 0.86333996

 $00:06:19.190 \longrightarrow 00:06:21.710$  So what does the FDA actually regulate?

NOTE Confidence: 0.86333996

 $00:06:21.710 \longrightarrow 00:06:23.510$  It regulates the label, so,

00:06:23.510 --> 00:06:25.310 as I had mentioned earlier,

NOTE Confidence: 0.86333996

 $00:06:25.310 \longrightarrow 00:06:27.100$  manufacturers of these supplements cannot

NOTE Confidence: 0.86333996

00:06:27.100 --> 00:06:29.304 make any claims related to treating

NOTE Confidence: 0.86333996

 $00:06:29.304 \longrightarrow 00:06:31.428$  or curing or preventing any illnesses.

NOTE Confidence: 0.86333996

 $00:06:31.430 \longrightarrow 00:06:32.938$  And if they do,

NOTE Confidence: 0.86333996

 $00:06:32.938 \longrightarrow 00:06:36.116$  then that is in violation of this act

NOTE Confidence: 0.86333996

 $00:06:36.116 \longrightarrow 00:06:39.412$  and they could get either fines or have

NOTE Confidence: 0.86333996

 $00:06:39.498 \dashrightarrow 00:06:42.756$  their product removed from the market.

NOTE Confidence: 0.86333996

 $00:06:42.760 \longrightarrow 00:06:45.005$  So because these products are not

NOTE Confidence: 0.86333996

00:06:45.005 --> 00:06:47.180 really strictly regulated by the FDA,

NOTE Confidence: 0.86333996

 $00:06:47.180 \longrightarrow 00:06:49.376$  there are some concerns about supplements,

NOTE Confidence: 0.86333996

 $00:06:49.380 \longrightarrow 00:06:53.118$  especially in terms of their quality.

NOTE Confidence: 0.86333996

 $00{:}06{:}53.120 \dashrightarrow 00{:}06{:}54.842$  So some supplements may actually contain

NOTE Confidence: 0.86333996

00:06:54.842 --> 00:06:56.519 contaminants such as lead or arsenic,

NOTE Confidence: 0.86333996

 $00:06:56.520 \longrightarrow 00:06:58.584$  or they may have too much or too

 $00:06:58.584 \longrightarrow 00:07:00.068$  little of the ingredient that

NOTE Confidence: 0.86333996

 $00:07:00.068 \longrightarrow 00:07:02.175$  it says that is on the label.

NOTE Confidence: 0.86333996

 $00:07:02.180 \longrightarrow 00:07:03.878$  And some studies have actually found

NOTE Confidence: 0.86333996

 $00:07:03.878 \longrightarrow 00:07:06.182$  that more than 60% of supplements do not

NOTE Confidence: 0.86333996

 $00:07:06.182 \longrightarrow 00:07:08.400$  have what the label says that it has.

NOTE Confidence: 0.86333996

 $00:07:08.400 \longrightarrow 00:07:09.153$  So for example,

NOTE Confidence: 0.86333996

00:07:09.153 --> 00:07:11.299 this is a report to the right from

NOTE Confidence: 0.86333996

00:07:11.299 --> 00:07:12.929 a website called Consumer Lab,

NOTE Confidence: 0.86333996

 $00:07:12.930 \longrightarrow 00:07:14.628$  which I'll talk about a little

NOTE Confidence: 0.86333996

 $00:07:14.628 \longrightarrow 00:07:16.040$  bit more towards the end,

NOTE Confidence: 0.86333996

 $00{:}07{:}16.040 \dashrightarrow 00{:}07{:}17.768$  which looks at products that are

NOTE Confidence: 0.86333996

 $00:07:17.768 \longrightarrow 00:07:19.799$  on the market and kind of test

NOTE Confidence: 0.86333996

 $00:07:19.799 \longrightarrow 00:07:21.696$  them to see what's in the product.

NOTE Confidence: 0.86333996

 $00:07:21.700 \longrightarrow 00:07:23.428$  So they found that there's a

NOTE Confidence: 0.86333996

 $00:07:23.428 \longrightarrow 00:07:24.927$  tenfold difference in potency across

NOTE Confidence: 0.86333996

00:07:24.927 --> 00:07:26.377 different types of Jin sing.

 $00:07:26.380 \longrightarrow 00:07:26.805$  Products.

NOTE Confidence: 0.86333996

 $00:07:26.805 \longrightarrow 00:07:29.355$  So because these products aren't regulated,

NOTE Confidence: 0.86333996

00:07:29.360 --> 00:07:31.493 I will towards the end kind of give you

NOTE Confidence: 0.86333996

00:07:31.493 --> 00:07:33.634 some tips on what you can do to try to

NOTE Confidence: 0.86333996

 $00{:}07{:}33.634 \dashrightarrow 00{:}07{:}35.725$  pick the safest products on the market.

NOTE Confidence: 0.80500156

 $00:07:37.850 \longrightarrow 00:07:39.720$  So let's get into myth.

NOTE Confidence: 0.80500156

00:07:39.720 --> 00:07:42.570 #2 dietary supplements are always safe.

NOTE Confidence: 0.80500156

 $00:07:42.570 \longrightarrow 00:07:44.070$  So many patients think that

NOTE Confidence: 0.80500156

00:07:44.070 --> 00:07:45.270 because something is natural,

NOTE Confidence: 0.80500156

 $00{:}07{:}45.270 \dashrightarrow 00{:}07{:}47.447$  or because either because it comes from

NOTE Confidence: 0.80500156

 $00{:}07{:}47.447 \dashrightarrow 00{:}07{:}50.069$  a plant or an animal that it is safe.

NOTE Confidence: 0.80500156

00:07:50.070 --> 00:07:51.564 However, a lot of these supplements

NOTE Confidence: 0.80500156

 $00{:}07{:}51.564 \dashrightarrow 00{:}07{:}52.959$  are made into really concentrated

NOTE Confidence: 0.80500156

 $00:07:52.959 \longrightarrow 00:07:54.363$  formulations with high amounts

NOTE Confidence: 0.80500156

 $00:07:54.363 \longrightarrow 00:07:55.767$  of the specific supplement,

 $00:07:55.770 \longrightarrow 00:07:57.270$  and that will actually make

NOTE Confidence: 0.80500156

 $00:07:57.270 \longrightarrow 00:07:58.470$  and make them unsafe.

NOTE Confidence: 0.80500156

 $00:07:58.470 \longrightarrow 00:08:00.661$  And this is something that Doctor Boyd

NOTE Confidence: 0.80500156

00:08:00.661 --> 00:08:03.331 is going to spend a little bit more

NOTE Confidence: 0.80500156

 $00:08:03.331 \longrightarrow 00:08:05.500$  time talking about during his slides.

NOTE Confidence: 0.80500156

 $00:08:05.500 \longrightarrow 00:08:08.132$  So I wanted to give an example of

NOTE Confidence: 0.80500156

00:08:08.132 --> 00:08:10.580 something that even though it's natural,

NOTE Confidence: 0.80500156

 $00:08:10.580 \longrightarrow 00:08:12.758$  it doesn't mean that it's safe.

NOTE Confidence: 0.80500156

 $00{:}08{:}12.760 \dashrightarrow 00{:}08{:}15.294$  So here's an example of a pricot kernel,

NOTE Confidence: 0.80500156

 $00:08:15.300 \longrightarrow 00:08:17.478$  or also known as apricot seeds.

NOTE Confidence: 0.80500156

 $00:08:17.480 \longrightarrow 00:08:19.658$  And it's marketed as vitamin B17.

NOTE Confidence: 0.80500156

 $00:08:19.660 \longrightarrow 00:08:21.945$  So as you can see, well,

NOTE Confidence: 0.80500156

 $00:08:21.945 \longrightarrow 00:08:24.795$  this is a pit that's found

NOTE Confidence: 0.80500156

 $00:08:24.795 \longrightarrow 00:08:27.698$  in the fruit of an Africa.

NOTE Confidence: 0.80500156

 $00:08:27.700 \longrightarrow 00:08:29.620$  In the center of the apricot fruit.

NOTE Confidence: 0.80500156

 $00:08:29.620 \longrightarrow 00:08:32.077$  Sorry so as you can see in the picture,

 $00:08:32.080 \longrightarrow 00:08:34.048$  it looks like an almond and it even

NOTE Confidence: 0.80500156

 $00{:}08{:}34.048 \dashrightarrow 00{:}08{:}36.221$  has the taste of an almond and it's

NOTE Confidence: 0.80500156

00:08:36.221 --> 00:08:38.109 promoted as an anti cancer agent,

NOTE Confidence: 0.80500156

 $00:08:38.110 \longrightarrow 00:08:38.660$  an intern.

NOTE Confidence: 0.80500156

 $00{:}08{:}38.660 \dashrightarrow 00{:}08{:}40.310$  It also is promoted to improve

NOTE Confidence: 0.80500156

 $00:08:40.310 \longrightarrow 00:08:41.668$  energy levels and well being,

NOTE Confidence: 0.80500156

 $00:08:41.670 \longrightarrow 00:08:43.870$  and also as a detox for the body.

NOTE Confidence: 0.8429252

 $00{:}08{:}46.240 \dashrightarrow 00{:}08{:}48.554$  So in actuality, there is no evidence

NOTE Confidence: 0.8429252

 $00{:}08{:}48.554 \dashrightarrow 00{:}08{:}50.998$  to support that it can treat cancer,

NOTE Confidence: 0.8429252

 $00:08:51.000 \longrightarrow 00:08:52.700$  and vitamin B17 is actually

NOTE Confidence: 0.8429252

 $00:08:52.700 \longrightarrow 00:08:54.060$  amygdalin in this case,

NOTE Confidence: 0.8429252

 $00{:}08{:}54.060 \dashrightarrow 00{:}08{:}56.412$  which is a toxic chemical that in the

NOTE Confidence: 0.8429252

 $00{:}08{:}56.412 \dashrightarrow 00{:}08{:}59.158$  body is converted to the poison cyanide.

NOTE Confidence: 0.8429252

 $00{:}08{:}59.160 \longrightarrow 00{:}09{:}02.210$  And if you eat 50 to 60 of these a pricot

NOTE Confidence: 0.8429252

 $00:09:02.289 \longrightarrow 00:09:05.270$  kernels, it can actually cause death.

 $00:09:05.270 \longrightarrow 00:09:06.934$  And at lower levels,

NOTE Confidence: 0.8429252

 $00:09:06.934 \longrightarrow 00:09:08.598$  cyanide poisoning can occur,

NOTE Confidence: 0.8429252

 $00:09:08.600 \longrightarrow 00:09:11.603$  so towards the right here is an

NOTE Confidence: 0.8429252

 $00{:}09{:}11.603 \dashrightarrow 00{:}09{:}14.435$  article recently from Canada in which

NOTE Confidence: 0.8429252

 $00:09:14.435 \longrightarrow 00:09:16.865$  apricot kernels were being recalled

NOTE Confidence: 0.8429252

00:09:16.865 --> 00:09:20.030 over the risk of cyanide poisoning.

NOTE Confidence: 0.8429252

 $00{:}09{:}20.030 \dashrightarrow 00{:}09{:}22.088$  So are the signs of cyanide poisoning

NOTE Confidence: 0.8429252

00:09:22.088 --> 00:09:23.530 include weakness and confusion,

NOTE Confidence: 0.8429252

 $00:09:23.530 \longrightarrow 00:09:24.164$  anxiety, restlessness,

NOTE Confidence: 0.8429252

 $00:09:24.164 \longrightarrow 00:09:25.749$  and then in severe cases,

NOTE Confidence: 0.8429252

 $00:09:25.750 \longrightarrow 00:09:26.704$  seizures are death,

NOTE Confidence: 0.8429252

 $00:09:26.704 \longrightarrow 00:09:28.930$  so you can see on the label.

NOTE Confidence: 0.8429252

 $00:09:28.930 \longrightarrow 00:09:30.514$  It does give a warning that

NOTE Confidence: 0.8429252

 $00:09:30.514 \longrightarrow 00:09:32.040$  this product tests with apricot

NOTE Confidence: 0.8429252

 $00:09:32.040 \longrightarrow 00:09:33.696$  kernels which contain amygdalin,

NOTE Confidence: 0.8429252

 $00{:}09{:}33.700 \dashrightarrow 00{:}09{:}35.728$  which can cause symptoms of cyanide

 $00:09:35.728 \longrightarrow 00:09:38.467$  poisoning and to not eat more than 8 seeds.

NOTE Confidence: 0.8429252

 $00{:}09{:}38.470 \dashrightarrow 00{:}09{:}40.626$  But you can see that someone who

NOTE Confidence: 0.8429252

00:09:40.626 --> 00:09:42.272 doesn't really know much about

NOTE Confidence: 0.8429252

 $00{:}09{:}42.272 \dashrightarrow 00{:}09{:}44.258$  apricot kernels or who doesn't read

NOTE Confidence: 0.8429252

 $00:09:44.258 \longrightarrow 00:09:46.498$  the label may ease just like regular

NOTE Confidence: 0.8429252

 $00:09:46.498 \longrightarrow 00:09:48.339$  nuts which could lead to toxicity.

NOTE Confidence: 0.8429252

 $00:09:48.339 \longrightarrow 00:09:50.642$  So the main main point about myth

NOTE Confidence: 0.8429252

 $00{:}09{:}50.642 \rightarrow 00{:}09{:}53.095~\#2$  is that just because something

NOTE Confidence: 0.8429252

 $00:09:53.095 \longrightarrow 00:09:55.245$  is natural does not necessarily

NOTE Confidence: 0.8429252

 $00:09:55.245 \longrightarrow 00:09:56.758$  mean that it's safe,

NOTE Confidence: 0.8429252

 $00:09:56.760 \longrightarrow 00:09:58.890$  and this concept can apply to

NOTE Confidence: 0.8429252

00:09:58.890 --> 00:10:00.310 many other dietary supplements,

NOTE Confidence: 0.8429252

 $00{:}10{:}00.310 \dashrightarrow 00{:}10{:}01.730$  depending on the dose.

NOTE Confidence: 0.8429252

00:10:01.730 --> 00:10:02.440 That is,

NOTE Confidence: 0.8429252

 $00:10:02.440 \longrightarrow 00:10:03.860$  you're taking it up.

 $00:10:06.640 \dashrightarrow 00:10:09.264$  I did also want to have you take a look

NOTE Confidence: 0.85638016

 $00:10:09.264 \longrightarrow 00:10:11.759$  at some labels of different supplements.

NOTE Confidence: 0.85638016

00:10:11.760 --> 00:10:13.740 These are actually multi vitamins so

NOTE Confidence: 0.85638016

 $00{:}10{:}13.740 \dashrightarrow 00{:}10{:}16.806$  on the left here you can see a list of

NOTE Confidence: 0.85638016

 $00:10:16.806 \longrightarrow 00:10:19.002$  the multi byte vitamins in this product

NOTE Confidence: 0.85638016

 $00:10:19.002 \longrightarrow 00:10:21.354$  and then their percent of daily value.

NOTE Confidence: 0.85638016

 $00:10:21.360 \longrightarrow 00:10:23.920$  It's about 100% or less for each of

NOTE Confidence: 0.85638016

 $00{:}10{:}23.920 \dashrightarrow 00{:}10{:}26.224$  these vitamins and then the product in

NOTE Confidence: 0.85638016

00:10:26.224 --> 00:10:28.809 the middle with the yellow you if you

NOTE Confidence: 0.85638016

 $00:10:28.809 \longrightarrow 00:10:30.958$  take a look at these supplement facts

NOTE Confidence: 0.85638016

 $00{:}10{:}30.960 \dashrightarrow 00{:}10{:}33.456$  you can see that the Feynman in this

NOTE Confidence: 0.85638016

00:10:33.456 --> 00:10:36.000 product has 8000% of your daily value.

NOTE Confidence: 0.85638016

 $00:10:36.000 \longrightarrow 00:10:38.938$  And vitamin B12 has 625% of your daily

NOTE Confidence: 0.85638016

 $00:10:38.938 \longrightarrow 00:10:42.233$  value and then all the way to the right

NOTE Confidence: 0.85638016

00:10:42.233 --> 00:10:44.991 is just a single vitamin D product

NOTE Confidence: 0.85638016

 $00:10:44.991 \longrightarrow 00:10:47.649$  with 10,000 international units.

00:10:47.650 --> 00:10:49.820 Vitamin D, which has 12150\% of

NOTE Confidence: 0.85638016

 $00:10:49.820 \longrightarrow 00:10:50.900$  your daily value.

NOTE Confidence: 0.85638016

 $00:10:50.900 \longrightarrow 00:10:52.700$  I'm not, I'm just gonna

NOTE Confidence: 0.8305895

00:10:52.700 --> 00:10:55.590 interrupt you for one second here. It's not

NOTE Confidence: 0.8305895

00:10:55.590 --> 00:10:58.578 advancing. Oh, I'm sorry.

NOTE Confidence: 0.8305895

00:10:58.580 --> 00:10:59.483 OK OK perfect.

NOTE Confidence: 0.8305895

00:10:59.483 --> 00:11:00.988 OK so I'll just briefly

NOTE Confidence: 0.8305895

 $00:11:00.988 \longrightarrow 00:11:02.459$  start over really quick.

NOTE Confidence: 0.8305895

 $00{:}11{:}02.460 --> 00{:}11{:}04.780$  So to the left here you can see

NOTE Confidence: 0.8305895

 $00:11:04.780 \longrightarrow 00:11:06.849$  the product that has the multi

NOTE Confidence: 0.8305895

 $00:11:06.849 \longrightarrow 00:11:09.224$  vitamins listed at 100% or less of

NOTE Confidence: 0.8305895

 $00:11:09.224 \longrightarrow 00:11:11.892$  your daily value in the middle is a

NOTE Confidence: 0.8305895

 $00{:}11{:}11.892 \dashrightarrow 00{:}11{:}14.100$  product that has the higher amounts

NOTE Confidence: 0.8305895

 $00:11:14.100 \longrightarrow 00:11:16.619$  with the time and you can see there

NOTE Confidence: 0.8305895

 $00{:}11{:}16.619 \dashrightarrow 00{:}11{:}19.096$  at 8000 B 12 at 600 and then to

00:11:19.096 --> 00:11:21.302 the right is the vitamin D product

NOTE Confidence: 0.8305895

 $00:11:21.302 \longrightarrow 00:11:23.260$  with 12150% of your daily value.

NOTE Confidence: 0.8305895

00:11:23.260 --> 00:11:25.714 So in general I know a lot of

NOTE Confidence: 0.8305895

00:11:25.714 --> 00:11:27.194 people probably don't really

NOTE Confidence: 0.8305895

 $00:11:27.194 \longrightarrow 00:11:29.130$  look at the supplement facts.

NOTE Confidence: 0.8305895

 $00:11:29.130 \longrightarrow 00:11:30.355$  And see what they're actually

NOTE Confidence: 0.8305895

00:11:30.355 --> 00:11:31.580 purchasing in their in their

NOTE Confidence: 0.8305895

00:11:31.626 --> 00:11:32.978 supplements that they're buying,

NOTE Confidence: 0.8305895

 $00{:}11{:}32.980 --> 00{:}11{:}34.350$  but it's really important to

NOTE Confidence: 0.8305895

00:11:34.350 --> 00:11:36.225 really take a look and see what's

NOTE Confidence: 0.8305895

 $00{:}11{:}36.225 \dashrightarrow 00{:}11{:}38.025$  in there and just the tip is if

NOTE Confidence: 0.8305895

00:11:38.086 --> 00:11:39.856 you're looking at these products,

NOTE Confidence: 0.8305895

 $00:11:39.860 \longrightarrow 00:11:41.778$  really try to stick to something that's

NOTE Confidence: 0.8305895

 $00:11:41.778 \longrightarrow 00:11:43.980$  at 100% of your daily value or less.

NOTE Confidence: 0.834987

00:11:47.230 --> 00:11:51.286 OK, so Miss #3 supplements do not

NOTE Confidence: 0.834987

 $00:11:51.286 \longrightarrow 00:11:53.710$  interact with cancer treatments.

00:11:53.710 --> 00:11:56.450 Let me go back so I know as

NOTE Confidence: 0.834987

00:11:56.450 --> 00:11:58.809 cancer survivors do you have many

NOTE Confidence: 0.834987

00:11:58.809 --> 00:12:00.777 different types of treatments,

NOTE Confidence: 0.834987

 $00:12:00.780 \longrightarrow 00:12:02.750$  including radiation therapy and surgeries.

NOTE Confidence: 0.834987

 $00:12:02.750 \longrightarrow 00:12:05.446$  Some of you may be on hormone supplements

NOTE Confidence: 0.834987

 $00:12:05.446 \longrightarrow 00:12:07.548$  for hormone stimulating cancers like

NOTE Confidence: 0.834987

00:12:07.548 --> 00:12:09.813 breast cancer or uterine cancer,

NOTE Confidence: 0.834987

 $00:12:09.820 \longrightarrow 00:12:12.571$  and there are potential for interactions with

NOTE Confidence: 0.834987

 $00{:}12{:}12.571 \dashrightarrow 00{:}12{:}14.930$  supplements and these treatments as well.

NOTE Confidence: 0.834987

 $00{:}12{:}14.930 \dashrightarrow 00{:}12{:}19.810$  So I wanted to touch on these a little bit.

NOTE Confidence: 0.834987

00:12:19.810 --> 00:12:22.198 OK, so first let's talk about

NOTE Confidence: 0.834987

 $00:12:22.198 \longrightarrow 00:12:23.790$  interactions with radiation therapy.

NOTE Confidence: 0.834987

 $00{:}12{:}23.790 \dashrightarrow 00{:}12{:}25.430$  So antioxidants which neutralize

NOTE Confidence: 0.834987

 $00:12:25.430 \longrightarrow 00:12:27.890$  reactive ask oxygen species or the

NOTE Confidence: 0.834987

 $00:12:27.955 \longrightarrow 00:12:30.157$  free radicals that can cause cancer.

 $00:12:30.160 \longrightarrow 00:12:32.890$  Patients use these to protect your normal

NOTE Confidence: 0.834987

 $00:12:32.890 \longrightarrow 00:12:34.929$  tissue from treatment side effects.

NOTE Confidence: 0.834987

 $00:12:34.930 \longrightarrow 00:12:37.354$  However, studies have found that the

NOTE Confidence: 0.834987

 $00:12:37.354 \longrightarrow 00:12:38.970$  antioxidants may actually protect

NOTE Confidence: 0.834987

 $00{:}12{:}39.033 \dashrightarrow 00{:}12{:}40.958$  the cancer cells and interfere

NOTE Confidence: 0.834987

 $00:12:40.958 \longrightarrow 00:12:42.498$  with the radiation treatment,

NOTE Confidence: 0.834987

 $00:12:42.500 \longrightarrow 00:12:44.490$  or they may actually make

NOTE Confidence: 0.834987

 $00:12:44.490 \longrightarrow 00:12:46.480$  the cancer cells grow more,

NOTE Confidence: 0.834987

 $00{:}12{:}46.480 --> 00{:}12{:}48.096$  which is something Doctor

NOTE Confidence: 0.834987

 $00:12:48.096 \longrightarrow 00:12:50.520$  Boyd will touch on in his.

NOTE Confidence: 0.834987

 $00{:}12{:}50.520 \dashrightarrow 00{:}12{:}50.933$  Wise.

NOTE Confidence: 0.834987

 $00:12:50.933 \longrightarrow 00:12:53.824$  So I want to give an example

NOTE Confidence: 0.834987

 $00{:}12{:}53.824 \dashrightarrow 00{:}12{:}56.209$  of vitamin E and radiation.

NOTE Confidence: 0.834987

 $00{:}12{:}56.210 \dashrightarrow 00{:}12{:}57.650$  Initial research has suggested

NOTE Confidence: 0.834987

00:12:57.650 --> 00:12:58.730 that Alpha Tocopherol,

NOTE Confidence: 0.834987

 $00:12:58.730 \longrightarrow 00:13:00.890$  which is a vitamin E compound,

 $00:13:00.890 \longrightarrow 00:13:02.996$  might reduce the toxicity from radiation

NOTE Confidence: 0.834987

 $00{:}13{:}02.996 \dashrightarrow 00{:}13{:}05.209$  therapy for head and neck cancers.

NOTE Confidence: 0.834987

 $00{:}13{:}05.210 \dashrightarrow 00{:}13{:}06.965$  But then two randomized control

NOTE Confidence: 0.834987

 $00:13:06.965 \longrightarrow 00:13:09.134$  trials and head and neck cancer

NOTE Confidence: 0.834987

00:13:09.134 --> 00:13:11.204 found that patients who were taking

NOTE Confidence: 0.834987

 $00:13:11.204 \longrightarrow 00:13:13.415$  vitamin E at 400 international units

NOTE Confidence: 0.834987

00:13:13.415 --> 00:13:16.005 per day they were associated with a

NOTE Confidence: 0.834987

 $00{:}13{:}16.010 \dashrightarrow 00{:}13{:}18.362$  higher risk of tumor relapse and a

NOTE Confidence: 0.834987

 $00:13:18.362 \longrightarrow 00:13:20.329$  decrease in cancer free survival.

NOTE Confidence: 0.834987

 $00:13:20.330 \longrightarrow 00:13:22.230$  So in general, the recommendation.

NOTE Confidence: 0.834987

00:13:22.230 --> 00:13:23.126 For patients,

NOTE Confidence: 0.834987

00:13:23.126 --> 00:13:24.918 getting radiation therapy is

NOTE Confidence: 0.834987

 $00:13:24.918 \longrightarrow 00:13:26.262$  to avoid antioxidants,

NOTE Confidence: 0.834987

 $00{:}13{:}26.270 \dashrightarrow 00{:}13{:}27.614$  specifically vitamins AC&E.

NOTE Confidence: 0.834987

00:13:27.614 --> 00:13:29.854 Other antioxidants include coenzyme Q10,

00:13:29.860 --> 00:13:33.010 selenium and christen and then in general,

NOTE Confidence: 0.834987

 $00{:}13{:}33.010 \dashrightarrow 00{:}13{:}34.654$  antioxidants that are found

NOTE Confidence: 0.834987

00:13:34.654 --> 00:13:37.120 in food are safe unless you

NOTE Confidence: 0.834987

00:13:37.197 --> 00:13:39.289 are using excessive amounts,

NOTE Confidence: 0.834987

 $00:13:39.290 \longrightarrow 00:13:41.540$  which you should be reducing.

NOTE Confidence: 0.834987

 $00{:}13{:}41.540 \dashrightarrow 00{:}13{:}44.276$  Fruits or vegetables and this is

NOTE Confidence: 0.834987

 $00:13:44.276 \longrightarrow 00:13:47.032$  something doctor soccer will go into

NOTE Confidence: 0.834987

00:13:47.032 --> 00:13:49.167 more during his nutrition piece.

NOTE Confidence: 0.787956

 $00{:}13{:}54.720 \longrightarrow 00{:}13{:}57.330$  OK, so there are also potential

NOTE Confidence: 0.787956

 $00:13:57.330 \longrightarrow 00:13:59.070$  interactions with surgery supplements

NOTE Confidence: 0.787956

 $00{:}13{:}59.141 \dashrightarrow 00{:}14{:}01.778$  such as ginkgo biloba, garlic fish oil,

NOTE Confidence: 0.787956

 $00:14:01.778 \longrightarrow 00:14:03.756$  green tea, and vitamin E.

NOTE Confidence: 0.787956

 $00:14:03.756 \longrightarrow 00:14:06.430$  All have an increased risk of bleeding

NOTE Confidence: 0.787956

00:14:06.507 --> 00:14:09.249 supplements such as Saint John's Wort,

NOTE Confidence: 0.787956

 $00:14:09.250 \longrightarrow 00:14:10.838$  valerian root, and Kava.

NOTE Confidence: 0.787956

00:14:10.838 --> 00:14:12.823 They all may have sedating

00:14:12.823 --> 00:14:15.059 or make you sleepy effects,

NOTE Confidence: 0.787956

 $00:14:15.060 \longrightarrow 00:14:17.958$  which can prolong the effects of anesthesia.

NOTE Confidence: 0.787956

 $00:14:17.960 \longrightarrow 00:14:19.244$  Other surgical complications

NOTE Confidence: 0.787956

 $00:14:19.244 \longrightarrow 00:14:20.956$  that may come up.

NOTE Confidence: 0.787956

 $00:14:20.960 \longrightarrow 00:14:21.576$  For example,

NOTE Confidence: 0.787956

 $00:14:21.576 \longrightarrow 00:14:23.732$  Gen Singh may affect your blood sugar

NOTE Confidence: 0.787956

 $00:14:23.732 \longrightarrow 00:14:25.428$  control before and after surgery,

NOTE Confidence: 0.787956

 $00:14:25.430 \longrightarrow 00:14:27.020$  or may decrease the effectiveness

NOTE Confidence: 0.787956

 $00:14:27.020 \longrightarrow 00:14:27.974$  of certain medications,

NOTE Confidence: 0.787956

 $00{:}14{:}27.980 \dashrightarrow 00{:}14{:}30.206$  such as a blood thinner called Warframe.

NOTE Confidence: 0.787956

 $00:14:30.210 \longrightarrow 00:14:31.866$  So it's really important to discuss

NOTE Confidence: 0.787956

00:14:31.866 --> 00:14:33.793 with all of your providers if

NOTE Confidence: 0.787956

 $00{:}14{:}33.793 \dashrightarrow 00{:}14{:}35.317$  you're taking any supplements,

NOTE Confidence: 0.787956

00:14:35.320 --> 00:14:36.910 and particularly prior to surgery,

NOTE Confidence: 0.787956

 $00:14:36.910 \longrightarrow 00:14:38.975$  your doctor may suggest that you stop

 $00:14:38.975 \longrightarrow 00:14:40.931$  any of these types of supplements

NOTE Confidence: 0.787956

 $00{:}14{:}40.931 \dashrightarrow 00{:}14{:}43.283$  two to three weeks prior to surgery.

NOTE Confidence: 0.832407

 $00:14:47.410 \longrightarrow 00:14:50.065$  Some of you may be taking hormone therapies

NOTE Confidence: 0.832407

 $00{:}14{:}50.065 \to 00{:}14{:}52.350$  for your hormone sensitive conditions.

NOTE Confidence: 0.832407

 $00:14:52.350 \longrightarrow 00:14:54.250$  As we mentioned, breast cancer,

NOTE Confidence: 0.832407

00:14:54.250 --> 00:14:55.770 uterine or ovarian cancer,

NOTE Confidence: 0.832407

 $00{:}14{:}55.770 \dashrightarrow 00{:}14{:}57.670$  there are potential side effects.

NOTE Confidence: 0.832407

00:14:57.670 --> 00:14:58.810 Potential interactions with

NOTE Confidence: 0.832407

 $00{:}14{:}58.810 \dashrightarrow 00{:}15{:}00.330$  supplements here as well.

NOTE Confidence: 0.832407

00:15:00.330 --> 00:15:02.634 For example, Saint Johns Wort really

NOTE Confidence: 0.832407

 $00{:}15{:}02.634 \dashrightarrow 00{:}15{:}04.933$  likes to chew up medications and

NOTE Confidence: 0.832407

 $00:15:04.933 \longrightarrow 00:15:07.661$  get rid of them out of the body

NOTE Confidence: 0.832407

 $00{:}15{:}07.736 \dashrightarrow 00{:}15{:}10.130$  faster and so can interfere with

NOTE Confidence: 0.832407

00:15:10.130 --> 00:15:12.600 how tamoxifen works in your body

NOTE Confidence: 0.832407

 $00{:}15{:}12.600 \dashrightarrow 00{:}15{:}15.210$  and makes it work less effective.

NOTE Confidence: 0.832407

 $00:15:15.210 \longrightarrow 00:15:17.442$  Other supplements may make hormone therapy

 $00:15:17.442 \longrightarrow 00:15:20.090$  more toxic or have more side effects.

NOTE Confidence: 0.832407

 $00{:}15{:}20.090 \dashrightarrow 00{:}15{:}21.955$  For example, tamoxifen is associated

NOTE Confidence: 0.832407

 $00:15:21.955 \longrightarrow 00:15:24.621$  in rare cases with fatty liver or

NOTE Confidence: 0.832407

00:15:24.621 --> 00:15:26.456 increased risk of liver toxicity,

NOTE Confidence: 0.832407

 $00:15:26.460 \longrightarrow 00:15:29.020$  and if there's a supplement such as cava

NOTE Confidence: 0.832407

 $00:15:29.020 \longrightarrow 00:15:32.088$  which is also associated with liver toxicity,

NOTE Confidence: 0.832407

 $00:15:32.090 \longrightarrow 00:15:35.468$  you may be at increased risk.

NOTE Confidence: 0.832407

 $00{:}15{:}35.470 \dashrightarrow 00{:}15{:}37.910$  Certain supplements such as ginseng,

NOTE Confidence: 0.832407

 $00{:}15{:}37.910 \dashrightarrow 00{:}15{:}41.276$  contain chemicals that we call phytoestrogens

NOTE Confidence: 0.832407

 $00:15:41.276 \longrightarrow 00:15:44.730$  that might act like estrogen and.

NOTE Confidence: 0.832407

00:15:44.730 --> 00:15:46.785 Either potentially the growth of

NOTE Confidence: 0.832407

 $00{:}15{:}46.785 \dashrightarrow 00{:}15{:}48.840$  these cancers or just interfere

NOTE Confidence: 0.832407

 $00{:}15{:}48.913 \dashrightarrow 00{:}15{:}51.229$  with the hormone therapy in general.

NOTE Confidence: 0.832407

 $00{:}15{:}51.230 \dashrightarrow 00{:}15{:}53.300$  So other examples that you should

NOTE Confidence: 0.832407

 $00:15:53.300 \longrightarrow 00:15:56.163$  avoid in this case are resveratrol soy

 $00:15:56.163 \longrightarrow 00:15:58.523$  supplements and curcumin or turmeric.

NOTE Confidence: 0.832407

 $00:15:58.530 \longrightarrow 00:16:00.830$  Specifically, the concentrated supplements,

NOTE Confidence: 0.832407

 $00:16:00.830 \longrightarrow 00:16:03.130$  not necessarily the foods.

NOTE Confidence: 0.832407

00:16:03.130 --> 00:16:03.441 Finally,

NOTE Confidence: 0.832407

 $00:16:03.441 \longrightarrow 00:16:05.929$  I did want to touch on some interactions

NOTE Confidence: 0.832407

 $00:16:05.929 \longrightarrow 00:16:08.557$  with chemotherapy antioxidants here as well.

NOTE Confidence: 0.832407

00:16:08.560 --> 00:16:11.073 There have been data showing that they

NOTE Confidence: 0.832407

00:16:11.073 --> 00:16:13.041 can neutralize the reactive oxygen

NOTE Confidence: 0.832407

00:16:13.041 --> 00:16:14.681 species that chemotherapy agents

NOTE Confidence: 0.832407

 $00:16:14.681 \longrightarrow 00:16:17.458$  may need to kill the cancer cells.

NOTE Confidence: 0.832407

 $00{:}16{:}17.460 \dashrightarrow 00{:}16{:}19.425$  Other supplements may interfere with

NOTE Confidence: 0.832407

00:16:19.425 --> 00:16:21.390 the clearance of the chemotherapy

NOTE Confidence: 0.832407

00:16:21.451 --> 00:16:23.299 so they could either make it more

NOTE Confidence: 0.832407

00:16:23.299 --> 00:16:25.329 toxic if it's not cleared properly,

NOTE Confidence: 0.832407

 $00{:}16{:}25.330 \dashrightarrow 00{:}16{:}27.232$  or can make it less effective

NOTE Confidence: 0.832407

 $00:16:27.232 \longrightarrow 00:16:29.090$  if it's cleared too quickly.

 $00:16:32.550 \longrightarrow 00:16:34.428$  So finally I just wanted to

NOTE Confidence: 0.88559777

 $00:16:34.428 \longrightarrow 00:16:36.150$  get into some resources and

NOTE Confidence: 0.88559777

 $00:16:36.150 \longrightarrow 00:16:38.150$  recommendations for you in general.

NOTE Confidence: 0.88559777

 $00:16:38.150 \longrightarrow 00:16:39.530$  As I already mentioned.

NOTE Confidence: 0.88559777

 $00:16:39.530 \longrightarrow 00:16:41.255$  Please discuss any supplements that

NOTE Confidence: 0.88559777

00:16:41.255 --> 00:16:43.752 you're taking with all of your providers

NOTE Confidence: 0.88559777

00:16:43.752 --> 00:16:45.850 throughout your treatment, and in general,

NOTE Confidence: 0.88559777

 $00{:}16{:}45.850 \dashrightarrow 00{:}16{:}47.950$  if you're eating a balanced diet,

NOTE Confidence: 0.88559777

 $00:16:47.950 \longrightarrow 00:16:49.366$  supplements probably aren't needed.

NOTE Confidence: 0.88559777

00:16:49.366 --> 00:16:51.490 Some patients may need them if

NOTE Confidence: 0.88559777

00:16:51.543 --> 00:16:53.577 they have low levels of certain

NOTE Confidence: 0.88559777

00:16:53.577 --> 00:16:54.594 vitamins or electrolytes,

NOTE Confidence: 0.88559777

 $00{:}16{:}54.600 \dashrightarrow 00{:}16{:}57.176$  or maybe not be eating enough so

NOTE Confidence: 0.88559777

 $00:16:57.176 \longrightarrow 00:16:59.982$  under the direction of a provider may

NOTE Confidence: 0.88559777

 $00:16:59.982 \longrightarrow 00:17:02.022$  be instructed to take supplements.

 $00:17:02.030 \longrightarrow 00:17:04.310$  I've listed here a couple websites

NOTE Confidence: 0.88559777

 $00{:}17{:}04.310 \dashrightarrow 00{:}17{:}05.830$  with some helpful information.

NOTE Confidence: 0.88559777

00:17:05.830 --> 00:17:08.110 The NIH Office of Dietary Supplements,

NOTE Confidence: 0.88559777

 $00:17:08.110 \longrightarrow 00:17:10.065$  the National Center for Complementary

NOTE Confidence: 0.88559777

00:17:10.065 --> 00:17:12.290 and Integrative Health and Consumer Lab,

NOTE Confidence: 0.88559777

00:17:12.290 --> 00:17:15.710 and I'll go over each of these very briefly.

NOTE Confidence: 0.88559777

 $00:17:15.710 \longrightarrow 00:17:18.167$  So this is the website from the

NOTE Confidence: 0.88559777

 $00:17:18.167 \longrightarrow 00:17:20.870$  NIH Office of Dietary Supplements.

NOTE Confidence: 0.88559777

 $00{:}17{:}20.870 \dashrightarrow 00{:}17{:}23.593$  And you can see they have an

NOTE Confidence: 0.88559777

00:17:23.593 --> 00:17:25.800 alphabetical list of vitamins and

NOTE Confidence: 0.88559777

 $00{:}17{:}25.800 \dashrightarrow 00{:}17{:}27.868$  minerals and also herbal products.

NOTE Confidence: 0.88559777

 $00:17:27.868 \longrightarrow 00:17:31.180$  You can click on any product that you

NOTE Confidence: 0.88559777

 $00:17:31.259 \longrightarrow 00:17:34.017$  want an read more about uses safety.

NOTE Confidence: 0.88559777

 $00:17:34.020 \longrightarrow 00:17:36.827$  Some of these have specific doses listed

NOTE Confidence: 0.88559777

 $00:17:36.827 \longrightarrow 00:17:39.368$  interactions and or other side effects.

NOTE Confidence: 0.8747354

 $00:17:41.440 \longrightarrow 00:17:43.205$  The National Center for Complementary

 $00:17:43.205 \longrightarrow 00:17:44.970$  and Integrative Health is focused

NOTE Confidence: 0.8747354

00:17:45.029 --> 00:17:46.474 less on vitamins and minerals

NOTE Confidence: 0.8747354

 $00:17:46.474 \longrightarrow 00:17:47.919$  and more on herbal products.

NOTE Confidence: 0.8747354

 $00:17:47.920 \longrightarrow 00:17:50.140$  So here's just a snapshot of

NOTE Confidence: 0.8747354

00:17:50.140 --> 00:17:52.168 some of the herbal products

NOTE Confidence: 0.8747354

 $00:17:52.168 \longrightarrow 00:17:54.940$  that they have on their website.

NOTE Confidence: 0.8747354

 $00:17:54.940 \longrightarrow 00:17:56.949$  And then finally I wanted to touch

NOTE Confidence: 0.8747354

 $00:17:56.949 \longrightarrow 00:17:59.020$  on this website called Consumer Lab.

NOTE Confidence: 0.8747354

00:17:59.020 --> 00:17:59.335 Unfortunately,

NOTE Confidence: 0.8747354

00:17:59.335 --> 00:18:00.910 it does require a subscription,

NOTE Confidence: 0.8747354

 $00:18:00.910 \longrightarrow 00:18:02.475$  but they do have some

NOTE Confidence: 0.8747354

00:18:02.475 --> 00:18:03.414 really great information.

NOTE Confidence: 0.8747354

 $00:18:03.420 \longrightarrow 00:18:05.212$  So what they do is they actually

NOTE Confidence: 0.8747354

00:18:05.212 --> 00:18:06.974 go and they take products that

NOTE Confidence: 0.8747354

 $00:18:06.974 \longrightarrow 00:18:09.137$  are already on the market and they

 $00:18:09.199 \longrightarrow 00:18:10.947$  analyze them for contaminants.

NOTE Confidence: 0.8747354

00:18:10.950 --> 00:18:13.218 They analyze them to see if it

NOTE Confidence: 0.8747354

 $00:18:13.218 \longrightarrow 00:18:15.168$  actually has what it claims to

NOTE Confidence: 0.8747354

 $00:18:15.168 \longrightarrow 00:18:17.289$  have on the label in the amounts

NOTE Confidence: 0.8747354

 $00:18:17.364 \longrightarrow 00:18:19.116$  that it says on the label,

NOTE Confidence: 0.8747354

 $00:18:19.120 \longrightarrow 00:18:20.998$  and then it provides a report.

NOTE Confidence: 0.8747354

 $00:18:21.000 \longrightarrow 00:18:23.056$  So here is just a sample of a

NOTE Confidence: 0.8747354

00:18:23.056 --> 00:18:24.829 B vitamin supplement report.

NOTE Confidence: 0.8747354

 $00{:}18{:}24.830 \dashrightarrow 00{:}18{:}26.240$  That they had looked at.

NOTE Confidence: 0.85604435

 $00:18:29.940 \longrightarrow 00:18:32.808$  And so the last thing I want to touch

NOTE Confidence: 0.85604435

00:18:32.808 --> 00:18:36.066 on is how do you know or how can you

NOTE Confidence: 0.85604435

 $00:18:36.066 \longrightarrow 00:18:38.305$  pick the best supplement to ensure

NOTE Confidence: 0.85604435

 $00:18:38.305 \longrightarrow 00:18:40.919$  that it is as safe as possible.

NOTE Confidence: 0.85604435

00:18:40.919 --> 00:18:42.833 So I recommend that you pick

NOTE Confidence: 0.85604435

 $00:18:42.833 \longrightarrow 00:18:44.390$  supplements that are certified.

NOTE Confidence: 0.85604435

 $00:18:44.390 \longrightarrow 00:18:46.539$  So on the bottom here are different

 $00:18:46.539 \longrightarrow 00:18:48.170$  agencies that certify supplements.

NOTE Confidence: 0.85604435

 $00{:}18{:}48.170 \dashrightarrow 00{:}18{:}50.462$  I usually prefer supplements that are

NOTE Confidence: 0.85604435

 $00{:}18{:}50.462 \longrightarrow 00{:}18{:}52.950$  USP certified and on the right you

NOTE Confidence: 0.85604435

 $00:18:52.950 \longrightarrow 00:18:55.434$  can see here an example of what it

NOTE Confidence: 0.85604435

 $00:18:55.434 \longrightarrow 00:18:57.800$  looks like on this nature made bottle.

NOTE Confidence: 0.85604435

00:18:57.800 --> 00:18:59.948 So what a certified supplement means?

NOTE Confidence: 0.85604435

 $00:18:59.950 \longrightarrow 00:19:02.713$  Is that it has been tested and proven to

NOTE Confidence: 0.85604435

 $00:19:02.713 \longrightarrow 00:19:04.727$  contain the ingredients that are listed

NOTE Confidence: 0.85604435

 $00:19:04.727 \dashrightarrow 00:19:07.580$  on the label in the described amounts.

NOTE Confidence: 0.85604435

00:19:07.580 --> 00:19:09.315 It does not contain harmful

NOTE Confidence: 0.85604435

 $00:19:09.315 \longrightarrow 00:19:10.356$  levels of contaminants,

NOTE Confidence: 0.85604435

 $00:19:10.360 \longrightarrow 00:19:12.376$  it the product will breakdown and

NOTE Confidence: 0.85604435

 $00{:}19{:}12.376 \longrightarrow 00{:}19{:}14.389$  release into the body within a

NOTE Confidence: 0.85604435

 $00:19:14.389 \longrightarrow 00:19:16.489$  specified amount of time and it has

NOTE Confidence: 0.85604435

 $00:19:16.489 \longrightarrow 00:19:19.197$  been made according to the FDA good

00:19:19.197 --> 00:19:21.122 manufacturing practices which has safe

NOTE Confidence: 0.85604435

 $00:19:21.122 \longrightarrow 00:19:23.234$  and sanitary conditions and that the

NOTE Confidence: 0.85604435

 $00:19:23.234 \longrightarrow 00:19:25.196$  supplement will be manufactured with

NOTE Confidence: 0.85604435

 $00:19:25.196 \longrightarrow 00:19:27.710$  consistent quality from batch to batch.

NOTE Confidence: 0.85604435

 $00:19:27.710 \longrightarrow 00:19:29.516$  So this is just a helpful tip

NOTE Confidence: 0.85604435

 $00:19:29.516 \longrightarrow 00:19:30.939$  on what to look for.

NOTE Confidence: 0.85604435

 $00:19:30.940 \longrightarrow 00:19:33.084$  If you are going to purchase these products.

NOTE Confidence: 0.7589044

00:19:36.230 --> 00:19:38.498 That's all I had specifically for you

NOTE Confidence: 0.7589044

 $00:19:38.498 \longrightarrow 00:19:40.184$  on general background information an

NOTE Confidence: 0.7589044

 $00:19:40.184 \longrightarrow 00:19:42.487$  at this point I'll either take some

NOTE Confidence: 0.7589044

 $00:19:42.487 \longrightarrow 00:19:44.466$  questions or will save them to the end.

NOTE Confidence: 0.9038976

 $00:19:47.080 \longrightarrow 00:19:49.320$  Yeah we have here I'll

NOTE Confidence: 0.9038976

 $00:19:49.320 \longrightarrow 00:19:51.560$  I'll go into one question.

NOTE Confidence: 0.9038976

 $00:19:51.560 \longrightarrow 00:19:52.972$  I have a question.

NOTE Confidence: 0.9038976

 $00:19:52.972 \longrightarrow 00:19:55.090$  I'm craving oranges since starting chemo.

NOTE Confidence: 0.9038976

 $00:19:55.090 \longrightarrow 00:19:57.280$  How much is too much in

 $00:19:57.280 \longrightarrow 00:19:58.970$  terms of dietary vitamin C?

NOTE Confidence: 0.8470508

 $00{:}20{:}00.620 \dashrightarrow 00{:}20{:}02.670$  So dietary vitamin C if you're

NOTE Confidence: 0.8470508

 $00:20:02.670 \longrightarrow 00:20:04.350$  if you're eating just if

NOTE Confidence: 0.8470508

00:20:04.416 --> 00:20:06.461 you're not taking a concentrated

NOTE Confidence: 0.8470508

00:20:06.461 --> 00:20:08.097 supplement of vitamin C,

NOTE Confidence: 0.8470508

 $00:20:08.100 \longrightarrow 00:20:11.383$  That's when it really becomes a concern

NOTE Confidence: 0.8470508

00:20:11.383 --> 00:20:13.991 and you're eating a few oranges

NOTE Confidence: 0.8470508

 $00:20:13.991 \longrightarrow 00:20:16.581$  a day that that should be fine.

NOTE Confidence: 0.8470508

 $00:20:16.590 \longrightarrow 00:20:18.816$  I would say really it becomes a

NOTE Confidence: 0.8470508

 $00:20:18.816 \longrightarrow 00:20:20.569$  concern when you're starting to

NOTE Confidence: 0.8470508

 $00:20:20.569 \longrightarrow 00:20:22.394$  just take megadoses of these,

NOTE Confidence: 0.8470508

00:20:22.400 --> 00:20:24.458 like multiple glasses throughout the day,

NOTE Confidence: 0.8470508

00:20:24.460 --> 00:20:25.480 every single day.

NOTE Confidence: 0.91029483

 $00:20:27.770 \longrightarrow 00:20:31.064$  Alright. That was great.

NOTE Confidence: 0.91029483

00:20:31.064 --> 00:20:33.630 Thank you so much Annette. So

 $00:20:33.630 \longrightarrow 00:20:37.060$  now we're going to continue on with our.

NOTE Confidence: 0.8557078

 $00{:}20{:}39.110 \dashrightarrow 00{:}20{:}40.270$  Supplements and nutrition

NOTE Confidence: 0.8557078

 $00:20:40.270 \longrightarrow 00:20:42.195$  lecture with Doctor Barry Boyd.

NOTE Confidence: 0.8557078

00:20:42.200 --> 00:20:44.396 Doctor Boyden is is an associate

NOTE Confidence: 0.8557078

 $00:20:44.396 \longrightarrow 00:20:47.130$  professor who cares for patients at the

NOTE Confidence: 0.8557078

00:20:47.130 --> 00:20:49.530 Smilow Cancer Care Center in Greenwich.

NOTE Confidence: 0.8557078

 $00{:}20{:}49.530 \dashrightarrow 00{:}20{:}51.978$  He received his medical degree from

NOTE Confidence: 0.8557078

00:20:51.978 --> 00:20:53.610 Cornell University Medical College

NOTE Confidence: 0.8557078

 $00:20:53.673 \longrightarrow 00:20:55.997$  and a Masters of Science from Columbia

NOTE Confidence: 0.8557078

00:20:55.997 --> 00:20:57.640 Institute of Human Nutrition.

NOTE Confidence: 0.8557078

 $00:20:57.640 \longrightarrow 00:21:00.377$  He completed his residency and fellowship in

NOTE Confidence: 0.8557078

00:21:00.377 --> 00:21:02.659 Hematology Oncology at New York Hospital.

NOTE Confidence: 0.8557078

00:21:02.660 --> 00:21:03.758 Cornell Medical Center.

NOTE Confidence: 0.8557078

 $00{:}21{:}03.758 \dashrightarrow 00{:}21{:}06.872$  Dr Boyd is a pioneer in the field

NOTE Confidence: 0.8557078

 $00:21:06.872 \longrightarrow 00:21:08.768$  of integrative cancer care.

NOTE Confidence: 0.8557078

 $00:21:08.770 \longrightarrow 00:21:11.458$  With a targeted focus on nutritional

00:21:11.458 --> 00:21:13.250 support for cancer patients,

NOTE Confidence: 0.8557078

 $00{:}21{:}13.250 \dashrightarrow 00{:}21{:}14.549$  incorporating emergent evidence

NOTE Confidence: 0.8557078

00:21:14.549 --> 00:21:16.714 based medical oncology with cancer

NOTE Confidence: 0.8557078

00:21:16.714 --> 00:21:18.180 specific nutritional counseling,

NOTE Confidence: 0.8557078

 $00:21:18.180 \longrightarrow 00:21:20.380$  he combines comprehensive support

NOTE Confidence: 0.8557078

 $00:21:20.380 \longrightarrow 00:21:22.580$  for the healing process.

NOTE Confidence: 0.8557078

00:21:22.580 --> 00:21:24.390 He authored the missing link,

NOTE Confidence: 0.8557078

 $00:21:24.390 \longrightarrow 00:21:25.428$  insulin and cancer,

NOTE Confidence: 0.8557078

 $00:21:25.428 \longrightarrow 00:21:27.158$  as well as numerous medical

NOTE Confidence: 0.8557078

 $00:21:27.158 \longrightarrow 00:21:28.370$  articles and reviews.

NOTE Confidence: 0.8557078

00:21:28.370 --> 00:21:30.536 His book The Cancer Recovery Plan,

NOTE Confidence: 0.8557078

 $00{:}21{:}30.540 \dashrightarrow 00{:}21{:}32.941$  was the first to address the link

NOTE Confidence: 0.8557078

 $00:21:32.941 \longrightarrow 00:21:34.576$  between the little understood

NOTE Confidence: 0.8557078

 $00{:}21{:}34.576 \dashrightarrow 00{:}21{:}36.736$  metabolic syndrome and cancer.

NOTE Confidence: 0.8557078

 $00:21:36.740 \longrightarrow 00:21:38.360$  Doctor Boyd's research Interests

 $00:21:38.360 \longrightarrow 00:21:40.790$  Center on the interaction of vitamins

NOTE Confidence: 0.8557078

 $00{:}21{:}40.848 \dashrightarrow 00{:}21{:}42.700$  and nutrients with chemotherapy,

NOTE Confidence: 0.8557078

00:21:42.700 --> 00:21:44.830 insulin resistance, and cancer causation,

NOTE Confidence: 0.8557078

 $00:21:44.830 \longrightarrow 00:21:45.740$  and progression,

NOTE Confidence: 0.8557078

 $00:21:45.740 \longrightarrow 00:21:48.015$  and utility of non conventional

NOTE Confidence: 0.8557078

 $00{:}21{:}48.015 {\: --> \:} 00{:}21{:}49.949$  approaches including mind body

NOTE Confidence: 0.8557078

 $00:21:49.949 \longrightarrow 00:21:51.977$  techniques in combination with

NOTE Confidence: 0.8557078

 $00:21:51.977 \longrightarrow 00:21:53.498$  conventional cancer treatment.

NOTE Confidence: 0.8557078

 $00:21:53.500 \longrightarrow 00:21:55.988$  So thank you for joining us Doctor Boyd.

NOTE Confidence: 0.86985713

00:21:57.170 --> 00:21:59.195 Thank you ever. Do you do use both here

NOTE Confidence: 0.86985713

 $00{:}21{:}59.195 \dashrightarrow 00{:}22{:}01.300$  and see my presentation. We had that

NOTE Confidence: 0.86985713

 $00:22:01.300 \longrightarrow 00:22:03.292$  you, but you have to share your screen

NOTE Confidence: 0.86985713

 $00:22:03.292 \longrightarrow 00:22:05.170$  so we're going to get you started.

NOTE Confidence: 0.86985713

00:22:05.170 --> 00:22:07.816 And just to let everybody know.

NOTE Confidence: 0.86985713

 $00:22:07.820 \longrightarrow 00:22:10.005$  We are recording this so it will

NOTE Confidence: 0.86985713

 $00{:}22{:}10.005 \dashrightarrow 00{:}22{:}11.610$  be available afterwards for you

 $00:22:11.673 \longrightarrow 00:22:13.304$  to view again if you need to.

NOTE Confidence: 0.86985713

 $00:22:13.310 \longrightarrow 00:22:15.774$  An will put some of the websites and

NOTE Confidence: 0.86985713

 $00:22:15.774 \longrightarrow 00:22:18.438$  that if you can put some of those

NOTE Confidence: 0.86985713

 $00:22:18.438 \longrightarrow 00:22:20.877$  websites that you had it in the chat.

NOTE Confidence: 0.86985713

 $00:22:20.880 \longrightarrow 00:22:22.384$  That would be great.

NOTE Confidence: 0.86985713

00:22:22.384 --> 00:22:24.640 So everybody can grab those through

NOTE Confidence: 0.86985713

 $00:22:24.713 \longrightarrow 00:22:26.729$  the chat as we go as we go on.

NOTE Confidence: 0.9070033

00:22:28.170 --> 00:22:30.630 We tried to share my screen again. I thought

NOTE Confidence: 0.9070033

 $00:22:30.630 \longrightarrow 00:22:37.610$  I had to go. Got it. Not yet. There you go.

NOTE Confidence: 0.86880624

 $00:22:38.530 \longrightarrow 00:22:42.030$  Good, let me do this one more time.

NOTE Confidence: 0.86880624

00:22:42.030 --> 00:22:44.382 You have my screen there, right?

NOTE Confidence: 0.86880624

 $00:22:44.382 \longrightarrow 00:22:46.340$  You have your screen, yeah.

NOTE Confidence: 0.86880624

 $00{:}22{:}46.340 \dashrightarrow 00{:}22{:}47.836$  Good presentation though.

NOTE Confidence: 0.86880624

 $00:22:47.836 \longrightarrow 00:22:49.329$  You don't have my

NOTE Confidence: 0.8788056

 $00:22:49.330 \longrightarrow 00:22:51.199$  presentation. We have your blank screen.

00:22:58.000 --> 00:23:00.868 Seems like we've been through this road too

NOTE Confidence: 0.84293133

00:23:00.870 --> 00:23:02.310 many times, every time.

NOTE Confidence: 0.8199041

00:23:04.880 --> 00:23:07.260 No luck. Low.

NOTE Confidence: 0.8574035

 $00:23:09.610 \longrightarrow 00:23:11.490$  Well it says stop share so

NOTE Confidence: 0.8574035

 $00:23:11.490 \longrightarrow 00:23:13.320$  that doesn't seem to be the

NOTE Confidence: 0.8574035

 $00:23:13.395 \longrightarrow 00:23:15.190$  correct on my other screen.

NOTE Confidence: 0.81217384

 $00:23:25.760 \longrightarrow 00:23:26.708$  When you left there.

NOTE Confidence: 0.9087021

 $00:23:28.200 \longrightarrow 00:23:30.219$  Not yet. There.

NOTE Confidence: 0.88650596

 $00:23:53.920 \longrightarrow 00:23:55.908$  Yeah, go down to the little PowerPoint

NOTE Confidence: 0.88650596

 $00:23:55.908 \longrightarrow 00:23:58.017$  button on the bottom of that screen.

NOTE Confidence: 0.8640312

00:24:00.550 --> 00:24:03.790 And just pop open your.

NOTE Confidence: 0.8640312

 $00:24:03.790 \longrightarrow 00:24:05.980$  Your PowerPoint tab at the bottom.

NOTE Confidence: 0.87776214

 $00:24:06.990 \longrightarrow 00:24:09.996$  Yeah, I've just been doing that.

NOTE Confidence: 0.87776214

 $00:24:10.000 \longrightarrow 00:24:12.030$  Doesn't seem to want to open.

NOTE Confidence: 0.87776214

 $00:24:12.030 \longrightarrow 00:24:13.209$  You noted before.

NOTE Confidence: 0.90797716

 $00:24:24.690 \longrightarrow 00:24:29.390$  Let me come out and go back in here. It's.

 $00{:}24{:}37.290 \dashrightarrow 00{:}24{:}38.230$  And you look now.

NOTE Confidence: 0.84694767

 $00:24:41.340 \longrightarrow 00:24:42.940$  Yep, we can see it.

NOTE Confidence: 0.84694767

00:24:42.940 --> 00:24:46.164 OK good you can see it finally great.

NOTE Confidence: 0.84694767

00:24:46.170 --> 00:24:50.999 Alright, they can see it fantastic.

NOTE Confidence: 0.84694767

00:24:51.000 --> 00:24:53.034 Though it takes 10 or 15 minutes with this,

NOTE Confidence: 0.84694767

 $00{:}24{:}53.040 \dashrightarrow 00{:}24{:}55.794$ you know I'm at that age where I wasn't

NOTE Confidence: 0.84694767

 $00:24:55.794 \longrightarrow 00:24:57.965$  raised with a computer in my hand.

NOTE Confidence: 0.84694767

 $00{:}24{:}57.970 \dashrightarrow 00{:}25{:}00.265$  I'm going to talk to you a little bit

NOTE Confidence: 0.84694767

 $00:25:00.265 \longrightarrow 00:25:02.908$  about the evolution of our understanding

NOTE Confidence: 0.84694767

 $00:25:02.908 \longrightarrow 00:25:05.228$  about cancer dietary supplements nutrition.

NOTE Confidence: 0.84694767

 $00{:}25{:}05.230 \dashrightarrow 00{:}25{:}08.497$  I've been in this work for almost 40 years.

NOTE Confidence: 0.84694767

00:25:08.500 --> 00:25:09.948 My colleague just retired

NOTE Confidence: 0.84694767

 $00{:}25{:}09.948 \to 00{:}25{:}11.758$  and I'm still at it.

NOTE Confidence: 0.84694767

 $00:25:11.760 \longrightarrow 00:25:13.938$  'cause I love what I do.

NOTE Confidence: 0.84694767

 $00:25:13.940 \longrightarrow 00:25:16.481$  I will mention as an aside that

 $00{:}25{:}16.481 \dashrightarrow 00{:}25{:}17.570$  Annette mentioned amygdalin.

NOTE Confidence: 0.84694767

 $00:25:17.570 \longrightarrow 00:25:20.234$  It may be known to you that that's

NOTE Confidence: 0.84694767

 $00:25:20.234 \longrightarrow 00:25:21.570$  actually called laetrile.

NOTE Confidence: 0.84694767

 $00:25:21.570 \longrightarrow 00:25:23.014$  In the alternative world,

NOTE Confidence: 0.84694767

 $00:25:23.014 \longrightarrow 00:25:26.064$  and it was so popular that in 1982

NOTE Confidence: 0.84694767

 $00{:}25{:}26.064 \dashrightarrow 00{:}25{:}28.094$  Charlie Mortell from Mayo Clinic.

NOTE Confidence: 0.84694767

 $00:25:28.100 \longrightarrow 00:25:30.284$  Had to do a randomized trial to see

NOTE Confidence: 0.84694767

 $00:25:30.284 \longrightarrow 00:25:32.392$  if there was any benefit because

NOTE Confidence: 0.84694767

00:25:32.392 --> 00:25:34.257 we knew was potentially toxic.

NOTE Confidence: 0.84694767

00:25:34.260 --> 00:25:35.880 It did not help anyone,

NOTE Confidence: 0.84694767

 $00{:}25{:}35.880 \rightarrow 00{:}25{:}37.973$  but it turned out there is still

NOTE Confidence: 0.84694767

 $00:25:37.973 \longrightarrow 00:25:38.870$  alternative physicians and

NOTE Confidence: 0.84694767

 $00:25:38.925 \longrightarrow 00:25:40.650$  practitioners who still give laetrile

NOTE Confidence: 0.84694767

 $00:25:40.650 \longrightarrow 00:25:42.680$  to cancer patients despite the rest.

NOTE Confidence: 0.84694767

 $00:25:42.680 \longrightarrow 00:25:44.624$  So we're living in this world

NOTE Confidence: 0.84694767

 $00:25:44.624 \longrightarrow 00:25:45.596$  of false information.

00:25:45.600 --> 00:25:45.905 Still,

NOTE Confidence: 0.84694767

 $00:25:45.905 \longrightarrow 00:25:49.065$  I want to go back and talk about in the

NOTE Confidence: 0.84694767

 $00:25:49.065 \longrightarrow 00:25:52.071$  night how this evolved in the 60s and 70s.

NOTE Confidence: 0.84694767

 $00:25:52.080 \longrightarrow 00:25:54.257$  We knew that died was associated with

NOTE Confidence: 0.84694767

 $00{:}25{:}54.257 \dashrightarrow 00{:}25{:}55.640$  cancer and cardiovascular disease.

NOTE Confidence: 0.84694767

 $00:25:55.640 \longrightarrow 00:25:58.244$  We didn't know how there's a big.

NOTE Confidence: 0.84694767

00:25:58.250 --> 00:26:00.637 There's a lot of understanding about the

NOTE Confidence: 0.84694767

 $00{:}26{:}00.637 \dashrightarrow 00{:}26{:}02.826$  role of dietary fruits and vegetables

NOTE Confidence: 0.84694767

 $00{:}26{:}02.826 \dashrightarrow 00{:}26{:}05.388$  that seem to be associated lower risk,

NOTE Confidence: 0.84694767

 $00{:}26{:}05.390 \dashrightarrow 00{:}26{:}07.334$  and from this came the antioxidant

NOTE Confidence: 0.84694767

 $00{:}26{:}07.334 \dashrightarrow 00{:}26{:}09.471$  hypothesis early on was recognized at

NOTE Confidence: 0.84694767

00:26:09.471 --> 00:26:11.817 oxidative stress will damage normal cells,

NOTE Confidence: 0.84694767

 $00{:}26{:}11.820 \dashrightarrow 00{:}26{:}13.520$  DNA membranes, and maybe causal

NOTE Confidence: 0.84694767

 $00:26:13.520 \longrightarrow 00:26:15.740$  not only in heart and cancer,

NOTE Confidence: 0.84694767

 $00:26:15.740 \longrightarrow 00:26:17.172$  but in heart disease,

00:26:17.172 --> 00:26:17.888 you know,

NOTE Confidence: 0.84694767

 $00:26:17.890 \longrightarrow 00:26:20.032$  oxidized LDL and its effect on

NOTE Confidence: 0.84694767

00:26:20.032 --> 00:26:21.460 UN cholesterol and atheromas,

NOTE Confidence: 0.84694767

 $00:26:21.460 \longrightarrow 00:26:24.160$  but this also is the era when we began

NOTE Confidence: 0.84694767

 $00:26:24.160 \longrightarrow 00:26:27.169$  to look at the idea of chemoprevention.

NOTE Confidence: 0.84694767

 $00{:}26{:}27.170 \dashrightarrow 00{:}26{:}30.040$  The idea of using high dose nutrients.

NOTE Confidence: 0.84694767

 $00:26:30.040 \longrightarrow 00:26:32.584$  Based on this hypothesis that we

NOTE Confidence: 0.84694767

00:26:32.584 --> 00:26:34.280 could actually prevent cancer,

NOTE Confidence: 0.84694767

 $00:26:34.280 \longrightarrow 00:26:36.080$  this has been profoundly beneficial

NOTE Confidence: 0.84694767

 $00:26:36.080 \longrightarrow 00:26:38.460$  in helping to educate us about

NOTE Confidence: 0.84694767

 $00{:}26{:}38.460 \dashrightarrow 00{:}26{:}40.020$  misunderstandings about high

NOTE Confidence: 0.84694767

 $00:26:40.020 \longrightarrow 00:26:41.060$  dose supplements.

NOTE Confidence: 0.84694767

00:26:41.060 --> 00:26:41.484 Unfortunately,

NOTE Confidence: 0.84694767

 $00{:}26{:}41.484 \dashrightarrow 00{:}26{:}44.028$  people have never gotten this message.

NOTE Confidence: 0.84694767

 $00:26:44.030 \longrightarrow 00:26:46.772$  I am presented discussions about these

NOTE Confidence: 0.84694767

 $00{:}26{:}46.772 \dashrightarrow 00{:}26{:}49.616$  trials that I called the landmark

 $00:26:49.616 \longrightarrow 00:26:52.406$  trials that nobody's ever heard of.

NOTE Confidence: 0.84694767

 $00:26:52.410 \longrightarrow 00:26:54.480$  Now there is this persistent belief

NOTE Confidence: 0.84694767

 $00:26:54.480 \longrightarrow 00:26:57.479$  in the use of high dose supplements,

NOTE Confidence: 0.84694767

 $00:26:57.480 \longrightarrow 00:27:00.392$  and again you know we have to remember

NOTE Confidence: 0.84694767

00:27:00.392 --> 00:27:03.328 that they look nice and multi colored,

NOTE Confidence: 0.84694767

 $00{:}27{:}03.330 \dashrightarrow 00{:}27{:}05.766$  but they're not the same thing as

NOTE Confidence: 0.84694767

 $00:27:05.766 \longrightarrow 00:27:07.620$  healthy fruits and vegetables.

NOTE Confidence: 0.84694767

 $00:27:07.620 \longrightarrow 00:27:09.570$  Back in the early 80s,

NOTE Confidence: 0.84694767

 $00:27:09.570 \longrightarrow 00:27:11.370$  two very prominent epidemiologist

NOTE Confidence: 0.84694767

 $00:27:11.370 \longrightarrow 00:27:14.070$  from England doll and Peto analyze

NOTE Confidence: 0.84694767

 $00:27:14.145 \longrightarrow 00:27:16.196$  the causes of cancer in the US.

NOTE Confidence: 0.84694767

 $00:27:16.200 \longrightarrow 00:27:18.881$  They analyze that about 1/3 to 2/3

NOTE Confidence: 0.84694767

 $00:27:18.881 \longrightarrow 00:27:21.582$  of all human cancers were caused

NOTE Confidence: 0.84694767

 $00:27:21.582 \longrightarrow 00:27:23.538$  by diet and lifestyle.

NOTE Confidence: 0.84694767

 $00:27:23.540 \longrightarrow 00:27:25.320$  In a generic sense, OK,

 $00:27:25.320 \longrightarrow 00:27:26.632$  they didn't know what,

NOTE Confidence: 0.84694767

 $00:27:26.632 \longrightarrow 00:27:28.600$  but they felt that there was

NOTE Confidence: 0.84694767

 $00:27:28.664 \longrightarrow 00:27:29.948$  a clear association.

NOTE Confidence: 0.84694767

 $00:27:29.950 \longrightarrow 00:27:32.494$  I will say in 1995 to 19 to

NOTE Confidence: 0.84694767

 $00:27:32.494 \longrightarrow 00:27:34.580$  19 to the year 2000,

NOTE Confidence: 0.84694767

 $00:27:34.580 \longrightarrow 00:27:36.830$  the the principles and practice of

NOTE Confidence: 0.84694767

 $00:27:36.830 \longrightarrow 00:27:39.200$  ONKOLOGIE had lowered that to about 10%.

NOTE Confidence: 0.84694767

00:27:39.200 --> 00:27:39.912 Of course,

NOTE Confidence: 0.84694767

 $00{:}27{:}39.912 \dashrightarrow 00{:}27{:}42.760$  that turns out that that was wrong too,

NOTE Confidence: 0.84694767

00:27:42.760 --> 00:27:45.538 and still is substantial, but how?

NOTE Confidence: 0.84694767

NOTE Confidence: 0.84694767

 $00:27:45.540 \longrightarrow 00:27:45.882$  Well,

 $00:27:45.882 \longrightarrow 00:27:47.934$  what we knew was there was

NOTE Confidence: 0.84694767

 $00:27:47.934 \longrightarrow 00:27:48.960$  a very interesting

NOTE Confidence: 0.8653896

 $00{:}27{:}49.029 \dashrightarrow 00{:}27{:}51.208$  beginning. Looking at a population

NOTE Confidence: 0.8653896

00:27:51.208 --> 00:27:53.070 in Shannon Lynn, one China,

NOTE Confidence: 0.8653896

 $00:27:53.070 \longrightarrow 00:27:55.260$  that had an extremely high incidence

00:27:55.260 --> 00:27:56.833 of gastric cancer, surprisingly,

NOTE Confidence: 0.8653896

 $00{:}27{:}56.833 \dashrightarrow 00{:}27{:}59.164$  and they thought because it was a

NOTE Confidence: 0.8653896

00:27:59.164 --> 00:28:01.039 very nutrient deficient population.

NOTE Confidence: 0.8653896

00:28:01.040 --> 00:28:02.945 There was concern that micronutrient

NOTE Confidence: 0.8653896

 $00:28:02.945 \longrightarrow 00:28:05.200$  deficiencies may have played a role,

NOTE Confidence: 0.8653896

 $00:28:05.200 \longrightarrow 00:28:07.784$  and so the US and the Academy of

NOTE Confidence: 0.8653896

00:28:07.784 --> 00:28:10.455 Medicine in Beijing decided to run a

NOTE Confidence: 0.8653896

 $00{:}28{:}10.455 \dashrightarrow 00{:}28{:}13.348$  randomized trial of a number of different

NOTE Confidence: 0.8653896

00:28:13.348 --> 00:28:16.379 nutrients and what they found was again.

NOTE Confidence: 0.8653896

 $00{:}28{:}16.380 \dashrightarrow 00{:}28{:}18.368$  Micronutrient deficient  $30{,}000$  patients

NOTE Confidence: 0.8653896

 $00:28:18.368 \longrightarrow 00:28:22.537$  in rural China now look at the risk 10

NOTE Confidence: 0.8653896

 $00{:}28{:}22.537 \dashrightarrow 00{:}28{:}25.120$  times that of other provinces and 100

NOTE Confidence: 0.8653896

 $00{:}28{:}25.199 \dashrightarrow 00{:}28{:}28.439$  times the risk of gastric cancer in the US.

NOTE Confidence: 0.8653896

 $00:28:28.440 \longrightarrow 00:28:29.586$  Profoundly different population.

NOTE Confidence: 0.8653896

 $00:28:29.586 \longrightarrow 00:28:31.496$  AUST and they looked at

 $00:28:31.496 \longrightarrow 00:28:33.020$  four different combinations,

NOTE Confidence: 0.8653896

 $00:28:33.020 \longrightarrow 00:28:35.516$  and they found that beta carotene,

NOTE Confidence: 0.8653896

00:28:35.520 --> 00:28:36.180 vitamin E,

NOTE Confidence: 0.8653896

 $00:28:36.180 \longrightarrow 00:28:38.490$  and selenium all in low doses of

NOTE Confidence: 0.8653896

 $00:28:38.490 \longrightarrow 00:28:40.128$  essentially replacing the daily

NOTE Confidence: 0.8653896

00:28:40.128 --> 00:28:41.784 requirement not only lowered

NOTE Confidence: 0.8653896

 $00:28:41.784 \longrightarrow 00:28:43.660$  cancer mortality but substantially

NOTE Confidence: 0.8653896

00:28:43.660 --> 00:28:45.920 lowered gastric cancer mortality.

NOTE Confidence: 0.8653896

 $00:28:45.920 \longrightarrow 00:28:46.700$  This persisted.

NOTE Confidence: 0.8653896

00:28:46.700 --> 00:28:49.040 The duration of The The Study

NOTE Confidence: 0.8653896

 $00:28:49.040 \longrightarrow 00:28:51.633$  and then over time the race went

NOTE Confidence: 0.8653896

 $00:28:51.633 \longrightarrow 00:28:53.368$  back up to the baseline,

NOTE Confidence: 0.8653896

 $00:28:53.370 \longrightarrow 00:28:55.918$  but this became the birth of Chemoprevention.

NOTE Confidence: 0.8653896

00:28:55.920 --> 00:28:57.942 It became very exciting that you

NOTE Confidence: 0.8653896

00:28:57.942 --> 00:29:00.109 can use nutrients to prevent cancer

NOTE Confidence: 0.8653896

 $00:29:00.109 \longrightarrow 00:29:02.359$  and therefore this was this again

 $00:29:02.359 \longrightarrow 00:29:04.070$  the origin of chemoprevention

NOTE Confidence: 0.8653896

 $00:29:04.070 \longrightarrow 00:29:06.295$  came from these early studies.

NOTE Confidence: 0.8653896

 $00{:}29{:}06.300 \dashrightarrow 00{:}29{:}08.757$  The other thing was it was recognized

NOTE Confidence: 0.8653896

00:29:08.757 --> 00:29:11.532 at high dietary vegetables seem to be

NOTE Confidence: 0.8653896

 $00:29:11.532 \longrightarrow 00:29:13.592$  associated with lower lung cancer,

NOTE Confidence: 0.8653896

 $00:29:13.600 \longrightarrow 00:29:16.274$  is now in smokers high carcinogen exposure,

NOTE Confidence: 0.8653896

 $00:29:16.280 \longrightarrow 00:29:18.190$  and therefore maybe the antioxidant

NOTE Confidence: 0.8653896

 $00{:}29{:}18.190 \dashrightarrow 00{:}29{:}20.100$  effect of vegetables and fruits

NOTE Confidence: 0.8653896

 $00{:}29{:}20.158 \dashrightarrow 00{:}29{:}22.038$  may be potentially reducing risk.

NOTE Confidence: 0.8653896

 $00{:}29{:}22.040 \dashrightarrow 00{:}29{:}24.194$  One of the nutrients looked at

NOTE Confidence: 0.8653896

 $00:29:24.194 \longrightarrow 00:29:26.530$  was beta carotene and again beta

NOTE Confidence: 0.8653896

 $00:29:26.530 \longrightarrow 00:29:28.186$  carotene is a carotenoid.

NOTE Confidence: 0.8653896

00:29:28.190 --> 00:29:30.110 It's one of 200 carotenoids,

NOTE Confidence: 0.8653896

 $00:29:30.110 \longrightarrow 00:29:32.030$  but it's the most common

NOTE Confidence: 0.8653896

 $00:29:32.030 \longrightarrow 00:29:33.950$  carotenoid in the you know.

 $00:29:33.950 \longrightarrow 00:29:36.035$  The carrots and the carotenoid

NOTE Confidence: 0.8653896

00:29:36.035 --> 00:29:36.869 containing vegetables.

NOTE Confidence: 0.8653896

00:29:36.870 --> 00:29:39.012 And is highly predictive of dietary

NOTE Confidence: 0.8653896

 $00:29:39.012 \longrightarrow 00:29:40.819$  intake of those nutrients and

NOTE Confidence: 0.8653896

 $00{:}29{:}40.819 \dashrightarrow 00{:}29{:}42.715$  low levels seem to be associated

NOTE Confidence: 0.8653896

 $00:29:42.715 \longrightarrow 00:29:44.369$  lower cancer risk in smokers.

NOTE Confidence: 0.8653896

 $00{:}29{:}44.370 \dashrightarrow 00{:}29{:}47.115$  Ann is safe and non toxic in high doses

NOTE Confidence: 0.8653896

 $00{:}29{:}47.115 \dashrightarrow 00{:}29{:}49.376$  and again is also readily available

NOTE Confidence: 0.8653896

 $00{:}29{:}49.376 \dashrightarrow 00{:}29{:}52.310$  so they elected to do a number of

NOTE Confidence: 0.8653896

 $00:29:52.310 \longrightarrow 00:29:54.592$  trials to try to use beta carotene

NOTE Confidence: 0.8653896

 $00:29:54.600 \longrightarrow 00:29:56.646$  to prevent lung cancer in smokers.

NOTE Confidence: 0.8653896

 $00:29:56.650 \longrightarrow 00:29:59.719$  The first one was so called the ATC trailer.

NOTE Confidence: 0.8653896

00:29:59.720 --> 00:30:01.932 This is doll and Peto again with

NOTE Confidence: 0.8653896

 $00:30:01.932 \longrightarrow 00:30:04.518$  Michael Sporn and others who said can

NOTE Confidence: 0.8653896

 $00:30:04.518 \longrightarrow 00:30:06.478$  we actually materially reduce human

NOTE Confidence: 0.8653896

 $00:30:06.478 \longrightarrow 00:30:08.840$  cancer rates by giving beta carotene?

 $00:30:08.840 \longrightarrow 00:30:11.241$  And this was a very popular hypothesis

NOTE Confidence: 0.8653896

00:30:11.241 --> 00:30:13.960 even before we knew the results of this,

NOTE Confidence: 0.8653896

 $00{:}30{:}13.960 \dashrightarrow 00{:}30{:}16.492$  I had patients taking beta carotene

NOTE Confidence: 0.8653896

 $00:30:16.492 \longrightarrow 00:30:18.989$  themselves back in the early 80s.

NOTE Confidence: 0.8653896

00:30:18.990 --> 00:30:21.398 But what happened was this the ATC

NOTE Confidence: 0.8653896

00:30:21.398 --> 00:30:23.538 trial that this was in Finland,

NOTE Confidence: 0.8653896

 $00:30:23.540 \longrightarrow 00:30:25.640$  male smokers and those who took

NOTE Confidence: 0.8653896

 $00:30:25.640 \longrightarrow 00:30:26.340$  beta carotene.

NOTE Confidence: 0.8653896

00:30:26.340 --> 00:30:27.796 They compared beta carotene,

NOTE Confidence: 0.8653896

 $00{:}30{:}27.796 \dashrightarrow 00{:}30{:}29.980$  vitamin E or the combination or

NOTE Confidence: 0.8653896

 $00:30:30.045 \longrightarrow 00:30:32.085$  neither and those who took beta

NOTE Confidence: 0.8653896

00:30:32.085 --> 00:30:33.690 carotene actually had an 18%

NOTE Confidence: 0.8653896

 $00{:}30{:}33.690 \dashrightarrow 00{:}30{:}35.440$  higher incidence of lung cancer.

NOTE Confidence: 0.8653896

 $00:30:35.440 \longrightarrow 00:30:38.008$  This was kind of a scary result and

NOTE Confidence: 0.8653896

00:30:38.008 --> 00:30:40.800 at the same time there was a trobbing

 $00:30:40.800 \longrightarrow 00:30:44.096$  done in the US and yell as part of

NOTE Confidence: 0.8653896

 $00{:}30{:}44.096 \dashrightarrow 00{:}30{:}46.682$  this called the carrot study was invite.

NOTE Confidence: 0.8653896

00:30:46.682 --> 00:30:49.279 It was a vitamin A retinal or.

NOTE Confidence: 0.8653896

 $00:30:49.280 \longrightarrow 00:30:51.170$  Beta carotene in smokers who

NOTE Confidence: 0.8653896

 $00:30:51.170 \longrightarrow 00:30:53.060$  also was exposed to as bestos.

NOTE Confidence: 0.8653896

00:30:53.060 --> 00:30:54.684 This population in extremely

NOTE Confidence: 0.8653896

00:30:54.684 --> 00:30:57.120 high risk of lung cancer and

NOTE Confidence: 0.8562009

 $00:30:57.197 \longrightarrow 00:30:59.689$  they said can we actually lower the

NOTE Confidence: 0.8562009

 $00{:}30{:}59.689 \dashrightarrow 00{:}31{:}02.258$ risk by giving beta carotene and in

NOTE Confidence: 0.8562009

 $00:31:02.258 \longrightarrow 00:31:04.761$  the end when this result came out,

NOTE Confidence: 0.8562009

 $00:31:04.761 \longrightarrow 00:31:06.566$  the interim analysis of the

NOTE Confidence: 0.8562009

 $00:31:06.566 \longrightarrow 00:31:08.560$  study showed low and behold,

NOTE Confidence: 0.8562009

 $00:31:08.560 \longrightarrow 00:31:12.025$  beta carotene increased the risk by 28%.

NOTE Confidence: 0.8562009

00:31:12.030 --> 00:31:13.765 Now, of course, the trouble

NOTE Confidence: 0.8562009

 $00:31:13.765 \longrightarrow 00:31:15.990$  was it didn't make any sense.

NOTE Confidence: 0.8562009

00:31:15.990 --> 00:31:17.430 Nobody understood why this

 $00:31:17.430 \longrightarrow 00:31:18.510$  high dose supplement.

NOTE Confidence: 0.8562009

 $00{:}31{:}18.510 --> 00{:}31{:}20.670$  Again, it was in high doses,

NOTE Confidence: 0.8562009

 $00:31:20.670 \longrightarrow 00:31:22.345$  and I've calculated it's between

NOTE Confidence: 0.8562009

00:31:22.345 --> 00:31:24.481 35 and 40 servings of fruits

NOTE Confidence: 0.8562009

 $00:31:24.481 \longrightarrow 00:31:26.069$  and vegetables every day.

NOTE Confidence: 0.8562009

00:31:26.070 --> 00:31:28.230 Far higher than you can get

NOTE Confidence: 0.8562009

 $00:31:28.230 \longrightarrow 00:31:29.670$  in the normal diet,

NOTE Confidence: 0.8562009

00:31:29.670 --> 00:31:31.650 but for whatever reason and I

NOTE Confidence: 0.8562009

 $00{:}31{:}31.650 \dashrightarrow 00{:}31{:}33.799$  we now have hypothesis that it

NOTE Confidence: 0.8562009

00:31:33.799 --> 00:31:35.704 actually enhanced the risk of

NOTE Confidence: 0.8562009

00:31:35.704 --> 00:31:37.230 developing cancer from this.

NOTE Confidence: 0.8562009

 $00:31:37.230 \longrightarrow 00:31:39.750$  However, now look at this cancer treatment.

NOTE Confidence: 0.8562009

 $00{:}31{:}39.750 \dashrightarrow 00{:}31{:}42.036$  Centers of America was love this.

NOTE Confidence: 0.8562009

 $00:31:42.040 \longrightarrow 00:31:44.260$  They actually next to the cigarettes.

NOTE Confidence: 0.8562009

 $00:31:44.260 \longrightarrow 00:31:46.110$  They sell beta carotene in

00:31:46.110 --> 00:31:47.220 their their pharmacy,

NOTE Confidence: 0.8562009

 $00{:}31{:}47.220 \dashrightarrow 00{:}31{:}49.747$  hard to believe and I actually spoke

NOTE Confidence: 0.8562009

 $00{:}31{:}49.747 \dashrightarrow 00{:}31{:}52.950$  there and explain that this is not a safe

NOTE Confidence: 0.8562009

00:31:52.950 --> 00:31:54.990 supplement to recommend for patients,

NOTE Confidence: 0.8562009

 $00:31:54.990 \longrightarrow 00:31:57.438$  but from this they also seem to show

NOTE Confidence: 0.8562009

 $00:31:57.438 \longrightarrow 00:31:59.878$  it wasn't what we call a secondary

NOTE Confidence: 0.8562009

 $00:31:59.878 \longrightarrow 00:32:02.216$  endpoint and maybe vitamin E might

NOTE Confidence: 0.8562009

 $00{:}32{:}02.216 \dashrightarrow 00{:}32{:}04.236$  protect against prostate cancer.

NOTE Confidence: 0.8562009

 $00:32:04.240 \longrightarrow 00:32:06.466$  In addition to vitamin E1 of

NOTE Confidence: 0.8562009

 $00:32:06.466 \longrightarrow 00:32:08.376$  the other critical nutrients in

NOTE Confidence: 0.8562009

 $00{:}32{:}08.376 \dashrightarrow 00{:}32{:}10.136$  antioxidants is silentium and this

NOTE Confidence: 0.8562009

 $00:32:10.136 \longrightarrow 00:32:12.460$  is involved as a component of.

NOTE Confidence: 0.8562009

 $00:32:12.460 \longrightarrow 00:32:14.325$  Glutathione peroxidase and we know

NOTE Confidence: 0.8562009

 $00:32:14.325 \longrightarrow 00:32:16.757$  that selenium seems to be associated

NOTE Confidence: 0.8562009

 $00:32:16.757 \longrightarrow 00:32:18.749$  with reduced cancer survival,

NOTE Confidence: 0.8562009

 $00:32:18.750 \longrightarrow 00:32:20.960$  cancer cell survival through animal

 $00{:}32{:}20.960 \dashrightarrow 00{:}32{:}23.170$  studies and geographic levels of

NOTE Confidence: 0.8562009

 $00{:}32{:}23.235 \dashrightarrow 00{:}32{:}25.215$  selenium appear to correlate with

NOTE Confidence: 0.8562009

00:32:25.215 --> 00:32:27.664 the dietary intake based on where

NOTE Confidence: 0.8562009

 $00:32:27.664 \dashrightarrow 00:32:30.058$  your fruits and vegetables are grown.

NOTE Confidence: 0.8562009

 $00{:}32{:}30.060 \dashrightarrow 00{:}32{:}32.130$  The highest source of selenium

NOTE Confidence: 0.8562009

00:32:32.130 --> 00:32:34.670 turns out to be Brazil nuts,

NOTE Confidence: 0.8562009

00:32:34.670 --> 00:32:36.835 but people using selenium because

NOTE Confidence: 0.8562009

 $00:32:36.835 \longrightarrow 00:32:39.835$  of this knowledge and and we knew

NOTE Confidence: 0.8562009

00:32:39.835 --> 00:32:41.740 also that there was apparent

NOTE Confidence: 0.8562009

 $00:32:41.740 \longrightarrow 00:32:44.429$  apparent in low low selenium levels.

NOTE Confidence: 0.8562009

 $00:32:44.430 \longrightarrow 00:32:46.220$  A higher risk of cancer.

NOTE Confidence: 0.8562009

 $00:32:46.220 \longrightarrow 00:32:48.740$  So when they then went on to

NOTE Confidence: 0.8562009

 $00:32:48.740 \longrightarrow 00:32:51.949$  do a study in in to prevent breast.

NOTE Confidence: 0.8562009

 $00:32:51.950 \longrightarrow 00:32:53.378$  I'm sorry, prostate cancer.

NOTE Confidence: 0.8562009

00:32:53.378 --> 00:32:54.449 Using vitamin A,

 $00:32:54.450 \longrightarrow 00:32:56.508$  selenium both or a placebo and

NOTE Confidence: 0.8562009

 $00:32:56.508 \dashrightarrow 00:32:58.689$  this was very exciting and much

NOTE Confidence: 0.8562009

 $00:32:58.689 \longrightarrow 00:33:00.539$  like the beta carotene studies,

NOTE Confidence: 0.8562009

 $00{:}33{:}00.540 \dashrightarrow 00{:}33{:}02.822$  many of the men I knew were

NOTE Confidence: 0.8562009

 $00:33:02.822 \longrightarrow 00:33:04.840$  taking vitamin E and selenium.

NOTE Confidence: 0.8562009

00:33:04.840 --> 00:33:07.381 Assuming the trial would turn out to

NOTE Confidence: 0.8562009

00:33:07.381 --> 00:33:09.850 be beneficial in lo and behold bang,

NOTE Confidence: 0.8562009

 $00{:}33{:}09.850 \dashrightarrow 00{:}33{:}11.600$  it increased prostate cancer is

NOTE Confidence: 0.8562009

 $00{:}33{:}11.600 \dashrightarrow 00{:}33{:}13.964$  the vitamin A and the selenium

NOTE Confidence: 0.8562009

00:33:13.964 --> 00:33:15.599 increased diabetes risk.

NOTE Confidence: 0.8562009

00:33:15.600 --> 00:33:16.659 Again, totally unexpected,

NOTE Confidence: 0.8562009

 $00:33:16.659 \longrightarrow 00:33:19.130$  but lessons for us to try to

NOTE Confidence: 0.8562009

 $00:33:19.203 \longrightarrow 00:33:20.695$  retrospectively analyze and use

NOTE Confidence: 0.8562009

 $00:33:20.695 \longrightarrow 00:33:23.359$  the next trials to kind of help

NOTE Confidence: 0.8562009

 $00:33:23.359 \longrightarrow 00:33:24.799$  us understand this now.

NOTE Confidence: 0.8562009

00:33:24.800 --> 00:33:28.103 For one, when you look at the ATC trial,

 $00:33:28.110 \longrightarrow 00:33:29.950$  the vitamin E levels correlate

NOTE Confidence: 0.8562009

 $00{:}33{:}29.950 \to 00{:}33{:}31.794$  with mortality, low vitamin E,

NOTE Confidence: 0.8562009

 $00:33:31.794 \longrightarrow 00:33:32.530$  higher mortality.

NOTE Confidence: 0.8562009

00:33:32.530 --> 00:33:35.155 But as you get higher there's actually

NOTE Confidence: 0.8562009

 $00:33:35.155 \longrightarrow 00:33:37.057$  a higher mortality with increased

NOTE Confidence: 0.8562009

 $00:33:37.057 \longrightarrow 00:33:39.514$  levels of vitamin E in the serum.

NOTE Confidence: 0.8562009

 $00:33:39.520 \longrightarrow 00:33:42.327$  So there seemed to be what we

NOTE Confidence: 0.8562009

00:33:42.327 --> 00:33:45.069 would call a U shaped curve.

NOTE Confidence: 0.8562009

 $00:33:45.070 \longrightarrow 00:33:47.639$  And then it turned out when they

NOTE Confidence: 0.8562009

 $00{:}33{:}47.639 \dashrightarrow 00{:}33{:}49.710$  analyzed many studies of vitamin E

NOTE Confidence: 0.8562009

 $00{:}33{:}49.710 \dashrightarrow 00{:}33{:}52.080$  and you see here where that got it.

NOTE Confidence: 0.8562009

 $00:33:52.080 \longrightarrow 00:33:53.082$  Red line is.

NOTE Confidence: 0.8562009

 $00{:}33{:}53.082 \dashrightarrow 00{:}33{:}55.086$  That's the typical vitamin E capsule,

NOTE Confidence: 0.8562009

 $00:33:55.090 \longrightarrow 00:33:55.792 400$  units.

NOTE Confidence: 0.8562009

 $00:33:55.792 \longrightarrow 00:33:57.898$  There is a distinct increase in

 $00:33:57.898 \longrightarrow 00:34:00.225$  mortality in all the trials analyzed

NOTE Confidence: 0.8562009

 $00:34:00.225 \longrightarrow 00:34:02.170$  people taking vitamin E actually

NOTE Confidence: 0.8562009

 $00:34:02.170 \longrightarrow 00:34:04.227$  have a higher chance of dying.

NOTE Confidence: 0.8562009

 $00:34:04.230 \longrightarrow 00:34:07.150$  And the cut point for that was 180.

NOTE Confidence: 0.8345189

00:34:07.150 --> 00:34:10.070 I use 180 units of vitamin D daily,

NOTE Confidence: 0.8345189

 $00:34:10.070 \longrightarrow 00:34:11.900$  so there is again below.

NOTE Confidence: 0.8345189

 $00:34:11.900 \longrightarrow 00:34:15.176$  That may be a little benefit if you're low,

NOTE Confidence: 0.8345189

 $00:34:15.180 \longrightarrow 00:34:18.465$  but if you go up there's an adverse risk.

NOTE Confidence: 0.8345189

 $00:34:18.470 \longrightarrow 00:34:19.930$  Again, by the way,

NOTE Confidence: 0.8345189

00:34:19.930 --> 00:34:22.120 nobody knows about this now again,

NOTE Confidence: 0.8345189

 $00{:}34{:}22.120 \dashrightarrow 00{:}34{:}23.870$  the average capsule size today

NOTE Confidence: 0.8345189

 $00{:}34{:}23.870 \dashrightarrow 00{:}34{:}26.130$  today at Kirkland's at at Costco.

NOTE Confidence: 0.8345189

 $00:34:26.130 \longrightarrow 00:34:28.320$  Or you can go to GNC.

NOTE Confidence: 0.8345189

 $00{:}34{:}28.320 \dashrightarrow 00{:}34{:}31.605$  Or you can go to any of the stores.

NOTE Confidence: 0.8345189

 $00:34:31.610 \longrightarrow 00:34:34.694$  Anet cells, typically 400 I use, that is.

NOTE Confidence: 0.8345189

00:34:34.694 --> 00:34:36.929 Already known to be associated

 $00:34:36.929 \longrightarrow 00:34:38.270$  with increased mortality,

NOTE Confidence: 0.8345189

 $00:34:38.270 \longrightarrow 00:34:41.869$  and again 13,000 thirteen 100% of your ADR.

NOTE Confidence: 0.8345189

00:34:41.869 --> 00:34:44.527 So anything we've learned from this?

NOTE Confidence: 0.8345189

 $00:34:44.530 \longrightarrow 00:34:45.818$  Well, what about selenium?

NOTE Confidence: 0.8345189

 $00:34:45.818 \longrightarrow 00:34:47.750$  Again, if you look at the

NOTE Confidence: 0.8345189

 $00:34:47.750 \longrightarrow 00:34:49.360$  levels of Silentium sold there,

NOTE Confidence: 0.8345189

 $00:34:49.360 \longrightarrow 00:34:50.970$  is there a significantly above

NOTE Confidence: 0.8345189

 $00:34:50.970 \longrightarrow 00:34:52.580$  that of the daily requirement?

NOTE Confidence: 0.8345189

 $00{:}34{:}52.580 \dashrightarrow 00{:}34{:}54.764$  Some people may need it if they are

NOTE Confidence: 0.8345189

 $00:34:54.764 \longrightarrow 00:34:57.186$  low and they analyzed his skin cancer

NOTE Confidence: 0.8345189

 $00{:}34{:}57.186 \dashrightarrow 00{:}34{:}59.696$  study and found that people who took

NOTE Confidence: 0.8345189

 $00{:}34{:}59.696 \dashrightarrow 00{:}35{:}01.915$  the selenium in the trial for skin

NOTE Confidence: 0.8345189

00:35:01.915 --> 00:35:03.775 cancer prevention who were low in

NOTE Confidence: 0.8345189

 $00:35:03.775 \longrightarrow 00:35:05.780$  selenium had a decrease in cancer.

NOTE Confidence: 0.8345189

 $00:35:05.780 \longrightarrow 00:35:06.734$  But at baseline,

 $00:35:06.734 \longrightarrow 00:35:08.960$  those who had a high level of

NOTE Confidence: 0.8345189

 $00:35:09.031 \dashrightarrow 00:35:11.659$  selenium had an increase in cancerous.

NOTE Confidence: 0.8345189

 $00:35:11.660 \longrightarrow 00:35:13.330$  And the other thing is,

NOTE Confidence: 0.8345189

 $00:35:13.330 \longrightarrow 00:35:14.995$  which was designed to prevent

NOTE Confidence: 0.8345189

 $00:35:14.995 \longrightarrow 00:35:15.994$  basil cell cancers,

NOTE Confidence: 0.8345189

 $00:35:16.000 \longrightarrow 00:35:18.046$  but it actually increased the risk

NOTE Confidence: 0.8345189

 $00:35:18.046 \dashrightarrow 00:35:20.009$  of squamous cancers of the skin.

NOTE Confidence: 0.8345189

 $00:35:20.010 \longrightarrow 00:35:21.288$  So you know,

NOTE Confidence: 0.8345189

 $00:35:21.288 \dashrightarrow 00:35:24.270$  dose makes the poison or the benefit.

NOTE Confidence: 0.8345189

00:35:24.270 --> 00:35:26.706 Then again, most people don't know that,

NOTE Confidence: 0.8345189

 $00{:}35{:}26.710 \dashrightarrow 00{:}35{:}28.810$  so here's what they typically say.

NOTE Confidence: 0.8345189

 $00:35:28.810 \longrightarrow 00:35:31.294$  You know this is this is the sales pitch

NOTE Confidence: 0.8345189

 $00:35:31.294 \longrightarrow 00:35:33.338$  potent antioxidant immune supporter.

NOTE Confidence: 0.8345189

 $00:35:33.340 \longrightarrow 00:35:35.416$  Selenium has a wide variety of

NOTE Confidence: 0.8345189

 $00:35:35.416 \longrightarrow 00:35:37.180$  beneficial impacts on the body.

NOTE Confidence: 0.8345189

00:35:37.180 --> 00:35:39.280 Most importantly, like the other vitamins,

 $00:35:39.280 \longrightarrow 00:35:41.020$  it helps prevent cell damage

NOTE Confidence: 0.8345189

 $00:35:41.020 \longrightarrow 00:35:42.064$  from free radicals.

NOTE Confidence: 0.8345189

 $00:35:42.070 \longrightarrow 00:35:43.880$  Big mistake.

NOTE Confidence: 0.8345189

 $00:35:43.880 \longrightarrow 00:35:47.086$  Selenium has a U shaped curve for

NOTE Confidence: 0.8345189

 $00:35:47.086 \longrightarrow 00:35:49.410$  mortality just like vitamin E.

NOTE Confidence: 0.8345189

 $00:35:49.410 \longrightarrow 00:35:52.548$  This is in Haines National Nutrition

NOTE Confidence: 0.8345189

00:35:52.548 --> 00:35:55.157 study that follows populations of

NOTE Confidence: 0.8345189

00:35:55.157 --> 00:35:57.737 the US overtime anyone can access

NOTE Confidence: 0.8345189

 $00{:}35{:}57.737 \dashrightarrow 00{:}36{:}00.329$  this population to do studies again

NOTE Confidence: 0.8345189

 $00{:}36{:}00.329 \dashrightarrow 00{:}36{:}02.777$ a U shaped curve for selenium.

NOTE Confidence: 0.8345189

 $00{:}36{:}02.780 \dashrightarrow 00{:}36{:}04.684$  Now here's the problem.

NOTE Confidence: 0.8345189

 $00{:}36{:}04.684 \dashrightarrow 00{:}36{:}08.172$  Deficiency as I mentioned there is an

NOTE Confidence: 0.8345189

 $00:36:08.172 \longrightarrow 00:36:10.907$  increased risk for multiple diseases.

NOTE Confidence: 0.8345189

 $00:36:10.910 \longrightarrow 00:36:12.560$  But on the other hand,

NOTE Confidence: 0.8345189

 $00:36:12.560 \longrightarrow 00:36:14.828$  too much selenium is also a problem

 $00:36:14.828 \longrightarrow 00:36:17.501$  and I showed you already that it

NOTE Confidence: 0.8345189

 $00{:}36{:}17.501 \dashrightarrow 00{:}36{:}19.937$  increases diabetic risk and may increase

NOTE Confidence: 0.8345189

 $00:36:20.007 \dashrightarrow 00:36:22.849$  cancer risk when it's excessive in intake.

NOTE Confidence: 0.8345189

 $00:36:22.850 \longrightarrow 00:36:25.946$  And so to put together some of the

NOTE Confidence: 0.8345189

00:36:25.946 --> 00:36:29.578 data on multi vitamins budgell ficken,

NOTE Confidence: 0.8345189

 $00:36:29.580 \longrightarrow 00:36:32.184$  others looked at the all the

NOTE Confidence: 0.8345189

 $00:36:32.184 \longrightarrow 00:36:34.564$  data on dietary supplements over

NOTE Confidence: 0.8345189

 $00:36:34.564 \longrightarrow 00:36:36.800$  to almost 250,000 participants,

NOTE Confidence: 0.8345189

 $00:36:36.800 \longrightarrow 00:36:38.736$  the beta carotene etc.

NOTE Confidence: 0.8345189

 $00:36:38.736 \longrightarrow 00:36:41.156$  And they found that overall

NOTE Confidence: 0.8345189

 $00{:}36{:}41.156 \dashrightarrow 00{:}36{:}43.260$  antioxidants increases mortality.

NOTE Confidence: 0.8345189

 $00:36:43.260 \longrightarrow 00:36:44.325$  That's in general,

NOTE Confidence: 0.8345189

00:36:44.325 --> 00:36:46.455 these are people who don't have

NOTE Confidence: 0.8345189

 $00:36:46.455 \longrightarrow 00:36:48.555$  cancer who are taking it to

NOTE Confidence: 0.8345189

 $00:36:48.555 \longrightarrow 00:36:50.235$  prevent cancer and heart disease.

NOTE Confidence: 0.8345189

 $00:36:50.240 \dashrightarrow 00:36:52.564$  And there was actually a higher risk

00:36:52.564 --> 00:36:54.778 of dying rather than doing better,

NOTE Confidence: 0.8345189

 $00:36:54.780 \longrightarrow 00:36:56.520$  so we must be careful.

NOTE Confidence: 0.8345189

 $00:36:56.520 \longrightarrow 00:36:56.834$  Now.

NOTE Confidence: 0.8345189

00:36:56.834 --> 00:36:58.718 Here's another BB complex buried my

NOTE Confidence: 0.8345189

 $00:36:58.718 \longrightarrow 00:37:01.615$  one of my favorite talks because it is

NOTE Confidence: 0.8345189

 $00:37:01.615 \longrightarrow 00:37:04.200$  considered by everybody safe at any speed.

NOTE Confidence: 0.8345189

 $00:37:04.200 \longrightarrow 00:37:05.850$  Therefore, whatever does it be

NOTE Confidence: 0.8345189

 $00:37:05.850 \longrightarrow 00:37:08.040$  complex to take its water soluble,

NOTE Confidence: 0.8345189

 $00:37:08.040 \longrightarrow 00:37:08.972$  excrete it,

NOTE Confidence: 0.8345189

 $00:37:08.972 \longrightarrow 00:37:10.836$  and therefore it's safe.

NOTE Confidence: 0.8345189

00:37:10.840 --> 00:37:11.189 Remember,

NOTE Confidence: 0.8345189

 $00:37:11.189 \dashrightarrow 00:37:13.283$  when you take a nutrient blood

NOTE Confidence: 0.8345189

 $00{:}37{:}13.283 \dashrightarrow 00{:}37{:}15.773$  levels of that nutrient at very high

NOTE Confidence: 0.8345189

00:37:15.773 --> 00:37:18.090 doses remain high until you stop it,

NOTE Confidence: 0.8345189

 $00:37:18.090 \longrightarrow 00:37:19.125$  and then you,

 $00:37:19.125 \longrightarrow 00:37:20.160$  as they say,

NOTE Confidence: 0.8688973

00:37:20.160 --> 00:37:22.424 pee it out so your cells are being

NOTE Confidence: 0.8688973

 $00:37:22.424 \longrightarrow 00:37:24.911$  exposed to extremely high levels of these

NOTE Confidence: 0.8688973

 $00:37:24.911 \longrightarrow 00:37:27.400$  nutrients until you stop the nutrient.

NOTE Confidence: 0.8688973

 $00:37:27.400 \longrightarrow 00:37:31.200$  So it may not be quite what you think it is.

NOTE Confidence: 0.8688973

00:37:31.200 --> 00:37:33.294 Well, Livestrong recommends B complex helps

NOTE Confidence: 0.8688973

 $00:37:33.294 \longrightarrow 00:37:35.339$  your body convert calories into energy.

NOTE Confidence: 0.8688973

 $00:37:35.340 \longrightarrow 00:37:36.652$  What could be better,

NOTE Confidence: 0.8688973

 $00:37:36.652 \longrightarrow 00:37:39.479$  be 100 contains most at high doses right?

NOTE Confidence: 0.8688973

 $00:37:39.480 \longrightarrow 00:37:41.838$  100 milligrams is well above the

NOTE Confidence: 0.8688973

 $00{:}37{:}41.838 \dashrightarrow 00{:}37{:}43.800$  average daily requirement for most.

NOTE Confidence: 0.8688973

 $00:37:43.800 \longrightarrow 00:37:46.096$  But it's not stored in Tux is,

NOTE Confidence: 0.8688973

 $00:37:46.100 \longrightarrow 00:37:47.416$  he's not an issue.

NOTE Confidence: 0.8688973

00:37:47.416 --> 00:37:49.390 I am getting across the idea.

NOTE Confidence: 0.8688973

 $00:37:49.390 \longrightarrow 00:37:51.730$  Toxicity is not the only thing you need to

NOTE Confidence: 0.8688973

 $00:37:51.730 \longrightarrow 00:37:53.690$  be concerned about chronically elevated

 $00:37:53.690 \longrightarrow 00:37:56.514$  levels of these nutrients that are not

NOTE Confidence: 0.8688973

 $00:37:56.514 \longrightarrow 00:37:58.922$  toxic can have adverse risk and be complex.

NOTE Confidence: 0.8688973

 $00:37:58.930 \longrightarrow 00:38:02.437$  As they say, converts food into energy.

NOTE Confidence: 0.8688973

 $00:38:02.440 \longrightarrow 00:38:04.828$  By the way, cancer loves energy.

NOTE Confidence: 0.8688973

 $00:38:04.830 \longrightarrow 00:38:07.146$  In fact, that's one of the

NOTE Confidence: 0.8688973

 $00:38:07.146 \longrightarrow 00:38:09.210$  biggest issues with tumor cells.

NOTE Confidence: 0.8688973

00:38:09.210 --> 00:38:11.130 It requires energy metabolism

NOTE Confidence: 0.8688973

 $00:38:11.130 \longrightarrow 00:38:12.570$  to grow efficiently.

NOTE Confidence: 0.8688973

 $00{:}38{:}12.570 \dashrightarrow 00{:}38{:}14.778$  But they showed a very small

NOTE Confidence: 0.8688973

 $00:38:14.778 \longrightarrow 00:38:16.950$  study showed an increase in vigor.

NOTE Confidence: 0.8688973

00:38:16.950 --> 00:38:18.410 Improvements in mood would

NOTE Confidence: 0.8688973

 $00:38:18.410 \longrightarrow 00:38:20.235$  be complex by the way,

NOTE Confidence: 0.8688973

00:38:20.240 --> 00:38:22.574 B vitamins are the greatest placebo

NOTE Confidence: 0.8688973

 $00:38:22.574 \longrightarrow 00:38:24.979$  known to man become beat BB 12.

NOTE Confidence: 0.8688973

 $00:38:24.980 \longrightarrow 00:38:27.170$  It has profoundly high placebo effect

 $00:38:27.170 \longrightarrow 00:38:30.829$  when people take it, they feel better.

NOTE Confidence: 0.8688973

 $00:38:30.830 \longrightarrow 00:38:32.720$  Now these are the levels.

NOTE Confidence: 0.8688973

 $00{:}38{:}32.720 \dashrightarrow 00{:}38{:}34.977$  Look at Simon over 6000% B.

NOTE Confidence: 0.8688973

 $00:38:34.977 \longrightarrow 00:38:37.616$  Six 5000% B 12 is not that.

NOTE Confidence: 0.8688973

 $00:38:37.620 \longrightarrow 00:38:39.876$  I actually believe it or not.

NOTE Confidence: 0.8688973

 $00:38:39.880 \longrightarrow 00:38:42.888$  I'll show you some others on that so,

NOTE Confidence: 0.8688973

 $00:38:42.890 \longrightarrow 00:38:44.072$  but what's concerning?

NOTE Confidence: 0.8688973

 $00:38:44.072 \longrightarrow 00:38:46.042 \#1B1$  is critical for enzymes

NOTE Confidence: 0.8688973

 $00:38:46.042 \longrightarrow 00:38:47.620$  in tumor metabolism.

NOTE Confidence: 0.8688973

 $00:38:47.620 \longrightarrow 00:38:49.657$  Tumors need the need be vitamins as

NOTE Confidence: 0.8688973

 $00{:}38{:}49.657 \dashrightarrow 00{:}38{:}51.681$  part of the metabolism of glucose

NOTE Confidence: 0.8688973

 $00:38:51.681 \longrightarrow 00:38:54.201$  into what's called 5 prime sugars to

NOTE Confidence: 0.8688973

 $00:38:54.264 \longrightarrow 00:38:56.497$  make the precursors for DNA and RNA,

NOTE Confidence: 0.8688973

 $00:38:56.500 \longrightarrow 00:38:58.480$  and also some of the NADH.

NOTE Confidence: 0.8688973

 $00:38:58.480 \longrightarrow 00:39:00.776$  Some of the precursors for energy metabolism.

NOTE Confidence: 0.8688973

 $00:39:00.780 \longrightarrow 00:39:02.929$  And there is a concern that high

 $00:39:02.929 \longrightarrow 00:39:05.848$  levels of B1 may be playing a role in

NOTE Confidence: 0.8688973

 $00:39:05.848 \dashrightarrow 00:39:08.020$  cancer because it's so widely used.

NOTE Confidence: 0.8688973

 $00:39:08.020 \longrightarrow 00:39:10.644$  By the way, nobody knows about these risks.

NOTE Confidence: 0.8688973

 $00:39:10.650 \longrightarrow 00:39:12.300$  We don't have enough data,

NOTE Confidence: 0.8688973

 $00{:}39{:}12.300 \dashrightarrow 00{:}39{:}14.766$  but I am always concerned about

NOTE Confidence: 0.8688973

 $00:39:14.766 \longrightarrow 00:39:16.900$  people using extremely high doses.

NOTE Confidence: 0.8688973

 $00:39:16.900 \longrightarrow 00:39:17.890$  Worse than that,

NOTE Confidence: 0.8688973

 $00:39:17.890 \longrightarrow 00:39:19.870$  now here is an interesting study

NOTE Confidence: 0.8688973

 $00:39:19.870 \longrightarrow 00:39:22.002$  that came out of Norway where

NOTE Confidence: 0.8688973

 $00:39:22.002 \longrightarrow 00:39:23.742$  they don't supplement their diet

NOTE Confidence: 0.8688973

 $00:39:23.807 \longrightarrow 00:39:25.577$  with their breads and grains,

NOTE Confidence: 0.8688973

 $00:39:25.580 \longrightarrow 00:39:27.827$  and they looked at the question what

NOTE Confidence: 0.8688973

 $00{:}39{:}27.827 \dashrightarrow 00{:}39{:}30.090$  about using the vitamins folic acid,

NOTE Confidence: 0.8688973

 $00{:}39{:}30.090 \dashrightarrow 00{:}39{:}32.172~\mathrm{B}12$  and B6 to prevent cancer

NOTE Confidence: 0.8688973

 $00:39:32.172 \longrightarrow 00:39:33.560$  and what they found?

 $00:39:33.560 \longrightarrow 00:39:35.856$  Was that the combination of folic acid

NOTE Confidence: 0.8688973

 $00{:}39{:}35.856 \dashrightarrow 00{:}39{:}37.623$  and B12 substantially increased lung

NOTE Confidence: 0.8688973

 $00:39:37.623 \longrightarrow 00:39:39.795$  cancer risk and lung cancer mortality?

NOTE Confidence: 0.8688973

 $00:39:39.800 \longrightarrow 00:39:40.468$  Wow.

NOTE Confidence: 0.8688973

 $00:39:40.468 \longrightarrow 00:39:45.144$  However, B6 appeared to be relatively safe.

NOTE Confidence: 0.8688973

 $00:39:45.150 \longrightarrow 00:39:47.580$  But it also increased risk in

NOTE Confidence: 0.8688973

 $00:39:47.580 \longrightarrow 00:39:49.605$  addition to human logic, cancer.

NOTE Confidence: 0.8688973

 $00:39:49.605 \longrightarrow 00:39:52.440$  But it was more so for long.

NOTE Confidence: 0.8688973

 $00{:}39{:}52.440 \mathrel{--}{>} 00{:}39{:}54.465$  That's where the greatest risk

NOTE Confidence: 0.8688973

00:39:54.465 --> 00:39:56.490 was cancer mortality and risk.

NOTE Confidence: 0.8688973

 $00:39:56.490 \longrightarrow 00:39:56.831$  Now,

NOTE Confidence: 0.8688973

 $00:39:56.831 \longrightarrow 00:39:59.218$  I don't think there are a lot

NOTE Confidence: 0.8688973

00:39:59.218 --> 00:40:01.880 of people have ever heard about

NOTE Confidence: 0.8688973

 $00:40:01.880 \longrightarrow 00:40:03.780$  the norbiton Windows study.

NOTE Confidence: 0.8688973

00:40:03.780 --> 00:40:06.615 Now to make things much more disturbing,

NOTE Confidence: 0.8688973

 $00:40:06.620 \longrightarrow 00:40:08.570$  the largest group of institutions

00:40:08.570 --> 00:40:11.014 that follow large cohorts of patients

NOTE Confidence: 0.8688973

00:40:11.014 --> 00:40:13.505 throughout the US, Europe, and Asia,

NOTE Confidence: 0.8688973

00:40:13.505 --> 00:40:16.154 including the NIH, the NCI, Harvard.

NOTE Confidence: 0.8688973

00:40:16.154 --> 00:40:19.022 The Harvard School of Public Health,

NOTE Confidence: 0.8688973

00:40:19.030 --> 00:40:21.520 UCLA University of Pittsburgh, Oxford.

NOTE Confidence: 0.8688973

 $00:40:21.520 \longrightarrow 00:40:22.861$  The European epic.

NOTE Confidence: 0.8688973

00:40:22.861 --> 00:40:25.543 The European study group all pulled

NOTE Confidence: 0.8688973

00:40:25.543 --> 00:40:28.266 all of their patients data that

NOTE Confidence: 0.8688973

 $00:40:28.266 \longrightarrow 00:40:30.461$  they were following and found

NOTE Confidence: 0.808802

 $00:40:30.546 \longrightarrow 00:40:33.936$  that circulating B12 increasingly increased.

NOTE Confidence: 0.808802

00:40:33.940 --> 00:40:35.704 Levels are positively

NOTE Confidence: 0.808802

 $00:40:35.704 \longrightarrow 00:40:38.056$  associated with lung cancer.

NOTE Confidence: 0.808802

 $00{:}40{:}38.060 \dashrightarrow 00{:}40{:}40.860$  Just like that, Rolla just showed you.

NOTE Confidence: 0.808802

 $00:40:40.860 \longrightarrow 00:40:43.260$  More importantly, they did another test.

NOTE Confidence: 0.808802

 $00:40:43.260 \longrightarrow 00:40:45.672$  They looked at the same number

00:40:45.672 --> 00:40:47.797 of patients within their cohorts

NOTE Confidence: 0.808802

 $00{:}40{:}47.797 \dashrightarrow 00{:}40{:}50.431$  and analyze them for jeans that

NOTE Confidence: 0.808802

00:40:50.431 --> 00:40:52.850 were associated with higher B12 to

NOTE Confidence: 0.808802

 $00:40:52.850 \longrightarrow 00:40:55.251$  try to control is it the dieters?

NOTE Confidence: 0.808802

00:40:55.260 --> 00:40:57.260 There's something about B12 itself

NOTE Confidence: 0.808802

 $00:40:57.260 \longrightarrow 00:40:59.260$  that's real and genetically determined.

NOTE Confidence: 0.808802

 $00:40:59.260 \longrightarrow 00:41:01.756$  Variants that are associated with higher

NOTE Confidence: 0.808802

00:41:01.756 --> 00:41:03.931 B12 levels were consistently positively

NOTE Confidence: 0.808802

 $00{:}41{:}03.931 \dashrightarrow 00{:}41{:}06.619$  associated with overall lung cancer risk.

NOTE Confidence: 0.808802

00:41:06.620 --> 00:41:09.196 And they said, based on the consistency

NOTE Confidence: 0.808802

 $00{:}41{:}09.196 \dashrightarrow 00{:}41{:}11.790$  of these two independent studies,

NOTE Confidence: 0.808802

 $00:41:11.790 \longrightarrow 00:41:14.472$  the studies support the hypothesis that

NOTE Confidence: 0.808802

 $00{:}41{:}14.472 \dashrightarrow 00{:}41{:}17.400$  high B12 increases risk of lung cancer.

NOTE Confidence: 0.808802

 $00:41:17.400 \longrightarrow 00:41:20.417$  Well, now here is a basic supplement

NOTE Confidence: 0.808802

 $00:41:20.417 \longrightarrow 00:41:23.000$  of 5000 micrograms. What's the amount?

NOTE Confidence: 0.808802

 $00:41:23.000 \longrightarrow 00:41:26.448$  It's 200 and 8000% of your daily requirement.

 $00:41:26.448 \longrightarrow 00:41:28.116$  No, it's not twice.

NOTE Confidence: 0.808802

 $00:41:28.116 \longrightarrow 00:41:31.620$  It's not five times its 200 and 8000%.

NOTE Confidence: 0.808802

00:41:31.620 --> 00:41:34.086 This is where the supplement industry

NOTE Confidence: 0.808802

 $00:41:34.086 \longrightarrow 00:41:37.060$  has gone with high dose supplements.

NOTE Confidence: 0.808802

 $00{:}41{:}37.060 \dashrightarrow 00{:}41{:}38.716$  Now it's completely out of control.

NOTE Confidence: 0.808802

00:41:38.720 --> 00:41:40.659 This is a drug, ladies and gentlemen,

NOTE Confidence: 0.808802

 $00:41:40.660 \longrightarrow 00:41:42.950$  this is not a supplement.

NOTE Confidence: 0.808802

 $00:41:42.950 \longrightarrow 00:41:45.080$  And here are all the wonderful

NOTE Confidence: 0.808802

00:41:45.080 --> 00:41:47.739 places you can get 5000 micrograms.

NOTE Confidence: 0.808802

 $00:41:47.740 \longrightarrow 00:41:50.127$  All over multiple supplements so this is

NOTE Confidence: 0.808802

 $00{:}41{:}50.127 \dashrightarrow 00{:}41{:}53.019$  an these again are not regulated by the FDA.

NOTE Confidence: 0.808802

 $00{:}41{:}53.020 \dashrightarrow 00{:}41{:}55.000$  Now let's talk about vitamin D.

NOTE Confidence: 0.808802

 $00{:}41{:}55.000 \dashrightarrow 00{:}41{:}56.980$  This is isobars of UV exposure.

NOTE Confidence: 0.808802

 $00:41:56.980 \longrightarrow 00:41:59.290$  The higher up you go and latitude,

NOTE Confidence: 0.808802

 $00:41:59.290 \longrightarrow 00:42:01.600$  the greater the risk of breast cancer.

 $00:42:01.600 \longrightarrow 00:42:04.240$  You have the same curve for colon cancer.

NOTE Confidence: 0.808802

 $00{:}42{:}04.240 \longrightarrow 00{:}42{:}06.522$  Unfortunately if you look at the red

NOTE Confidence: 0.808802

 $00{:}42{:}06.522 \dashrightarrow 00{:}42{:}08.668$  the highest areas are also the highest

NOTE Confidence: 0.808802

 $00:42:08.668 \longrightarrow 00:42:10.771$  levels of that are so she canonically

NOTE Confidence: 0.808802

 $00:42:10.771 \longrightarrow 00:42:13.015$  deprived that have higher urban areas

NOTE Confidence: 0.808802

 $00:42:13.015 \longrightarrow 00:42:15.790$  so there may be other korelitz to this,

NOTE Confidence: 0.808802

 $00:42:15.790 \longrightarrow 00:42:18.994$  but you can see it's related to UV light.

NOTE Confidence: 0.808802

00:42:19.000 --> 00:42:21.261 And that was sort of the evidence

NOTE Confidence: 0.808802

 $00{:}42{:}21.261 \dashrightarrow 00{:}42{:}24.049$  to support way back that there is a

NOTE Confidence: 0.808802

 $00:42:24.049 \longrightarrow 00:42:26.540$  correlate between vitamin D and mortality.

NOTE Confidence: 0.808802

 $00:42:26.540 \longrightarrow 00:42:28.688$  And So what? And cancer prevention.

NOTE Confidence: 0.808802

 $00:42:28.690 \longrightarrow 00:42:31.570$  And so a number of trials and observation.

NOTE Confidence: 0.808802

 $00:42:31.570 \longrightarrow 00:42:34.076$  ULL studies were done supporting this idea,

NOTE Confidence: 0.808802

00:42:34.080 --> 00:42:35.870 but it wasn't really convincing.

NOTE Confidence: 0.808802

00:42:35.870 --> 00:42:37.660 But people now believe vitamin

NOTE Confidence: 0.808802

 $00:42:37.660 \longrightarrow 00:42:39.092$  D does prevent cancer.

 $00:42:39.100 \longrightarrow 00:42:41.260$  But is there proof of that?

NOTE Confidence: 0.808802

 $00:42:41.260 \longrightarrow 00:42:42.692$  How strong is that?

NOTE Confidence: 0.808802

00:42:42.692 --> 00:42:43.050 Well,

NOTE Confidence: 0.808802

 $00:42:43.050 \longrightarrow 00:42:45.706$  this is early data that levels of vitamin

NOTE Confidence: 0.808802

 $00:42:45.706 \longrightarrow 00:42:48.374$  D seems to be associated with survival

NOTE Confidence: 0.808802

 $00:42:48.374 \longrightarrow 00:42:51.060$  in breast cancer if you're deficient.

NOTE Confidence: 0.808802

 $00:42:51.060 \longrightarrow 00:42:52.745$  You have a higher chance

NOTE Confidence: 0.808802

 $00:42:52.745 \longrightarrow 00:42:53.756$  of potentially dying,

NOTE Confidence: 0.808802

 $00{:}42{:}53.760 \dashrightarrow 00{:}42{:}55.440$  and that's a different question.

NOTE Confidence: 0.808802

 $00:42:55.440 \longrightarrow 00:42:57.012$  Can it change survival?

NOTE Confidence: 0.808802

 $00:42:57.012 \longrightarrow 00:42:59.906$  This is a study looking at very

NOTE Confidence: 0.808802

 $00:42:59.906 \longrightarrow 00:43:02.186$  high dose supplements to prevent

NOTE Confidence: 0.808802

 $00:43:02.186 \longrightarrow 00:43:04.560$  cancer and what they found.

NOTE Confidence: 0.808802

 $00{:}43{:}04.560 \dashrightarrow 00{:}43{:}07.044$  There was absolutely no effect on

NOTE Confidence: 0.808802

00:43:07.044 --> 00:43:09.880 high dose B vitamin on vitamin DA.

00:43:09.880 --> 00:43:11.930 High dose monthly versus placebo.

NOTE Confidence: 0.808802

 $00:43:11.930 \longrightarrow 00:43:13.970$  It didn't seem overtime to

NOTE Confidence: 0.808802

 $00:43:13.970 \longrightarrow 00:43:15.194$  influence cancer risk.

NOTE Confidence: 0.808802

 $00:43:15.200 \longrightarrow 00:43:18.464$  Then there was a very large vital study.

NOTE Confidence: 0.808802

 $00:43:18.470 \longrightarrow 00:43:21.389$  This was a multicenter study with thousands

NOTE Confidence: 0.808802

00:43:21.389 --> 00:43:23.790 of people enrolled in many centers,

NOTE Confidence: 0.808802

 $00:43:23.790 \longrightarrow 00:43:25.462$  giving 1 to 2000.

NOTE Confidence: 0.808802

 $00:43:25.462 \longrightarrow 00:43:27.970$  I use daily of vitamin D.

NOTE Confidence: 0.808802

 $00{:}43{:}27.970 \dashrightarrow 00{:}43{:}30.640$  Or a gram of of omega-3 with a with a

NOTE Confidence: 0.808802

00:43:30.718 --> 00:43:33.274 goal of determining whether it could

NOTE Confidence: 0.808802

 $00:43:33.274 \longrightarrow 00:43:36.069$  reduce both cancer and heart disease.

NOTE Confidence: 0.808802

00:43:36.070 --> 00:43:37.542 Now in this study,

NOTE Confidence: 0.808802

 $00{:}43{:}37.542 \dashrightarrow 00{:}43{:}39.750$  no effects were shown for either.

NOTE Confidence: 0.808802

 $00{:}43{:}39.750 \dashrightarrow 00{:}43{:}41.346$  Certainly for the omega-3,

NOTE Confidence: 0.808802

 $00:43:41.346 \longrightarrow 00:43:43.740$  there was no effect on either

NOTE Confidence: 0.808802

00:43:43.817 --> 00:43:45.529 cancer or heart disease.

 $00:43:45.530 \longrightarrow 00:43:48.346$  And vitamin D did not influence cancer risk.

NOTE Confidence: 0.87778926

 $00:43:48.350 \longrightarrow 00:43:51.527$  Now they were at that point in the study,

NOTE Confidence: 0.87778926

 $00:43:51.530 \longrightarrow 00:43:53.648$  fairly well nourished with vitamin D.

NOTE Confidence: 0.87778926

 $00:43:53.650 \longrightarrow 00:43:57.059$  There was a hint that vitamin D

NOTE Confidence: 0.87778926

 $00{:}43{:}57.059 \dashrightarrow 00{:}43{:}59.809$  will improve survival but not risk.

NOTE Confidence: 0.87778926

 $00:43:59.810 \longrightarrow 00:44:02.570$  It was saying the same thing and Charlie

NOTE Confidence: 0.87778926

 $00:44:02.570 \longrightarrow 00:44:05.215$  Fuchs was with us at Yale and it has

NOTE Confidence: 0.87778926

 $00:44:05.215 \longrightarrow 00:44:07.694$  now left and their group at Harvard

NOTE Confidence: 0.87778926

 $00:44:07.694 \longrightarrow 00:44:10.094$  showed it in colon cancer patients.

NOTE Confidence: 0.87778926

 $00:44:10.100 \longrightarrow 00:44:12.221$  Vitamin D levels do appear to correlate

NOTE Confidence: 0.87778926

00:44:12.221 --> 00:44:14.220 with improved colon colorectal survival,

NOTE Confidence: 0.87778926

 $00:44:14.220 \longrightarrow 00:44:15.930$  so higher levels are beneficial.

NOTE Confidence: 0.87778926

 $00:44:15.930 \longrightarrow 00:44:17.988$  We see the same thing again,

NOTE Confidence: 0.87778926

 $00{:}44{:}17.990 \dashrightarrow 00{:}44{:}20.573$  but this is a U shaped curve for vitamin

NOTE Confidence: 0.87778926

00:44:20.573 --> 00:44:23.127 D and survival with breast cancer.

 $00:44:23.130 \longrightarrow 00:44:26.282$  So there may be a point in which

NOTE Confidence: 0.87778926

 $00:44:26.282 \longrightarrow 00:44:28.418$  too much is not right.

NOTE Confidence: 0.87778926

00:44:28.420 --> 00:44:29.028 And again,

NOTE Confidence: 0.87778926

00:44:29.028 --> 00:44:31.460 very high dose B vitamin D has more

NOTE Confidence: 0.87778926

 $00:44:31.533 \longrightarrow 00:44:33.441$  recently in levels that we used

NOTE Confidence: 0.87778926

00:44:33.441 --> 00:44:35.629 to think were OK been associated

NOTE Confidence: 0.87778926

 $00:44:35.629 \longrightarrow 00:44:37.754$  with higher levels of cancer,

NOTE Confidence: 0.87778926

00:44:37.760 --> 00:44:39.144 particularly GI cancers and

NOTE Confidence: 0.87778926

00:44:39.144 --> 00:44:39.836 pancreatic cancer.

NOTE Confidence: 0.87778926

 $00:44:39.840 \longrightarrow 00:44:41.916$  This is a what's called cooling

NOTE Confidence: 0.87778926

 $00:44:41.916 \longrightarrow 00:44:43.300$  cohort of rare cancers,

NOTE Confidence: 0.87778926

00:44:43.300 --> 00:44:45.330 and they found that high levels of

NOTE Confidence: 0.87778926

 $00:44:45.330 \longrightarrow 00:44:47.770$  vitamin D in the range that you

NOTE Confidence: 0.87778926

00:44:47.770 --> 00:44:49.650 can get easily through supplements

NOTE Confidence: 0.87778926

00:44:49.650 --> 00:44:51.946 doubled the risk of pancreatic cancer,

NOTE Confidence: 0.87778926

 $00{:}44{:}51.950 \dashrightarrow 00{:}44{:}54.569$  and it turns out that there is a U

 $00:44:54.569 \longrightarrow 00:44:57.136$  shaped curve for mortality and cancer.

NOTE Confidence: 0.87778926

 $00:44:57.140 \longrightarrow 00:44:58.532$  Too much vitamin D.

NOTE Confidence: 0.87778926

00:44:58.532 --> 00:45:00.272 Appears to be associate above

NOTE Confidence: 0.87778926

 $00:45:00.272 \longrightarrow 00:45:01.770$  45 to 50 nanograms.

NOTE Confidence: 0.87778926

 $00:45:01.770 \longrightarrow 00:45:04.479$  This is an ongoing battle because they're

NOTE Confidence: 0.87778926

 $00{:}45{:}04.479 \dashrightarrow 00{:}45{:}07.390$  true believers who think you need to be high.

NOTE Confidence: 0.87778926

00:45:07.390 --> 00:45:08.160 You don't.

NOTE Confidence: 0.87778926

00:45:08.160 --> 00:45:10.470 The data shows that if you're

NOTE Confidence: 0.87778926

00:45:10.470 --> 00:45:12.298 between 28 and 45 to 50,

NOTE Confidence: 0.87778926

 $00:45:12.300 \longrightarrow 00:45:14.862$  nanograms is the sweet spot for vitamin

NOTE Confidence: 0.87778926

 $00:45:14.862 \longrightarrow 00:45:17.802$  D that can be achieved with one with

NOTE Confidence: 0.87778926

00:45:17.802 --> 00:45:20.368 a thousand 2000 IU's a day of D3,

NOTE Confidence: 0.87778926

 $00:45:20.370 \longrightarrow 00:45:21.894$  not a higher dose.

NOTE Confidence: 0.87778926

00:45:21.894 --> 00:45:25.200 And you should not aim for high doses,

NOTE Confidence: 0.87778926

00:45:25.200 --> 00:45:27.755 but many people in the alternative and

00:45:27.755 --> 00:45:30.048 complementary feel aim for levels of 6200,

NOTE Confidence: 0.87778926

 $00:45:30.050 \longrightarrow 00:45:32.634$  which puts you in the upper range of

NOTE Confidence: 0.87778926

 $00:45:32.634 \longrightarrow 00:45:35.608$  that U shaped curve toward mortality.

NOTE Confidence: 0.87778926

00:45:35.610 --> 00:45:35.941 Again,

NOTE Confidence: 0.87778926

 $00:45:35.941 \longrightarrow 00:45:38.258$  EU shaped curve for mortality and that

NOTE Confidence: 0.87778926

 $00{:}45{:}38.258 \dashrightarrow 00{:}45{:}40.938$  that shows you you get to 60 and higher now.

NOTE Confidence: 0.87778926

 $00:45:40.940 \longrightarrow 00:45:41.729$  By the way,

NOTE Confidence: 0.87778926

 $00:45:41.729 \longrightarrow 00:45:44.292$  if you spend a lot of time out in

NOTE Confidence: 0.87778926

 $00{:}45{:}44.292 \dashrightarrow 00{:}45{:}46.553$  the sun you can't reach that level.

NOTE Confidence: 0.87778926

00:45:46.560 --> 00:45:48.546 You know you can't reach above

NOTE Confidence: 0.87778926

 $00{:}45{:}48.546 \to 00{:}45{:}51.189$ 60 if you spend 26 to 30 hours

NOTE Confidence: 0.87778926

 $00:45:51.189 \longrightarrow 00:45:53.049$  at a week with sun exposure.

NOTE Confidence: 0.87778926

 $00:45:53.050 \longrightarrow 00:45:54.700$  Now what about taking supplements?

NOTE Confidence: 0.87778926

00:45:54.700 --> 00:45:56.340 If you're a cancer patient,

NOTE Confidence: 0.87778926

 $00:45:56.340 \longrightarrow 00:45:57.324$  consume high levels,

NOTE Confidence: 0.87778926

 $00:45:57.324 \longrightarrow 00:45:58.964$  most common based on age,

 $00:45:58.970 \longrightarrow 00:45:59.966$  women younger age,

NOTE Confidence: 0.87778926

 $00:45:59.966 \longrightarrow 00:46:01.626$  regional differences and also correlate

NOTE Confidence: 0.87778926

 $00:46:01.626 \longrightarrow 00:46:03.249$  with higher levels of distress,

NOTE Confidence: 0.87778926

 $00:46:03.250 \longrightarrow 00:46:05.266$  and it may improve the ideas

NOTE Confidence: 0.87778926

00:46:05.266 --> 00:46:07.200 will improve my quality of life,

NOTE Confidence: 0.87778926

00:46:07.200 --> 00:46:09.168 felt my Wellness and improved survival,

NOTE Confidence: 0.87778926

 $00:46:09.170 \longrightarrow 00:46:11.150$  and are the risks and benefits.

NOTE Confidence: 0.87778926

00:46:11.150 --> 00:46:11.462 Well,

NOTE Confidence: 0.87778926

 $00:46:11.462 \longrightarrow 00:46:13.334$  there's a fascinating study that came

NOTE Confidence: 0.87778926

 $00{:}46{:}13.334 \dashrightarrow 00{:}46{:}16.076$  out of a SWOG trial for breast cancer.

NOTE Confidence: 0.87778926

 $00:46:16.080 \longrightarrow 00:46:17.396$  It's called the Dell.

NOTE Confidence: 0.87778926

00:46:17.396 --> 00:46:19.041 Kept studying the analyze the

NOTE Confidence: 0.87778926

 $00{:}46{:}19.041 \dashrightarrow 00{:}46{:}20.920$  use of dietary supplements in

NOTE Confidence: 0.87778926

 $00{:}46{:}20.920 \dashrightarrow 00{:}46{:}22.775$  patients who are getting treated

NOTE Confidence: 0.87778926

 $00:46:22.775 \longrightarrow 00:46:25.006$  and they asked what is the effect?

00:46:25.010 --> 00:46:27.292 Now I would go to the highlighted

NOTE Confidence: 0.87778926

 $00{:}46{:}27.292 \dashrightarrow 00{:}46{:}30.190$  portions in the middle, so we have to.

NOTE Confidence: 0.87778926

 $00{:}46{:}30.190 \dashrightarrow 00{:}46{:}32.260$  We can skip for time purposes.

NOTE Confidence: 0.87778926

00:46:32.260 --> 00:46:32.605 Antioxidants,

NOTE Confidence: 0.87778926

00:46:32.605 --> 00:46:33.640 increased progression and

NOTE Confidence: 0.87778926

 $00:46:33.640 \longrightarrow 00:46:35.710$  mortality by 1.4 times and B12.

NOTE Confidence: 0.87778926

 $00:46:35.710 \longrightarrow 00:46:37.340$  We've heard this before actually

NOTE Confidence: 0.87778926

 $00:46:37.340 \longrightarrow 00:46:38.970$  enhanced the risk of mortality

NOTE Confidence: 0.8617516

 $00:46:39.022 \longrightarrow 00:46:39.850$  and progression.

NOTE Confidence: 0.8617516

00:46:39.850 --> 00:46:41.920 Taking B12 as a single supplement,

NOTE Confidence: 0.8617516

 $00{:}46{:}41.920 \dashrightarrow 00{:}46{:}43.160$  it doubled that risk.

NOTE Confidence: 0.8617516

00:46:43.160 --> 00:46:45.842 And we know for sure we know irons

NOTE Confidence: 0.8617516

 $00{:}46{:}45.842 \dashrightarrow 00{:}46{:}48.467$  bad and that was associated with risk.

NOTE Confidence: 0.8617516

 $00:46:48.470 \longrightarrow 00:46:50.200$  But multi vitamins were not.

NOTE Confidence: 0.8617516

 $00:46:50.200 \longrightarrow 00:46:52.960$  So now we have more evidence to say.

NOTE Confidence: 0.8617516

 $00:46:52.960 \longrightarrow 00:46:55.326$  Maybe you know in the cancer population

 $00:46:55.326 \longrightarrow 00:46:57.899$  we need to be much more cautious.

NOTE Confidence: 0.8617516

 $00:46:57.900 \longrightarrow 00:47:00.804$  About this now the problem is the and.

NOTE Confidence: 0.8617516

 $00:47:00.810 \longrightarrow 00:47:02.994$  This was in 2013 and the

NOTE Confidence: 0.8617516

 $00:47:02.994 \longrightarrow 00:47:04.086$  album Internal Medicine.

NOTE Confidence: 0.8617516

 $00:47:04.090 \longrightarrow 00:47:06.358$  It said we should be careful stop

NOTE Confidence: 0.8617516

 $00:47:06.358 \longrightarrow 00:47:08.553$  wasting your money on supplements and

NOTE Confidence: 0.8617516

 $00:47:08.553 \longrightarrow 00:47:10.869$  they analyzed a number of randomized

NOTE Confidence: 0.8617516

 $00:47:10.869 \longrightarrow 00:47:12.819$  trials but they miss something.

NOTE Confidence: 0.8617516

 $00:47:12.820 \longrightarrow 00:47:14.360$  There were two trials,

NOTE Confidence: 0.8617516

00:47:14.360 --> 00:47:16.285 the physicians health study and

NOTE Confidence: 0.8617516

 $00:47:16.285 \longrightarrow 00:47:18.543$  soon of Max that in men showed

NOTE Confidence: 0.8617516

 $00:47:18.543 \longrightarrow 00:47:20.470$  a decrease in cancer incidence,

NOTE Confidence: 0.8617516

 $00{:}47{:}20.470 \dashrightarrow 00{:}47{:}22.648$  but they weren't using high doses,

NOTE Confidence: 0.8617516

 $00:47:22.650 \longrightarrow 00:47:24.470$  they were supplementing them with

NOTE Confidence: 0.8617516

 $00:47:24.470 \longrightarrow 00:47:26.290$  a simple multi vitamin right?

 $00:47:26.290 \longrightarrow 00:47:29.068$  So what is the answer here?

NOTE Confidence: 0.8617516

 $00:47:29.070 \longrightarrow 00:47:32.930$  By the way, and I tell this to my colleagues,

NOTE Confidence: 0.8617516

 $00:47:32.930 \longrightarrow 00:47:34.860$  men don't eat their veggies.

NOTE Confidence: 0.8617516

00:47:34.860 --> 00:47:36.685 Dietary supplements in men who

NOTE Confidence: 0.8617516

 $00:47:36.685 \longrightarrow 00:47:39.110$  may not be careful about healthy,

NOTE Confidence: 0.8617516

00:47:39.110 --> 00:47:41.060 diverse diets and plant based diets

NOTE Confidence: 0.8617516

 $00:47:41.060 \longrightarrow 00:47:43.740$  may benefit by a single multinutrient.

NOTE Confidence: 0.8617516

 $00:47:43.740 \longrightarrow 00:47:45.750$  This was central and in the

NOTE Confidence: 0.8617516

 $00{:}47{:}45.750 \dashrightarrow 00{:}47{:}47.980$  Supermax study was an alternative.

NOTE Confidence: 0.8617516

00:47:47.980 --> 00:47:50.689 This was not a very high dose,

NOTE Confidence: 0.8617516

 $00:47:50.690 \longrightarrow 00:47:51.845$  high potency vitamin.

NOTE Confidence: 0.8617516

00:47:51.845 --> 00:47:53.770 And here's the supermax data.

NOTE Confidence: 0.8617516

 $00:47:53.770 \longrightarrow 00:47:55.426$  I mean the yes,

NOTE Confidence: 0.8617516

 $00:47:55.426 \longrightarrow 00:47:57.082$  showing this significant increase

NOTE Confidence: 0.8617516

 $00:47:57.082 \longrightarrow 00:47:59.247$  in men but not in women.

NOTE Confidence: 0.8617516

 $00:47:59.250 \longrightarrow 00:48:01.210$  Women have better diets.

 $00{:}48{:}01.210 \dashrightarrow 00{:}48{:}02.680$  the US population.

NOTE Confidence: 0.8617516

00:48:02.680 --> 00:48:06.238 We know many people are actually

NOTE Confidence: 0.8617516

 $00:48:06.238 \longrightarrow 00:48:07.424$  micronutrient deficient.

NOTE Confidence: 0.8617516

00:48:07.430 --> 00:48:09.998 But you don't need high doses of supplements.

NOTE Confidence: 0.8617516

 $00:48:10.000 \longrightarrow 00:48:12.308$  That's the key here.

NOTE Confidence: 0.8617516

00:48:12.310 --> 00:48:14.480 And what about the antioxidants?

NOTE Confidence: 0.8617516

00:48:14.480 --> 00:48:14.898 Well,

NOTE Confidence: 0.8617516

00:48:14.898 --> 00:48:17.406 it turns out reactive oxygen species

NOTE Confidence: 0.8617516

 $00:48:17.406 \longrightarrow 00:48:19.613$  are critical signaling molecules that

NOTE Confidence: 0.8617516

 $00:48:19.613 \longrightarrow 00:48:22.265$  reactivate program cell death in cancer.

NOTE Confidence: 0.8617516

 $00{:}48{:}22.270 \dashrightarrow 00{:}48{:}25.726$  And when you turn off that with antioxidants,

NOTE Confidence: 0.8617516

 $00{:}48{:}25.730 \dashrightarrow 00{:}48{:}28.328$  tumors love that people will use

NOTE Confidence: 0.8617516

 $00:48:28.328 \longrightarrow 00:48:30.060$  things like glutathione infusions.

NOTE Confidence: 0.8617516

 $00:48:30.060 \longrightarrow 00:48:30.924$  Big mistake,

NOTE Confidence: 0.8617516

 $00:48:30.924 \longrightarrow 00:48:33.084$  because glutathione inhibits the antioxidant.

 $00:48:33.090 \longrightarrow 00:48:34.822$  The oxidative stress that

NOTE Confidence: 0.8617516

 $00:48:34.822 \longrightarrow 00:48:36.554$  will kill tumor cells.

NOTE Confidence: 0.8617516

00:48:36.560 --> 00:48:39.572 They can't because of the rapid

NOTE Confidence: 0.8617516

 $00:48:39.572 \longrightarrow 00:48:42.100$  tumor growth cannot handle that.

NOTE Confidence: 0.8617516

00:48:42.100 --> 00:48:42.702 And yet,

NOTE Confidence: 0.8617516

 $00:48:42.702 \longrightarrow 00:48:43.605$  here's the consequense

NOTE Confidence: 0.8617516

00:48:43.605 --> 00:48:44.514 60% continue supplements.

NOTE Confidence: 0.8617516

00:48:44.514 --> 00:48:46.326 It's a multi billion dollar industry.

NOTE Confidence: 0.8617516

 $00{:}48{:}46.330 \dashrightarrow 00{:}48{:}47.962$  Most people are unaware of this

NOTE Confidence: 0.8617516

 $00:48:47.962 \longrightarrow 00:48:50.114$  and they don't even know the dose

NOTE Confidence: 0.8617516

 $00{:}48{:}50.114 \dashrightarrow 00{:}48{:}51.454$  of supplements they're taking.

NOTE Confidence: 0.8617516

 $00:48:51.460 \longrightarrow 00:48:53.490$  I have talked to patients and they

NOTE Confidence: 0.8617516

 $00:48:53.490 \longrightarrow 00:48:55.956$  can't begin to tell me how much is

NOTE Confidence: 0.8617516

 $00{:}48{:}55.956 \to 00{:}48{:}57.491$  in the nutrients they're taking.

NOTE Confidence: 0.8617516

 $00:48:57.500 \longrightarrow 00:48:59.306$  Ask them to turn it around.

NOTE Confidence: 0.8617516

 $00:48:59.310 \longrightarrow 00:49:01.454$  I went into Costco with my wife once

 $00:49:01.454 \longrightarrow 00:49:03.839$  and I asked the person selling Co.

NOTE Confidence: 0.8617516

 $00:49:03.840 \longrightarrow 00:49:06.549$  Q10I showed her a bottle of B12 and I

NOTE Confidence: 0.8617516

 $00:49:06.549 \longrightarrow 00:49:08.975$  showed her this and she looked at me.

NOTE Confidence: 0.8617516

 $00:49:08.980 \longrightarrow 00:49:10.786$  She said what are they doing?

NOTE Confidence: 0.8617516

 $00:49:10.790 \longrightarrow 00:49:12.590$  Why did they do that?

NOTE Confidence: 0.8617516

 $00:49:12.590 \longrightarrow 00:49:15.730$  I said I don't know you're one

NOTE Confidence: 0.8617516

 $00:49:15.730 \longrightarrow 00:49:17.884$  that selling these supplements so

NOTE Confidence: 0.8617516

 $00:49:17.884 \longrightarrow 00:49:20.164$  these are the things I've learned.

NOTE Confidence: 0.8617516

00:49:20.170 --> 00:49:22.320 Respect EU shaped curve toxicity

NOTE Confidence: 0.8617516

 $00:49:22.320 \longrightarrow 00:49:24.905$  is predictable an at high risk

NOTE Confidence: 0.8617516

 $00:49:24.905 \longrightarrow 00:49:26.329$  in very high doses.

NOTE Confidence: 0.8617516

 $00{:}49{:}26.330 \dashrightarrow 00{:}49{:}29.618$  Too much vitamin D can cause kidney stones.

NOTE Confidence: 0.8617516

 $00{:}49{:}29.620 {\:{\mbox{--}}\!>\:} 00{:}49{:}31.672$  Too much vitamin A can cause

NOTE Confidence: 0.8617516

00:49:31.672 --> 00:49:33.585 headaches and and what's called

NOTE Confidence: 0.8617516

 $00:49:33.585 \longrightarrow 00:49:35.025$  normal pressure hydrocephalus

 $00:49:35.025 \longrightarrow 00:49:37.425$  and birth defects in children.

NOTE Confidence: 0.8617516

 $00{:}49{:}37.430 \dashrightarrow 00{:}49{:}39.896$  But it's the adverse risk range.

NOTE Confidence: 0.8617516

 $00{:}49{:}39.900 \dashrightarrow 00{:}49{:}41.764$  Beta carotene unexpectedly raises

NOTE Confidence: 0.8617516

 $00:49:41.764 \longrightarrow 00:49:44.094$  lung cancer risk in smokers.

NOTE Confidence: 0.8617516

00:49:44.100 --> 00:49:44.854 Folic acid,

NOTE Confidence: 0.8617516

00:49:44.854 --> 00:49:47.116 I mean I'm sorry B12 unexpectedly

NOTE Confidence: 0.8617516

 $00:49:47.116 \longrightarrow 00:49:50.249$  seems to increase lung cancer risk itself,

NOTE Confidence: 0.8442075

 $00:49:50.250 \longrightarrow 00:49:52.300$  low probability, but not zero.

NOTE Confidence: 0.8442075

 $00:49:52.300 \longrightarrow 00:49:53.880$  Too much vitamin D.

NOTE Confidence: 0.8442075

 $00:49:53.880 \longrightarrow 00:49:55.855$  Twice the risk of pancreatic

NOTE Confidence: 0.8442075

 $00{:}49{:}55.855 \dashrightarrow 00{:}49{:}58.830$  cancer and the other issue is the

NOTE Confidence: 0.8442075

 $00:49:58.830 \longrightarrow 00:50:00.498$  law of unintended consequences.

NOTE Confidence: 0.8442075

 $00{:}50{:}00.500$ -->  $00{:}50{:}02.550$  It's not predictable until you

NOTE Confidence: 0.8442075

 $00:50:02.550 \longrightarrow 00:50:05.010$  do these studies, and then you

NOTE Confidence: 0.8442075

 $00:50:05.010 \longrightarrow 00:50:07.470$  retrospectively figure out what is it.

NOTE Confidence: 0.8442075

 $00:50:07.470 \longrightarrow 00:50:09.930$  Beta carotene turns on cell cooperation.

00:50:09.930 --> 00:50:11.570 It's a gene regulator,

NOTE Confidence: 0.8442075

 $00:50:11.570 \longrightarrow 00:50:13.210$  not chest and antioxidant,

NOTE Confidence: 0.8442075

 $00:50:13.210 \longrightarrow 00:50:14.790$  and always respect nature.

NOTE Confidence: 0.8442075

 $00{:}50{:}14.790 \dashrightarrow 00{:}50{:}17.160$  We are using nutrients at levels

NOTE Confidence: 0.8442075

 $00{:}50{:}17.232 \dashrightarrow 00{:}50{:}19.242$  that are incompatible in there

NOTE Confidence: 0.8442075

00:50:19.242 --> 00:50:21.790 incapable of being reached in nature.

NOTE Confidence: 0.8442075

 $00:50:21.790 \longrightarrow 00:50:23.426$  And lastly, the rule.

NOTE Confidence: 0.8442075

 $00:50:23.426 \longrightarrow 00:50:26.310$  The economic law patients who take it

NOTE Confidence: 0.8442075

 $00:50:26.310 \longrightarrow 00:50:29.469$  donated and people who need it don't take it.

NOTE Confidence: 0.8442075

 $00:50:29.470 \longrightarrow 00:50:31.969$  They target people who are well and

NOTE Confidence: 0.8442075

00:50:31.969 --> 00:50:34.458 healthy with very high dose nutrients.

NOTE Confidence: 0.8442075

 $00:50:34.460 \longrightarrow 00:50:35.996$  The higher the better.

NOTE Confidence: 0.8442075

 $00:50:35.996 \longrightarrow 00:50:38.300$  And people not aware of that.

NOTE Confidence: 0.8442075

 $00:50:38.300 \longrightarrow 00:50:39.844$  So here's the conclusion.

NOTE Confidence: 0.8442075

 $00:50:39.844 \longrightarrow 00:50:42.160$  There's no consistent evidence to support

 $00:50:42.220 \longrightarrow 00:50:44.290$  the general use of supplements in

NOTE Confidence: 0.8442075

 $00:50:44.290 \longrightarrow 00:50:46.370$  the general population for prevention.

NOTE Confidence: 0.8442075

00:50:46.370 --> 00:50:48.290 Correcting deficiency may reduce risk,

NOTE Confidence: 0.8442075

 $00:50:48.290 \longrightarrow 00:50:50.220$  but high dose nutrient supplements

NOTE Confidence: 0.8442075

 $00:50:50.220 \longrightarrow 00:50:52.150$  and healthy non deficient individuals

NOTE Confidence: 0.8442075

 $00:50:52.210 \longrightarrow 00:50:53.658$  may actually increase risk.

NOTE Confidence: 0.8442075

00:50:53.660 --> 00:50:55.252 Remember EU shaped curve?

NOTE Confidence: 0.8442075

 $00:50:55.252 \longrightarrow 00:50:57.146$  No, what you are taking.

NOTE Confidence: 0.8442075

 $00{:}50{:}57.146 \dashrightarrow 00{:}50{:}59.822$  The majority of the public continue to

NOTE Confidence: 0.8442075

 $00:50:59.822 \longrightarrow 00:51:01.988$  consume levels of nutrients and levels

NOTE Confidence: 0.8442075

 $00{:}51{:}01.988 \dashrightarrow 00{:}51{:}04.609$  that any are completely unaware of.

NOTE Confidence: 0.8442075

 $00:51:04.610 \longrightarrow 00:51:05.198$  This risk.

NOTE Confidence: 0.8442075

00:51:05.198 --> 00:51:07.550 I gave this talk to a group of

NOTE Confidence: 0.8442075

 $00{:}51{:}07.630 \dashrightarrow 00{:}51{:}10.288$  fellows in radiation therapy at Yale,

NOTE Confidence: 0.8442075

 $00:51:10.290 \longrightarrow 00:51:13.476$  and none of them have heard of these studies.

NOTE Confidence: 0.8442075

 $00:51:13.480 \longrightarrow 00:51:15.260$  Doctors don't know about this,

00:51:15.260 --> 00:51:15.970 you know,

NOTE Confidence: 0.8442075

 $00:51:15.970 \longrightarrow 00:51:18.100$  because they're not educated in nutrition.

NOTE Confidence: 0.8442075

00:51:18.100 --> 00:51:20.578 It is very prudent to recommend consumption,

NOTE Confidence: 0.8442075

 $00:51:20.580 \longrightarrow 00:51:22.355$  micro nutrient dense foods for

NOTE Confidence: 0.8442075

 $00:51:22.355 \longrightarrow 00:51:23.420$  chronic disease prevention.

NOTE Confidence: 0.8442075

00:51:23.420 --> 00:51:24.840 Maintain healthy weight and

NOTE Confidence: 0.8442075

 $00:51:24.840 \longrightarrow 00:51:25.905$  stay physically active.

NOTE Confidence: 0.8442075

 $00:51:25.910 \longrightarrow 00:51:28.479$  So again, it's this is common sense.

NOTE Confidence: 0.8442075

 $00:51:28.480 \longrightarrow 00:51:29.901$  And I will leave it at that

NOTE Confidence: 0.8442075

 $00:51:29.901 \longrightarrow 00:51:31.299$  and open it for questions.

NOTE Confidence: 0.81285775

 $00:51:34.500 \longrightarrow 00:51:37.368$  Great thank you Doctor boy.

NOTE Confidence: 0.81285775

00:51:37.368 --> 00:51:41.330 Just stop your screen share. Sure, going

NOTE Confidence: 0.8062258

 $00{:}51{:}41.330 \dashrightarrow 00{:}51{:}46.354$  to just go to two quick questions here.

NOTE Confidence: 0.8062258

 $00:51:46.360 \longrightarrow 00:51:48.640$  We have a question about.

NOTE Confidence: 0.8062258

 $00:51:48.640 \longrightarrow 00:51:51.520$  Was there a control on their diets

 $00:51:51.520 \longrightarrow 00:51:53.983$  referring to one who said they

NOTE Confidence: 0.8062258

 $00:51:53.983 \longrightarrow 00:51:56.865$  could have a huge variation in the

NOTE Confidence: 0.8062258

 $00:51:56.865 \longrightarrow 00:51:58.920$  vitamins consumed in their diets?

NOTE Confidence: 0.78398776

00:52:00.220 --> 00:52:01.912 Oh well, you're talking

NOTE Confidence: 0.78398776

 $00:52:01.912 \longrightarrow 00:52:04.450$  about the DEL CAP study.

NOTE Confidence: 0.8564007

00:52:05.580 --> 00:52:07.840 I think so. She she wasn't specific, they

NOTE Confidence: 0.8564007

 $00:52:07.840 \longrightarrow 00:52:08.988$  they correct for that.

NOTE Confidence: 0.8564007

 $00:52:08.988 \longrightarrow 00:52:11.783$  So one of the ways an it's always an

NOTE Confidence: 0.8564007

 $00{:}52{:}11.783 \dashrightarrow 00{:}52{:}14.114$  issue and you know I didn't mention.

NOTE Confidence: 0.8564007

 $00:52:14.120 \longrightarrow 00:52:15.980$  That in the B12 study to

NOTE Confidence: 0.8564007

00:52:15.980 --> 00:52:16.910 correct for confounding,

NOTE Confidence: 0.8564007

 $00{:}52{:}16.910 \dashrightarrow 00{:}52{:}18.770$  which is what you're talking about.

NOTE Confidence: 0.8564007

 $00:52:18.770 \longrightarrow 00:52:21.570$  Something else that may actually explain it.

NOTE Confidence: 0.8564007

 $00:52:21.570 \longrightarrow 00:52:24.126$  They use this, we call Edmond

NOTE Confidence: 0.8564007

00:52:24.126 --> 00:52:25.830 Elion randomization using genetic

NOTE Confidence: 0.8564007

00:52:25.898 --> 00:52:28.028 markers that are correlated with

 $00:52:28.028 \longrightarrow 00:52:30.158$  higher levels to eliminate the

NOTE Confidence: 0.8564007

 $00{:}52{:}30.226 \dashrightarrow 00{:}52{:}32.386$  idea that it was something else.

NOTE Confidence: 0.8564007

 $00:52:32.390 \longrightarrow 00:52:33.966$  Is it really related?

NOTE Confidence: 0.8564007

00:52:33.966 --> 00:52:37.788 Not only was B12 related to lung cancer risk,

NOTE Confidence: 0.8564007

 $00:52:37.790 \longrightarrow 00:52:40.286$  it was also a similar rate.

NOTE Confidence: 0.8564007

 $00:52:40.290 \longrightarrow 00:52:41.954$  Mendelian randomization study showed

NOTE Confidence: 0.8564007

 $00:52:41.954 \longrightarrow 00:52:44.450$  the same thing with colon cancer,

NOTE Confidence: 0.8564007

00:52:44.450 --> 00:52:46.946 so I think you know, yes,

NOTE Confidence: 0.8564007

00:52:46.946 --> 00:52:49.858 you could argue maybe with something else,

NOTE Confidence: 0.8564007

 $00:52:49.860 \longrightarrow 00:52:52.446$  but taking B12 is at very.

NOTE Confidence: 0.8564007

 $00:52:52.450 \longrightarrow 00:52:55.369$  Very very high doses is very easy.

NOTE Confidence: 0.8564007

00:52:55.370 --> 00:52:57.455 I've had patients who take

NOTE Confidence: 0.8564007

 $00{:}52{:}57.455 \dashrightarrow 00{:}52{:}59.540$  upwards of twice that level.

NOTE Confidence: 0.8564007

 $00:52:59.540 \longrightarrow 00:53:02.036$  That is they're taking over 400,000%

NOTE Confidence: 0.8564007

 $00:53:02.040 \longrightarrow 00:53:04.200$  of their daily requirement and

00:53:04.200 --> 00:53:06.784 you won't feel anything until your

NOTE Confidence: 0.8564007

 $00{:}53{:}06.784 \dashrightarrow 00{:}53{:}08.860$  cancer progresses and we this is

NOTE Confidence: 0.8564007

 $00:53:08.860 \longrightarrow 00:53:11.628$  one of the dilemmas you shouldn't.

NOTE Confidence: 0.8564007

00:53:11.630 --> 00:53:14.549 You don't need it, that's the point.

NOTE Confidence: 0.8564007

00:53:14.550 --> 00:53:17.052 You may need more because of

NOTE Confidence: 0.8564007

00:53:17.052 --> 00:53:18.720 the issues of absorption,

NOTE Confidence: 0.8564007

 $00{:}53{:}18.720 --> 00{:}53{:}20.384$  but nobody needs  $400{,}000\%$ 

NOTE Confidence: 0.8564007

 $00:53:20.384 \longrightarrow 00:53:22.180$  or 200,000% or 100,000%.

NOTE Confidence: 0.8564007

 $00:53:22.180 \longrightarrow 00:53:23.140$  It's insanity.

NOTE Confidence: 0.8564007

 $00:53:23.140 \longrightarrow 00:53:23.620$  Julie

NOTE Confidence: 0.89256376

00:53:25.850 --> 00:53:28.797 OK, thank you so much information and

NOTE Confidence: 0.89256376

 $00:53:28.797 \longrightarrow 00:53:32.382$  we will get to some of these questions

NOTE Confidence: 0.89256376

 $00:53:32.382 \longrightarrow 00:53:35.819$  after we hear from Doctor Gary's offer.

NOTE Confidence: 0.89256376

 $00:53:35.820 \longrightarrow 00:53:37.620$  Doctor Gary Software specializes

NOTE Confidence: 0.89256376

00:53:37.620 --> 00:53:39.420 in pediatric allergy immunology.

NOTE Confidence: 0.89256376

 $00:53:39.420 \longrightarrow 00:53:41.220$  An integrative medicine at

00:53:41.220 --> 00:53:43.020 Yale School of Medicine,

NOTE Confidence: 0.89256376

 $00{:}53{:}43.020 \dashrightarrow 00{:}53{:}45.810$  he completed a degree in human

NOTE Confidence: 0.89256376

00:53:45.810 --> 00:53:47.670 development at Cornell University

NOTE Confidence: 0.89256376

 $00:53:47.745 \longrightarrow 00:53:49.815$  and received his medical degree

NOTE Confidence: 0.89256376

 $00{:}53{:}49.815 \dashrightarrow 00{:}53{:}52.470$  at Tel Aviv University in Israel.

NOTE Confidence: 0.89256376

 $00:53:52.470 \longrightarrow 00:53:54.570$  He attended the University of

NOTE Confidence: 0.89256376

00:53:54.570 --> 00:53:56.670 Arizona Andrew Wildcore Center for

NOTE Confidence: 0.89256376

 $00{:}53{:}56.744 \dashrightarrow 00{:}53{:}59.176$  Integrative Medicine and receive

NOTE Confidence: 0.89256376

 $00:53:59.176 \longrightarrow 00:54:01.608$  certifications in mindfulness meditation.

NOTE Confidence: 0.89256376

 $00{:}54{:}01.610 \dashrightarrow 00{:}54{:}03.640$  His interest in food allergies,

NOTE Confidence: 0.89256376

00:54:03.640 --> 00:54:05.260 mind body medicine, eczema,

NOTE Confidence: 0.89256376

 $00:54:05.260 \longrightarrow 00:54:06.880$  as thma and environmental allergies.

NOTE Confidence: 0.89256376

 $00:54:06.880 \longrightarrow 00:54:09.946$  He is also the director of the

NOTE Confidence: 0.89256376

 $00{:}54{:}09.946 \dashrightarrow 00{:}54{:}12.120$ Smilow Cancer Center Hospital.

NOTE Confidence: 0.89256376

00:54:12.120 --> 00:54:13.803 Integrative medicine program

 $00:54:13.803 \longrightarrow 00:54:16.047$  so welcome doctor Sopher.

NOTE Confidence: 0.85079247

00:54:18.780 --> 00:54:21.510 Thank you, let's see if I can

NOTE Confidence: 0.85079247

00:54:21.510 --> 00:54:23.460 get my share screen right.

NOTE Confidence: 0.8709004

 $00:54:26.910 \longrightarrow 00:54:29.278$  Alright, I'm going to warn all of you.

NOTE Confidence: 0.8709004

 $00:54:29.280 \longrightarrow 00:54:31.504$  8:00 PM is the time that you might

NOTE Confidence: 0.8709004

00:54:31.504 --> 00:54:33.419 get toddlers bursting into my room,

NOTE Confidence: 0.8709004

 $00:54:33.420 \longrightarrow 00:54:35.788$  and I will apologize now if that happens,

NOTE Confidence: 0.8709004

 $00:54:35.790 \longrightarrow 00:54:37.806$  but I will pause to give them

NOTE Confidence: 0.8709004

 $00:54:37.806 \longrightarrow 00:54:40.228$  a kiss if they do. So let me.

NOTE Confidence: 0.8961525

00:54:42.910 --> 00:54:44.810 Can you see my slides?

NOTE Confidence: 0.8961525

 $00{:}54{:}44.810 \dashrightarrow 00{:}54{:}48.400$  Does that look OK? Great fantastic.

NOTE Confidence: 0.8961525

00:54:48.400 --> 00:54:49.808 Alright, so survivorship mythbusting

NOTE Confidence: 0.8961525

00:54:49.808 --> 00:54:51.568 diet nutrition first let me

NOTE Confidence: 0.8961525

00:54:51.568 --> 00:54:53.265 say what what wonderful talks

NOTE Confidence: 0.8961525

00:54:53.265 --> 00:54:54.875 just happened right before me.

NOTE Confidence: 0.8961525

 $00{:}54{:}54.880 \dashrightarrow 00{:}54{:}57.302$  I just I learned so much from

00:54:57.302 --> 00:54:59.374 Doctor Boyden and from Annette and

NOTE Confidence: 0.8961525

 $00:54:59.374 \longrightarrow 00:55:02.040$  I hope you guys did too as well.

NOTE Confidence: 0.8961525

 $00:55:02.040 \longrightarrow 00:55:05.058$  But we're going to talk about

NOTE Confidence: 0.8961525

 $00:55:05.058 \longrightarrow 00:55:06.567$  diet and nutrition.

NOTE Confidence: 0.8961525

 $00:55:06.570 \longrightarrow 00:55:08.859$  As a means of obtaining these vitamins,

NOTE Confidence: 0.8961525

00:55:08.860 --> 00:55:10.490 nutrients that you're looking for.

NOTE Confidence: 0.8961525

 $00:55:10.490 \longrightarrow 00:55:12.458$  So let's let's get into it.

NOTE Confidence: 0.8961525

 $00:55:12.460 \longrightarrow 00:55:15.068$  So number one myth is this is food.

NOTE Confidence: 0.8961525

00:55:15.070 --> 00:55:16.710 It might look like food.

NOTE Confidence: 0.8961525

00:55:16.710 --> 00:55:18.340 It might smell like food.

NOTE Confidence: 0.8961525

 $00{:}55{:}18.340 --> 00{:}55{:}19.980$  It might taste like food,

NOTE Confidence: 0.8961525

 $00:55:19.980 \longrightarrow 00:55:21.284$  but it's not food.

NOTE Confidence: 0.8961525

00:55:21.284 --> 00:55:22.914 When we think about survivorship,

NOTE Confidence: 0.8961525

 $00:55:22.920 \longrightarrow 00:55:25.480$  when we think about giving our body the

NOTE Confidence: 0.8961525

 $00:55:25.480 \longrightarrow 00:55:27.367$  nutrients in the health and sustaining

 $00:55:27.367 \longrightarrow 00:55:30.440$  it and moving it in in the right direction.

NOTE Confidence: 0.8961525

 $00:55:30.440 \longrightarrow 00:55:32.402$  So really, think about what you're

NOTE Confidence: 0.8961525

00:55:32.402 --> 00:55:33.710 eating with processed foods,

NOTE Confidence: 0.8961525

 $00:55:33.710 \longrightarrow 00:55:36.646$  and so let's go shoot some basic rules.

NOTE Confidence: 0.8961525

 $00:55:36.650 \longrightarrow 00:55:38.840$  That that I think about when

NOTE Confidence: 0.8961525

 $00:55:38.840 \longrightarrow 00:55:40.300$  I think about nutrition.

NOTE Confidence: 0.8961525

 $00:55:40.300 \longrightarrow 00:55:41.824$  So rule number one.

NOTE Confidence: 0.8961525

00:55:41.824 --> 00:55:43.348 If your grandmother wouldn't

NOTE Confidence: 0.8961525

 $00:55:43.348 \longrightarrow 00:55:44.679$  recognize it as food,

NOTE Confidence: 0.8961525

00:55:44.680 --> 00:55:47.767 it's probably not food and I had to adjust

NOTE Confidence: 0.8961525

 $00:55:47.767 \longrightarrow 00:55:50.889$  this to great grandmother as time goes on,

NOTE Confidence: 0.8961525 00:55:50.890 --> 00:55:51.214 but.

NOTE Confidence: 0.8961525

 $00:55:51.214 \longrightarrow 00:55:54.130$  The simple principle here is if you put a

NOTE Confidence: 0.8961525

00:55:54.206 --> 00:55:56.368 \*\*\*\*\*\* in front of your great grandmother,

NOTE Confidence: 0.8961525

00:55:56.370 --> 00:55:58.309 she probably stared it for 30 minutes,

NOTE Confidence: 0.8961525

 $00:55:58.310 \longrightarrow 00:56:00.534$  having no idea what to do with it.

00:56:00.540 --> 00:56:04.476 So think about the food that you're eating.

NOTE Confidence: 0.8961525

00:56:04.480 --> 00:56:06.760 Rule #2 if you can't

NOTE Confidence: 0.8961525

00:56:06.760 --> 00:56:08.128 pronounce the ingredients,

NOTE Confidence: 0.8961525

 $00:56:08.130 \longrightarrow 00:56:12.110$  it probably isn't food either.

NOTE Confidence: 0.8961525

 $00:56:12.110 \longrightarrow 00:56:12.882$  There exceptions,

NOTE Confidence: 0.8961525

 $00:56:12.882 \longrightarrow 00:56:15.198$  tomato and tomato and I still

NOTE Confidence: 0.8961525

00:56:15.198 --> 00:56:16.510 think it's quinoa,

NOTE Confidence: 0.8961525

 $00:56:16.510 \longrightarrow 00:56:18.510$  but I'm not entirely sure.

NOTE Confidence: 0.85598608

 $00:56:21.710 \longrightarrow 00:56:25.490$  So rule #3. The closer it is to the Earth,

NOTE Confidence: 0.85598608

 $00:56:25.490 \longrightarrow 00:56:27.086$  the better it is for you,

NOTE Confidence: 0.85598608

00:56:27.090 --> 00:56:28.608 and we're going to dive a

NOTE Confidence: 0.85598608

00:56:28.608 --> 00:56:30.010 little bit into soil later.

NOTE Confidence: 0.85598608

 $00{:}56{:}30.010 \dashrightarrow 00{:}56{:}32.579$  That's always a great example of how.

NOTE Confidence: 0.85598608

00:56:32.580 --> 00:56:33.704 Food can go wrong,

NOTE Confidence: 0.85598608

 $00:56:33.704 \longrightarrow 00:56:36.558$  so if you look all the way to the left,

00:56:36.560 --> 00:56:37.980 were looking at Adam Mommy,

NOTE Confidence: 0.85598608

 $00{:}56{:}37.980 \dashrightarrow 00{:}56{:}40.244$  this is the most natural source of soy,

NOTE Confidence: 0.85598608

 $00:56:40.250 \longrightarrow 00:56:41.670$  right straight from the plant.

NOTE Confidence: 0.85598608

 $00:56:41.670 \longrightarrow 00:56:43.958$  From the beginning you shift a little bit

NOTE Confidence: 0.85598608

 $00:56:43.958 \longrightarrow 00:56:46.496$  to the right and we have tempeh and me,

NOTE Confidence: 0.85598608

00:56:46.500 --> 00:56:48.036 so slightly processed, but really good

NOTE Confidence: 0.85598608

 $00:56:48.036 \longrightarrow 00:56:49.620$  foods because they include fermentation.

NOTE Confidence: 0.85598608

 $00:56:49.620 \longrightarrow 00:56:50.884$  They include natural probiotics

NOTE Confidence: 0.85598608

 $00:56:50.884 \longrightarrow 00:56:53.078$  and then we move a little to

NOTE Confidence: 0.85598608

 $00{:}56{:}53.078 \dashrightarrow 00{:}56{:}54.730$  the right and we have to fu now.

NOTE Confidence: 0.85598608

 $00:56:54.730 \longrightarrow 00:56:55.531$  Tofu is good,

NOTE Confidence: 0.85598608

 $00{:}56{:}55.531 \dashrightarrow 00{:}56{:}57.860$  but it's not as good as the enemy,

NOTE Confidence: 0.85598608

00:56:57.860 --> 00:57:00.700 but if we move all the way to the right,

NOTE Confidence: 0.85598608

 $00:57:00.700 \longrightarrow 00:57:03.024$  that's where we start getting into trouble.

NOTE Confidence: 0.85598608

 $00:57:03.030 \longrightarrow 00:57:05.360$  That's where we have our

NOTE Confidence: 0.85598608

 $00:57:05.360 \dashrightarrow 00:57:07.690$  highly processed soy foods so.

 $00:57:07.690 \longrightarrow 00:57:09.380$  When you think about what

NOTE Confidence: 0.85598608

 $00{:}57{:}09.380 \to 00{:}57{:}11.070$  you're putting into your body,

NOTE Confidence: 0.85598608

 $00:57:11.070 \longrightarrow 00:57:13.534$  I want you to consider how close to

NOTE Confidence: 0.85598608

 $00:57:13.534 \longrightarrow 00:57:16.137$  the plant the original plant this was.

NOTE Confidence: 0.85598608

 $00:57:16.140 \longrightarrow 00:57:18.540$  Because when we look at our tofu dogs

NOTE Confidence: 0.85598608

00:57:18.540 --> 00:57:21.209 and are tofurky and their soy patties,

NOTE Confidence: 0.85598608

00:57:21.210 --> 00:57:22.900 those contain so much sodium,

NOTE Confidence: 0.85598608

 $00:57:22.900 \longrightarrow 00:57:23.977$  so much additives,

NOTE Confidence: 0.85598608

 $00:57:23.977 \longrightarrow 00:57:24.336$  dyes,

NOTE Confidence: 0.85598608

 $00:57:24.336 \longrightarrow 00:57:26.131$  and everything else that makes

NOTE Confidence: 0.85598608

00:57:26.131 --> 00:57:28.109 it moves it away from being

NOTE Confidence: 0.85598608

 $00:57:28.109 \longrightarrow 00:57:29.659$  natural and good for you.

NOTE Confidence: 0.8461969

 $00:57:31.840 \longrightarrow 00:57:33.989$  So I'm going to steal this quote.

NOTE Confidence: 0.8461969

 $00:57:33.990 \longrightarrow 00:57:36.139$  I stole this quote from Michael Pollan.

NOTE Confidence: 0.8461969

 $00:57:36.140 \longrightarrow 00:57:37.784$  If you haven't read Michael Pollan's

00:57:37.784 --> 00:57:39.520 books on plants and agriculture,

NOTE Confidence: 0.8461969

00:57:39.520 --> 00:57:41.356 I would really, really recommend it,

NOTE Confidence: 0.8461969

 $00:57:41.360 \longrightarrow 00:57:44.146$  but what he says is eat food.

NOTE Confidence: 0.8461969

 $00:57:44.150 \longrightarrow 00:57:48.050$  Not too much and mostly plants.

NOTE Confidence: 0.8461969

 $00:57:48.050 \longrightarrow 00:57:49.340$  Those are the basic principles,

NOTE Confidence: 0.8461969

 $00:57:49.340 \longrightarrow 00:57:52.616$  but let's get back to the myths.

NOTE Confidence: 0.8461969

 $00:57:52.620 \longrightarrow 00:57:54.870$  And so. Here's another myth.

NOTE Confidence: 0.8461969

 $00:57:54.870 \longrightarrow 00:57:57.089$  This is a superfood and I'm not

NOTE Confidence: 0.8461969

 $00{:}57{:}57.089 \dashrightarrow 00{:}57{:}59.438$  picking on bread fruit in particular.

NOTE Confidence: 0.8461969

00:57:59.440 --> 00:58:00.848 I've never tried breadfruit,

NOTE Confidence: 0.8461969

 $00:58:00.848 \longrightarrow 00:58:02.256$  I'm sure it's delicious,

NOTE Confidence: 0.8461969

 $00{:}58{:}02.260 \dashrightarrow 00{:}58{:}04.276$  but identifying one single food as

NOTE Confidence: 0.8461969

00:58:04.276 --> 00:58:06.830 a super food is always a mistake.

NOTE Confidence: 0.8461969

 $00:58:06.830 \longrightarrow 00:58:10.058$  So really, what is super food?

NOTE Confidence: 0.8461969

 $00:58:10.060 \longrightarrow 00:58:11.952$  Super Food is a nutritious diet.

NOTE Confidence: 0.8461969

 $00{:}58{:}11.952 \dashrightarrow 00{:}58{:}14.510$  It's a well balanced and in robust diet.

 $00:58:14.510 \longrightarrow 00:58:17.020$  So to the right when you see is the anti

NOTE Confidence: 0.8461969

 $00:58:17.083 \longrightarrow 00:58:18.903$  inflammatory Kermit and it shouldn't

NOTE Confidence: 0.8461969

00.58:18.903 --> 00.58:21.764 be a surprise that at the bottom of

NOTE Confidence: 0.8461969

00:58:21.764 --> 00:58:23.720 this pyramid we should be getting

NOTE Confidence: 0.8461969

 $00:58:23.720 \longrightarrow 00:58:26.444$  most in your food and most of their

NOTE Confidence: 0.8461969

 $00:58:26.444 \longrightarrow 00:58:28.381$  nutrients is fruits and vegetables

NOTE Confidence: 0.8461969

 $00:58:28.381 \longrightarrow 00:58:30.895$  and and healthy servings of water.

NOTE Confidence: 0.8461969

 $00:58:30.900 \longrightarrow 00:58:33.154$  Moving up thinking about whole grains and

NOTE Confidence: 0.8461969

 $00:58:33.154 \longrightarrow 00:58:35.599$  cereal grains and even pasta once in awhile.

NOTE Confidence: 0.8461969

 $00:58:35.600 \longrightarrow 00:58:36.548$  Beans are great,

NOTE Confidence: 0.8461969

 $00{:}58{:}36.548 \dashrightarrow 00{:}58{:}38.128$  leggings are great and then

NOTE Confidence: 0.8461969

 $00:58:38.128 \longrightarrow 00:58:39.980$  we move up to healthy fats.

NOTE Confidence: 0.8461969

 $00:58:39.980 \longrightarrow 00:58:42.788$  We're going to talk about that in a second.

NOTE Confidence: 0.8461969

 $00:58:42.790 \longrightarrow 00:58:45.051$  Soy foods will talk about soy foods

NOTE Confidence: 0.8461969

 $00:58:45.051 \longrightarrow 00:58:47.488$  and then moving up less and less fish.

 $00:58:47.490 \longrightarrow 00:58:49.986$  Fish is great and then T healthy spices.

NOTE Confidence: 0.8461969

00:58:49.990 --> 00:58:50.640 You know,

NOTE Confidence: 0.8461969

 $00:58:50.640 \longrightarrow 00:58:52.590$  this really shouldn't be at the

NOTE Confidence: 0.8461969

00:58:52.590 --> 00:58:54.756 top because you guys can have as

NOTE Confidence: 0.8461969

00:58:54.756 --> 00:58:56.570 much healthy spices as you want.

NOTE Confidence: 0.8461969

00:58:56.570 --> 00:58:59.378 As long as you're adding it to your food.

NOTE Confidence: 0.8461969

 $00:58:59.380 \longrightarrow 00:59:01.360$  So load up on the spices.

NOTE Confidence: 0.8461969

00:59:01.360 --> 00:59:02.995 Choose organic foods when possible

NOTE Confidence: 0.8461969

 $00{:}59{:}02.995 \dashrightarrow 00{:}59{:}05.119$  and wash your produce to really

NOTE Confidence: 0.8461969

 $00:59:05.119 \longrightarrow 00:59:06.847$  minimize the pesticide exposure.

NOTE Confidence: 0.8461969

 $00{:}59{:}06.850 \dashrightarrow 00{:}59{:}08.690$  Increased fiber intake limit red

NOTE Confidence: 0.8461969

 $00:59:08.690 \longrightarrow 00:59:11.581$  meat and then try to get fish into

NOTE Confidence: 0.8461969

00:59:11.581 --> 00:59:13.863 your diet and so let's talk about

NOTE Confidence: 0.8461969

 $00:59:13.938 \longrightarrow 00:59:16.272$  fat because there's a claim that

NOTE Confidence: 0.8461969

00:59:16.272 --> 00:59:18.756 fat is inflammatory can be bad.

NOTE Confidence: 0.8461969

 $00:59:18.756 \longrightarrow 00:59:21.997$  We heard about fat free diets and.

 $00:59:22.000 \longrightarrow 00:59:23.430$  We have essential facts that

NOTE Confidence: 0.8461969

 $00:59:23.430 \longrightarrow 00:59:25.904$  we need to get in our diet that

NOTE Confidence: 0.8461969

 $00{:}59{:}25.904 \dashrightarrow 00{:}59{:}27.534$  we can't make for ourselves.

NOTE Confidence: 0.8461969

 $00:59:27.540 \longrightarrow 00:59:28.102$  And we,

NOTE Confidence: 0.8461969

00:59:28.102 --> 00:59:30.750 the ones that we think of about the most,

NOTE Confidence: 0.8461969

 $00:59:30.750 \longrightarrow 00:59:31.626$  or making six,

NOTE Confidence: 0.8461969

 $00:59:31.626 \longrightarrow 00:59:32.210$  you know,

NOTE Confidence: 0.8461969

00:59:32.210 --> 00:59:34.191 make it 3 and it's really about

NOTE Confidence: 0.8461969

00:59:34.191 --> 00:59:35.420 maintaining a healthy ratio.

NOTE Confidence: 0.8461969

 $00:59:35.420 \longrightarrow 00:59:37.532$  So the healthy goal and what's

NOTE Confidence: 0.8461969

00:59:37.532 --> 00:59:39.648 been shown to decrease cancer risk

NOTE Confidence: 0.8461969

 $00{:}59{:}39.648 \dashrightarrow 00{:}59{:}41.881$  is an Omega 6 to omega-3 ratio

NOTE Confidence: 0.8461969

 $00:59:41.881 \longrightarrow 00:59:43.930$  about 2:00 to 1:00 or even one.

NOTE Confidence: 0.8461969

00:59:43.930 --> 00:59:45.358 The Standard American diet,

NOTE Confidence: 0.8461969

 $00:59:45.358 \longrightarrow 00:59:46.786$  which we shortened too.

 $00:59:46.790 \longrightarrow 00:59:47.504$  Sad appropriately.

NOTE Confidence: 0.8461969

 $00:59:47.504 \longrightarrow 00:59:49.289$  It's about 14 to one,

NOTE Confidence: 0.8461969

 $00:59:49.290 \longrightarrow 00:59:50.698$  so we're completely off,

NOTE Confidence: 0.8461969

 $00:59:50.698 \longrightarrow 00:59:53.236$  so it's no wonder that we have

NOTE Confidence: 0.8461969

 $00:59:53.236 \longrightarrow 00:59:55.348$  increased cancer in our in in,

NOTE Confidence: 0.8461969

 $00.59.55.350 \longrightarrow 00.59.56.738$  in, in United States,

NOTE Confidence: 0.8461969

 $00:59:56.738 \longrightarrow 01:00:00.175$  and So what I like to see my patients

NOTE Confidence: 0.8461969

 $01:00:00.175 \longrightarrow 01:00:02.707$  do is eating more omega-3 fats.

NOTE Confidence: 0.8461969

 $01{:}00{:}02.710 \dashrightarrow 01{:}00{:}05.338$  Things like wild caught fish so

NOTE Confidence: 0.8461969

01:00:05.338 --> 01:00:07.582 sardines or tuna, or herring,

NOTE Confidence: 0.8461969

 $01{:}00{:}07.582 \dashrightarrow 01{:}00{:}09.887$  and wild caught salmon's or

NOTE Confidence: 0.8461969

 $01:00:09.887 \longrightarrow 01:00:12.370$  avocados and olives or tree nuts.

NOTE Confidence: 0.8461969

 $01:00:12.370 \longrightarrow 01:00:14.498$  We love tree nuts.

NOTE Confidence: 0.8461969

01:00:14.498 --> 01:00:15.030 Uh,

NOTE Confidence: 0.8461969

 $01:00:15.030 \longrightarrow 01:00:16.008$  and then really,

NOTE Confidence: 0.8461969

01:00:16.008 --> 01:00:17.964 you know there's there's a lot

 $01:00:17.964 \longrightarrow 01:00:19.280$  of talk about me,

NOTE Confidence: 0.8461969

 $01{:}00{:}19.280 \dashrightarrow 01{:}00{:}21.314$  but certain grass fed meat actually

NOTE Confidence: 0.8461969

 $01:00:21.314 \longrightarrow 01:00:23.335$  has higher omega-3 ratio in that

NOTE Confidence: 0.8461969

01:00:23.335 --> 01:00:25.153 supposed to to factory farmed meat,

NOTE Confidence: 0.8461969

 $01:00:25.160 \longrightarrow 01:00:27.776$  which which has a higher Omega 6 ratio.

NOTE Confidence: 0.8133884

01:00:27.780 --> 01:00:29.088 Other things like fried

NOTE Confidence: 0.8133884

01:00:29.088 --> 01:00:30.396 foods contain Omega sixes,

NOTE Confidence: 0.8133884

 $01:00:30.400 \longrightarrow 01:00:32.344$  so it's really easy to Omega

NOTE Confidence: 0.8133884

 $01:00:32.344 \longrightarrow 01:00:33.990$  sixes 'cause you're enjoying them.

NOTE Confidence: 0.8133884

01:00:33.990 --> 01:00:36.188 Those are the foods that you know

NOTE Confidence: 0.8133884

01:00:36.188 --> 01:00:38.568 we're built to love for some reason,

NOTE Confidence: 0.8133884

 $01:00:38.570 \longrightarrow 01:00:39.710$  but I want to.

NOTE Confidence: 0.8133884

01:00:39.710 --> 01:00:42.225 I want to see my patients shift over

NOTE Confidence: 0.8133884

 $01:00:42.225 \longrightarrow 01:00:44.773$  to more Omega threes in their diet.

NOTE Confidence: 0.8577367

 $01:00:47.120 \longrightarrow 01:00:49.016$  So myth is this a myth.

01:00:49.020 --> 01:00:51.239 I don't know if it's a myth,

NOTE Confidence: 0.8577367

 $01{:}00{:}51.240 \dashrightarrow 01{:}00{:}53.648$  and I think we're still discovering it and

NOTE Confidence: 0.8577367

01:00:53.648 --> 01:00:55.997 trying to understand it in the science,

NOTE Confidence: 0.8577367

 $01:00:56.000 \longrightarrow 01:00:58.528$  but the myth is that cancer loves sugar.

NOTE Confidence: 0.8577367

01:00:58.530 --> 01:01:00.276 Again, I don't know if the

NOTE Confidence: 0.8577367

01:01:00.276 --> 01:01:01.849 claim is that cancer consumes

NOTE Confidence: 0.8577367

01:01:01.849 --> 01:01:03.919 sugar quickly to help it grow,

NOTE Confidence: 0.8577367

 $01:01:03.920 \longrightarrow 01:01:05.906$  and what I really recommend for

NOTE Confidence: 0.8577367

 $01{:}05.906 \dashrightarrow 01{:}01{:}08.451$  people is that you consider the type

NOTE Confidence: 0.8577367

01:01:08.451 --> 01:01:10.749 of sugar that you're consuming OK?

NOTE Confidence: 0.8577367

 $01:01:10.750 \longrightarrow 01:01:12.300$  If this is added sugar.

NOTE Confidence: 0.8577367

 $01:01:12.300 \longrightarrow 01:01:15.546$  If this is highly refined sugar.

NOTE Confidence: 0.8577367

01:01:15.550 --> 01:01:16.898 Versus sugar that's coming

NOTE Confidence: 0.8577367

 $01{:}01{:}16.898 \dashrightarrow 01{:}01{:}18.246$  from fruits and vegetables.

NOTE Confidence: 0.8577367

 $01:01:18.250 \longrightarrow 01:01:20.954$  I say stick to the fruits and vegetables.

NOTE Confidence: 0.8577367

01:01:20.960 --> 01:01:23.368 I just don't want you to be see

01:01:23.368 --> 01:01:25.816 decieved when you see cane sugar on

NOTE Confidence: 0.8577367

 $01{:}01{:}25.816 \to 01{:}01{:}28.060$  something that's still an added sugar.

NOTE Confidence: 0.8577367

 $01:01:28.060 \longrightarrow 01:01:29.384$  That's still refined sugar.

NOTE Confidence: 0.8577367

01:01:29.384 --> 01:01:32.109 Even though it sounds like it's plant based.

NOTE Confidence: 0.8577367

 $01:01:32.110 \longrightarrow 01:01:34.132$  So keep the fruits and vegetables

NOTE Confidence: 0.8577367

 $01:01:34.132 \longrightarrow 01:01:35.143$  in your diet.

NOTE Confidence: 0.8577367

 $01:01:35.150 \longrightarrow 01:01:37.088$  But really try to remove those

NOTE Confidence: 0.8577367

 $01:01:37.088 \longrightarrow 01:01:39.209$  processed foods with the added sugars.

NOTE Confidence: 0.8577367

 $01:01:39.210 \longrightarrow 01:01:41.738$  The other thing I want you to always

NOTE Confidence: 0.8577367

 $01:01:41.738 \longrightarrow 01:01:44.276$  consider is the glycemic index of foods.

NOTE Confidence: 0.8577367

 $01:01:44.280 \longrightarrow 01:01:46.136$  So certain foods are.

NOTE Confidence: 0.8577367

 $01:01:46.136 \longrightarrow 01:01:48.920$  Absorbed differently in the body so.

NOTE Confidence: 0.8577367

 $01:01:48.920 \longrightarrow 01:01:50.256$  White potatoes, for example,

NOTE Confidence: 0.8577367

 $01:01:50.256 \longrightarrow 01:01:52.260$  have a very high glycemic index.

NOTE Confidence: 0.8577367

01:01:52.260 --> 01:01:55.200 Our body absorbs that sugar very quickly.

01:01:55.200 --> 01:01:56.364 Sweet potatoes surprisingly

NOTE Confidence: 0.8577367

01:01:56.364 --> 01:01:58.692 actually have a low glycemic index,

NOTE Confidence: 0.8577367

 $01:01:58.700 \longrightarrow 01:02:01.268$  meaning that the body absorbs it

NOTE Confidence: 0.8577367

 $01:02:01.268 \longrightarrow 01:02:04.259$  slowly and can handle it differently.

NOTE Confidence: 0.8577367

01:02:04.260 --> 01:02:06.618 I'm not going to dive too deep into it,

NOTE Confidence: 0.8577367

01:02:06.620 --> 01:02:07.930 but it's worth looking into

NOTE Confidence: 0.8577367

 $01:02:07.930 \longrightarrow 01:02:09.240$  the glycemic index of foods.

NOTE Confidence: 0.877630972727273

 $01:02:11.760 \longrightarrow 01:02:13.024$  So the next man.

NOTE Confidence: 0.877630972727273

01:02:13.024 --> 01:02:15.570 If it says it's healthy and natural,

NOTE Confidence: 0.877630972727273

01:02:15.570 --> 01:02:17.424 it's good for you, and that's

NOTE Confidence: 0.877630972727273

 $01{:}02{:}17.424 \dashrightarrow 01{:}02{:}19.010$  just not necessarily the case.

NOTE Confidence: 0.877630972727273

01:02:19.010 --> 01:02:20.690 You know Doctor Boyd did such a

NOTE Confidence: 0.877630972727273

 $01:02:20.690 \longrightarrow 01:02:22.750$  good job of describing supplements,

NOTE Confidence: 0.877630972727273

 $01:02:22.750 \longrightarrow 01:02:24.622$  and how they seem like they're

NOTE Confidence: 0.877630972727273

01:02:24.622 --> 01:02:26.180 natural and good for you,

NOTE Confidence: 0.877630972727273

 $01:02:26.180 \longrightarrow 01:02:28.428$  but how dangerous they can be and the

 $01:02:28.428 \longrightarrow 01:02:30.994$  two foods that I always see patients show

NOTE Confidence: 0.877630972727273

01:02:30.994 --> 01:02:33.668 up with saying they're eating a healthy diet,

NOTE Confidence: 0.877630972727273

 $01:02:33.670 \longrightarrow 01:02:34.918$  or granola and oatmeal.

NOTE Confidence: 0.877630972727273

 $01:02:34.918 \longrightarrow 01:02:36.166$  And so I just.

NOTE Confidence: 0.877630972727273

01:02:36.170 --> 01:02:37.730 This is an average granola,

NOTE Confidence: 0.877630972727273

01:02:37.730 --> 01:02:38.354 nutritional facts,

NOTE Confidence: 0.877630972727273

01:02:38.354 --> 01:02:39.290 pretty representative of

NOTE Confidence: 0.877630972727273

 $01:02:39.290 \longrightarrow 01:02:40.850$  most of what's out there,

NOTE Confidence: 0.877630972727273

 $01:02:40.850 \longrightarrow 01:02:43.786$  and if you can see, I know it's small.

NOTE Confidence: 0.877630972727273

 $01:02:43.786 \longrightarrow 01:02:46.619$  But this girl has 17 grams of sugar,

NOTE Confidence: 0.877630972727273

 $01:02:46.620 \longrightarrow 01:02:50.170$  so in this 2/3 of cup you're eating 1/3 of

NOTE Confidence: 0.877630972727273

 $01:02:50.257 \longrightarrow 01:02:53.806$  your recommended sugar intake for the day.

NOTE Confidence: 0.877630972727273

 $01{:}02{:}53.810 \dashrightarrow 01{:}02{:}55.490$  Oatmeal flavored oatmeal packets.

NOTE Confidence: 0.877630972727273

 $01:02:55.490 \longrightarrow 01:02:58.010$  We think we're eating healthy because

NOTE Confidence: 0.877630972727273

 $01:02:58.073 \longrightarrow 01:02:59.789$  it says Apple flavored on it,

 $01:02:59.790 \longrightarrow 01:03:02.408$  but really, look at the nutrition facts.

NOTE Confidence: 0.877630972727273

 $01:03:02.410 \longrightarrow 01:03:04.280$  13 grams of sugar 200.

NOTE Confidence: 0.877630972727273

 $01:03:04.280 \longrightarrow 01:03:07.248$  I can't even see that 260 milligrams of

NOTE Confidence: 0.877630972727273

 $01{:}03{:}07.248 \to 01{:}03{:}10.267$  sodium so high in sodium high in sugar.

NOTE Confidence: 0.877630972727273

01:03:10.270 --> 01:03:13.254 So even though it sounds natural and healthy,

NOTE Confidence: 0.877630972727273

01:03:13.260 --> 01:03:15.521 you really want to get into the

NOTE Confidence: 0.877630972727273

 $01:03:15.521 \longrightarrow 01:03:17.370$  habit of reading ingredients.

NOTE Confidence: 0.863377

01:03:20.360 --> 01:03:22.292 Myth I need to get my

NOTE Confidence: 0.863377

 $01{:}03{:}22.292 \dashrightarrow 01{:}03{:}23.580$  vitamins from my supplements.

NOTE Confidence: 0.863377

01:03:23.580 --> 01:03:25.421 We just had two speakers do such

NOTE Confidence: 0.863377

 $01:03:25.421 \longrightarrow 01:03:27.292$  a wonderful job of describing and

NOTE Confidence: 0.863377

01:03:27.292 --> 01:03:28.992 explaining why this isn't necessary

NOTE Confidence: 0.863377

 $01:03:28.992 \longrightarrow 01:03:31.503$  and that myself and and more Harrigan

NOTE Confidence: 0.863377

01:03:31.503 --> 01:03:32.919 who's a registered dietitian,

NOTE Confidence: 0.863377

 $01:03:32.920 \longrightarrow 01:03:35.524$  wrote an article about the nine most

NOTE Confidence: 0.863377

 $01{:}03{:}35.524 \dashrightarrow 01{:}03{:}37.483$ essential vitamins need in your diet

01:03:37.483 --> 01:03:39.680 and how to get them into your diet,

NOTE Confidence: 0.863377

01:03:39.680 --> 01:03:41.927 how to find them in your food,

NOTE Confidence: 0.863377

 $01:03:41.930 \longrightarrow 01:03:44.804$  and so look up the article

NOTE Confidence: 0.863377

 $01:03:44.804 \longrightarrow 01:03:47.440$  and give it a read.

NOTE Confidence: 0.863377

 $01{:}03{:}47.440 \dashrightarrow 01{:}03{:}50.485$  But I know we're going to disagree.

NOTE Confidence: 0.863377

01:03:50.490 --> 01:03:52.290 I know certain patients are going

NOTE Confidence: 0.863377

 $01:03:52.290 \longrightarrow 01:03:54.163$  to feel strongly about taking their

NOTE Confidence: 0.863377

 $01{:}03{:}54.163 \dashrightarrow 01{:}03{:}55.693$  vitamins and and every patient

NOTE Confidence: 0.863377

 $01{:}03{:}55.693 \dashrightarrow 01{:}03{:}57.422$  should have a right to manage

NOTE Confidence: 0.863377

 $01:03:57.422 \longrightarrow 01:03:59.186$  their own care with the best of

NOTE Confidence: 0.863377

 $01:03:59.190 \longrightarrow 01:04:00.930$  advice that we can give them.

NOTE Confidence: 0.863377

 $01:04:00.930 \longrightarrow 01:04:02.820$  And So what in that and I have is

NOTE Confidence: 0.863377

 $01{:}04{:}02.820 \dashrightarrow 01{:}04{:}04.299$  we've created a supplements clinic

NOTE Confidence: 0.863377

 $01:04:04.299 \longrightarrow 01:04:06.862$  for patients to come in and really ask

NOTE Confidence: 0.863377

 $01:04:06.862 \longrightarrow 01:04:08.932$  about the vitamins and the supplements

 $01:04:08.932 \longrightarrow 01:04:11.080$  they're taking so we can deep dive.

NOTE Confidence: 0.863377

 $01:04:11.080 \longrightarrow 01:04:13.110$  We want to make sure they're safe.

NOTE Confidence: 0.863377

 $01:04:13.110 \longrightarrow 01:04:14.972$  We want to make sure they're not

NOTE Confidence: 0.863377

 $01:04:14.972 \longrightarrow 01:04:16.444$  interacting with your medications and

NOTE Confidence: 0.863377

01:04:16.444 --> 01:04:18.304 that you're getting the correct dosing

NOTE Confidence: 0.863377

 $01:04:18.304 \longrightarrow 01:04:20.556$  and that you're using a reputable source.

NOTE Confidence: 0.863377

 $01:04:20.560 \longrightarrow 01:04:22.582$  And we want you to consider

NOTE Confidence: 0.863377

01:04:22.582 --> 01:04:23.930 dietary sources for them,

NOTE Confidence: 0.863377

 $01:04:23.930 \longrightarrow 01:04:26.946$  because I think we all believe that that's

NOTE Confidence: 0.863377

 $01:04:26.946 \longrightarrow 01:04:29.848$  the best way to get your supplements.

NOTE Confidence: 0.863377

 $01{:}04{:}29.850 \dashrightarrow 01{:}04{:}32.405$  I'll just add this caveat because most

NOTE Confidence: 0.863377

 $01:04:32.405 \longrightarrow 01:04:34.879$  patients who come to see me hear this.

NOTE Confidence: 0.863377

 $01:04:34.880 \longrightarrow 01:04:37.280$  Most supplements are derived from diet.

NOTE Confidence: 0.863377

 $01:04:37.280 \longrightarrow 01:04:40.017$  At no point in this thousands of

NOTE Confidence: 0.863377

01:04:40.017 --> 01:04:42.471 years of tradition that made healthy

NOTE Confidence: 0.863377

 $01:04:42.471 \longrightarrow 01:04:44.865$  diets was this ever intended to

 $01:04:44.865 \longrightarrow 01:04:46.880$  be in a veggie capsule?

NOTE Confidence: 0.863377

01:04:46.880 --> 01:04:49.800 So I really want you to think about

NOTE Confidence: 0.863377

 $01:04:49.800 \longrightarrow 01:04:52.477$  getting these supplements in your food.

NOTE Confidence: 0.881689

 $01:04:55.360 \longrightarrow 01:04:57.960$  Here's another myth that might surprise you.

NOTE Confidence: 0.881689

 $01:04:57.960 \longrightarrow 01:04:59.810$  Everything needs to be organic.

NOTE Confidence: 0.881689

 $01{:}04{:}59.810 \dashrightarrow 01{:}05{:}02.036$  Yes, organics really good for you.

NOTE Confidence: 0.881689

 $01:05:02.040 \longrightarrow 01:05:05.190$  And there was a study in France of 70,000

NOTE Confidence: 0.881689

 $01:05:05.190 \longrightarrow 01:05:08.424$  people and it seemed that those who are

NOTE Confidence: 0.881689

 $01:05:08.424 \longrightarrow 01:05:11.309$  consuming organic food had a much lower risk.

NOTE Confidence: 0.881689

 $01:05:11.310 \dashrightarrow 01:05:13.907$  Even 25% lower risk of developing cancer.

NOTE Confidence: 0.881689

 $01:05:13.910 \longrightarrow 01:05:16.022$  Now that being said, the way

NOTE Confidence: 0.881689

01:05:16.022 --> 01:05:18.359 marketing is designed in this country,

NOTE Confidence: 0.881689

 $01{:}05{:}18.360 \dashrightarrow 01{:}05{:}20.215$  you have to consider what

NOTE Confidence: 0.881689

 $01:05:20.215 \longrightarrow 01:05:21.328$  organic really means.

NOTE Confidence: 0.881689

01:05:21.330 --> 01:05:23.628 And organic doesn't always mean healthy.

 $01:05:23.630 \longrightarrow 01:05:26.017$  And I put Kraft macaroni cheese up

NOTE Confidence: 0.881689

 $01:05:26.017 \longrightarrow 01:05:28.278$  here because it might be organic,

NOTE Confidence: 0.881689

 $01:05:28.280 \longrightarrow 01:05:30.428$  but that's not what I want.

NOTE Confidence: 0.881689

 $01:05:30.430 \longrightarrow 01:05:32.220$  You eating in your diet.

NOTE Confidence: 0.881689

01:05:32.220 --> 01:05:34.368 I'd rather you eat a conventionally

NOTE Confidence: 0.881689

 $01:05:34.368 \longrightarrow 01:05:35.800$  grown apple than organic.

NOTE Confidence: 0.881689

 $01:05:35.800 \longrightarrow 01:05:37.268$  Kraft macaroni and cheese.

NOTE Confidence: 0.881689

01:05:37.268 --> 01:05:40.220 But try to buy organic when you can

NOTE Confidence: 0.881689

 $01:05:40.220 \longrightarrow 01:05:42.600$  and buy local buy seasonal buy fresh.

NOTE Confidence: 0.881689

 $01:05:42.600 \longrightarrow 01:05:44.496$  Keep in mind that getting the

NOTE Confidence: 0.881689

 $01{:}05{:}44.496 \dashrightarrow 01{:}05{:}46.251$  organic label is really quite

NOTE Confidence: 0.881689

01:05:46.251 --> 01:05:47.967 expensive for certain farmers,

NOTE Confidence: 0.881689

01:05:47.970 --> 01:05:50.118 and they may be practicing organic,

NOTE Confidence: 0.881689

 $01:05:50.120 \longrightarrow 01:05:52.570$  but they may not be able to

NOTE Confidence: 0.881689

 $01:05:52.570 \longrightarrow 01:05:54.170$  afford the actual label.

NOTE Confidence: 0.881689

 $01:05:54.170 \longrightarrow 01:05:55.360$  So talk to your farmers.

 $01:05:55.360 \longrightarrow 01:05:56.540$  Go to your farmers markets

NOTE Confidence: 0.881689

 $01:05:56.540 \longrightarrow 01:05:57.484$  and interact with them.

NOTE Confidence: 0.85203516

 $01:06:00.600 \longrightarrow 01:06:03.272$  The next myth is alkaline water or even

NOTE Confidence: 0.85203516

01:06:03.272 --> 01:06:05.580 alkaline food will help prevent cancer,

NOTE Confidence: 0.85203516

 $01:06:05.580 \longrightarrow 01:06:07.788$  and so the claim is that cancer thrives

NOTE Confidence: 0.85203516

01:06:07.788 --> 01:06:10.120 in more acidic environments and drinking

NOTE Confidence: 0.85203516

 $01:06:10.120 \longrightarrow 01:06:12.694$  alkaline water or eating alkaline foods.

NOTE Confidence: 0.85203516

01:06:12.700 --> 01:06:14.836 Foods will help prevent that right.

NOTE Confidence: 0.85203516

 $01:06:14.840 \longrightarrow 01:06:16.620$  Keeping that acid base balance,

NOTE Confidence: 0.85203516

 $01:06:16.620 \longrightarrow 01:06:19.105$  there's really no evidence to support that.

NOTE Confidence: 0.85203516

 $01:06:19.110 \longrightarrow 01:06:21.138$  The use of alkaline water foods

NOTE Confidence: 0.85203516

 $01:06:21.138 \longrightarrow 01:06:23.030$  is going to prevent cancer,

NOTE Confidence: 0.85203516

 $01:06:23.030 \longrightarrow 01:06:25.438$  and most of the research claims that

NOTE Confidence: 0.85203516

 $01:06:25.438 \longrightarrow 01:06:27.621$  are quoted really happened in a

NOTE Confidence: 0.85203516

 $01:06:27.621 \longrightarrow 01:06:29.787$  laboratory setting and not in humans.

 $01:06:29.790 \longrightarrow 01:06:31.690$  So in Petri dishes, or.

NOTE Confidence: 0.85203516

 $01:06:31.690 \longrightarrow 01:06:34.266$  Even maybe in animals, but never in humans.

NOTE Confidence: 0.85203516

 $01:06:34.270 \longrightarrow 01:06:35.922$  It's never been shown.

NOTE Confidence: 0.85203516

 $01:06:35.922 \longrightarrow 01:06:38.400$  The fact of the matter is,

NOTE Confidence: 0.85203516

01:06:38.400 --> 01:06:40.030 is that our human Physiology,

NOTE Confidence: 0.85203516

01:06:40.030 --> 01:06:41.980 our liver or kidneys, or lungs,

NOTE Confidence: 0.85203516

01:06:41.980 --> 01:06:43.610 are really good at maintaining

NOTE Confidence: 0.85203516

01:06:43.610 --> 01:06:44.914 an acid base balance,

NOTE Confidence: 0.85203516

 $01:06:44.920 \longrightarrow 01:06:47.202$  and so by the time you absorb

NOTE Confidence: 0.85203516

 $01:06:47.202 \longrightarrow 01:06:48.180$  that alkaline water,

NOTE Confidence: 0.85203516

 $01:06:48.180 \longrightarrow 01:06:50.880$  your body is already readjusted.

NOTE Confidence: 0.85203516

 $01:06:50.880 \longrightarrow 01:06:53.169$  It's important to also know that excessive

NOTE Confidence: 0.85203516

 $01:06:53.169 \longrightarrow 01:06:55.818$  intake of it can have some side effects,

NOTE Confidence: 0.85203516

 $01:06:55.820 \longrightarrow 01:06:57.656$  so alkaline likes to leach calcium

NOTE Confidence: 0.85203516

 $01:06:57.656 \longrightarrow 01:07:00.333$  and it can do so from the bone

NOTE Confidence: 0.85203516

 $01{:}07{:}00.333 \dashrightarrow 01{:}07{:}02.068$  and possibly create bone issues.

 $01{:}07{:}05.190 \dashrightarrow 01{:}07{:}08.349$  OK, so this is the worst news of all.

NOTE Confidence: 0.8916819

 $01{:}07{:}08.350 \dashrightarrow 01{:}07{:}11.455$  Is the myth that drinking wine is is good

NOTE Confidence: 0.8916819

 $01:07:11.455 \longrightarrow 01:07:15.018$  for me and the truth is it's it's really not.

NOTE Confidence: 0.8916819

 $01:07:15.020 \longrightarrow 01:07:17.379$  The thought is that red wine contains

NOTE Confidence: 0.8916819

 $01:07:17.379 \longrightarrow 01:07:19.542$  high levels of resveratrol which is

NOTE Confidence: 0.8916819

 $01{:}07{:}19.542 \dashrightarrow 01{:}07{:}22.040$  good for the body, and that's true

NOTE Confidence: 0.8916819

01:07:22.040 --> 01:07:23.790 with respect to cardiovascular health,

NOTE Confidence: 0.8916819

 $01:07:23.790 \longrightarrow 01:07:25.545$  but hasn't really been shown

NOTE Confidence: 0.8916819

 $01:07:25.545 \longrightarrow 01:07:26.598$  for cancer outcomes.

NOTE Confidence: 0.8916819

01:07:26.600 --> 01:07:29.120 In fact, can't alcohol intake may

NOTE Confidence: 0.8916819

 $01:07:29.120 \longrightarrow 01:07:31.400$  increase your risk for cancer?

NOTE Confidence: 0.8916819

 $01:07:31.400 \longrightarrow 01:07:33.152$  So if you're interested

NOTE Confidence: 0.8916819

01:07:33.152 --> 01:07:34.466 in getting resveratrol.

NOTE Confidence: 0.8916819

 $01:07:34.470 \longrightarrow 01:07:36.210$  There's other great sources for

NOTE Confidence: 0.8916819

01:07:36.210 --> 01:07:38.359 grapes in their natural form before

 $01:07:38.359 \longrightarrow 01:07:40.099$  they were allowed to ferment.

NOTE Confidence: 0.8916819

01:07:40.100 --> 01:07:40.436 Blueberries,

NOTE Confidence: 0.8916819

01:07:40.436 --> 01:07:42.788 and even Coco now is drinking because

NOTE Confidence: 0.8916819

01:07:42.788 --> 01:07:44.609 it's really tough to completely

NOTE Confidence: 0.8916819

 $01:07:44.609 \longrightarrow 01:07:46.434$  eliminate drinking from your diet.

NOTE Confidence: 0.8916819

 $01:07:46.440 \longrightarrow 01:07:48.275$  The recommendations that I would

NOTE Confidence: 0.8916819

 $01:07:48.275 \longrightarrow 01:07:50.474$  make our thinking about drinking red

NOTE Confidence: 0.8916819

 $01:07:50.474 \longrightarrow 01:07:52.304$  wine over white wine because red

NOTE Confidence: 0.8916819

 $01{:}07{:}52.304 \dashrightarrow 01{:}07{:}54.180$  wine does contain more espiritual.

NOTE Confidence: 0.8916819

 $01:07:54.180 \longrightarrow 01:07:56.292$  Be mindful of of the vineyard

NOTE Confidence: 0.8916819

01:07:56.292 --> 01:07:57.700 that you're buying from,

NOTE Confidence: 0.8916819

 $01:07:57.700 \longrightarrow 01:08:00.455$  so think about the practices

NOTE Confidence: 0.8916819

 $01:08:00.455 \longrightarrow 01:08:03.210$  and the location of vineyard.

NOTE Confidence: 0.8916819

 $01:08:03.210 \longrightarrow 01:08:04.992$  And then really try to limit

NOTE Confidence: 0.8916819

 $01:08:04.992 \longrightarrow 01:08:06.790$  your intake to about 5 ounces.

NOTE Confidence: 0.795402

 $01:08:11.070 \longrightarrow 01:08:15.649$  So another myth is that soy is bad for you.

01:08:15.650 --> 01:08:16.922 And the theory is,

NOTE Confidence: 0.795402

 $01{:}08{:}16.922 \dashrightarrow 01{:}08{:}18.512$  and this is particularly with

NOTE Confidence: 0.795402

 $01{:}08{:}18.512 \dashrightarrow 01{:}08{:}19.899$  estrogen sensitive cancers.

NOTE Confidence: 0.795402

01:08:19.900 --> 01:08:22.724 Is that soy may mimic or block estrogens.

NOTE Confidence: 0.795402

 $01:08:22.730 \longrightarrow 01:08:24.884$  But in large population studies where

NOTE Confidence: 0.795402

 $01:08:24.884 \longrightarrow 01:08:26.979$  they take large groups of people,

NOTE Confidence: 0.795402

 $01:08:26.980 \longrightarrow 01:08:29.144$  they've actually shown no

NOTE Confidence: 0.795402

 $01{:}08{:}29.144 \dashrightarrow 01{:}08{:}31.849$  increased risk and potential for.

NOTE Confidence: 0.795402

 $01:08:31.850 \longrightarrow 01:08:36.150$  Differential potential for greater survival.

NOTE Confidence: 0.795402

 $01:08:36.150 \longrightarrow 01:08:38.298$  It's a great source of fiber.

NOTE Confidence: 0.795402

01:08:38.300 --> 01:08:40.460 It's a great source of protein,

NOTE Confidence: 0.795402

 $01:08:40.460 \longrightarrow 01:08:42.956$  and it's a great source of what we

NOTE Confidence: 0.795402

 $01{:}08{:}42.956 \dashrightarrow 01{:}08{:}44.826$  call phyto chemicals or chemicals

NOTE Confidence: 0.795402

 $01:08:44.826 \longrightarrow 01:08:47.160$  that come from plants back to

NOTE Confidence: 0.795402

 $01:08:47.160 \longrightarrow 01:08:49.427$  the point I was making before.

 $01:08:49.430 \longrightarrow 01:08:49.941$  Isoflavones,

NOTE Confidence: 0.795402

 $01:08:49.941 \longrightarrow 01:08:53.518$  which are really one of the most

NOTE Confidence: 0.795402

 $01:08:53.518 \longrightarrow 01:08:55.285$  wonderful phytochemical and soy

NOTE Confidence: 0.795402

 $01:08:55.285 \longrightarrow 01:08:57.283$  contain or have present more in

NOTE Confidence: 0.795402

 $01:08:57.283 \longrightarrow 01:08:59.659$  me so than they are in tofu.

NOTE Confidence: 0.795402

01:08:59.660 --> 01:09:02.148 And so if I didn't give you reassurance,

NOTE Confidence: 0.795402

01:09:02.150 --> 01:09:03.885 the American Institute of Cancer

NOTE Confidence: 0.795402

01:09:03.885 --> 01:09:06.223 Research as a whole list of foods

NOTE Confidence: 0.795402

 $01{:}09{:}06.223 \dashrightarrow 01{:}09{:}08.367$  that fight cancer and soy is on it.

NOTE Confidence: 0.795402

 $01:09:08.370 \longrightarrow 01:09:10.644$  So modern amount of whole soy

NOTE Confidence: 0.795402

 $01{:}09{:}10.644 \dashrightarrow 01{:}09{:}13.220$  foods wanted two servings a days is

NOTE Confidence: 0.795402

 $01:09:13.220 \longrightarrow 01:09:15.194$  safe and it's likely helpful too.

NOTE Confidence: 0.795402

01:09:15.200 --> 01:09:15.600 Again,

NOTE Confidence: 0.795402

01:09:15.600 --> 01:09:18.400 thinking about where you're getting your soy,

NOTE Confidence: 0.795402

 $01:09:18.400 \longrightarrow 01:09:19.600$  not soy patties.

NOTE Confidence: 0.8262261

 $01:09:22.640 \longrightarrow 01:09:24.020$  So there's a thought that

 $01:09:24.020 \longrightarrow 01:09:25.400$  raw food might be better,

NOTE Confidence: 0.8262261

 $01:09:25.400 \longrightarrow 01:09:27.272$  and the claim is that cooking

NOTE Confidence: 0.8262261

 $01:09:27.272 \longrightarrow 01:09:29.050$  destroys in these vital enzymes.

NOTE Confidence: 0.8262261

 $01:09:29.050 \longrightarrow 01:09:31.325$  And the truth is, is that some

NOTE Confidence: 0.8262261

01:09:31.325 --> 01:09:32.860 food actually requires cooking?

NOTE Confidence: 0.8262261

 $01:09:32.860 \longrightarrow 01:09:35.100$  Therese Vital chemicals, so one of the

NOTE Confidence: 0.8262261

 $01:09:35.100 \longrightarrow 01:09:37.349$  best examples is lycopene in tomatoes.

NOTE Confidence: 0.8262261

 $01:09:37.350 \longrightarrow 01:09:39.772$  Cooking your tomatoes is going to release

NOTE Confidence: 0.8262261

01:09:39.772 --> 01:09:41.504 lycopene, which has been associated

NOTE Confidence: 0.8262261

 $01:09:41.504 \longrightarrow 01:09:42.888$  with decreased prostate cancer,

NOTE Confidence: 0.8262261

 $01:09:42.890 \longrightarrow 01:09:43.898$  carotenoids, and carrots.

NOTE Confidence: 0.8262261

01:09:43.898 --> 01:09:45.914 You need to cook the carrots

NOTE Confidence: 0.8262261

 $01:09:45.914 \longrightarrow 01:09:47.729$  to get the carotenoids out.

NOTE Confidence: 0.8262261

 $01:09:47.730 \longrightarrow 01:09:49.460$  Some food also has toxins.

NOTE Confidence: 0.8262261

 $01:09:49.460 \longrightarrow 01:09:50.558$  If uncooked now,

 $01{:}09{:}50.558 \dashrightarrow 01{:}09{:}52.388$  I've never really recommend button

NOTE Confidence: 0.8262261

 $01:09:52.388 \longrightarrow 01:09:54.696$  mushrooms to my patients because I don't

NOTE Confidence: 0.8262261

 $01:09:54.696 \longrightarrow 01:09:56.730$  think they have that much benefit.

NOTE Confidence: 0.8262261

 $01:09:56.730 \longrightarrow 01:09:58.162$  But all mushrooms have

NOTE Confidence: 0.8262261

 $01:09:58.162 \longrightarrow 01:10:00.310$  carcinogens in them if they are.

NOTE Confidence: 0.8262261

 $01:10:00.310 \longrightarrow 01:10:02.417$  Uncooked so look out for the mitaki.

NOTE Confidence: 0.8262261

 $01:10:02.420 \longrightarrow 01:10:03.950$  This should Taki those cooked

NOTE Confidence: 0.8262261

 $01{:}10{:}03.950 \dashrightarrow 01{:}10{:}05.818$  Asian mushrooms was have a lot

NOTE Confidence: 0.8262261

01:10:05.818 --> 01:10:07.228 of great properties to him,

NOTE Confidence: 0.8262261

 $01:10:07.230 \longrightarrow 01:10:08.946$  a lot of great benefits to

NOTE Confidence: 0.8262261

 $01{:}10{:}08.946 \dashrightarrow 01{:}10{:}10.783$  them and and start cooking them

NOTE Confidence: 0.8262261

 $01:10:10.783 \longrightarrow 01:10:12.643$  in stews and in your diet.

NOTE Confidence: 0.84284997

01:10:15.370 --> 01:10:18.530 The next myth is that you can't cook,

NOTE Confidence: 0.84284997

 $01:10:18.530 \longrightarrow 01:10:20.636$  and so these are some really

NOTE Confidence: 0.84284997

 $01:10:20.636 \longrightarrow 01:10:22.880$  nice books that I recommend.

NOTE Confidence: 0.84284997

 $01:10:22.880 \longrightarrow 01:10:24.496$  The anti inflammatory Family

 $01{:}10{:}24.496 \dashrightarrow 01{:}10{:}26.516$  Cookbook is really focused on

NOTE Confidence: 0.84284997

01:10:26.516 --> 01:10:28.010 children and family dyett,

NOTE Confidence: 0.84284997

01:10:28.010 --> 01:10:30.775 the one pot vegetarian. I really like.

NOTE Confidence: 0.84284997

 $01{:}10{:}30.780 \dashrightarrow 01{:}10{:}32.216$  It's plant based cookbook.

NOTE Confidence: 0.84284997

 $01{:}10{:}32.216 \dashrightarrow 01{:}10{:}35.910$  It has a lot of very easy basic recipes.

NOTE Confidence: 0.84284997

01:10:35.910 --> 01:10:38.280 Anything by Rebecca Katz over here.

NOTE Confidence: 0.84284997

01:10:38.280 --> 01:10:41.080 She's written a number of really good books

NOTE Confidence: 0.84284997

 $01:10:41.080 \longrightarrow 01:10:44.287$  and I think the cancer fighting kitchen.

NOTE Confidence: 0.84284997

 $01:10:44.290 \longrightarrow 01:10:47.678$  This is one of the best ones.

NOTE Confidence: 0.84284997

 $01:10:47.680 \longrightarrow 01:10:49.738$  And then fast food good food by

NOTE Confidence: 0.84284997

01:10:49.738 --> 01:10:51.767 Andrew Weil who's one of my mentors?

NOTE Confidence: 0.9217448

 $01:10:54.240 \longrightarrow 01:10:55.932$  Now we're getting to the end

NOTE Confidence: 0.9217448

 $01{:}10{:}55.932 \dashrightarrow 01{:}10{:}58.248$  and I want you to remember that.

NOTE Confidence: 0.9217448

 $01:10:58.250 \longrightarrow 01:10:59.420$  Diet isn't everything.

NOTE Confidence: 0.9217448

 $01:10:59.420 \longrightarrow 01:11:02.150$  OK, there's so much more to your

01:11:02.223 --> 01:11:04.989 survivorship that you need to consider,

NOTE Confidence: 0.9217448

 $01:11:04.990 \longrightarrow 01:11:08.122$  and you need to nurture and take care of.

NOTE Confidence: 0.9217448

01:11:08.130 --> 01:11:10.559 You have to think about physical activity,

NOTE Confidence: 0.9217448

01:11:10.560 --> 01:11:11.601 your psychological health,

NOTE Confidence: 0.9217448

 $01:11:11.601 \longrightarrow 01:11:13.683$  and well being your spiritual health.

NOTE Confidence: 0.9217448

01:11:13.690 --> 01:11:15.778 We don't talk about this enough,

NOTE Confidence: 0.9217448

 $01{:}11{:}15.780 \dashrightarrow 01{:}11{:}17.915$  and medicine is the need for spiritual

NOTE Confidence: 0.9217448

01:11:17.915 --> 01:11:19.960 fulfillment in the survivorship period.

NOTE Confidence: 0.9217448

 $01:11:19.960 \longrightarrow 01:11:21.370$  Mind, body activities,

NOTE Confidence: 0.9217448

 $01:11:21.370 \longrightarrow 01:11:23.720$  and then just remembering things

NOTE Confidence: 0.9217448

 $01{:}11{:}23.720 \dashrightarrow 01{:}11{:}26.129$  are well beyond our control.

NOTE Confidence: 0.9217448

 $01:11:26.130 \longrightarrow 01:11:27.990$  And the final myth is that

NOTE Confidence: 0.9217448

 $01:11:27.990 \longrightarrow 01:11:30.100$  you should go at this alone.

NOTE Confidence: 0.9217448

 $01:11:30.100 \longrightarrow 01:11:32.732$  We have a number of really good resources

NOTE Confidence: 0.9217448

01:11:32.732 --> 01:11:34.244 through survivorship and through

NOTE Confidence: 0.9217448

01:11:34.244 --> 01:11:35.836 the integrative medicine program,

 $01:11:35.840 \longrightarrow 01:11:39.080$  and we're here to support you and help you.

NOTE Confidence: 0.9217448

 $01{:}11{:}39.080 \dashrightarrow 01{:}11{:}41.624$  An no question is too small and anything

NOTE Confidence: 0.9217448

 $01:11:41.624 \longrightarrow 01:11:43.740$  that you're curious about deserves.

NOTE Confidence: 0.9217448

 $01:11:43.740 \longrightarrow 01:11:44.456$  You know,

NOTE Confidence: 0.9217448

 $01:11:44.456 \longrightarrow 01:11:46.962$  respect and the thoughtfulness to answer it.

NOTE Confidence: 0.9217448

 $01:11:46.970 \longrightarrow 01:11:48.770$  So thank you so much.

NOTE Confidence: 0.9217448

01:11:48.770 --> 01:11:51.786 It was an honor to get to speak

NOTE Confidence: 0.9217448

 $01{:}11{:}51.786 \dashrightarrow 01{:}11{:}53.971$  with Doctor Boyden with Annette

NOTE Confidence: 0.9217448

 $01:11:53.971 \longrightarrow 01:11:56.659$  and I look forward to any.

NOTE Confidence: 0.9217448

01:11:56.660 --> 01:11:57.880 Questions you guys have.

NOTE Confidence: 0.88137466

01:12:00.200 --> 01:12:02.092 Thank you Doctor Software that

NOTE Confidence: 0.88137466

 $01{:}12{:}02.092 \dashrightarrow 01{:}12{:}04.360$  was wonderful and your your talk

NOTE Confidence: 0.88137466

01:12:04.427 --> 01:12:06.611 actually answered quite a few questions

NOTE Confidence: 0.88137466

 $01:12:06.611 \longrightarrow 01:12:09.270$  that came up in our chat already,

NOTE Confidence: 0.88137466

 $01:12:09.270 \longrightarrow 01:12:11.916$  so but I will go through them.

 $01:12:11.920 \longrightarrow 01:12:13.432$  We have a few.

NOTE Confidence: 0.88137466

 $01:12:13.432 \longrightarrow 01:12:15.700$  Thank you everybody for sticking around.

NOTE Confidence: 0.88137466

01:12:15.700 --> 01:12:19.576 I know we're moving along here.

NOTE Confidence: 0.88137466

 $01:12:19.580 \longrightarrow 01:12:22.990$  So let's start out with.

NOTE Confidence: 0.88137466

01:12:22.990 --> 01:12:24.774 Somebody was wondering about

NOTE Confidence: 0.88137466

 $01:12:24.774 \longrightarrow 01:12:27.004$  the use of essentialoils for

NOTE Confidence: 0.88137466

01:12:27.004 --> 01:12:29.258 side effects of chemotherapy.

NOTE Confidence: 0.88137466

01:12:29.260 --> 01:12:31.180 Any knowledge on that?

NOTE Confidence: 0.88137466

 $01:12:31.180 \longrightarrow 01:12:32.140$  Anybody on

NOTE Confidence: 0.85145545

 $01:12:32.140 \longrightarrow 01:12:33.580$  this panel? There

NOTE Confidence: 0.87701765625

 $01:12:33.580 \longrightarrow 01:12:36.924$  is one. And I think it's a really

NOTE Confidence: 0.87701765625

 $01:12:36.924 \longrightarrow 01:12:39.930$  important example of the law of

NOTE Confidence: 0.87701765625

 $01:12:39.930 \longrightarrow 01:12:41.746$  unintended consequences, and I've

NOTE Confidence: 0.87701765625

 $01:12:41.746 \longrightarrow 01:12:44.074$  talked about other things about this.

NOTE Confidence: 0.87701765625

 $01:12:44.080 \longrightarrow 01:12:47.755$  A group of researchers from the Netherlands.

NOTE Confidence: 0.87701765625

 $01:12:47.760 \longrightarrow 01:12:50.802$  Looked at the use of high

01:12:50.802 --> 01:12:53.560 levels of omega-3 fatty acids.

NOTE Confidence: 0.87701765625

 $01:12:53.560 \longrightarrow 01:12:56.176$  In the presence of certain chemotherapy,

NOTE Confidence: 0.87701765625

01:12:56.180 --> 01:12:57.924 particularly platinum based chemotherapy.

NOTE Confidence: 0.87701765625

 $01:12:57.924 \longrightarrow 01:13:00.540$  Now when you consume omega-3 fats,

NOTE Confidence: 0.87701765625

 $01:13:00.540 \longrightarrow 01:13:02.118$  they get incorporated.

NOTE Confidence: 0.87701765625

01:13:02.118 --> 01:13:04.222 These oils get incorporated

NOTE Confidence: 0.87701765625

 $01:13:04.222 \longrightarrow 01:13:05.800$  into basement membranes.

NOTE Confidence: 0.87701765625

 $01:13:05.800 \longrightarrow 01:13:07.590$  And what they found was

NOTE Confidence: 0.87701765625

01:13:07.590 --> 01:13:09.380 not only in the tumor,

NOTE Confidence: 0.87701765625

 $01:13:09.380 \longrightarrow 01:13:11.345$  but in the tumor microenvironment

NOTE Confidence: 0.87701765625

 $01:13:11.345 \longrightarrow 01:13:13.310$  cells and what they found

NOTE Confidence: 0.87701765625

 $01:13:13.378 \longrightarrow 01:13:15.106$  was that when you do that,

NOTE Confidence: 0.87701765625

 $01{:}13{:}15.110 \dashrightarrow 01{:}13{:}16.895$  and you treat with platinum

NOTE Confidence: 0.87701765625

01:13:16.895 --> 01:13:17.609 based chemotherapy,

NOTE Confidence: 0.87701765625

 $01:13:17.610 \longrightarrow 01:13:19.308$  it cleaves a molecule from the

 $01:13:19.308 \longrightarrow 01:13:21.449$  omega-3 in the in themselves in

NOTE Confidence: 0.87701765625

 $01{:}13{:}21.449 \dashrightarrow 01{:}13{:}23.337$  the environment micro environment,

NOTE Confidence: 0.87701765625

 $01:13:23.340 \longrightarrow 01:13:24.772$  and it inhibits chemotherapy.

NOTE Confidence: 0.87701765625

01:13:24.772 --> 01:13:26.204 Response is pretty consistent,

NOTE Confidence: 0.87701765625

01:13:26.210 --> 01:13:29.066 and then they analyze the levels of omega-3,

NOTE Confidence: 0.87701765625

01:13:29.070 --> 01:13:31.870 so they caution this was in JAMA Oncology

NOTE Confidence: 0.87701765625

 $01:13:31.870 \longrightarrow 01:13:34.536$  two years ago and there were several

NOTE Confidence: 0.87701765625

 $01:13:34.536 \longrightarrow 01:13:36.840$  articles that have looked at this.

NOTE Confidence: 0.87701765625

 $01:13:36.840 \longrightarrow 01:13:38.116$  And the argument being,

NOTE Confidence: 0.87701765625

01:13:38.116 --> 01:13:40.880 if you're on a platinum based chemotherapy,

NOTE Confidence: 0.87701765625

 $01:13:40.880 \longrightarrow 01:13:42.715$  be careful about high levels

NOTE Confidence: 0.87701765625

 $01:13:42.715 \longrightarrow 01:13:44.550$  of omega-3 around that time.

NOTE Confidence: 0.87701765625

 $01:13:44.550 \longrightarrow 01:13:46.210$  Everybody raises their eyebrows

NOTE Confidence: 0.87701765625

 $01:13:46.210 \longrightarrow 01:13:47.870$  because everybody assumes that

NOTE Confidence: 0.87701765625

 $01:13:47.870 \longrightarrow 01:13:49.690$  will make it for you safe.

NOTE Confidence: 0.87701765625

 $01:13:49.690 \longrightarrow 01:13:51.520$  But this is another example.

 $01:13:51.520 \longrightarrow 01:13:53.518$  There's more than we realize in

NOTE Confidence: 0.87701765625

 $01:13:53.518 \longrightarrow 01:13:55.560$  the biology of these nutrients.

NOTE Confidence: 0.87701765625

 $01:13:55.560 \longrightarrow 01:13:57.390$  When you take high levels,

NOTE Confidence: 0.87701765625

01:13:57.390 --> 01:13:59.525 you're incorporating those into the

NOTE Confidence: 0.87701765625

01:13:59.525 --> 01:14:02.103 cells and remember the vital study

NOTE Confidence: 0.87701765625

 $01:14:02.103 \longrightarrow 01:14:04.341$  showed no benefit for omega-3 and

NOTE Confidence: 0.87701765625

 $01:14:04.341 \longrightarrow 01:14:06.469$  either cancer or heart disease.

NOTE Confidence: 0.87701765625

 $01:14:06.470 \longrightarrow 01:14:09.430$  Right, so this is still a huge assumption.

NOTE Confidence: 0.87701765625

01:14:09.430 --> 01:14:11.280 Even survivorship and use of

NOTE Confidence: 0.87701765625

 $01:14:11.280 \longrightarrow 01:14:13.130$  Omega threes to prevent cancer.

NOTE Confidence: 0.87701765625

01:14:13.130 --> 01:14:15.770 Weight loss has not been proven

NOTE Confidence: 0.87701765625

 $01:14:15.770 \longrightarrow 01:14:17.936$  to be correct. It is a.

NOTE Confidence: 0.87701765625

 $01:14:17.936 \longrightarrow 01:14:19.910$  It is one of those foods that

NOTE Confidence: 0.87701765625

01:14:19.992 --> 01:14:22.667 everybody assumes is really healthy.

NOTE Confidence: 0.87701765625

01:14:22.670 --> 01:14:24.998 Sorry I'm looking.

 $01:14:25.000 \longrightarrow 01:14:26.438$  Yet we the the evidence.

NOTE Confidence: 0.87701765625

01:14:26.438 --> 01:14:29.278 I think you just I tell my patients if

NOTE Confidence: 0.87701765625

 $01:14:29.278 \longrightarrow 01:14:31.504$  they're on a platinum based chemotherapy

NOTE Confidence: 0.87701765625

 $01:14:31.504 \longrightarrow 01:14:33.960$  for around the week that they're on.

NOTE Confidence: 0.87701765625

 $01:14:33.960 \longrightarrow 01:14:36.284$  It don't have high levels of omega-3.

NOTE Confidence: 0.87701765625

 $01{:}14{:}36.290 \dashrightarrow 01{:}14{:}38.607$  I mean 'cause we need to understand.

NOTE Confidence: 0.87701765625

 $01:14:38.610 \longrightarrow 01:14:40.046$  They are very adamant.

NOTE Confidence: 0.87701765625

01:14:40.046 --> 01:14:42.640 They recommended in the in the JAMA

NOTE Confidence: 0.87701765625

 $01:14:42.640 \longrightarrow 01:14:44.872$  article to be very careful about

NOTE Confidence: 0.87701765625

01:14:44.872 --> 01:14:47.483 taking it because we never recognize

NOTE Confidence: 0.87701765625

 $01{:}14{:}47.483 \dashrightarrow 01{:}14{:}49.379$  this potential adverse effect.

NOTE Confidence: 0.87701765625

 $01:14:49.380 \longrightarrow 01:14:50.917$  Never mind bleeding and the

NOTE Confidence: 0.87701765625

01:14:50.917 --> 01:14:52.891 other risks it can happen with

NOTE Confidence: 0.87701765625

 $01:14:52.891 \longrightarrow 01:14:54.929$  high doses of omega-3 fish oil.

NOTE Confidence: 0.87701765625

 $01:14:54.930 \longrightarrow 01:14:56.654$  Any other agents Gary?

NOTE Confidence: 0.87701765625 01:14:56.654 --> 01:14:57.516 I don't

 $01:14:57.520 \longrightarrow 01:15:02.640$  know if I. I so I wanna just distinguish

NOTE Confidence: 0.74584717

 $01:15:02.640 \longrightarrow 01:15:05.792$  'cause I'm not sure if the individual

NOTE Confidence: 0.74584717

 $01:15:05.792 \longrightarrow 01:15:08.672$  is asking about essential fatty acids

NOTE Confidence: 0.74584717

01:15:08.672 --> 01:15:11.789 or essential oils right now, right?

NOTE Confidence: 0.74584717

01:15:11.790 --> 01:15:15.486 And so if we're talking about essential oils,

NOTE Confidence: 0.74584717

01:15:15.490 --> 01:15:18.880 I think essential oils are generally

NOTE Confidence: 0.74584717

 $01:15:18.880 \longrightarrow 01:15:23.059$  safe if taken as as an inhalation.

NOTE Confidence: 0.74584717

01:15:23.060 --> 01:15:25.028 Certain ones like camp for Eucalyptus,

NOTE Confidence: 0.74584717

 $01:15:25.030 \longrightarrow 01:15:26.680$  can actually lower seizure thresholds,

NOTE Confidence: 0.74584717

 $01:15:26.680 \longrightarrow 01:15:29.768$  so I'm I'm pretty careful with any of

NOTE Confidence: 0.74584717

 $01{:}15{:}29.768 {\:\raisebox{--}{\text{--}}}{\:\raisebox{--}{\text{--}}}{\:\raisebox{--}{\text{--}}} 01{:}15{:}32.830$  my patients who have a risk for seizure.

NOTE Confidence: 0.74584717

 $01:15:32.830 \longrightarrow 01:15:34.210$  And recommending them.

NOTE Confidence: 0.74584717

01:15:34.210 --> 01:15:35.590 But besides that,

NOTE Confidence: 0.74584717

01:15:35.590 --> 01:15:39.270 things like lavender used as an inhalant too,

NOTE Confidence: 0.74584717

 $01:15:39.270 \longrightarrow 01:15:42.030$  can be quite safe and relaxing.

01:15:43.490 --> 01:15:47.228 Great thank you. Is magnesium safe?

NOTE Confidence: 0.863965

 $01{:}15{:}52.650 \dashrightarrow 01{:}15{:}55.290$  I would say if taken at the recommended

NOTE Confidence: 0.863965

 $01:15:55.290 \longrightarrow 01:15:57.028$  daily values as we discussed,

NOTE Confidence: 0.863965

01:15:57.030 --> 01:15:59.046 some patients may be magnesium deficient,

NOTE Confidence: 0.863965

 $01:15:59.050 \longrightarrow 01:16:01.072$  so definitely they should be taking

NOTE Confidence: 0.863965

 $01:16:01.072 \longrightarrow 01:16:02.760$  a magnesium supplement as well.

NOTE Confidence: 0.6525712

 $01:16:04.600 \longrightarrow 01:16:07.204$  About actually induced

NOTE Confidence: 0.6525712

 $01:16:07.204 \longrightarrow 01:16:09.600$  magnesium loss. And that

NOTE Confidence: 0.8465663

01:16:09.600 --> 01:16:11.841 can lead to issues of vitamin D, efficacy,

NOTE Confidence: 0.8465663

01:16:11.841 --> 01:16:13.808 etc. So you know generally we probably

NOTE Confidence: 0.8465663

 $01{:}16{:}13.808 \dashrightarrow 01{:}16{:}15.758$  if you look at national got data,

NOTE Confidence: 0.8465663

 $01:16:15.760 \longrightarrow 01:16:17.160$  magnesium deficiency is far more

NOTE Confidence: 0.8465663

 $01:16:17.160 \longrightarrow 01:16:19.120$  common than we realize, but you don't

NOTE Confidence: 0.8465663

01:16:19.120 --> 01:16:21.080 want a lot like everything you know.

NOTE Confidence: 0.8465663

01:16:21.080 --> 01:16:22.760 You know if you need it,

NOTE Confidence: 0.8465663

 $01:16:22.760 \longrightarrow 01:16:24.552$  you should find out where it is to

 $01:16:24.552 \longrightarrow 01:16:25.840$  have adequate supplementations.

NOTE Confidence: 0.8465663

01:16:25.840 --> 01:16:26.960 If you need it.

NOTE Confidence: 0.85647684

 $01:16:28.580 \longrightarrow 01:16:31.271$  So I use. I use some doses of my

NOTE Confidence: 0.85647684

 $01:16:31.271 \longrightarrow 01:16:33.640$  magnesium to help patients with sleep.

NOTE Confidence: 0.85647684

 $01:16:33.640 \longrightarrow 01:16:36.439$  I find it helpful in those cases and also

NOTE Confidence: 0.85647684

 $01:16:36.439 \longrightarrow 01:16:39.027$  use it for for Constipation as well,

NOTE Confidence: 0.85647684

 $01:16:39.030 \longrightarrow 01:16:41.389$  'cause that can be a side effect.

NOTE Confidence: 0.85647684

 $01:16:41.390 \longrightarrow 01:16:43.966$  So yes, if taken in the right doses

NOTE Confidence: 0.85647684

01:16:43.966 --> 01:16:46.099 while discussing it with your physician,

NOTE Confidence: 0.85647684

 $01:16:46.100 \longrightarrow 01:16:49.150$  it can certainly be safe.

NOTE Confidence: 0.85647684

 $01{:}16{:}49.150 \dashrightarrow 01{:}16{:}50.778$  Right and then also keeping

NOTE Confidence: 0.85647684

01:16:50.778 --> 01:16:52.398 in my magnesium rich foods.

NOTE Confidence: 0.85647684

 $01:16:52.400 \longrightarrow 01:16:54.507$  OK, so foods like black beans have

NOTE Confidence: 0.85647684

 $01:16:54.507 \longrightarrow 01:16:56.628$  have lots of magnesium in them,

NOTE Confidence: 0.85647684

 $01:16:56.630 \longrightarrow 01:16:58.975$  so getting those leggings into your diet

01:16:58.975 --> 01:17:01.179 and thinking about getting it that way.

NOTE Confidence: 0.83624

01:17:03.270 --> 01:17:05.070 Good point, we have a

NOTE Confidence: 0.83624

 $01:17:05.070 \longrightarrow 01:17:06.510$  couple of questions about.

NOTE Confidence: 0.83624

 $01:17:06.510 \longrightarrow 01:17:08.790$  Are there any books about cancer

NOTE Confidence: 0.83624

 $01:17:08.790 \longrightarrow 01:17:10.697$  and nutrition which you nicely

NOTE Confidence: 0.83624

01:17:10.697 --> 01:17:12.605 had a great slide with many

NOTE Confidence: 0.83624

01:17:12.605 --> 01:17:14.788 of many book options on there.

NOTE Confidence: 0.83624

 $01:17:14.790 \longrightarrow 01:17:17.378$  We will also again.

NOTE Confidence: 0.83624

 $01:17:17.380 \longrightarrow 01:17:20.439$  You know we have some resources after

NOTE Confidence: 0.83624

01:17:20.439 --> 01:17:25.217 that will be available to you on our

NOTE Confidence: 0.83624

01:17:25.217 --> 01:17:26.565 cancercenter.org/survivorship website

NOTE Confidence: 0.83624

01:17:26.565 --> 01:17:30.428 which will post that at the end too.

NOTE Confidence: 0.8200472

01:17:32.690 --> 01:17:34.556 But see how about we answered

NOTE Confidence: 0.8200472

 $01{:}17{:}34.556 \dashrightarrow 01{:}17{:}36.226$  a sugar question that was

NOTE Confidence: 0.8200472

 $01:17:36.226 \longrightarrow 01:17:37.686$  answered in their lecture.

NOTE Confidence: 0.8200472

 $01:17:37.690 \longrightarrow 01:17:38.686$  What nutrients doctor?

01:17:38.686 --> 01:17:40.020 Saffer? Yeah, yeah, 'cause

NOTE Confidence: 0.8200472

01:17:40.020 --> 01:17:42.006 I think you know when I

NOTE Confidence: 0.8200472

 $01:17:42.010 \longrightarrow 01:17:44.008$  gave this talk 2 weeks ago.

NOTE Confidence: 0.8200472

01:17:44.010 --> 01:17:46.334 Yeah, one of the things we're learning,

NOTE Confidence: 0.8200472

 $01:17:46.340 \longrightarrow 01:17:48.190$  and Walter Willett is described

NOTE Confidence: 0.8200472

 $01:17:48.190 \longrightarrow 01:17:50.760$  as he called the 4th Paradigm.

NOTE Confidence: 0.8200472

 $01:17:50.760 \longrightarrow 01:17:53.478$  Vegetables and fruits.

NOTE Confidence: 0.8200472

 $01:17:53.478 \longrightarrow 01:17:55.290$  Dietary carcinogens.

NOTE Confidence: 0.8200472

01:17:55.290 --> 01:17:56.139 Even dietary vegetables.

NOTE Confidence: 0.8200472

 $01:17:56.139 \longrightarrow 01:17:58.120$  If you look at across the board.

NOTE Confidence: 0.8200472

 $01:17:58.120 \longrightarrow 01:17:59.910$  The link with cancer is

NOTE Confidence: 0.8200472

 $01:17:59.910 \longrightarrow 01:18:01.700$  far less than we realized.

NOTE Confidence: 0.8200472

 $01{:}18{:}01.700 \dashrightarrow 01{:}18{:}03.570$  Having a healthy plant based

NOTE Confidence: 0.8200472

 $01:18:03.570 \longrightarrow 01:18:05.440$  diet is clearly the best,

NOTE Confidence: 0.8200472

 $01:18:05.440 \longrightarrow 01:18:07.164$  but within populations levels

 $01:18:07.164 \longrightarrow 01:18:09.319$  of fruits and vegetables the

NOTE Confidence: 0.8200472

01:18:09.319 --> 01:18:11.393 Eskimos had low cancer risk until

NOTE Confidence: 0.8200472

 $01:18:11.393 \longrightarrow 01:18:13.290$  they moved to a sketch one.

NOTE Confidence: 0.8200472

01:18:13.290 --> 01:18:15.546 But what I was going to get at

NOTE Confidence: 0.8200472

 $01:18:15.546 \longrightarrow 01:18:17.348$  is metabolism and your metabolic

NOTE Confidence: 0.8200472

 $01{:}18{:}17.348 \dashrightarrow 01{:}18{:}19.694$  status and weight determine how you

NOTE Confidence: 0.8200472

 $01{:}18{:}19.694 \dashrightarrow 01{:}18{:}21.458$  handle complex could concentrated

NOTE Confidence: 0.8200472

 $01:18:21.458 \longrightarrow 01:18:23.638$  carbohydrates and so for some

NOTE Confidence: 0.8200472

 $01{:}18{:}23.638 \dashrightarrow 01{:}18{:}26.254$  people high levels of sugars and

NOTE Confidence: 0.8200472

01:18:26.254 --> 01:18:27.998 concentrated carbohydrates are really

NOTE Confidence: 0.8200472

01:18:27.998 --> 01:18:30.224 dangerous and Harvard just came out

NOTE Confidence: 0.8200472

 $01:18:30.224 \longrightarrow 01:18:32.460$  with a fascinating study is not yet.

NOTE Confidence: 0.8200472

 $01:18:32.460 \longrightarrow 01:18:34.268$  Published where they looked

NOTE Confidence: 0.8200472

 $01:18:34.268 \longrightarrow 01:18:36.528$  at the use of quote,

NOTE Confidence: 0.8200472

 $01:18:36.530 \longrightarrow 01:18:38.338$  diabetic type dietze and

NOTE Confidence: 0.8200472

01:18:38.338 --> 01:18:40.598 not not not for diabetes,

01:18:40.600 --> 01:18:42.860 but people were following diocese.

NOTE Confidence: 0.8200472

 $01{:}18{:}42.860 \mathrel{--}{>} 01{:}18{:}45.512$  You would use high fruits and

NOTE Confidence: 0.8200472

01:18:45.512 --> 01:18:47.280 vegetables avoiding high concentrated

NOTE Confidence: 0.8200472

01:18:47.348 --> 01:18:49.618 carbohydrates and high levels of

NOTE Confidence: 0.8200472

 $01:18:49.618 \longrightarrow 01:18:51.434$  of sugar sweetened beverages.

NOTE Confidence: 0.8200472

 $01:18:51.440 \longrightarrow 01:18:53.176$  Coffee which is beneficial.

NOTE Confidence: 0.8200472

01:18:53.176 --> 01:18:56.420 High levels of nuts and not intake.

NOTE Confidence: 0.8200472

 $01{:}18{:}56.420 \dashrightarrow 01{:}18{:}59.730$  Reduced levels of saturated fat.

NOTE Confidence: 0.8200472

 $01{:}18{:}59.730 \dashrightarrow 01{:}19{:}01.950$  And avoiding high glycemic foods,

NOTE Confidence: 0.8200472

 $01:19:01.950 \longrightarrow 01:19:04.614$  all the things we talked about

NOTE Confidence: 0.8200472

 $01:19:04.614 \longrightarrow 01:19:07.588$  showed a 25% reduction in cancer

NOTE Confidence: 0.8200472

 $01:19:07.588 \longrightarrow 01:19:10.318$  progression in women being followed.

NOTE Confidence: 0.8200472

01:19:10.320 --> 01:19:11.636 With with breast cancer,

NOTE Confidence: 0.8200472

01:19:11.636 --> 01:19:14.270 so it seemed to be potentially and again,

NOTE Confidence: 0.8200472

 $01:19:14.270 \longrightarrow 01:19:15.254$  it's an observation.

01:19:15.254 --> 01:19:15.910 ULL study,

NOTE Confidence: 0.8200472

 $01:19:15.910 \longrightarrow 01:19:18.862$  but they were very careful to look at this,

NOTE Confidence: 0.8200472

 $01{:}19{:}18.870 \dashrightarrow 01{:}19{:}21.012$  and it argues about diets that are

NOTE Confidence: 0.8200472

01:19:21.012 --> 01:19:22.819 designed to lower insulin level,

NOTE Confidence: 0.8200472

 $01:19:22.820 \longrightarrow 01:19:24.364$  which is my thing.

NOTE Confidence: 0.8200472

 $01:19:24.364 \longrightarrow 01:19:25.522$  Insulin resistance which

NOTE Confidence: 0.8200472

01:19:25.522 --> 01:19:26.680 activates tumor growth.

NOTE Confidence: 0.8200472

01:19:26.680 --> 01:19:28.577 And it does sort of contain kind

NOTE Confidence: 0.8200472

01:19:28.577 --> 01:19:30.366 of Nuggets of truth about all

NOTE Confidence: 0.8200472

 $01:19:30.366 \longrightarrow 01:19:32.202$  of these components of diet that

NOTE Confidence: 0.8200472

01:19:32.202 --> 01:19:34.190 may actually benefit long term

NOTE Confidence: 0.8200472

 $01{:}19{:}34.190 \dashrightarrow 01{:}19{:}35.810$  survival in cancer patients.

NOTE Confidence: 0.8190896

01:19:40.590 --> 01:19:43.299 A minute, what vitamins give you energy?

NOTE Confidence: 0.8025393

 $01:19:46.490 \longrightarrow 01:19:47.490$  That you can get from.

NOTE Confidence: 0.8432154

 $01:19:49.340 \longrightarrow 01:19:51.132$  So I love. I love recommending

NOTE Confidence: 0.8432154

 $01:19:51.132 \longrightarrow 01:19:52.890$  green tea and the reason I

01:19:52.948 --> 01:19:54.940 love recommending routine and you shouldn't

NOTE Confidence: 0.843215399999999

 $01:19:54.940 \longrightarrow 01:19:57.226$  take it in mass quantities but but

NOTE Confidence: 0.843215399999999

01:19:57.226 --> 01:19:59.643 not only green tea has caffeine in it,

NOTE Confidence: 0.843215399999999

01:19:59.643 --> 01:20:01.904 but it also has certain phyto chemicals

NOTE Confidence: 0.843215399999999

 $01:20:01.904 \longrightarrow 01:20:04.625$  that that ease and calm the nerves as well.

NOTE Confidence: 0.843215399999999

 $01:20:04.630 \longrightarrow 01:20:06.821$  So it creates a really nice balance

NOTE Confidence: 0.843215399999999

01:20:06.821 --> 01:20:09.049 between an energetic boost and not getting

NOTE Confidence: 0.843215399999999

 $01:20:09.049 \longrightarrow 01:20:11.180$  the shakes that coffee might give you.

NOTE Confidence: 0.6437177

 $01:20:12.560 \longrightarrow 01:20:15.000$  About biotin is biotin safe?

NOTE Confidence: 0.8638762

01:20:20.380 --> 01:20:22.400 Believe it or not, in moderate

NOTE Confidence: 0.8638762

 $01:20:22.400 \longrightarrow 01:20:24.520$  doses it appears to be safe.

NOTE Confidence: 0.8638762

01:20:24.520 --> 01:20:25.675 You know? Unfortunately,

NOTE Confidence: 0.8638762

 $01{:}20{:}25.675 \longrightarrow 01{:}20{:}28.370$  it's one of those nutrients that people

NOTE Confidence: 0.8638762

01:20:28.439 --> 01:20:30.727 love to take for their hair and nails,

NOTE Confidence: 0.8638762

 $01:20:30.730 \longrightarrow 01:20:33.145$  and clearly it does maybe help to

01:20:33.145 --> 01:20:35.565 some degree, but I think over using

NOTE Confidence: 0.8638762

 $01:20:35.565 \longrightarrow 01:20:38.325$  it is again a nutrient, but it isn't.

NOTE Confidence: 0.8638762

 $01:20:38.325 \longrightarrow 01:20:41.080$  It doesn't share the same features of B12,

NOTE Confidence: 0.8638762

01:20:41.080 --> 01:20:42.750 for instance, which is necessary

NOTE Confidence: 0.8638762

 $01:20:42.750 \longrightarrow 01:20:44.880$  for DNA synthesis and cell growth.

NOTE Confidence: 0.8638762

01:20:44.880 --> 01:20:47.640 You know it doesn't have those same features,

NOTE Confidence: 0.8638762

 $01:20:47.640 \longrightarrow 01:20:49.710$  but again, don't take too much.

NOTE Confidence: 0.86914206

01:20:52.770 --> 01:20:55.620 And what's an ideal amount of

NOTE Confidence: 0.86914206

01:20:55.620 --> 01:20:57.930 daily protein consumption for men?

NOTE Confidence: 0.82926434

 $01:21:03.220 \longrightarrow 01:21:04.340$  Depends on your age.

NOTE Confidence: 0.85994583

01:21:06.350 --> 01:21:08.730 You know .8 grams per kilo there.

NOTE Confidence: 0.85994583

01:21:08.730 --> 01:21:09.750 There's some calculations,

NOTE Confidence: 0.85994583

01:21:09.750 --> 01:21:11.450 but if you're over 65,

NOTE Confidence: 0.85994583

 $01:21:11.450 \longrightarrow 01:21:14.006$  the level of protein intake is needs to be

NOTE Confidence: 0.85994583

01:21:14.006 --> 01:21:16.548 higher to maintain adequate muscle synthesis.

NOTE Confidence: 0.85994583

 $01:21:16.550 \longrightarrow 01:21:19.021$  They've shown that we become less efficient

01:21:19.021 --> 01:21:21.648 at muscle protein synthesis as we get older,

NOTE Confidence: 0.85994583

 $01:21:21.650 \longrightarrow 01:21:23.435$  and so they've been guidelines

NOTE Confidence: 0.85994583

 $01:21:23.435 \longrightarrow 01:21:25.729$  that say we need to go up.

NOTE Confidence: 0.85994583

01:21:25.730 --> 01:21:28.110 And also if people are chronically ill,

NOTE Confidence: 0.85994583

 $01:21:28.110 \longrightarrow 01:21:30.700$  we need to maintain adequate levels of

NOTE Confidence: 0.85994583

01:21:30.700 --> 01:21:33.472 protein because one of the worst things that

NOTE Confidence: 0.85994583

01:21:33.472 --> 01:21:36.090 can happen is weight loss and sarcopenia.

NOTE Confidence: 0.85994583

 $01{:}21{:}36.090 \dashrightarrow 01{:}21{:}38.529$  That is, loss of muscle mass is a major

NOTE Confidence: 0.85994583

 $01:21:38.529 \longrightarrow 01:21:40.907$  cause of toxicity and impaired survival,

NOTE Confidence: 0.85994583

 $01:21:40.910 \longrightarrow 01:21:42.830$  and in poor quality of life.

NOTE Confidence: 0.85994583

 $01:21:42.830 \longrightarrow 01:21:45.133$  So dietary protein is important in those

NOTE Confidence: 0.85994583

01:21:45.133 --> 01:21:46.998 populations in patients who have cancer,

NOTE Confidence: 0.85994583

01:21:47.000 --> 01:21:48.284 but if you're older,

NOTE Confidence: 0.85994583

 $01:21:48.284 \longrightarrow 01:21:49.247$  you're less deficient,

NOTE Confidence: 0.85994583

 $01:21:49.250 \longrightarrow 01:21:50.860$  so you may need less.

01:21:50.860 --> 01:21:53.422 And by the way, we probably get

NOTE Confidence: 0.85994583

 $01:21:53.422 \longrightarrow 01:21:55.898$  too much protein when we're young.

NOTE Confidence: 0.85994583

01:21:55.900 --> 01:21:58.420 You know we were really enriched in protein,

NOTE Confidence: 0.85994583

 $01:21:58.420 \longrightarrow 01:22:00.268$  and they've shown that in babies

NOTE Confidence: 0.85994583

 $01:22:00.268 \longrightarrow 01:22:02.515$  who have twice as much protein in

NOTE Confidence: 0.85994583

 $01:22:02.515 \longrightarrow 01:22:04.720$  formula as they do in mothers milk,

NOTE Confidence: 0.85994583

 $01:22:04.720 \longrightarrow 01:22:06.592$  they have a higher incidence of

NOTE Confidence: 0.85994583

 $01:22:06.592 \longrightarrow 01:22:08.484$  obesity and they actually lower the

NOTE Confidence: 0.85994583

 $01:22:08.484 \longrightarrow 01:22:10.254$  protein level in the formula and

NOTE Confidence: 0.85994583

 $01:22:10.254 \longrightarrow 01:22:12.217$  they reduce the obesity in children

NOTE Confidence: 0.85994583

01:22:12.217 --> 01:22:13.857 in multiple centers in Europe.

NOTE Confidence: 0.85994583

01:22:13.860 --> 01:22:14.802 So you know,

NOTE Confidence: 0.85994583

01:22:14.802 --> 01:22:16.058 we load up protein,

NOTE Confidence: 0.85994583

 $01:22:16.060 \longrightarrow 01:22:17.950$  but you don't need that much.

NOTE Confidence: 0.8360593

 $01:22:20.220 \longrightarrow 01:22:21.740$  There any thoughts about that?

NOTE Confidence: 0.8584235

 $01:22:24.040 \longrightarrow 01:22:25.905$  No, I think I think you

01:22:25.905 --> 01:22:26.838 covered it beautifully,

NOTE Confidence: 0.8584235

 $01:22:26.840 \longrightarrow 01:22:27.770$  but plant based

NOTE Confidence: 0.8584235

 $01:22:27.770 \longrightarrow 01:22:29.014$  protein is healthier than

NOTE Confidence: 0.8584235

 $01:22:29.014 \longrightarrow 01:22:29.947$  animal based protein.

NOTE Confidence: 0.8584235

 $01:22:29.950 \longrightarrow 01:22:32.480$  A number of studies have shown that.

NOTE Confidence: 0.8584235

01:22:32.480 --> 01:22:34.532 I am a base protein,

NOTE Confidence: 0.8584235

 $01:22:34.532 \longrightarrow 01:22:36.272$  higher mortality in low carb

NOTE Confidence: 0.8584235

01:22:36.272 --> 01:22:37.880 diets with high protein,

NOTE Confidence: 0.8584235

 $01:22:37.880 \longrightarrow 01:22:39.705$  higher plant based protein with

NOTE Confidence: 0.8584235

01:22:39.705 --> 01:22:41.686 low carb diets, less mortality,

NOTE Confidence: 0.8584235

 $01{:}22{:}41.686 \dashrightarrow 01{:}22{:}45.230$  so plant based still is the best within

NOTE Confidence: 0.8584235

01:22:45.317 --> 01:22:48.059 the balance of my macro nutrients.

NOTE Confidence: 0.8584235

 $01:22:48.060 \longrightarrow 01:22:51.650$  Great. Uhm? We

NOTE Confidence: 0.9400712

 $01:22:51.650 \longrightarrow 01:22:53.678$  have a question about.

NOTE Confidence: 0.7748551

 $01:22:57.210 \longrightarrow 01:22:59.666$  Moss said on this scrolling here Doctor

 $01{:}22{:}59.666 \dashrightarrow 01{:}23{:}02.054$  Sopher, what nutrients do you find to

NOTE Confidence: 0.7748551

 $01:23:02.054 \longrightarrow 01:23:04.930$  be the hardest to get from diet alone?

NOTE Confidence: 0.8906989

01:23:06.190 --> 01:23:07.694 I would say vitamin D is

NOTE Confidence: 0.8906989

 $01:23:07.694 \longrightarrow 01:23:09.200$  probably the toughest to get to

NOTE Confidence: 0.8906989

 $01:23:09.256 \longrightarrow 01:23:10.456$  get in your diet alone.

NOTE Confidence: 0.8593497

 $01:23:13.820 \longrightarrow 01:23:15.885$  And are there yeah easy there

NOTE Confidence: 0.8593497

 $01:23:15.885 \longrightarrow 01:23:17.590$  any good and reliable websites

NOTE Confidence: 0.8593497

01:23:17.658 --> 01:23:19.835 to find out about the benefits and

NOTE Confidence: 0.8593497

01:23:19.835 --> 01:23:21.989 risks of various Chinese medicine's?

NOTE Confidence: 0.8593497

01:23:21.990 --> 01:23:24.328 I lived in China for 20 plus

NOTE Confidence: 0.8593497

 $01{:}23{:}24.328 \dashrightarrow 01{:}23{:}26.960$  years and my wife is from there.

NOTE Confidence: 0.8593497

 $01{:}23{:}26.960 \dashrightarrow 01{:}23{:}29.270$  She often encourages me to eat sea

NOTE Confidence: 0.8593497

 $01:23:29.270 \longrightarrow 01:23:31.454$  cucumbers and Caterpillar fungus which are

NOTE Confidence: 0.8593497

 $01:23:31.454 \longrightarrow 01:23:33.344$  supposedly good for preventing cancer.

NOTE Confidence: 0.8593497

01:23:33.350 --> 01:23:35.120 But after hearing tonight's presentations,

NOTE Confidence: 0.8593497

01:23:35.120 --> 01:23:37.991 I wonder if there are any true in clinically

01:23:37.991 --> 01:23:40.195 proven benefits or potential risks in

NOTE Confidence: 0.8593497

 $01:23:40.195 \longrightarrow 01:23:42.580$  eating these foods in large amounts.

NOTE Confidence: 0.8549893

 $01:23:43.720 \longrightarrow 01:23:46.736$  So I think what we find with with

NOTE Confidence: 0.8549893

 $01:23:46.736 \longrightarrow 01:23:49.278$  herbs from China, unfortunately is as

NOTE Confidence: 0.8549893

 $01:23:49.278 \longrightarrow 01:23:51.258$  poorly regulated supplements are here.

NOTE Confidence: 0.8549893

 $01:23:51.260 \longrightarrow 01:23:53.642$  They are, they're quite poorly regulated

NOTE Confidence: 0.8549893

 $01:23:53.642 \longrightarrow 01:23:56.029$  over there time and time again.

NOTE Confidence: 0.8549893

 $01:23:56.030 \longrightarrow 01:23:58.412$  Studies have shown that they've been

NOTE Confidence: 0.8549893

 $01:23:58.412 \longrightarrow 01:24:00.000$  adulterated with other products.

NOTE Confidence: 0.8549893

 $01:24:00.000 \longrightarrow 01:24:02.910$  You know, the most famous and

NOTE Confidence: 0.8549893

 $01{:}24{:}02.910 \dashrightarrow 01{:}24{:}05.900$  probably the most humorous is is mail.

NOTE Confidence: 0.8549893

 $01:24:05.900 \longrightarrow 01:24:09.029$  Male Chinese herbs coming over and turning

NOTE Confidence: 0.8549893

 $01:24:09.029 \longrightarrow 01:24:13.300$  out to be just adulterated with Niagara so.

NOTE Confidence: 0.8549893

01:24:13.300 --> 01:24:15.370 Yeah, I think I think I would

NOTE Confidence: 0.8549893

 $01:24:15.370 \longrightarrow 01:24:17.260$  use a lot of caution.

01:24:17.260 --> 01:24:18.223 That being said,

NOTE Confidence: 0.8549893

01:24:18.223 --> 01:24:20.890 there's a lot of promise with Chinese herbs,

NOTE Confidence: 0.8549893

 $01:24:20.890 \longrightarrow 01:24:23.860$  and there's a lot of research going into it,

NOTE Confidence: 0.8549893

 $01:24:23.860 \longrightarrow 01:24:26.160$  but I would say the best one is one of

NOTE Confidence: 0.8549893

01:24:26.221 --> 01:24:28.336 my favorite resources that's that's

NOTE Confidence: 0.8549893

01:24:28.336 --> 01:24:30.451 freely available for everybody is.

NOTE Confidence: 0.8549893

 $01{:}24{:}30.460 \dashrightarrow 01{:}24{:}32.602$  Memorial Sloan Kettering has a website

NOTE Confidence: 0.8549893

 $01:24:32.602 \longrightarrow 01:24:34.908$  called about herbs that that is a

NOTE Confidence: 0.8549893

 $01{:}24{:}34.908 \dashrightarrow 01{:}24{:}36.534$  great resource and covers a huge

NOTE Confidence: 0.8549893

01:24:36.534 --> 01:24:38.709 huge amount of herbs and supplements,

NOTE Confidence: 0.8549893

 $01:24:38.710 \longrightarrow 01:24:42.406$  and discusses their safety and risks.

NOTE Confidence: 0.8549893

 $01:24:42.410 \longrightarrow 01:24:42.970$  Great.

NOTE Confidence: 0.8554707

 $01:24:44.590 \longrightarrow 01:24:46.270$  Here's one about the green tea

NOTE Confidence: 0.8554707

 $01{:}24{:}46.270 \dashrightarrow 01{:}24{:}47.981$  that you mentioned is that amount

NOTE Confidence: 0.8554707

 $01:24:47.981 \longrightarrow 01:24:49.829$  of caffeine OK on a daily basis?

NOTE Confidence: 0.8554707

01:24:49.830 --> 01:24:51.587 A couple of day I was told

01:24:51.587 --> 01:24:52.870 no caffeine post surgery,

NOTE Confidence: 0.8554707

 $01:24:52.870 \longrightarrow 01:24:54.526$  but I missed the green tea.

NOTE Confidence: 0.8538702

01:24:56.160 --> 01:24:57.400 Everybody metabolizes caffeine differently.

NOTE Confidence: 0.8538702

01:24:57.400 --> 01:24:59.370 You know, I. So I think you

NOTE Confidence: 0.8538702

 $01:24:59.370 \longrightarrow 01:25:01.430$  have to use your own judgment.

NOTE Confidence: 0.8538702

 $01:25:01.430 \longrightarrow 01:25:03.579$  I wouldn't go past a couple for

NOTE Confidence: 0.8538702

01:25:03.579 --> 01:25:05.770 you during the day, but but it,

NOTE Confidence: 0.8538702

 $01:25:05.770 \longrightarrow 01:25:07.630$  but it should be generally safe.

NOTE Confidence: 0.8538702

01:25:07.630 --> 01:25:10.110 I would talk to your physician about it,

NOTE Confidence: 0.8538702

 $01{:}25{:}10.110 \dashrightarrow 01{:}25{:}11.790$ 'cause I don't know your individual

NOTE Confidence: 0.8538702

 $01:25:11.790 \longrightarrow 01:25:13.296$  circumstance and I would

NOTE Confidence: 0.8538702

01:25:13.296 --> 01:25:14.986 trust your physician and an

NOTE Confidence: 0.8538702

 $01{:}25{:}14.986 \dashrightarrow 01{:}25{:}16.000$  their recommendations though.

NOTE Confidence: 0.8354432

 $01:25:17.200 \longrightarrow 01:25:19.270$  Great also wanted to mention there's

NOTE Confidence: 0.8354432

 $01:25:19.270 \longrightarrow 01:25:21.370$  a lot of green tea supplements

 $01:25:21.434 \longrightarrow 01:25:22.558$  out there as well.

NOTE Confidence: 0.8354432

 $01:25:22.560 \longrightarrow 01:25:25.024$  I would probably try to stick with the

NOTE Confidence: 0.8354432

01:25:25.024 --> 01:25:27.589 green just actually the green tea itself,

NOTE Confidence: 0.8354432

 $01:25:27.590 \longrightarrow 01:25:29.265$  not a concentrated like green

NOTE Confidence: 0.8354432

 $01:25:29.265 \longrightarrow 01:25:30.940$  tea supplement or EG CG.

NOTE Confidence: 0.8354432

 $01:25:30.940 \longrightarrow 01:25:31.945$  Something like that.

NOTE Confidence: 0.8354432

 $01:25:31.945 \longrightarrow 01:25:33.620$  The green tea itself is

NOTE Confidence: 0.8354432

 $01:25:33.620 \longrightarrow 01:25:35.630$  in small amounts would be OK.

NOTE Confidence: 0.8354432

 $01{:}25{:}35.630 \dashrightarrow 01{:}25{:}37.018$  Absolutely those supplements can

NOTE Confidence: 0.8354432

01:25:37.018 --> 01:25:39.310 cause liver damage and we've seen it.

NOTE Confidence: 0.8354432

01:25:39.310 --> 01:25:40.650 It's it's not theoretical,

NOTE Confidence: 0.8354432

 $01:25:40.650 \longrightarrow 01:25:42.325$  so it's a great point.

NOTE Confidence: 0.59949416

01:25:46.660 --> 01:25:47.860 Heather, you're muted.

NOTE Confidence: 0.806646

 $01:25:50.030 \longrightarrow 01:25:52.016$  We have one here about CBD.

NOTE Confidence: 0.806646

01:25:52.020 --> 01:25:54.748 I have frequent issues with waking in the

NOTE Confidence: 0.806646

 $01:25:54.748 \longrightarrow 01:25:57.308$  middle of the night and up for hours.

 $01:25:57.310 \longrightarrow 01:25:59.390$  Very tired the next day

NOTE Confidence: 0.806646

01:25:59.390 --> 01:26:01.054 due to interrupted sleep.

NOTE Confidence: 0.806646

01:26:01.060 --> 01:26:03.298 Took a trial dose of CBD,

NOTE Confidence: 0.806646

 $01:26:03.300 \longrightarrow 01:26:05.909$  30 milligrams, maybe it was too low.

NOTE Confidence: 0.806646

 $01:26:05.910 \longrightarrow 01:26:06.710$  Wasn't helpful.

NOTE Confidence: 0.806646

 $01:26:06.710 \longrightarrow 01:26:08.710$  Any suggestions regarding the dose

NOTE Confidence: 0.806646

 $01:26:08.710 \longrightarrow 01:26:10.759$  or other supplements to help sleep?

NOTE Confidence: 0.88175315

01:26:12.400 --> 01:26:14.260 So my first suggestion here is

NOTE Confidence: 0.88175315

01:26:14.260 --> 01:26:15.822 is always making patients aware

NOTE Confidence: 0.88175315

 $01:26:15.822 \longrightarrow 01:26:17.642$  that waking up in the middle of

NOTE Confidence: 0.88175315

 $01:26:17.642 \longrightarrow 01:26:19.389$  the night is completely normal.

NOTE Confidence: 0.88175315

 $01:26:19.390 \longrightarrow 01:26:20.910$  It happens to everybody and

NOTE Confidence: 0.88175315

01:26:20.910 --> 01:26:22.430 some people don't realize it.

NOTE Confidence: 0.88175315

 $01:26:22.430 \longrightarrow 01:26:24.176$  But they're waking up with everybody

NOTE Confidence: 0.88175315

 $01:26:24.176 \longrightarrow 01:26:26.650$  wakes up and I have to tell you

01:26:26.650 --> 01:26:28.205 from my own personal experience,

NOTE Confidence: 0.88175315

 $01{:}26{:}28.210 \dashrightarrow 01{:}26{:}30.247$  I was somebody who would wake up

NOTE Confidence: 0.88175315

 $01:26:30.247 \longrightarrow 01:26:32.427$  in the middle of the night and

NOTE Confidence: 0.88175315

01:26:32.427 --> 01:26:34.287 my mind would just start racing,

NOTE Confidence: 0.88175315

01:26:34.290 --> 01:26:34.896 racing, racing.

NOTE Confidence: 0.88175315

 $01:26:34.896 \longrightarrow 01:26:36.714$  I'm never going to fall asleep.

NOTE Confidence: 0.88175315

 $01:26:36.720 \longrightarrow 01:26:38.848$  I'm gonna be tired in the morning.

NOTE Confidence: 0.88175315

01:26:38.850 --> 01:26:41.577 This is gonna ruin my day yadda yadda yadda.

NOTE Confidence: 0.88175315

 $01:26:41.580 \longrightarrow 01:26:43.925$  Just somebody telling me that fact alone.

NOTE Confidence: 0.88175315

01:26:43.930 --> 01:26:47.926 Allowed me to go to sleep much more easily.

NOTE Confidence: 0.88175315

01:26:47.930 --> 01:26:50.114 Now, if it's still an issue for you

NOTE Confidence: 0.88175315

 $01:26:50.114 \longrightarrow 01:26:52.327$  after you know that the thing that

NOTE Confidence: 0.88175315

 $01:26:52.327 \longrightarrow 01:26:54.437$  I've actually found the most useful

NOTE Confidence: 0.88175315

01:26:54.437 --> 01:26:56.622 for patients having difficulty falling

NOTE Confidence: 0.88175315

 $01:26:56.622 \longrightarrow 01:26:59.066$  asleep is something called sleep stories.

NOTE Confidence: 0.88175315

 $01:26:59.066 \longrightarrow 01:27:00.458$  It's it's an app,

 $01:27:00.460 \longrightarrow 01:27:02.200$  it's on the com app.

NOTE Confidence: 0.88175315

01:27:02.200 --> 01:27:04.288 It's a 7 day free trial,

NOTE Confidence: 0.88175315

 $01:27:04.290 \longrightarrow 01:27:06.719$  so you can give it a shot.

NOTE Confidence: 0.88175315

01:27:06.720 --> 01:27:08.460 They're really, really boring stories,

NOTE Confidence: 0.88175315

 $01:27:08.460 \longrightarrow 01:27:11.127$  and I've used it myself and it's

NOTE Confidence: 0.88175315

 $01:27:11.127 \longrightarrow 01:27:13.260$  really helpful to fall asleep.

NOTE Confidence: 0.88175315

01:27:13.260 --> 01:27:15.676 Give that a shot first before anything else.

NOTE Confidence: 0.84710073

01:27:16.670 --> 01:27:18.670 I love that I'm going to try it

NOTE Confidence: 0.84710073

 $01:27:18.670 \longrightarrow 01:27:19.670$  myself. Yeah, try it.

NOTE Confidence: 0.8192039

 $01:27:20.730 \longrightarrow 01:27:22.710$  Can you share your thoughts

NOTE Confidence: 0.8192039

 $01:27:22.710 \longrightarrow 01:27:24.294$  on the Gerson therapy?

NOTE Confidence: 0.8192039

 $01:27:24.300 \longrightarrow 01:27:25.928$  Anybody familiar with that?

NOTE Confidence: 0.84734315

01:27:29.760 --> 01:27:30.588 After boy do you

NOTE Confidence: 0.84734315

 $01:27:30.590 \longrightarrow 01:27:32.254$  want to take this one I? I suspect

NOTE Confidence: 0.84734315

01:27:32.254 --> 01:27:33.703 you've seen this more than I have,

 $01:27:33.710 \longrightarrow 01:27:37.420$  but I'm happy to talk about it too. I

NOTE Confidence: 0.8288954

 $01{:}27{:}37.420 \dashrightarrow 01{:}27{:}39.772$  have a lot of patients who use many

NOTE Confidence: 0.8288954

 $01:27:39.772 \longrightarrow 01:27:42.368$  of these alternative dietary programs.

NOTE Confidence: 0.8288954

01:27:42.370 --> 01:27:44.656 They are promoted and they're very,

NOTE Confidence: 0.8288954

01:27:44.660 --> 01:27:46.946 very in what they, you know,

NOTE Confidence: 0.8288954

01:27:46.950 --> 01:27:48.470 natural supplements, natural foods,

NOTE Confidence: 0.8288954

01:27:48.470 --> 01:27:50.040 high juices, you know,

NOTE Confidence: 0.8288954

01:27:50.040 --> 01:27:52.875 in the Gerson is of multiple dietary

NOTE Confidence: 0.8288954

 $01{:}27{:}52.875 \longrightarrow 01{:}27{:}55.706$  approach and a lot of people follow that,

NOTE Confidence: 0.8288954

 $01:27:55.710 \longrightarrow 01:27:57.615$  but they they the dilemma

NOTE Confidence: 0.8288954

01:27:57.615 --> 01:27:59.520 with this is number one.

NOTE Confidence: 0.8288954

 $01:27:59.520 \longrightarrow 01:28:01.806$  People will often use it in

NOTE Confidence: 0.8288954

01:28:01.806 --> 01:28:03.330 lieu of conventional therapy,

NOTE Confidence: 0.8288954

 $01:28:03.330 \longrightarrow 01:28:05.230$  which is dangerous and #2.

NOTE Confidence: 0.8288954

01:28:05.230 --> 01:28:06.846 There's really no evidence

NOTE Confidence: 0.8288954

 $01:28:06.846 \longrightarrow 01:28:08.866$  that any of these have.

01:28:08.870 --> 01:28:09.562 Substantial benefit,

NOTE Confidence: 0.8288954

 $01:28:09.562 \longrightarrow 01:28:12.330$  I mean we see this all the time.

NOTE Confidence: 0.8288954

 $01:28:12.330 \longrightarrow 01:28:14.553$  This is a very big dilemma in the world

NOTE Confidence: 0.8288954

 $01:28:14.553 \longrightarrow 01:28:17.168$  of conventional and alternative therapies.

NOTE Confidence: 0.8288954

 $01:28:17.170 \longrightarrow 01:28:18.169$  So I mean,

NOTE Confidence: 0.8288954

 $01:28:18.169 \longrightarrow 01:28:20.980$  that's one of many different diets out there.

NOTE Confidence: 0.8288954

01:28:20.980 --> 01:28:22.710 Gary mentioned the alkaline diet,

NOTE Confidence: 0.8288954

01:28:22.710 --> 01:28:23.400 you know,

NOTE Confidence: 0.8288954

 $01:28:23.400 \longrightarrow 01:28:25.125$  and that's again very common.

NOTE Confidence: 0.85518044

01:28:27.940 --> 01:28:29.999 I mean, as a as a popular approach

NOTE Confidence: 0.85518044

 $01:28:29.999 \longrightarrow 01:28:31.808$  that has not been shown to be,

NOTE Confidence: 0.85518044

 $01:28:31.810 \longrightarrow 01:28:33.100$  you pee out the alkali.

NOTE Confidence: 0.85518044

 $01{:}28{:}33.100 \dashrightarrow 01{:}28{:}35.156$  That's why it shows up in the urine.

NOTE Confidence: 0.85518044

01:28:35.160 --> 01:28:36.966 That's the body's way of controlling pH.

NOTE Confidence: 0.844649268666667

01:28:39.270 --> 01:28:42.735 OK. So I will see the American Cancer Society

 $01:28:42.735 \longrightarrow 01:28:45.467$  recommends strongly against the Gerson diet.

NOTE Confidence: 0.844649268666667

 $01{:}28{:}45.470 \dashrightarrow 01{:}28{:}47.365$  It can cause actual nutritional

NOTE Confidence: 0.844649268666667

01:28:47.365 --> 01:28:49.650 deficiencies because because of what it is,

NOTE Confidence: 0.844649268666667

01:28:49.650 --> 01:28:52.352 I don't like juicing because you're taking

NOTE Confidence: 0.844649268666667

 $01:28:52.352 \longrightarrow 01:28:55.439$  away so much of the fiber and so much

NOTE Confidence: 0.844649268666667

01:28:55.439 --> 01:28:58.095 of what makes fruit good for you that

NOTE Confidence: 0.844649268666667

 $01:28:58.095 \longrightarrow 01:29:01.146$  you're really missing out on a lot of it.

NOTE Confidence: 0.844649268666667

01:29:01.146 --> 01:29:03.960 There's also a component in the Gerson diet,

NOTE Confidence: 0.844649268666667

 $01:29:03.960 \longrightarrow 01:29:05.710$  which I strongly recommend against,

NOTE Confidence: 0.844649268666667

 $01:29:05.710 \longrightarrow 01:29:07.278$  which is coffee enemas.

NOTE Confidence: 0.844649268666667

 $01:29:07.278 \longrightarrow 01:29:08.846$  These coffee enemas have

NOTE Confidence: 0.844649268666667

 $01:29:08.846 \longrightarrow 01:29:10.587$  really caused a lot of harm,

NOTE Confidence: 0.844649268666667

 $01:29:10.590 \longrightarrow 01:29:12.340$  with patients really quite dangerous.

NOTE Confidence: 0.8985877

 $01{:}29{:}14.510 \dashrightarrow 01{:}29{:}15.858$  Great information, so we're going

NOTE Confidence: 0.8985877

01:29:15.858 --> 01:29:17.650 to go through two more of our

NOTE Confidence: 0.8985877

 $01:29:17.708 \longrightarrow 01:29:20.025$  questions and then we will answer some

 $01:29:20.025 \longrightarrow 01:29:22.151$  of these questions offline after I don't

NOTE Confidence: 0.8985877

01:29:22.151 --> 01:29:24.825 want to take up too much more time here,

NOTE Confidence: 0.8985877

 $01:29:24.825 \longrightarrow 01:29:27.310$  but we've got a few more left.

NOTE Confidence: 0.8985877

01:29:27.310 --> 01:29:30.289 And then will lagaf and will have to have

NOTE Confidence: 0.8985877

 $01{:}29{:}30.289 \dashrightarrow 01{:}29{:}32.762$  another Part 2 of this series because

NOTE Confidence: 0.8985877

 $01:29:32.762 \longrightarrow 01:29:35.140$  the questions and the information just

NOTE Confidence: 0.8985877

 $01:29:35.140 \longrightarrow 01:29:37.930$  keep coming and it's really wonderful.

NOTE Confidence: 0.8985877

 $01:29:37.930 \longrightarrow 01:29:40.240$  So would it be beneficial to cancer

NOTE Confidence: 0.8985877

 $01{:}29{:}40.240 \dashrightarrow 01{:}29{:}42.122$  patients and survivors to have periodic

NOTE Confidence: 0.8985877

 $01:29:42.122 \longrightarrow 01:29:44.451$  blood work to look at the levels of

NOTE Confidence: 0.8985877

 $01{:}29{:}44{.}451 \dashrightarrow 01{:}29{:}46.677$  minerals or vitamins to see if supplements

NOTE Confidence: 0.8985877

01:29:46.677 --> 01:29:48.568 are needed or should be illuminated?

NOTE Confidence: 0.84763545

 $01:29:55.280 \longrightarrow 01:29:57.758$  So for us as doctors lab tests,

NOTE Confidence: 0.84763545

01:29:57.760 --> 01:30:00.077 it's very important that they are validated

NOTE Confidence: 0.84763545

01:30:00.077 --> 01:30:02.523 and their uses validated and so healthy

 $01:30:02.523 \longrightarrow 01:30:04.611$  person should really maintain a good

NOTE Confidence: 0.84763545

 $01:30:04.674 \longrightarrow 01:30:06.960$  amount of nutrients and nutrient levels.

NOTE Confidence: 0.84763545

 $01:30:06.960 \longrightarrow 01:30:08.904$  A lot of the labs that get sent by

NOTE Confidence: 0.84763545

 $01:30:08.904 \longrightarrow 01:30:11.184$  by other practitioners by alternative

NOTE Confidence: 0.84763545

01:30:11.184 --> 01:30:13.684 practitioners are not invalidated studies,

NOTE Confidence: 0.84763545

01:30:13.690 --> 01:30:16.418 meaning that I might go in on Monday

NOTE Confidence: 0.84763545

 $01:30:16.418 \longrightarrow 01:30:19.345$  at 1:00 PM and my levels might show.

NOTE Confidence: 0.84763545

 $01:30:19.350 \longrightarrow 01:30:22.644$  One thing I might go in at 3:00 PM.

NOTE Confidence: 0.84763545

 $01:30:22.650 \longrightarrow 01:30:24.820$  My levels might show another thing I've

NOTE Confidence: 0.84763545

01:30:24.820 --> 01:30:27.198 actually seen that quite a bit with patients,

NOTE Confidence: 0.84763545

01:30:27.200 --> 01:30:29.139 so it's important that you know any

NOTE Confidence: 0.84763545

 $01:30:29.139 \longrightarrow 01:30:31.439$  labs that are being sent are validated.

NOTE Confidence: 0.84763545

 $01:30:31.440 \longrightarrow 01:30:33.736$  I think checking vitamin D is can be

NOTE Confidence: 0.84763545

 $01{:}30{:}33.736 \dashrightarrow 01{:}30{:}35.976$  a really helpful thing to look at,

NOTE Confidence: 0.84763545

 $01:30:35.980 \longrightarrow 01:30:37.606$  but beyond what your oncologist is

NOTE Confidence: 0.84763545

 $01:30:37.606 \longrightarrow 01:30:39.620$  sending sending out a standard baseline,

01:30:39.620 --> 01:30:43.436 I don't think you need much beyond that.

NOTE Confidence: 0.84763545

01:30:43.440 --> 01:30:43.790 Yeah,

NOTE Confidence: 0.88995004

01:30:43.790 --> 01:30:45.032 I would agree.

NOTE Confidence: 0.88995004

01:30:45.032 --> 01:30:47.930 I sometimes in patients using high doses.

NOTE Confidence: 0.88995004

01:30:47.930 --> 01:30:49.660 Will not found this repeatedly.

NOTE Confidence: 0.88995004

 $01{:}30{:}49.660 \dashrightarrow 01{:}30{:}52.082$  People taking those very high dose B12

NOTE Confidence: 0.88995004

01:30:52.082 --> 01:30:54.826 will have levels that are 1002 thousand UG.

NOTE Confidence: 0.88995004

 $01:30:54.830 \longrightarrow 01:30:56.774$  You know above what they want

NOTE Confidence: 0.88995004

 $01:30:56.774 \longrightarrow 01:30:59.235$  and so it shows them that it's

NOTE Confidence: 0.88995004

01:30:59.235 --> 01:31:01.040 too much vitamin D again,

NOTE Confidence: 0.88995004

01:31:01.040 --> 01:31:02.770 but not all the time,

NOTE Confidence: 0.88995004

 $01:31:02.770 \dashrightarrow 01:31:05.154$  and I often will do it seasonally if

NOTE Confidence: 0.88995004

 $01{:}31{:}05.154 \dashrightarrow 01{:}31{:}07.290$  they're on supplements and most of

NOTE Confidence: 0.88995004

01:31:07.290 --> 01:31:09.498 my patients will take between 1002

NOTE Confidence: 0.88995004

 $01:31:09.564 \longrightarrow 01:31:11.694$  thousand today because of the data

 $01:31:11.694 \longrightarrow 01:31:14.086$  on survival and Gary, I agree 100%.

NOTE Confidence: 0.88995004

 $01:31:14.086 \longrightarrow 01:31:16.340$  One of the biggest problems is patients

NOTE Confidence: 0.88995004

 $01:31:16.407 \longrightarrow 01:31:18.717$  go to many many different specialists.

NOTE Confidence: 0.88995004

01:31:18.720 --> 01:31:19.452 In nutrition,

NOTE Confidence: 0.88995004

01:31:19.452 --> 01:31:21.648 who are using non validated tests,

NOTE Confidence: 0.88995004

01:31:21.650 --> 01:31:24.205 often linked to the use of supplements?

NOTE Confidence: 0.88995004

01:31:24.210 --> 01:31:26.040 It's away in the supplements,

NOTE Confidence: 0.88995004

01:31:26.040 --> 01:31:28.077 of course are sold at profit and

NOTE Confidence: 0.88995004

 $01{:}31{:}28.077 \dashrightarrow 01{:}31{:}30.752$  so it's a way of getting them into

NOTE Confidence: 0.88995004

 $01:31:30.752 \longrightarrow 01:31:33.013$  a system and the patients feel

NOTE Confidence: 0.88995004

 $01{:}31{:}33.013 \dashrightarrow 01{:}31{:}34.829$  like they're getting nutrition

NOTE Confidence: 0.88995004

 $01:31:34.829 \longrightarrow 01:31:36.645$  advice that the doctor,

NOTE Confidence: 0.88995004

 $01:31:36.650 \longrightarrow 01:31:39.470$  the oncologists are not giving them.

NOTE Confidence: 0.88995004

 $01:31:39.470 \longrightarrow 01:31:41.510$  And so that's why it's important for all

NOTE Confidence: 0.88995004

 $01:31:41.510 \longrightarrow 01:31:44.278$  of us to provide that in a reasonable

NOTE Confidence: 0.88995004

 $01:31:44.278 \longrightarrow 01:31:45.742$  and scientifically based approach,

 $01:31:45.750 \longrightarrow 01:31:47.320$  so that they're not going

NOTE Confidence: 0.88995004

 $01:31:47.320 \longrightarrow 01:31:48.890$  to people who provide these.

NOTE Confidence: 0.88995004

01:31:48.890 --> 01:31:49.498 You know,

NOTE Confidence: 0.88995004

01:31:49.498 --> 01:31:51.018 non valid tests and inappropriate

NOTE Confidence: 0.88995004

 $01:31:51.018 \longrightarrow 01:31:52.659$  levels of nutrients and nutrition.

NOTE Confidence: 0.88995004

01:31:52.660 --> 01:31:54.858 They often don't even talk about nutrition,

NOTE Confidence: 0.88995004

 $01:31:54.860 \longrightarrow 01:31:56.738$  they took more about the supplements.

NOTE Confidence: 0.79540306

 $01:31:57.990 \longrightarrow 01:31:59.710$  Absolutely, and that we

NOTE Confidence: 0.79540306

 $01:31:59.710 \longrightarrow 01:32:01.860$  have a question for you.

NOTE Confidence: 0.79540306

 $01:32:01.860 \longrightarrow 01:32:05.680$  Is adrena tone safe? I

NOTE Confidence: 0.7684925

01:32:05.680 --> 01:32:07.997 actually have not heard of adrena tone.

NOTE Confidence: 0.7684925

 $01:32:08.000 \longrightarrow 01:32:09.983$  If it's type of adrenaline or

NOTE Confidence: 0.7684925

01:32:09.983 --> 01:32:12.300 federa or some type, I'm not sure,

NOTE Confidence: 0.7684925

 $01:32:12.300 \longrightarrow 01:32:15.117$  but if that is the case then I would

NOTE Confidence: 0.7684925

 $01:32:15.117 \longrightarrow 01:32:17.266$  probably avoid those types of supplements.

 $01:32:17.266 \longrightarrow 01:32:19.250$  There's a lot of cardiac concerns

NOTE Confidence: 0.7684925

 $01:32:19.250 \longrightarrow 01:32:20.910$  with those types of supplements.

NOTE Confidence: 0.8084226

 $01:32:21.960 \longrightarrow 01:32:23.348$  OK, the other the

NOTE Confidence: 0.8084226

 $01:32:23.350 \longrightarrow 01:32:25.426$  other thing I'll add is Anan.

NOTE Confidence: 0.8084226

 $01:32:25.430 \longrightarrow 01:32:27.245$  There's so many supplements with

NOTE Confidence: 0.8084226

 $01:32:27.245 \longrightarrow 01:32:29.440$  so many funny names Ann and

NOTE Confidence: 0.8084226

 $01:32:29.440 \longrightarrow 01:32:31.324$  they're hard to keep track of.

NOTE Confidence: 0.8084226

 $01:32:31.330 \longrightarrow 01:32:33.297$  Some of the ones with the dreaded

NOTE Confidence: 0.8084226

01:32:33.297 --> 01:32:35.618 nut in it can can actually have

NOTE Confidence: 0.8084226

 $01:32:35.618 \longrightarrow 01:32:37.736$  steroids in it and cause adrenal

NOTE Confidence: 0.8084226

 $01:32:37.801 \dashrightarrow 01:32:40.345$  suppression so I've seen it clinically.

NOTE Confidence: 0.8084226

01:32:40.350 --> 01:32:42.954 I've seen it in practice so be

NOTE Confidence: 0.8084226

 $01:32:42.954 \longrightarrow 01:32:45.194$  very very careful with supplements

NOTE Confidence: 0.8084226

 $01:32:45.194 \longrightarrow 01:32:46.700$  like that. And

NOTE Confidence: 0.88584983

 $01:32:46.700 \longrightarrow 01:32:51.005$  we have a final final two questions.

NOTE Confidence: 0.88584983

 $01:32:51.010 \longrightarrow 01:32:53.920$  Any thoughts about low dosing melatonin?

 $01:32:57.110 \longrightarrow 01:32:59.161$  So I think melatonin can be helpful

NOTE Confidence: 0.82669955

 $01:32:59.161 \longrightarrow 01:33:01.289$  for the for certain situations,

NOTE Confidence: 0.82669955

 $01:33:01.290 \longrightarrow 01:33:03.719$  and I think it's it's probably safe.

NOTE Confidence: 0.82669955

 $01:33:03.720 \longrightarrow 01:33:07.860$  I think it is safe. I'll say that.

NOTE Confidence: 0.82669955

 $01{:}33{:}07.860 \dashrightarrow 01{:}33{:}10.023$  The only thing that people make the

NOTE Confidence: 0.82669955

 $01:33:10.023 \longrightarrow 01:33:11.963$  greatest mistake of is they take

NOTE Confidence: 0.82669955

 $01:33:11.963 \longrightarrow 01:33:13.543$  melatonin when they can't sleep.

NOTE Confidence: 0.82669955

 $01{:}33{:}13.550 \dashrightarrow 01{:}33{:}15.536$  You really need to take melaton in

NOTE Confidence: 0.82669955

 $01:33:15.536 \longrightarrow 01:33:17.513$  a few hours before hand to

NOTE Confidence: 0.82669955

 $01:33:17.513 \longrightarrow 01:33:19.543$  really get the full effect and to

NOTE Confidence: 0.8426187

 $01:33:19.550 \dashrightarrow 01:33:22.078$  put you in so sleep. That's great advice.

NOTE Confidence: 0.8426187

01:33:22.080 --> 01:33:24.605 How about set your clock

NOTE Confidence: 0.8426187

 $01:33:24.605 \longrightarrow 01:33:26.120$  when you've traveled?

NOTE Confidence: 0.8426187

01:33:26.120 --> 01:33:28.824 Those who stop working right and interesting.

NOTE Confidence: 0.8426187

 $01:33:28.824 \longrightarrow 01:33:30.815$  Lee, there's a group in Italy

 $01:33:30.815 \longrightarrow 01:33:32.913$  with Sony and others have shown

NOTE Confidence: 0.8426187

 $01{:}33{:}32.913 \dashrightarrow 01{:}33{:}35.033$  they synergy between melaton in and

NOTE Confidence: 0.8426187

 $01:33:35.033 \longrightarrow 01:33:37.310$  some oxygen and endocrine therapy,

NOTE Confidence: 0.8426187

 $01:33:37.310 \longrightarrow 01:33:39.240$  but not in big trials.

NOTE Confidence: 0.8426187

 $01:33:39.240 \longrightarrow 01:33:43.770$  But it's sort of been intriguing about. And

NOTE Confidence: 0.8592131

 $01{:}33{:}43.770 \dashrightarrow 01{:}33{:}45.920$ a quick opinion on intermittent

NOTE Confidence: 0.8592131

 $01:33:45.920 \longrightarrow 01:33:47.640$  fasting during chemo treatments.

NOTE Confidence: 0.7630021

 $01:33:52.260 \longrightarrow 01:33:53.109 I can so$ 

NOTE Confidence: 0.7630021

01:33:53.110 --> 01:33:54.520 caution I. I do a

NOTE Confidence: 0.7630021

 $01:33:54.520 \longrightarrow 01:33:55.558$  lot of this.

NOTE Confidence: 0.7630021

 $01{:}33{:}55.558 \dashrightarrow 01{:}33{:}58.390$  This is what I deal with every day.

NOTE Confidence: 0.7630021

 $01{:}33{:}58.390 \dashrightarrow 01{:}33{:}59.860$  People need to be careful.

NOTE Confidence: 0.7630021

 $01:33:59.860 \longrightarrow 01:34:02.196$  I have patients who want to do this.

NOTE Confidence: 0.7630021

 $01:34:02.200 \longrightarrow 01:34:04.552$  They don't know that this is Valter Longo

NOTE Confidence: 0.7630021

 $01:34:04.552 \longrightarrow 01:34:06.886$  and his work at USC who's looked at.

NOTE Confidence: 0.7630021

 $01:34:06.890 \longrightarrow 01:34:09.123$  You know, it seems to suppress the

 $01:34:09.123 \longrightarrow 01:34:11.050$  chemo side effects normal tissues.

NOTE Confidence: 0.7630021

 $01:34:11.050 \longrightarrow 01:34:12.968$  There has been a concern that it

NOTE Confidence: 0.7630021

01:34:12.968 --> 01:34:14.782 may also suppress the efficacy of

NOTE Confidence: 0.7630021

01:34:14.782 --> 01:34:16.966 chemotherapy in one of his animal models.

NOTE Confidence: 0.7630021

 $01:34:16.970 \longrightarrow 01:34:18.450$  It showed that the animals

NOTE Confidence: 0.7630021

01:34:18.450 --> 01:34:19.930 that didn't die from chemo,

NOTE Confidence: 0.7630021

 $01:34:19.930 \longrightarrow 01:34:21.925$  who were on Internet on a low

NOTE Confidence: 0.7630021

 $01:34:21.925 \longrightarrow 01:34:23.190$  dose fasting before chemo.

NOTE Confidence: 0.7630021

 $01:34:23.190 \longrightarrow 01:34:24.670$  They actually survived the chemo,

NOTE Confidence: 0.7630021

 $01:34:24.670 \longrightarrow 01:34:26.735$  but they died faster than the others.

NOTE Confidence: 0.7630021

 $01:34:26.740 \longrightarrow 01:34:28.220$  That didn't get the fasting.

NOTE Confidence: 0.7630021

 $01:34:28.220 \longrightarrow 01:34:29.990$  So we have to be careful.

NOTE Confidence: 0.7630021

01:34:29.990 --> 01:34:31.470 It's really and you don't

NOTE Confidence: 0.7630021

 $01:34:31.470 \longrightarrow 01:34:32.654$  want to lose weight.

NOTE Confidence: 0.7630021

 $01:34:32.660 \longrightarrow 01:34:35.355$  That's one of the dilemmas with us.

01:34:35.360 --> 01:34:36.401 And become hypoglycemic,

NOTE Confidence: 0.7630021

 $01:34:36.401 \longrightarrow 01:34:38.830$  so it's it's a work in progress.

NOTE Confidence: 0.7630021

 $01:34:38.830 \longrightarrow 01:34:40.190$  I wouldn't recommend it.

NOTE Confidence: 0.7630021

 $01:34:40.190 \longrightarrow 01:34:42.989$  These are things that need to be studied.

NOTE Confidence: 0.7630021

 $01:34:42.990 \longrightarrow 01:34:44.730$  Not promoted without good research.

NOTE Confidence: 0.7630021

 $01:34:44.730 \longrightarrow 01:34:46.460$  If he gets also important

NOTE Confidence: 0.8487576

01:34:46.460 --> 01:34:48.380 to point out that you know

NOTE Confidence: 0.8487576

 $01:34:48.380 \longrightarrow 01:34:50.280$  we use the term cancer,

NOTE Confidence: 0.8487576

 $01:34:50.280 \longrightarrow 01:34:52.114$  but every cancer is different and so

NOTE Confidence: 0.8487576

 $01:34:52.114 \longrightarrow 01:34:53.880$  when we were researching supplements

NOTE Confidence: 0.8487576

 $01{:}34{:}53.880 \dashrightarrow 01{:}34{:}56.175$  or receive searching certain things,

NOTE Confidence: 0.8487576

 $01:34:56.180 \longrightarrow 01:34:58.532$  we're looking at specific types of cancers

NOTE Confidence: 0.8487576

 $01:34:58.532 \longrightarrow 01:35:01.386$  and so you really have to get granular.

NOTE Confidence: 0.8487576

 $01:35:01.390 \longrightarrow 01:35:04.015$  You have to get nuanced about this

NOTE Confidence: 0.8487576

 $01:35:04.015 \longrightarrow 01:35:06.590$  and you can't look at it so probably.

NOTE Confidence: 0.87348324

 $01:35:07.710 \longrightarrow 01:35:09.942$  Yeah, I as an example of that I've

 $01:35:09.942 \longrightarrow 01:35:12.032$  been looking at the use of very high

NOTE Confidence: 0.87348324

01:35:12.032 --> 01:35:14.140 dose vitamin C in pancreatic cancer.

NOTE Confidence: 0.87348324

 $01:35:14.140 \longrightarrow 01:35:15.420$  There are subtypes of

NOTE Confidence: 0.87348324

 $01:35:15.420 \longrightarrow 01:35:17.020$  pancreatic cancer who can lead.

NOTE Confidence: 0.87348324

 $01:35:17.020 \dashrightarrow 01:35:19.281$  Cornell is shown us that have certain

NOTE Confidence: 0.87348324

 $01:35:19.281 \longrightarrow 01:35:21.236$  mutations that seemed to have efficacy

NOTE Confidence: 0.87348324

01:35:21.236 --> 01:35:23.096 and he's still interested in this,

NOTE Confidence: 0.87348324

 $01:35:23.100 \longrightarrow 01:35:25.340$  but many cancers that are slow growing,

NOTE Confidence: 0.87348324

 $01:35:25.340 \longrightarrow 01:35:27.260$  it has no effect at all.

NOTE Confidence: 0.89120054

01:35:30.190 --> 01:35:32.128 OK, so for our last question,

NOTE Confidence: 0.89120054

01:35:32.130 --> 01:35:34.080 should you take a daily multivitamin?

NOTE Confidence: 0.89120054

 $01:35:34.080 \longrightarrow 01:35:36.568$  If you're on a plant based diet and

NOTE Confidence: 0.89120054

 $01:35:36.568 \longrightarrow 01:35:38.940$  currently in good health as a survivor?

NOTE Confidence: 0.8534973

 $01{:}35{:}42.730 \dashrightarrow 01{:}35{:}45.114$ You know, I would say it's not unsafe

NOTE Confidence: 0.8534973

 $01:35:45.114 \longrightarrow 01:35:47.297$  to take a daily multivitamin if

01:35:47.297 --> 01:35:49.565 you are getting an adequate diet.

NOTE Confidence: 0.8534973

01:35:49.570 --> 01:35:51.616 Maybe you don't even need it,

NOTE Confidence: 0.8534973

 $01:35:51.620 \longrightarrow 01:35:55.040$  but it's not unsafe, so it would be OK to

NOTE Confidence: 0.8534973

 $01:35:55.040 \longrightarrow 01:35:56.750$  take. Yeah, and I will

NOTE Confidence: 0.8534973

 $01:35:56.750 \longrightarrow 01:35:59.144$  tell you that all of the studies,

NOTE Confidence: 0.8534973

 $01:35:59.150 \longrightarrow 01:36:00.514$  including Women's Health initiative

NOTE Confidence: 0.8534973

01:36:00.514 --> 01:36:02.566 in cancer survivors, have shown I

NOTE Confidence: 0.8534973

01:36:02.566 --> 01:36:04.960 mentioned that in the Dell CAP study,

NOTE Confidence: 0.8534973

 $01:36:04.960 \longrightarrow 01:36:07.576$  but it turns out that in the Women's

NOTE Confidence: 0.8534973

01:36:07.576 --> 01:36:09.747 Health Initiative and Roman ship blasting,

NOTE Confidence: 0.8534973

 $01{:}36{:}09.750 \dashrightarrow 01{:}36{:}11.948$  all the studies show there seems to

NOTE Confidence: 0.8534973

 $01:36:11.948 \longrightarrow 01:36:14.589$  be a potential benefit by taking a

NOTE Confidence: 0.8534973

 $01:36:14.589 \dashrightarrow 01:36:16.778$  daily multivitamin. But not a lot.

NOTE Confidence: 0.8534973

 $01{:}36{:}16.778 \longrightarrow 01{:}36{:}19.500$  However, you don't want to be taking iron,

NOTE Confidence: 0.8534973

 $01:36:19.500 \longrightarrow 01:36:21.210$  Big deal, and I will.

NOTE Confidence: 0.8534973

 $01:36:21.210 \longrightarrow 01:36:23.225$  Woman study was increased mortality

 $01:36:23.225 \longrightarrow 01:36:25.240$  in women taking supplemental iron.

NOTE Confidence: 0.8534973

01:36:25.240 --> 01:36:26.110 It's enhanced mortality,

NOTE Confidence: 0.8534973

01:36:26.110 --> 01:36:28.140 and of course they didn't need it,

NOTE Confidence: 0.8534973

 $01:36:28.140 \longrightarrow 01:36:30.460$  but they were still on it after menopause.

NOTE Confidence: 0.8534973

 $01:36:30.460 \longrightarrow 01:36:32.660$  So you have to be really careful about

NOTE Confidence: 0.8534973

01:36:32.660 --> 01:36:34.520 what you're taking, but it's healthy.

NOTE Confidence: 0.8534973

01:36:34.520 --> 01:36:37.420 You may not need it, but if you're not sure,

NOTE Confidence: 0.8534973

 $01{:}36{:}37.420 \to 01{:}36{:}39.740$  it's not probably going to have any risk,

NOTE Confidence: 0.8534973

 $01:36:39.740 \longrightarrow 01:36:41.770$  but you don't want to have this

NOTE Confidence: 0.8534973

01:36:41.770 --> 01:36:42.640 high potency multivitamin.

NOTE Confidence: 0.8534973

 $01:36:42.640 \longrightarrow 01:36:43.510$  That's the risk.

NOTE Confidence: 0.87518954

01:36:46.110 --> 01:36:49.600 OK, so I think we're going to wrap it up for

NOTE Confidence: 0.87518954

01:36:49.680 --> 01:36:51.328 this evening we have.

NOTE Confidence: 0.87518954

 $01:36:51.330 \longrightarrow 01:36:53.298$  I've had so many great great

NOTE Confidence: 0.87518954

 $01:36:53.298 \longrightarrow 01:36:55.445$  questions and we will respond back

 $01:36:55.445 \longrightarrow 01:36:57.350$  to anybody's questions that we

NOTE Confidence: 0.87518954

01:36:57.350 --> 01:36:59.678 hadn't did not get to via email.

NOTE Confidence: 0.87518954

 $01:36:59.680 \longrightarrow 01:37:02.440$  We also encourage you to email

NOTE Confidence: 0.87518954

 $01:37:02.440 \longrightarrow 01:37:04.723$  us anymore questions that you

NOTE Confidence: 0.87518954

 $01:37:04.723 \longrightarrow 01:37:07.236$  have and we will get the right.

NOTE Confidence: 0.87518954

 $01:37:07.240 \dashrightarrow 01:37:09.120$  Person to answer your email

NOTE Confidence: 0.87518954

 $01:37:09.120 \longrightarrow 01:37:11.549$  so the email address to answer

NOTE Confidence: 0.87518954

 $01:37:11.549 \longrightarrow 01:37:13.909$  us anymore questions would be

NOTE Confidence: 0.87518954

01:37:13.909 --> 01:37:15.797 cancer answers at yale.edu.

NOTE Confidence: 0.87518954

 $01:37:15.800 \longrightarrow 01:37:18.722$  So it's cancer answer pleural cancer

NOTE Confidence: 0.87518954

01:37:18.722 --> 01:37:22.071 answers at yale.edu and I just want

NOTE Confidence: 0.87518954

 $01:37:22.071 \longrightarrow 01:37:24.261$  to thank our presenters to night

NOTE Confidence: 0.87518954

 $01:37:24.261 \longrightarrow 01:37:27.273$  for taking the time to be with us

NOTE Confidence: 0.87518954

 $01:37:27.273 \longrightarrow 01:37:30.122$  and really give all of your expert

NOTE Confidence: 0.87518954

 $01:37:30.122 \longrightarrow 01:37:32.098$  expert opinions and information

NOTE Confidence: 0.87518954

 $01:37:32.098 \longrightarrow 01:37:34.832$  expert expertise in this and really

01:37:34.832 --> 01:37:37.178 just sharing your time with us.

NOTE Confidence: 0.87518954

01:37:37.180 --> 01:37:39.268 Tonight and for everybody who stuck

NOTE Confidence: 0.87518954

 $01:37:39.268 \longrightarrow 01:37:41.390$  around and stayed with us tonight.

NOTE Confidence: 0.87518954

 $01:37:41.390 \longrightarrow 01:37:42.443$  It was great.

NOTE Confidence: 0.87518954

01:37:42.443 --> 01:37:44.549 This was such such great information,

NOTE Confidence: 0.87518954

 $01:37:44.550 \longrightarrow 01:37:46.094$  such a great success.

NOTE Confidence: 0.87518954

 $01:37:46.094 \longrightarrow 01:37:49.357$  It's so much fun and great to be able

NOTE Confidence: 0.87518954

 $01:37:49.357 \longrightarrow 01:37:52.270$  to have a part to when we have time.

NOTE Confidence: 0.87518954

 $01:37:52.270 \longrightarrow 01:37:54.025$  So thank you everyone and

NOTE Confidence: 0.87518954

 $01:37:54.025 \longrightarrow 01:37:55.429$  stay tuned next week.

NOTE Confidence: 0.87518954

 $01:37:55.430 \longrightarrow 01:37:57.190$  Same time, same zoo station,

NOTE Confidence: 0.87518954

 $01:37:57.190 \longrightarrow 01:37:58.394$  zoom at 7:00 o'clock.

NOTE Confidence: 0.87518954

 $01:37:58.394 \dashrightarrow 01:38:00.200$ Next Tuesday we will be talking

NOTE Confidence: 0.87518954

 $01:38:00.265 \longrightarrow 01:38:01.885$  about holistic coping strategies

NOTE Confidence: 0.87518954

 $01:38:01.885 \longrightarrow 01:38:03.505$  for our cancer survivor.

01:38:03.510 --> 01:38:05.820 So I wish you all a good

NOTE Confidence: 0.87518954

 $01:38:05.820 \longrightarrow 01:38:07.719$  night and thank you again.

NOTE Confidence: 0.85417664

01:38:08.650 --> 01:38:09.820 Thanks for having

NOTE Confidence: 0.85417664

01:38:09.820 --> 01:38:10.978 us. Thank you

NOTE Confidence: 0.85417664

 $01:38:10.980 \longrightarrow 01:38:12.540$  so much mate everybody.

NOTE Confidence: 0.76811385

 $01:38:14.770 \longrightarrow 01:38:17.344$  Thanks Emily.