

WEBVTT

00:00:00.000 --> 00:00:02.475 Support for Yale Cancer Answers

NOTE Confidence: 0.9132006

00:00:02.475 --> 00:00:04.922 comes from AstraZeneca, working to

NOTE Confidence: 0.9132006

00:00:04.922 --> 00:00:08.296 eliminate cancer as a cause of death.

NOTE Confidence: 0.9132006

00:00:08.300 --> 00:00:11.840 Learn more at [astrazeneca-us.com](http://astrazeneca-us.com).

NOTE Confidence: 0.9132006

00:00:11.840 --> 00:00:13.304 Welcome to Yale Cancer

NOTE Confidence: 0.9132006

00:00:13.304 --> 00:00:14.768 Answers with your host

NOTE Confidence: 0.9132006

00:00:14.770 --> 00:00:16.595 Doctor Anees Chagpar.

NOTE Confidence: 0.9132006

00:00:18.060 --> 00:00:20.015 Yale Cancer Answers features the

NOTE Confidence: 0.9132006

00:00:20.015 --> 00:00:22.415 latest information on cancer care by

NOTE Confidence: 0.9132006

00:00:22.415 --> 00:00:23.955 welcoming oncologists and specialists

NOTE Confidence: 0.9132006

00:00:23.955 --> 00:00:26.532 who are on the forefront of the

NOTE Confidence: 0.9132006

00:00:26.532 --> 00:00:28.308 battle to fight cancer. This week,

NOTE Confidence: 0.9132006

00:00:28.310 --> 00:00:30.025 it's a conversation about thyroid

NOTE Confidence: 0.9132006

00:00:30.025 --> 00:00:31.740 cancer and the management of

NOTE Confidence: 0.9132006

00:00:31.804 --> 00:00:33.799 thyroid nodules with Doctor Grace Lee.

NOTE Confidence: 0.9132006

00:00:33.800 --> 00:00:35.750 Doctor Lee is an assistant professor  
NOTE Confidence: 0.9132006

00:00:35.750 --> 00:00:38.102 in the section of endocrinology and  
NOTE Confidence: 0.9132006

00:00:38.102 --> 00:00:40.130 metabolism at the Yale School of  
NOTE Confidence: 0.9132006

00:00:40.130 --> 00:00:42.272 Medicine where Doctor Schwartz is the  
NOTE Confidence: 0.9132006

00:00:42.272 --> 00:00:44.408 John Slade Eli Professor of obstetrics,  
NOTE Confidence: 0.9132006

00:00:44.410 --> 00:00:47.618 gynecology and Reproductive Sciences.  
NOTE Confidence: 0.9132006

00:00:47.950 --> 00:00:49.762 Doctor Lee, my first question is  
NOTE Confidence: 0.93558043

00:00:49.762 --> 00:00:52.402 can you tell us a little bit about  
NOTE Confidence: 0.93558043

00:00:52.402 --> 00:00:54.442 yourself and your area of expertise?  
NOTE Confidence: 0.93558043

00:00:54.450 --> 00:00:56.070 What cancers do you treat?  
NOTE Confidence: 0.93558043

00:00:56.070 --> 00:00:58.020 What's your role at the Veterans  
NOTE Confidence: 0.93558043

00:00:58.020 --> 00:00:58.670 Administration Hospital?  
NOTE Confidence: 0.9168032

00:01:00.310 --> 00:01:01.766 So as you mentioned,  
NOTE Confidence: 0.9168032

00:01:01.766 --> 00:01:03.950 I'm assistant professor of Medicine in  
NOTE Confidence: 0.9168032

00:01:04.021 --> 00:01:06.307 the section of endocrinology at Yale.  
NOTE Confidence: 0.9168032

00:01:06.310 --> 00:01:08.190 There I teach Endocrinology Fellows,

NOTE Confidence: 0.9168032

00:01:08.190 --> 00:01:09.686 medical residents as well

NOTE Confidence: 0.9168032

00:01:09.686 --> 00:01:10.808 as medical students.

NOTE Confidence: 0.9168032

00:01:10.810 --> 00:01:12.795 I'm also a clinical endocrinologist

NOTE Confidence: 0.9168032

00:01:12.795 --> 00:01:14.780 at the Veterans Affairs Connecticut

NOTE Confidence: 0.9168032

00:01:14.839 --> 00:01:16.439 healthcare system for the VA.

NOTE Confidence: 0.9168032

00:01:16.440 --> 00:01:19.440 I serve veterans at both the West Haven,

NOTE Confidence: 0.9168032

00:01:19.440 --> 00:01:20.565 and Newington locations.

NOTE Confidence: 0.9168032

00:01:20.565 --> 00:01:22.440 My areas of expertise include

NOTE Confidence: 0.9168032

00:01:22.440 --> 00:01:23.940 thyroid nodules, thyroid cancer,

NOTE Confidence: 0.9168032

00:01:25.440 --> 00:01:27.690 along with other metabolic bone diseases.

NOTE Confidence: 0.9168032

00:01:27.690 --> 00:01:29.560 I also practice general endocrinology.

NOTE Confidence: 0.9036068

00:01:32.180 --> 00:01:34.220 How common is thyroid cancer,

NOTE Confidence: 0.9036068

00:01:34.220 --> 00:01:35.240 especially in veterans?

NOTE Confidence: 0.9036068

00:01:35.240 --> 00:01:37.280 And how is it typically diagnosed?

NOTE Confidence: 0.9036068

00:01:37.280 --> 00:01:38.980 Are there any symptoms that

NOTE Confidence: 0.9036068

00:01:38.980 --> 00:01:40.680 people should be aware of?  
NOTE Confidence: 0.9036068

00:01:40.680 --> 00:01:43.060 In general, I can tell you  
NOTE Confidence: 0.9036068

00:01:43.060 --> 00:01:44.380 about the thyroid itself.  
NOTE Confidence: 0.9036068

00:01:44.380 --> 00:01:46.779 Not a lot of people know where  
NOTE Confidence: 0.9036068

00:01:46.779 --> 00:01:48.840 the thyroid is, so let's start  
NOTE Confidence: 0.9036068

00:01:48.840 --> 00:01:50.880 off by saying where that is.  
NOTE Confidence: 0.9036068

00:01:50.880 --> 00:01:52.920 It's a gland that's very  
NOTE Confidence: 0.9036068

00:01:52.920 --> 00:01:54.280 important to the body.  
NOTE Confidence: 0.9036068

00:01:54.280 --> 00:01:57.496 It's in the front of the neck and  
NOTE Confidence: 0.9036068

00:01:57.496 --> 00:02:00.700 is right on top of your windpipe.  
NOTE Confidence: 0.9036068

00:02:00.700 --> 00:02:02.938 You know when you ask about  
NOTE Confidence: 0.9036068

00:02:02.938 --> 00:02:04.720 how common thyroid cancer is,  
NOTE Confidence: 0.9036068

00:02:04.720 --> 00:02:07.079 it really depends on the type of  
NOTE Confidence: 0.9036068

00:02:07.079 --> 00:02:09.460 thyroid cancer that we're talking about.  
NOTE Confidence: 0.9036068

00:02:09.460 --> 00:02:11.285 And mainly there's about four  
NOTE Confidence: 0.9036068

00:02:11.285 --> 00:02:13.110 different types of thyroid cancer,

NOTE Confidence: 0.9036068

00:02:13.110 --> 00:02:14.570 the most common being

NOTE Confidence: 0.9036068

00:02:14.570 --> 00:02:15.665 papillary thyroid cancer,

NOTE Confidence: 0.9036068

00:02:15.670 --> 00:02:18.092 and that's about 15 in every 100,000

NOTE Confidence: 0.9036068

00:02:18.092 --> 00:02:20.642 people an this being the most common

NOTE Confidence: 0.9036068

00:02:20.642 --> 00:02:23.249 type of cancer is actually also the

NOTE Confidence: 0.9036068

00:02:23.249 --> 00:02:25.517 most benign type of thyroid cancer.

NOTE Confidence: 0.9036068

00:02:25.520 --> 00:02:27.096 I shouldn't say benign,

NOTE Confidence: 0.9036068

00:02:27.096 --> 00:02:29.066 the least aggressive of all

NOTE Confidence: 0.9036068

00:02:29.066 --> 00:02:31.080 different types of thyroid cancer.

NOTE Confidence: 0.9036068

00:02:31.080 --> 00:02:32.750 The more aggressive type would

NOTE Confidence: 0.9036068

00:02:32.750 --> 00:02:34.086 be considered something called

NOTE Confidence: 0.9036068

00:02:34.086 --> 00:02:35.169 anaplastic thyroid cancer,

NOTE Confidence: 0.9036068

00:02:35.170 --> 00:02:36.875 which Fortunately is only less

NOTE Confidence: 0.9036068

00:02:36.875 --> 00:02:38.924 than 3% of the different types

NOTE Confidence: 0.9036068

00:02:38.924 --> 00:02:40.629 of thyroid cancer that exists.

NOTE Confidence: 0.9036068

00:02:40.630 --> 00:02:42.622 You asked about symptoms that people

NOTE Confidence: 0.9036068

00:02:42.622 --> 00:02:45.399 should be aware of and how it's diagnosed.

NOTE Confidence: 0.9036068

00:02:45.400 --> 00:02:46.764 Typically somebody may notice

NOTE Confidence: 0.9036068

00:02:46.764 --> 00:02:48.469 a lump in their neck,

NOTE Confidence: 0.9036068

00:02:48.470 --> 00:02:50.456 which can be either from a

NOTE Confidence: 0.9036068

00:02:50.456 --> 00:02:52.886 Mass in the thyroid or from an

NOTE Confidence: 0.9036068

00:02:52.886 --> 00:02:54.950 abnormal lymph node in the neck,

NOTE Confidence: 0.9036068

00:02:54.950 --> 00:02:56.660 or an enlarged lymph node.

NOTE Confidence: 0.9036068

00:02:56.660 --> 00:02:58.360 Another way it's typically diagnoses,

NOTE Confidence: 0.9036068

00:02:58.360 --> 00:02:59.082 actually, incidentally,

NOTE Confidence: 0.9036068

00:02:59.082 --> 00:02:59.804 for example,

NOTE Confidence: 0.9036068

00:02:59.804 --> 00:03:01.248 if somebody has a.

NOTE Confidence: 0.9036068

00:03:01.250 --> 00:03:02.865 Car accident and has a

NOTE Confidence: 0.9036068

00:03:02.865 --> 00:03:04.480 cat scan for their neck.

NOTE Confidence: 0.9036068

00:03:04.480 --> 00:03:06.214 They might be surprised to find

NOTE Confidence: 0.9036068

00:03:06.214 --> 00:03:08.359 out that they have thyroid nodules,

NOTE Confidence: 0.9036068

00:03:08.360 --> 00:03:10.425 but actually they are very common and

NOTE Confidence: 0.9036068

00:03:10.425 --> 00:03:12.420 thyroid cancer is actually a very

NOTE Confidence: 0.9036068

00:03:12.420 --> 00:03:14.165 small percentage of thyroid nodules.

NOTE Confidence: 0.9036068

00:03:14.170 --> 00:03:16.006 But those are the main different

NOTE Confidence: 0.9036068

00:03:16.006 --> 00:03:17.964 types of thyroid cancer and chances

NOTE Confidence: 0.9036068

00:03:17.964 --> 00:03:19.974 are if you're diagnosed with thyroid

NOTE Confidence: 0.9036068

00:03:19.980 --> 00:03:21.595 cancer it is probably going to

NOTE Confidence: 0.9036068

00:03:21.595 --> 00:03:22.887 be papillary thyroid cancer.

NOTE Confidence: 0.9203451

00:03:25.850 --> 00:03:28.626 I was very interested to see a

NOTE Confidence: 0.9203451

00:03:28.626 --> 00:03:30.647 difference between women and men in

NOTE Confidence: 0.9203451

00:03:30.647 --> 00:03:33.050 terms of the incidence of thyroid cancer.

NOTE Confidence: 0.9203451

00:03:33.050 --> 00:03:35.486 My impression is that women now have

NOTE Confidence: 0.9203451

00:03:35.486 --> 00:03:38.199 about 3 times as many cancers as men,

NOTE Confidence: 0.9203451

00:03:38.200 --> 00:03:41.287 but it seems to be less deadly in women.

NOTE Confidence: 0.9203451

00:03:41.290 --> 00:03:43.602 Can you talk to us a little bit

NOTE Confidence: 0.9203451

00:03:43.602 --> 00:03:46.087 about how this phenomenon may occur

NOTE Confidence: 0.9203451

00:03:46.090 --> 00:03:48.826 and what should women be aware of,

NOTE Confidence: 0.9203451

00:03:48.830 --> 00:03:49.520 particularly during

NOTE Confidence: 0.9203451

00:03:49.520 --> 00:03:51.578 reproductive age?

NOTE Confidence: 0.9203451

00:03:51.580 --> 00:03:54.800 It's not exactly known why that's true.

NOTE Confidence: 0.9203451

00:03:54.800 --> 00:03:56.405 Some people think that women

NOTE Confidence: 0.9203451

00:03:56.405 --> 00:03:58.694 come under the care

NOTE Confidence: 0.9203451

00:03:58.694 --> 00:04:00.536 of providers more than men do,

NOTE Confidence: 0.9203451

00:04:00.540 --> 00:04:03.730 and it's true that in men it seems to be

NOTE Confidence: 0.9203451

00:04:03.730 --> 00:04:07.097 more of an aggressive

NOTE Confidence: 0.9203451

00:04:07.100 --> 00:04:08.234 cancer, however,

NOTE Confidence: 0.9203451

00:04:08.234 --> 00:04:10.880 it's all individual based on

NOTE Confidence: 0.9203451

00:04:10.945 --> 00:04:12.937 the patient and that doesn't necessarily

NOTE Confidence: 0.9203451

00:04:12.937 --> 00:04:15.440 mean that all men are going to have

NOTE Confidence: 0.9203451

00:04:15.440 --> 00:04:17.788 poor prognoses.

NOTE Confidence: 0.9203451

00:04:17.788 --> 00:04:20.126 I forgot to mention earlier,



NOTE Confidence: 0.9203451

00:04:20.130 --> 00:04:22.706 you mentioned what other

NOTE Confidence: 0.9203451

00:04:22.706 --> 00:04:24.795 symptoms that women should watch out

NOTE Confidence: 0.9203451

00:04:24.795 --> 00:04:27.312 for and men should watch out for.

NOTE Confidence: 0.9203451

00:04:27.312 --> 00:04:29.808 In addition to looking for lumps in the neck,

NOTE Confidence: 0.9203451

00:04:29.810 --> 00:04:32.429 which you may just find by feeling your neck

NOTE Confidence: 0.9203451

00:04:32.429 --> 00:04:35.159 you can actually, as the disease progresses,

NOTE Confidence: 0.9203451

00:04:35.160 --> 00:04:36.222 have compressive symptoms.

00:04:38.350 --> 00:04:40.471 So symptoms where in the neck

NOTE Confidence: 0.9203451

00:04:40.471 --> 00:04:42.900 the mass in the thyroid is large,

NOTE Confidence: 0.9203451

00:04:42.900 --> 00:04:44.850 it can push on different structures.

NOTE Confidence: 0.9203451

00:04:44.850 --> 00:04:46.978 For example, it can make it difficult

NOTE Confidence: 0.9203451

00:04:46.978 --> 00:04:48.430 to swallow or breathe.

NOTE Confidence: 0.9203451

00:04:48.430 --> 00:04:51.030 It can also actually cause a hoarse voice.

NOTE Confidence: 0.9203451

00:04:51.030 --> 00:04:52.550 There's an important nerve that

NOTE Confidence: 0.9203451

00:04:52.550 --> 00:04:54.491 travels near the thyroid called the

NOTE Confidence: 0.9203451

00:04:54.491 --> 00:04:56.552 recurrent laryngeal nerve, and if that

NOTE Confidence: 0.9203451

00:04:56.552 --> 00:04:58.496 is somehow invaded or pushed upon,

NOTE Confidence: 0.9203451

00:04:58.500 --> 00:05:00.450 that can cause a horse voice.

NOTE Confidence: 0.9203451

00:05:00.450 --> 00:05:03.050 In addition to that, when it's very large,

NOTE Confidence: 0.9203451

00:05:03.050 --> 00:05:04.290 if you're lying flat,

NOTE Confidence: 0.9203451

00:05:04.290 --> 00:05:05.840 people actually feel like

NOTE Confidence: 0.9203451

00:05:05.840 --> 00:05:07.292 they're choking, but again,

NOTE Confidence: 0.9203451

00:05:07.292 --> 00:05:08.947 these are more advanced forms

NOTE Confidence: 0.9203451

00:05:08.947 --> 00:05:10.250 of the cancer and

NOTE Confidence: 0.9203451

00:05:10.250 --> 00:05:12.427 not typically in the very early stages.

NOTE Confidence: 0.9338352

00:05:13.660 --> 00:05:16.33 I noticed that during pregnancy,

NOTE Confidence: 0.9338352

00:05:16.330 --> 00:05:18.110 especially thyroid nodules in

NOTE Confidence: 0.9338352

00:05:18.110 --> 00:05:20.780 thyroid cancer can present in women

NOTE Confidence: 0.91300833

00:05:22.920 --> 00:05:26.286 yet they seem to be very low grade.

NOTE Confidence: 0.91300833

00:05:26.290 --> 00:05:28.908 Can you tell us a little bit

NOTE Confidence: 0.91300833

00:05:28.908 --> 00:05:30.400 about that phenomenon?

NOTE Confidence: 0.91300833

00:05:30.400 --> 00:05:32.638 Thyroid cancer in pregnancy does happen.

NOTE Confidence: 0.91300833

00:05:32.640 --> 00:05:35.632 I would say that in most cases when

NOTE Confidence: 0.91300833

00:05:35.632 --> 00:05:38.510 this occurs, as long as it's what we

NOTE Confidence: 0.91300833

00:05:38.510 --> 00:05:40.500 think is papillary thyroid cancer,

NOTE Confidence: 0.91300833

00:05:40.500 --> 00:05:42.948 we typically do not like to

NOTE Confidence: 0.91300833

00:05:42.948 --> 00:05:45.359 operate on pregnant women.

NOTE Confidence: 0.91300833

00:05:45.360 --> 00:05:47.677 An OB I'm sure would feel the same

NOTE Confidence: 0.91300833

00:05:47.677 --> 00:05:50.218 and we will monitor the nodule

NOTE Confidence: 0.91300833

00:05:50.220 --> 00:05:51.411 and recommend surgery

NOTE Confidence: 0.91300833

00:05:51.411 --> 00:05:54.190 ideally after the birth of the child.

NOTE Confidence: 0.91300833

00:05:54.190 --> 00:05:56.758 However, I would say in rare cases if

NOTE Confidence: 0.91300833

00:05:56.758 --> 00:05:58.700 something like anaplastic is found,

NOTE Confidence: 0.91300833

00:05:58.700 --> 00:06:00.435 which I've never had happened

NOTE Confidence: 0.91300833

00:06:00.435 --> 00:06:02.170 to me or my patients,

NOTE Confidence: 0.91300833

00:06:02.170 --> 00:06:04.599 but if that were to happen, management,

NOTE Confidence: 0.91300833

00:06:04.600 --> 00:06:06.340 I assume would be different,

NOTE Confidence: 0.91300833

00:06:06.340 --> 00:06:08.075 but typically because the cancers

NOTE Confidence: 0.91300833

00:06:08.075 --> 00:06:09.810 tend to be less aggressive,

NOTE Confidence: 0.91300833

00:06:09.810 --> 00:06:12.029 we try to put off surgery for

NOTE Confidence: 0.91300833

00:06:12.029 --> 00:06:13.969 the thyroid in someone who's

NOTE Confidence: 0.89682907

00:06:13.970 --> 00:06:16.889 pregnant.

NOTE Confidence: 0.89682907

00:06:16.890 --> 00:06:18.850 And for veterans in the Vietnam War,

NOTE Confidence: 0.89682907

00:06:18.850 --> 00:06:21.349 of course, Agent Orange became an issue

NOTE Confidence: 0.89682907

00:06:21.349 --> 00:06:24.181 and I know that there's one recent

NOTE Confidence: 0.89682907

00:06:24.181 --> 00:06:26.707 study that suggested that there was

NOTE Confidence: 0.89682907

00:06:26.787 --> 00:06:29.412 a 24 % relative risk measure

NOTE Confidence: 0.89682907

00:06:29.412 --> 00:06:31.750 or increased risk of thyroid cancers,

NOTE Confidence: 0.89682907

00:06:31.750 --> 00:06:34.090 and those exposed to Agent Orange.

NOTE Confidence: 0.89682907

00:06:34.090 --> 00:06:36.722 Is this still a problem for our

NOTE Confidence: 0.89682907

00:06:36.722 --> 00:06:39.397 Vietnam Veterans today and are

NOTE Confidence: 0.89682907

00:06:39.397 --> 00:06:41.611 veterans from the Middle East exposed

NOTE Confidence: 0.89682907

00:06:41.683 --> 00:06:44.257 to increased risk for thyroid cancer?  
NOTE Confidence: 0.89682907

00:06:44.260 --> 00:06:45.820 So those are all  
NOTE Confidence: 0.92615265

00:06:45.820 --> 00:06:46.664 great questions.  
NOTE Confidence: 0.92615265

00:06:46.664 --> 00:06:49.196 I can't tell you the exact  
NOTE Confidence: 0.92615265

00:06:49.200 --> 00:06:51.837 answer to that, although I can say that if  
NOTE Confidence: 0.92615265

00:06:51.837 --> 00:06:54.018 there's any type of radiation exposure,  
NOTE Confidence: 0.92615265

00:06:54.020 --> 00:06:56.650 especially at a younger age,  
NOTE Confidence: 0.92615265

00:06:56.650 --> 00:06:58.210 that does increase  
NOTE Confidence: 0.92615265

00:06:58.210 --> 00:07:00.160 someone's risk of thyroid cancer,  
NOTE Confidence: 0.92615265

00:07:00.160 --> 00:07:02.500 and typically we think of incidents  
NOTE Confidence: 0.92615265

00:07:02.500 --> 00:07:04.060 like Chernobyl or  
NOTE Confidence: 0.92615265

00:07:04.060 --> 00:07:05.392 nuclear accidents that occur.  
NOTE Confidence: 0.92615265

00:07:05.392 --> 00:07:08.401 So any agents that are used that  
NOTE Confidence: 0.92615265

00:07:08.401 --> 00:07:10.297 potentially could have radioactivity.  
NOTE Confidence: 0.92615265

00:07:10.300 --> 00:07:12.490 There are also certain explosive devices  
NOTE Confidence: 0.92615265

00:07:12.490 --> 00:07:14.590 that may have involved radiation.

NOTE Confidence: 0.92615265

00:07:14.590 --> 00:07:15.643 Anything like that.

NOTE Confidence: 0.92615265

00:07:15.643 --> 00:07:17.749 If you're in contact with that it

NOTE Confidence: 0.92615265

00:07:17.749 --> 00:07:19.473 can certainly increase your

NOTE Confidence: 0.92615265

00:07:19.473 --> 00:07:21.610 risk of thyroid cancer, yes.

NOTE Confidence: 0.9259281

00:07:23.140 --> 00:07:25.790 And what are the treatment

NOTE Confidence: 0.9259281

00:07:25.790 --> 00:07:27.910 options available to patients?

NOTE Confidence: 0.9135173

00:07:28.800 --> 00:07:30.630 So in terms of treatment in

NOTE Confidence: 0.9135173

00:07:30.630 --> 00:07:32.899 patients who have what's called the

NOTE Confidence: 0.9135173

00:07:32.899 --> 00:07:34.378 differentiated thyroid cancers,

NOTE Confidence: 0.9135173

00:07:34.380 --> 00:07:36.977 which are the very well developed cancers

NOTE Confidence: 0.9135173

00:07:36.980 --> 00:07:38.840 we mentioned, papillary thyroid cancer,

NOTE Confidence: 0.9135173

00:07:38.840 --> 00:07:41.078 follicular thyroid cancer is another type.

NOTE Confidence: 0.9135173

00:07:41.080 --> 00:07:42.770 The main treatment actually is

NOTE Confidence: 0.9135173

00:07:42.770 --> 00:07:44.954 surgery to remove the thyroid

NOTE Confidence: 0.9135173

00:07:44.954 --> 00:07:47.079 cancer that's present and luckily

NOTE Confidence: 0.9135173

00:07:47.079 --> 00:07:49.166 we have specialist surgeons who  
NOTE Confidence: 0.9135173

00:07:49.166 --> 00:07:51.116 can provide this kind of surgery.  
NOTE Confidence: 0.9135173

00:07:51.120 --> 00:07:53.322 People who have high volumes of  
NOTE Confidence: 0.9135173

00:07:53.322 --> 00:07:56.339 these types of patients to work on,  
NOTE Confidence: 0.9135173

00:07:56.339 --> 00:07:58.189 they tend to have minimal complications.  
NOTE Confidence: 0.9135173

00:07:58.190 --> 00:08:01.598 So really surgery is the mainstay  
NOTE Confidence: 0.9135173

00:08:01.600 --> 00:08:02.844 treatment for thyroid cancer.  
NOTE Confidence: 0.9135173

00:08:02.844 --> 00:08:05.290 In terms of types of thyroid surgeries,  
NOTE Confidence: 0.9135173

00:08:05.290 --> 00:08:07.460 you can either do a total thyroidectomy  
NOTE Confidence: 0.9135173

00:08:07.460 --> 00:08:10.222 which is to take out the entire thyroid  
NOTE Confidence: 0.9135173

00:08:10.222 --> 00:08:12.379 gland or a thyroidectomy  
NOTE Confidence: 0.9135173

00:08:12.379 --> 00:08:15.003 to remove just half the gland  
NOTE Confidence: 0.9135173

00:08:15.003 --> 00:08:17.236 depending on where and how large the  
NOTE Confidence: 0.9135173

00:08:17.236 --> 00:08:19.322 tumor is will determine the surgeons  
NOTE Confidence: 0.9135173

00:08:19.322 --> 00:08:21.596 approach in whether they'll take out  
NOTE Confidence: 0.9135173

00:08:21.596 --> 00:08:23.904 the entire gland or half the gland

NOTE Confidence: 0.9135173

00:08:23.904 --> 00:08:26.380 and then in addition to that there can

NOTE Confidence: 0.9135173

00:08:26.380 --> 00:08:28.360 be extra surgery called a dissection

NOTE Confidence: 0.9135173

00:08:28.360 --> 00:08:30.840 to take out any affected lymph nodes,

NOTE Confidence: 0.9135173

00:08:30.840 --> 00:08:33.380 typically in the neck area

NOTE Confidence: 0.9135173

00:08:33.380 --> 00:08:35.156 in the middle of the neck

NOTE Confidence: 0.9135173

00:08:35.156 --> 00:08:36.340 where the thyroid is,

NOTE Confidence: 0.9135173

00:08:36.340 --> 00:08:38.995 but then also on the sides of the neck.

NOTE Confidence: 0.9135173

00:08:39.000 --> 00:08:41.142 So actually one of the things that's

NOTE Confidence: 0.9135173

00:08:41.142 --> 00:08:42.378 really important before somebody

NOTE Confidence: 0.9135173

00:08:42.378 --> 00:08:44.233 has surgery for thyroid cancer is to

NOTE Confidence: 0.9135173

00:08:44.233 --> 00:08:46.042 have a neck ultrasound looking at

NOTE Confidence: 0.9135173

00:08:46.042 --> 00:08:47.878 all the lymph nodes including the

NOTE Confidence: 0.9135173

00:08:47.880 --> 00:08:49.968 sides of the neck so that the surgeon

NOTE Confidence: 0.9135173

00:08:49.968 --> 00:08:51.614 can plan the appropriate operation

NOTE Confidence: 0.9135173

00:08:51.614 --> 00:08:54.085 and really have the best outcome and

NOTE Confidence: 0.9135173



00:08:54.142 --> 00:08:55.277 not have to go again  
NOTE Confidence: 0.90298164

00:08:55.280 --> 00:08:56.186 for surgery.  
NOTE Confidence: 0.90298164

00:08:56.186 --> 00:08:58.904 I understand that there is some  
NOTE Confidence: 0.90298164

00:08:58.910 --> 00:09:00.198 controversy about how extensive  
NOTE Confidence: 0.90298164

00:09:00.198 --> 00:09:01.486 the surgery should be.  
NOTE Confidence: 0.90298164

00:09:01.490 --> 00:09:03.722 What would be the difference between  
NOTE Confidence: 0.90298164

00:09:03.722 --> 00:09:05.525 a partial thyroidectomy versus the  
NOTE Confidence: 0.90298164

00:09:05.525 --> 00:09:07.345 complete removal of a gland in terms  
NOTE Confidence: 0.90298164

00:09:07.345 --> 00:09:09.540 of the patient and her side affects?  
NOTE Confidence: 0.90298164

00:09:09.540 --> 00:09:11.790 So that's a good question. In  
NOTE Confidence: 0.92633855

00:09:11.790 --> 00:09:13.365 terms of total thyroidectomy which  
NOTE Confidence: 0.92633855

00:09:13.365 --> 00:09:15.330 is taking up the entire gland,  
NOTE Confidence: 0.92633855

00:09:15.330 --> 00:09:17.738 actually in both cases I should probably  
NOTE Confidence: 0.92633855

00:09:17.738 --> 00:09:19.985 talk about what the risks are in  
NOTE Confidence: 0.92633855

00:09:19.985 --> 00:09:22.090 both and then kind of separate them.  
NOTE Confidence: 0.92633855

00:09:22.090 --> 00:09:24.322 So a risk of course in any procedure

NOTE Confidence: 0.92633855

00:09:24.322 --> 00:09:26.279 would be infection or bleeding,

NOTE Confidence: 0.92633855

00:09:26.280 --> 00:09:29.456 but in particular to thyroid surgery is that

NOTE Confidence: 0.92633855

00:09:29.460 --> 00:09:31.707 there could be damage to that

NOTE Confidence: 0.92633855

00:09:31.707 --> 00:09:33.979 nerve that we mentioned earlier,

NOTE Confidence: 0.92633855

00:09:33.980 --> 00:09:36.308 the recurrent laryngeal nerve which could

NOTE Confidence: 0.92633855

00:09:36.308 --> 00:09:38.629 actually cause a permanent or temporary

NOTE Confidence: 0.92633855

00:09:38.629 --> 00:09:40.765 hoarse voice for someone.

NOTE Confidence: 0.92633855

00:09:40.770 --> 00:09:43.409 Actually, that can be a big change

NOTE Confidence: 0.92633855

00:09:43.409 --> 00:09:45.294 in their life, especially someone

NOTE Confidence: 0.92633855

00:09:45.294 --> 00:09:47.179 who's a singer or their vocation

NOTE Confidence: 0.92633855

00:09:47.180 --> 00:09:49.060 includes speaking and giving lectures,

NOTE Confidence: 0.92633855

00:09:49.060 --> 00:09:51.390 for example.

NOTE Confidence: 0.92633855

00:09:51.390 --> 00:09:53.538 In terms of other side effects,

NOTE Confidence: 0.92633855

00:09:53.540 --> 00:09:55.115 right behind the thyroid gland

NOTE Confidence: 0.92633855

00:09:55.115 --> 00:09:57.182 are tiny little rice grain sized

NOTE Confidence: 0.92633855

00:09:57.182 --> 00:09:58.906 glands called parathyroid glands.

NOTE Confidence: 0.92633855

00:09:58.910 --> 00:09:59.969 And

NOTE Confidence: 0.92633855

00:09:59.969 --> 00:10:01.734 even though they're very small,

NOTE Confidence: 0.92633855

00:10:01.740 --> 00:10:03.365 they are very important in

NOTE Confidence: 0.92633855

00:10:03.365 --> 00:10:04.990 controlling the body's calcium level,

NOTE Confidence: 0.92633855

00:10:04.990 --> 00:10:06.290 and as you know,

NOTE Confidence: 0.92633855

00:10:06.290 --> 00:10:08.240 things like really like the heart,

NOTE Confidence: 0.92633855

00:10:08.240 --> 00:10:08.918 for example,

NOTE Confidence: 0.92633855

00:10:08.918 --> 00:10:10.274 rely on important calcium

NOTE Confidence: 0.92633855

00:10:10.274 --> 00:10:11.985 concentration so you know those

NOTE Confidence: 0.92633855

00:10:11.985 --> 00:10:13.755 glands are essential to the body.

NOTE Confidence: 0.92633855

00:10:13.760 --> 00:10:15.930 And it takes a very skilled surgeon

NOTE Confidence: 0.92633855

00:10:15.930 --> 00:10:18.193 to make sure that those are not

NOTE Confidence: 0.92633855

00:10:18.193 --> 00:10:20.502 harmed or the blood supply to those

NOTE Confidence: 0.92633855

00:10:20.502 --> 00:10:22.536 glands are not harmed as well.

NOTE Confidence: 0.92633855

00:10:22.540 --> 00:10:24.028 So one of the complications can

NOTE Confidence: 0.92633855

00:10:24.028 --> 00:10:25.467 be an under active parathyroid

NOTE Confidence: 0.92633855

00:10:25.467 --> 00:10:27.447 gland or parathyroid glands

NOTE Confidence: 0.92633855

00:10:27.447 --> 00:10:29.031 that aren't functioning properly.

NOTE Confidence: 0.92633855

00:10:29.040 --> 00:10:30.720 So I would say that

NOTE Confidence: 0.92633855

00:10:30.720 --> 00:10:31.416 in particular,

NOTE Confidence: 0.92633855

00:10:31.416 --> 00:10:33.156 that parathyroid effect would be

NOTE Confidence: 0.92633855

00:10:33.156 --> 00:10:35.587 a higher risk in patients with a

NOTE Confidence: 0.92633855

00:10:35.587 --> 00:10:36.911 total thyroidectomy versus only

NOTE Confidence: 0.92633855

00:10:36.911 --> 00:10:39.118 half of the thyroid being removed.

NOTE Confidence: 0.92633855

00:10:39.120 --> 00:10:41.840 But even then the risk is actually very

NOTE Confidence: 0.92633855

00:10:41.840 --> 00:10:45.069 quite low in patients who have both

NOTE Confidence: 0.92633855

00:10:45.070 --> 00:10:46.820 these procedures in experienced hands.

NOTE Confidence: 0.92633855

00:10:46.820 --> 00:10:48.570 So I really don't worry

NOTE Confidence: 0.92633855

00:10:48.570 --> 00:10:50.320 about that for my patients.

NOTE Confidence: 0.92633855

00:10:50.320 --> 00:10:52.770 It sounds like experience is

NOTE Confidence: 0.9285426

00:10:52.770 --> 00:10:55.143 a major issue and you really want  
NOTE Confidence: 0.9285426

00:10:55.143 --> 00:10:57.818 to be sure to have a surgeon who  
NOTE Confidence: 0.9285426

00:10:57.818 --> 00:11:00.744 does a lot of these surgeries on a  
NOTE Confidence: 0.9285426

00:11:00.744 --> 00:11:03.720 routine basis  
NOTE Confidence: 0.9285426

00:11:03.720 --> 00:11:06.850 if a total thyroidectomy is  
NOTE Confidence: 0.9285426

00:11:06.850 --> 00:11:08.270 performed. What additional  
NOTE Confidence: 0.9285426

00:11:08.270 --> 00:11:09.850 replacement therapies are necessary  
NOTE Confidence: 0.9285426

00:11:09.850 --> 00:11:11.946 for the patient versus the  
NOTE Confidence: 0.9285426

00:11:11.946 --> 00:11:12.860 partial thyroidectomy.  
NOTE Confidence: 0.9285426

00:11:12.860 --> 00:11:14.380 Good question, in  
NOTE Confidence: 0.9298462

00:11:14.380 --> 00:11:15.905 patients who have only part  
NOTE Confidence: 0.9298462

00:11:15.905 --> 00:11:17.125 of their thyroid removed,  
NOTE Confidence: 0.9298462

00:11:17.130 --> 00:11:18.655 which is usually going to  
NOTE Confidence: 0.9298462

00:11:18.655 --> 00:11:20.180 be half of the thyroid,  
NOTE Confidence: 0.9298462

00:11:20.180 --> 00:11:22.210 they actually have a chance of not  
NOTE Confidence: 0.9298462

00:11:22.210 --> 00:11:23.840 needing thyroid hormone after surgery.

NOTE Confidence: 0.9298462

00:11:23.840 --> 00:11:25.700 It's interesting the other half of

NOTE Confidence: 0.9298462

00:11:25.700 --> 00:11:27.687 the thyroid gland can build enough

NOTE Confidence: 0.9298462

00:11:27.687 --> 00:11:29.745 response that they can make extra

NOTE Confidence: 0.9298462

00:11:29.745 --> 00:11:31.491 thyroid hormone so you don't have

NOTE Confidence: 0.9298462

00:11:31.491 --> 00:11:33.281 to take the pills after the surgery,

NOTE Confidence: 0.9298462

00:11:33.281 --> 00:11:35.318 but that's not always the case and

NOTE Confidence: 0.9298462

00:11:35.318 --> 00:11:37.642 so I would say if you're going in

NOTE Confidence: 0.9298462

00:11:37.642 --> 00:11:39.895 and you know that you're going to

NOTE Confidence: 0.9298462

00:11:39.895 --> 00:11:41.680 have half your thyroid removed,

NOTE Confidence: 0.9298462

00:11:41.680 --> 00:11:43.542 I would expect that you may need

NOTE Confidence: 0.9298462

00:11:43.542 --> 00:11:45.675 to take a pill afterwards with

NOTE Confidence: 0.9298462

00:11:45.675 --> 00:11:47.780 the whole thyroid being removed.

NOTE Confidence: 0.9298462

00:11:47.780 --> 00:11:49.470 You'll definitely need to have

NOTE Confidence: 0.9298462

00:11:49.470 --> 00:11:50.822 thyroid hormone therapy afterwards,

NOTE Confidence: 0.9298462

00:11:50.830 --> 00:11:53.203 and that's usually in the form of

NOTE Confidence: 0.9298462

00:11:53.203 --> 00:11:54.220 something called Levothyroxine.

NOTE Confidence: 0.9298462

00:11:54.220 --> 00:11:55.915 This thyroid hormone would be

NOTE Confidence: 0.9298462

00:11:55.915 --> 00:11:57.610 a life long treatment because,

NOTE Confidence: 0.9298462

00:11:57.610 --> 00:11:59.062 as we mentioned earlier,

NOTE Confidence: 0.9298462

00:11:59.062 --> 00:12:01.240 the thyroid has lots of effects

NOTE Confidence: 0.9298462

00:12:01.305 --> 00:12:03.377 in the body and you really can't

NOTE Confidence: 0.91646624

00:12:03.380 --> 00:12:04.732 live without thyroid hormone.

NOTE Confidence: 0.91646624

00:12:04.732 --> 00:12:06.765 Well, you mentioned earlier also that

NOTE Confidence: 0.91646624

00:12:06.765 --> 00:12:08.855 most of the thyroid cancers that

NOTE Confidence: 0.91646624

00:12:08.855 --> 00:12:10.829 we're seeing are low grade cancers.

NOTE Confidence: 0.91646624

00:12:10.830 --> 00:12:12.326 Are additional treatments necessary

NOTE Confidence: 0.91646624

00:12:12.326 --> 00:12:14.570 for high grade cancers or for

NOTE Confidence: 0.91646624

00:12:14.628 --> 00:12:16.700 cancers that have spread to

NOTE Confidence: 0.91646624

00:12:16.700 --> 00:12:18.630 local lymph nodes or beyond

NOTE Confidence: 0.91145074

00:12:18.630 --> 00:12:20.898 that?

NOTE Confidence: 0.91145074

00:12:20.898 --> 00:12:23.840 Yes, for those types of cancers we also offer

NOTE Confidence: 0.91145074

00:12:23.840 --> 00:12:25.640 something called radioactive iodine

NOTE Confidence: 0.91145074

00:12:25.640 --> 00:12:28.321 therapy and I think that this is

NOTE Confidence: 0.91145074

00:12:28.321 --> 00:12:31.332 very what we would call a

NOTE Confidence: 0.91145074

00:12:31.332 --> 00:12:33.202 targeted therapy because a thyroid

NOTE Confidence: 0.91145074

00:12:33.202 --> 00:12:35.574 gland is really good at absorbing

NOTE Confidence: 0.91145074

00:12:35.574 --> 00:12:38.320 iodine and we take advantage of that.

NOTE Confidence: 0.91145074

00:12:38.320 --> 00:12:39.956 That's

NOTE Confidence: 0.91145074

00:12:39.956 --> 00:12:42.410 radioactive and what can happen is

NOTE Confidence: 0.91145074

00:12:42.480 --> 00:12:44.856 the patient when they take radioactive

NOTE Confidence: 0.91145074

00:12:44.856 --> 00:12:46.900 iodine that iodine can go to

NOTE Confidence: 0.91145074

00:12:46.900 --> 00:12:48.688 all parts of the body that

NOTE Confidence: 0.91145074

00:12:48.688 --> 00:12:49.582 have thyroid tissue,

NOTE Confidence: 0.91145074

00:12:49.590 --> 00:12:52.272 whether it be in your lungs or other parts,

NOTE Confidence: 0.91145074

00:12:52.280 --> 00:12:54.296 where it may have spread all

NOTE Confidence: 0.91145074

00:12:54.296 --> 00:12:56.436 they have to do is take the pill

NOTE Confidence: 0.91145074



00:12:56.436 --> 00:12:58.773 and it will go to both the neck  
NOTE Confidence: 0.91145074

00:12:58.773 --> 00:13:00.891 area where there is probably little  
NOTE Confidence: 0.91145074

00:13:00.891 --> 00:13:02.685 bits of thyroid cells left behind  
NOTE Confidence: 0.91145074

00:13:02.685 --> 00:13:04.540 and then also to the lungs  
NOTE Confidence: 0.91145074

00:13:04.540 --> 00:13:05.995 if there is spread  
NOTE Confidence: 0.91145074

00:13:05.995 --> 00:13:07.830 of the cancer to the lungs,  
NOTE Confidence: 0.91145074

00:13:07.830 --> 00:13:09.923 so instead of  
NOTE Confidence: 0.91145074

00:13:09.923 --> 00:13:10.820 a general chemotherapy,  
NOTE Confidence: 0.91145074

00:13:10.820 --> 00:13:12.440 it's really a targeted therapy  
NOTE Confidence: 0.91145074

00:13:12.440 --> 00:13:14.366 to that thyroid tissue and that  
NOTE Confidence: 0.91145074

00:13:14.366 --> 00:13:15.596 is sort of the beauty of  
NOTE Confidence: 0.9230708

00:13:15.600 --> 00:13:16.254 the treatment.  
NOTE Confidence: 0.9230708

00:13:16.254 --> 00:13:17.889 Are there any additional side  
NOTE Confidence: 0.9230708

00:13:17.889 --> 00:13:19.808 effects that would be expected with  
NOTE Confidence: 0.9230708

00:13:19.810 --> 00:13:20.803 radioactive iodine being  
NOTE Confidence: 0.9230708

00:13:20.803 --> 00:13:22.127 injected?

NOTE Confidence: 0.8973591

00:13:22.130 --> 00:13:24.778 We think at low doses,

NOTE Confidence: 0.8973591

00:13:24.780 --> 00:13:27.342 really patients tolerate it very well

NOTE Confidence: 0.8973591

00:13:27.342 --> 00:13:29.620 an the biggest complaint that I usually get

NOTE Confidence: 0.8973591

00:13:29.620 --> 00:13:32.029 about it is fatigue or the fact that

NOTE Confidence: 0.8973591

00:13:32.029 --> 00:13:34.374 they have to actually be on something

NOTE Confidence: 0.8973591

00:13:34.374 --> 00:13:37.048 called a low iodine diet beforehand and

NOTE Confidence: 0.8973591

00:13:37.048 --> 00:13:39.352 the reasoning for the low iodine diet

NOTE Confidence: 0.8973591

00:13:39.352 --> 00:13:41.989 is to make your body hungry for iodine,

NOTE Confidence: 0.8973591

00:13:41.990 --> 00:13:44.300 so that will take up the

NOTE Confidence: 0.8973591

00:13:44.300 --> 00:13:47.030 iodine to the thyroid

NOTE Confidence: 0.8973591

00:13:47.030 --> 00:13:49.060 tissue where it's widespread

NOTE Confidence: 0.8973591

00:13:49.060 --> 00:13:51.005 in terms of side effects.

NOTE Confidence: 0.8973591

00:13:51.010 --> 00:13:53.188 Some people do get dry mouth,

NOTE Confidence: 0.8973591

00:13:53.190 --> 00:13:55.000 you can get watery eyes.

NOTE Confidence: 0.8973591

00:13:55.000 --> 00:13:57.178 Some people get sort of this

NOTE Confidence: 0.8973591

00:13:57.180 --> 00:13:59.304 inflammation of the stomach and these  
NOTE Confidence: 0.8973591

00:13:59.304 --> 00:14:01.540 can be either temporary or permanent,  
NOTE Confidence: 0.8973591

00:14:01.540 --> 00:14:04.050 but typically the stomach effect  
NOTE Confidence: 0.8973591

00:14:04.050 --> 00:14:07.100 is very limited and goes away.  
NOTE Confidence: 0.8973591

00:14:07.100 --> 00:14:09.494 And in rare cases, at higher doses,  
NOTE Confidence: 0.8973591

00:14:09.500 --> 00:14:11.432 there is a concern for other  
NOTE Confidence: 0.8973591

00:14:11.432 --> 00:14:13.270 malignancies occurring such as leukemia.  
NOTE Confidence: 0.8973591

00:14:13.270 --> 00:14:13.918 But again,  
NOTE Confidence: 0.8973591

00:14:13.918 --> 00:14:15.862 those risks are minimal and typically  
NOTE Confidence: 0.8973591

00:14:15.862 --> 00:14:18.079 with higher doses of radioactive iodine.  
NOTE Confidence: 0.8973591

00:14:18.080 --> 00:14:19.452 So all in all,  
NOTE Confidence: 0.8973591

00:14:19.452 --> 00:14:20.824 patients really usually tolerate  
NOTE Confidence: 0.8973591

00:14:20.824 --> 00:14:22.190 radioactive iodine rather well,  
NOTE Confidence: 0.8973591

00:14:22.190 --> 00:14:23.900 and if patients are complaining  
NOTE Confidence: 0.8973591

00:14:23.900 --> 00:14:25.970 most about the low iodine diet,  
NOTE Confidence: 0.8973591

00:14:25.970 --> 00:14:28.022 it tells you that the effects

NOTE Confidence: 0.8973591

00:14:28.022 --> 00:14:29.740 usually are not that bad.

00:14:30.080 --> 00:14:32.334 We're going to take a

NOTE Confidence: 0.9178545

00:14:32.334 --> 00:14:34.538 short break for a medical minute.

NOTE Confidence: 0.9178545

00:14:34.540 --> 00:14:36.320 Please stay tuned to learn

NOTE Confidence: 0.9178545

00:14:36.320 --> 00:14:37.744 more about thyroid cancer

NOTE Confidence: 0.9178545

00:14:37.750 --> 00:14:39.540 and the management of thyroid

NOTE Confidence: 0.9178545

00:14:39.540 --> 00:14:41.330 nodules with Doctor Grace Lee.

NOTE Confidence: 0.92476696

00:14:42.050 --> 00:14:44.580 Support for Yale Cancer Answers

NOTE Confidence: 0.92476696

00:14:44.580 --> 00:14:47.110 comes from AstraZeneca providing

NOTE Confidence: 0.92476696

00:14:47.191 --> 00:14:49.275 important treatment options for

NOTE Confidence: 0.92476696

00:14:49.275 --> 00:14:52.401 various types and stages of cancer.

NOTE Confidence: 0.92476696

00:14:52.410 --> 00:14:56.290 More information at [astrazeneca-us.com](http://astrazeneca-us.com).

NOTE Confidence: 0.92476696

00:14:56.290 --> 00:14:59.504 This is a medical minute about lung cancer.

NOTE Confidence: 0.92476696

00:14:59.510 --> 00:15:02.044 More than 85% of lung cancer diagnosis

NOTE Confidence: 0.92476696

00:15:02.044 --> 00:15:04.946 are related to smoking and quitting even

NOTE Confidence: 0.92476696

00:15:04.946 --> 00:15:07.568 after decades of use can significantly

NOTE Confidence: 0.92476696

00:15:07.638 --> 00:15:10.014 reduce your risk of developing lung

NOTE Confidence: 0.92476696

00:15:10.014 --> 00:15:11.991 cancer for lung cancer patients.

NOTE Confidence: 0.92476696

00:15:11.991 --> 00:15:13.946 Clinical trials are currently under

NOTE Confidence: 0.92476696

00:15:13.946 --> 00:15:16.440 way to test innovative new treatments.

NOTE Confidence: 0.92476696

00:15:16.440 --> 00:15:19.458 Advances are being made by utilizing

NOTE Confidence: 0.92476696

00:15:19.458 --> 00:15:21.470 targeted therapies and immunotherapy's

NOTE Confidence: 0.92476696

00:15:21.545 --> 00:15:23.519 the BATTLE 2 trial aims to learn

NOTE Confidence: 0.92476696

00:15:23.519 --> 00:15:26.069 if a drug or combination of drugs

NOTE Confidence: 0.92476696

00:15:26.069 --> 00:15:28.114 based on personal biomarkers can

NOTE Confidence: 0.92476696

00:15:28.114 --> 00:15:31.038 help to control non small cell lung cancer.

NOTE Confidence: 0.92476696

00:15:31.040 --> 00:15:33.940 More information is available

NOTE Confidence: 0.92476696

00:15:33.940 --> 00:15:35.100 at yalecancercenter.org.

NOTE Confidence: 0.92476696

00:15:35.100 --> 00:15:38.580 You're listening to Connecticut public radio.

NOTE Confidence: 0.9029416

00:15:39.890 --> 00:15:42.098 Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.9029416

00:15:42.100 --> 00:15:43.985 This is doctor Peter Schwartz

NOTE Confidence: 0.9029416

00:15:43.985 --> 00:15:46.289 and I'm joined tonight by  
NOTE Confidence: 0.9029416

00:15:46.289 --> 00:15:48.347 my guest Doctor Grace Lee  
NOTE Confidence: 0.9029416

00:15:48.350 --> 00:15:51.006 and we are discussing thyroid  
NOTE Confidence: 0.9029416

00:15:51.006 --> 00:15:53.867 cancer and the management of thyroid nodules.  
NOTE Confidence: 0.9029416

00:15:53.870 --> 00:15:56.446 So doctor Lee, what are thyroid nodules?  
NOTE Confidence: 0.9029416

00:15:56.450 --> 00:15:57.918 How are they managed?  
NOTE Confidence: 0.9029416

00:15:57.918 --> 00:15:59.386 Can they be cancerous?  
NOTE Confidence: 0.9029416

00:15:59.390 --> 00:16:01.230 What causes them?  
NOTE Confidence: 0.9029416

00:16:01.230 --> 00:16:03.035 Thyroid nodules are actually nodularity of  
NOTE Confidence: 0.9029416

00:16:03.035 --> 00:16:05.649 the thyroid tissue so I describe it  
00:16:07.485 --> 00:16:08.953 as little balls within your thyroid.  
NOTE Confidence: 0.9029416

00:16:08.960 --> 00:16:11.426 They're very common and actually can  
NOTE Confidence: 0.9029416

00:16:11.426 --> 00:16:13.858 be present in up to 68% of  
NOTE Confidence: 0.9029416

00:16:13.860 --> 00:16:16.204 adults, if you look at adults with ultrasound  
NOTE Confidence: 0.9029416

00:16:16.204 --> 00:16:18.309 and they actually increase with age,  
NOTE Confidence: 0.9029416

00:16:18.310 --> 00:16:19.582 they are often found  
NOTE Confidence: 0.9029416

00:16:19.582 --> 00:16:21.808 incidentally most of the time.  
NOTE Confidence: 0.9029416

00:16:21.810 --> 00:16:24.130 How I see patients as referrals is that  
NOTE Confidence: 0.9029416

00:16:24.130 --> 00:16:26.257 they were found for another reason.  
NOTE Confidence: 0.9029416

00:16:26.260 --> 00:16:26.874 For example,  
NOTE Confidence: 0.9029416

00:16:26.874 --> 00:16:28.716 they had a carotid ultrasound to  
NOTE Confidence: 0.9029416

00:16:28.716 --> 00:16:30.932 look at their arteries and  
NOTE Confidence: 0.9029416

00:16:30.932 --> 00:16:32.940 happen to find a thyroid nodule,  
NOTE Confidence: 0.9029416

00:16:32.940 --> 00:16:35.476 and then I end up seeing those patients.  
NOTE Confidence: 0.9029416

00:16:35.480 --> 00:16:37.538 And we mentioned earlier another  
NOTE Confidence: 0.9029416

00:16:37.538 --> 00:16:39.911 time is when people have CAT scans  
NOTE Confidence: 0.9029416

00:16:39.911 --> 00:16:41.783 for other reasons of their neck  
NOTE Confidence: 0.9029416

00:16:41.783 --> 00:16:44.028 and they find the thyroid nodules.  
NOTE Confidence: 0.9029416

00:16:44.030 --> 00:16:44.826 And typically,  
NOTE Confidence: 0.9029416

00:16:44.826 --> 00:16:47.612 the way to best evaluate them is  
NOTE Confidence: 0.9029416

00:16:47.612 --> 00:16:49.580 actually a thyroid ultrasound.  
NOTE Confidence: 0.9029416

00:16:49.580 --> 00:16:52.086 Most of these nodules are benign and

NOTE Confidence: 0.9029416

00:16:52.086 --> 00:16:54.463 I think that's the biggest message I

NOTE Confidence: 0.9029416

00:16:54.463 --> 00:16:57.170 want to say is that if somebody tells

NOTE Confidence: 0.9029416

00:16:57.170 --> 00:16:59.900 you that you have a thyroid nodule,

NOTE Confidence: 0.9029416

00:16:59.900 --> 00:17:02.399 the first thing is not to panic.

NOTE Confidence: 0.9029416

00:17:02.400 --> 00:17:04.536 There actually very common and only

NOTE Confidence: 0.9029416

00:17:04.536 --> 00:17:07.357 about four to 6 1/2% of these thyroid

NOTE Confidence: 0.9029416

00:17:07.357 --> 00:17:09.800 nodules are cancerous in terms of who

NOTE Confidence: 0.9029416

00:17:09.870 --> 00:17:12.495 is at risk for these thyroid

NOTE Confidence: 0.9029416

00:17:12.495 --> 00:17:14.679 cancers they are usually people who have had

NOTE Confidence: 0.9029416

00:17:14.679 --> 00:17:16.989 radiation to the head or neck area,

NOTE Confidence: 0.9029416

00:17:16.990 --> 00:17:18.510 especially as a child,

NOTE Confidence: 0.9029416

00:17:18.510 --> 00:17:20.410 or have had radiation exposure.

NOTE Confidence: 0.9029416

00:17:20.410 --> 00:17:22.573 And who another risk factor would be

NOTE Confidence: 0.9029416

00:17:22.573 --> 00:17:24.615 having a family history of thyroid

NOTE Confidence: 0.9029416

00:17:24.615 --> 00:17:26.715 cancer in a first degree relative.

NOTE Confidence: 0.9252893



00:17:29.780 --> 00:17:31.220 So I guess the next  
NOTE Confidence: 0.9252893

00:17:31.220 --> 00:17:32.660 question that people ask me,  
NOTE Confidence: 0.9252893

00:17:32.660 --> 00:17:35.540 what do I do when I find a thyroid nodule?  
NOTE Confidence: 0.9252893

00:17:35.540 --> 00:17:37.423 What does the doctor do or what  
NOTE Confidence: 0.9252893

00:17:37.423 --> 00:17:39.000 should they do?  
NOTE Confidence: 0.9252893

00:17:39.000 --> 00:17:41.583 The first thing to do is a blood test,  
NOTE Confidence: 0.9252893

00:17:41.590 --> 00:17:43.480 and in addition to the thyroid  
NOTE Confidence: 0.9252893

00:17:43.480 --> 00:17:45.306 ultrasound that I mentioned and the  
NOTE Confidence: 0.9252893

00:17:45.306 --> 00:17:47.091 blood test is really to see whether  
NOTE Confidence: 0.9252893

00:17:47.091 --> 00:17:49.096 you have a normal amount of thyroid  
NOTE Confidence: 0.9252893

00:17:49.096 --> 00:17:50.812 hormone in your body and that's  
NOTE Confidence: 0.9252893

00:17:50.812 --> 00:17:52.558 done through a test called thyroid  
NOTE Confidence: 0.9252893

00:17:52.558 --> 00:17:53.679 stimulating hormone called TSH.  
NOTE Confidence: 0.9252893

00:17:53.680 --> 00:17:55.521 And so the reason we do that  
NOTE Confidence: 0.9252893

00:17:55.521 --> 00:17:56.850 is that thyroid nodules,  
NOTE Confidence: 0.9252893

00:17:56.850 --> 00:17:58.968 actually some of them can make

NOTE Confidence: 0.9252893

00:17:58.970 --> 00:18:00.294 thyroid hormone and those

NOTE Confidence: 0.9252893

00:18:00.294 --> 00:18:01.618 are called hot nodules.

NOTE Confidence: 0.9252893

00:18:01.620 --> 00:18:02.844 On the other hand,

NOTE Confidence: 0.9252893

00:18:02.844 --> 00:18:04.374 there are thyroid nodules that

NOTE Confidence: 0.9252893

00:18:04.374 --> 00:18:06.248 don't make extra thyroid hormone,

NOTE Confidence: 0.9252893

00:18:06.250 --> 00:18:08.371 and those are the ones that

NOTE Confidence: 0.9252893

00:18:08.371 --> 00:18:10.399 typically need to be more evaluated

NOTE Confidence: 0.9252893

00:18:10.399 --> 00:18:12.863 for whether they are cancerous or not.

NOTE Confidence: 0.9252893

00:18:12.870 --> 00:18:14.858 So if somebody has a test that

NOTE Confidence: 0.9252893

00:18:14.858 --> 00:18:16.554 shows that their thyroid

NOTE Confidence: 0.9252893

00:18:16.554 --> 00:18:18.499 hormone levels are very high,

NOTE Confidence: 0.9252893

00:18:18.500 --> 00:18:20.396 then it's very unlikely for that

NOTE Confidence: 0.9252893

00:18:20.396 --> 00:18:22.140 thyroid nodule to be cancer,

NOTE Confidence: 0.9252893

00:18:22.140 --> 00:18:23.800 and in that case

NOTE Confidence: 0.9252893

00:18:23.800 --> 00:18:25.450 it's not something that's biopsied.

NOTE Confidence: 0.9252893

00:18:25.450 --> 00:18:27.767 However, if you find a cold nodule,  
NOTE Confidence: 0.9252893

00:18:27.770 --> 00:18:30.164 what we do is a thyroid ultrasound.  
NOTE Confidence: 0.9252893

00:18:30.170 --> 00:18:32.207 We look at the ultrasound to see  
NOTE Confidence: 0.9252893

00:18:32.207 --> 00:18:34.199 what does this nodule look like.  
NOTE Confidence: 0.9252893

00:18:34.200 --> 00:18:36.060 Are there things in the nodule  
NOTE Confidence: 0.9252893

00:18:36.060 --> 00:18:37.300 that are more concerning?  
NOTE Confidence: 0.9252893

00:18:37.300 --> 00:18:37.912 For example,  
NOTE Confidence: 0.9252893

00:18:37.912 --> 00:18:39.748 sometimes tiny bits of calcium can  
NOTE Confidence: 0.9252893

00:18:39.748 --> 00:18:42.211 be seen in the nodule and that can be  
NOTE Confidence: 0.9252893

00:18:42.211 --> 00:18:44.429 very classic for papillary thyroid cancer.  
NOTE Confidence: 0.9252893

00:18:44.430 --> 00:18:46.614 So in those cases we're more  
NOTE Confidence: 0.9252893

00:18:46.614 --> 00:18:48.418 concerned will offer the patient a  
NOTE Confidence: 0.9252893

00:18:48.418 --> 00:18:50.308 biopsy which is done with a very  
NOTE Confidence: 0.9252893

00:18:50.375 --> 00:18:52.385 fine needle where only cells are  
NOTE Confidence: 0.9252893

00:18:52.385 --> 00:18:54.350 removed from the thyroid nodule and  
NOTE Confidence: 0.9252893

00:18:54.350 --> 00:18:55.900 then looked at under the microscope.

NOTE Confidence: 0.91901743

00:18:57.520 --> 00:19:00.285 You mentioned some of the risk factors

NOTE Confidence: 0.91901743

00:19:01.080 --> 00:19:03.450 are radiation,

NOTE Confidence: 0.91901743

00:19:03.450 --> 00:19:05.026 especially and

NOTE Confidence: 0.91901743

00:19:05.026 --> 00:19:06.208 other inherited susceptibilities.

NOTE Confidence: 0.91901743

00:19:06.210 --> 00:19:08.358 I guess what I'm really asking

NOTE Confidence: 0.91901743

00:19:08.358 --> 00:19:10.560 is who should be screened?

NOTE Confidence: 0.91901743

00:19:10.560 --> 00:19:13.031 Or should screening be done on a

NOTE Confidence: 0.91901743

00:19:13.031 --> 00:19:15.300 routine basis for thyroid nodules?

NOTE Confidence: 0.91901743

00:19:15.300 --> 00:19:16.479 So I would

NOTE Confidence: 0.91901743

00:19:16.480 --> 00:19:18.976 say that screening just doing ultrasounds

NOTE Confidence: 0.91901743

00:19:18.976 --> 00:19:21.220 on everybody should not be done.

NOTE Confidence: 0.91901743

00:19:21.220 --> 00:19:24.244 I believe that if that's done there would

NOTE Confidence: 0.91901743

00:19:24.244 --> 00:19:27.626 be a lot of patients who would have

NOTE Confidence: 0.91901743

00:19:27.630 --> 00:19:28.336 unnecessary biopsies

NOTE Confidence: 0.91901743

00:19:28.336 --> 00:19:29.748 potentially and tiny tiny

NOTE Confidence: 0.91901743

00:19:29.750 --> 00:19:32.130 thyroid cancers being found that really  
NOTE Confidence: 0.91901743

00:19:32.130 --> 00:19:35.038 may not have caused the patient any trouble.  
NOTE Confidence: 0.91901743

00:19:35.040 --> 00:19:36.099 So generally speaking,  
NOTE Confidence: 0.91901743

00:19:36.099 --> 00:19:38.570 if a nodule is palpated on exam,  
NOTE Confidence: 0.91901743

00:19:38.570 --> 00:19:40.520 so having good physical exams at  
NOTE Confidence: 0.91901743

00:19:40.520 --> 00:19:42.460 your annual physical is important.  
NOTE Confidence: 0.91901743

00:19:42.460 --> 00:19:44.924 If something is found there, then yes,  
NOTE Confidence: 0.91901743

00:19:44.924 --> 00:19:46.684 thyroid ultrasound should be performed.  
NOTE Confidence: 0.91901743

00:19:46.690 --> 00:19:49.345 Or if one of the thyroid cancers that we  
NOTE Confidence: 0.91901743

00:19:49.345 --> 00:19:52.042 didn't really talk about much today but  
NOTE Confidence: 0.91901743

00:19:52.042 --> 00:19:54.110 is called medullary thyroid cancer,  
NOTE Confidence: 0.91901743

00:19:54.110 --> 00:19:56.216 and that one can run in families,  
NOTE Confidence: 0.91901743

00:19:56.220 --> 00:19:58.356 meaning that it can be passed  
NOTE Confidence: 0.91901743

00:19:58.356 --> 00:20:00.310 on from parent to child.  
NOTE Confidence: 0.91901743

00:20:00.310 --> 00:20:01.426 And  
NOTE Confidence: 0.91901743

00:20:01.426 --> 00:20:03.491 is often due to a genetic mutation

NOTE Confidence: 0.91901743

00:20:03.491 --> 00:20:05.399 that can be checked for in

NOTE Confidence: 0.91901743

00:20:05.399 --> 00:20:07.308 those types of families, yes,

NOTE Confidence: 0.91901743

00:20:07.308 --> 00:20:08.898 thyroid ultrasound would be indicated,

NOTE Confidence: 0.91901743

00:20:08.900 --> 00:20:10.490 but in the general public,

NOTE Confidence: 0.91901743

00:20:10.490 --> 00:20:12.380 I wouldn't say at a specific age

NOTE Confidence: 0.91901743

00:20:12.380 --> 00:20:14.026 that people should

NOTE Confidence: 0.91901743

00:20:14.026 --> 00:20:15.566 just generally be screened.

NOTE Confidence: 0.91901743

00:20:15.570 --> 00:20:18.432 I think that would be finding too many

NOTE Confidence: 0.91901743

00:20:18.440 --> 00:20:20.025 and there would be too many

NOTE Confidence: 0.91901743

00:20:20.025 --> 00:20:20.659 unnecessary procedures.

NOTE Confidence: 0.91901743

00:20:20.660 --> 00:20:21.300 I'm aware

NOTE Confidence: 0.91530627

00:20:21.300 --> 00:20:22.580 of a Korean study,

NOTE Confidence: 0.91530627

00:20:22.580 --> 00:20:23.860 and apparently the conclusion

NOTE Confidence: 0.91530627

00:20:23.860 --> 00:20:26.109 was they went through the roof with

NOTE Confidence: 0.91530627

00:20:26.109 --> 00:20:27.654 finding so many thyroid nodules,

NOTE Confidence: 0.91530627

00:20:27.660 --> 00:20:29.879 so we don't need to do that.

NOTE Confidence: 0.91530627

00:20:29.880 --> 00:20:31.160 I think that's a

NOTE Confidence: 0.91530627

00:20:31.160 --> 00:20:33.379 perfect example of what you just said.

NOTE Confidence: 0.91414344

00:20:33.790 --> 00:20:36.232 Another controversy seems to be

NOTE Confidence: 0.91414344

00:20:36.232 --> 00:20:37.860 regarding these indeterminant fine

NOTE Confidence: 0.91414344

00:20:37.919 --> 00:20:39.529 needle aspiration biopsies. Can you

NOTE Confidence: 0.91414344

00:20:39.529 --> 00:20:41.787 discuss that for us? It seems like

NOTE Confidence: 0.91414344

00:20:41.787 --> 00:20:44.510 it's around 25% or so of biopsy is

NOTE Confidence: 0.91414344

00:20:44.510 --> 00:20:46.570 a significant number of patients so

NOTE Confidence: 0.91414344

00:20:46.570 --> 00:20:49.410 so let me walk you through a biopsy.

NOTE Confidence: 0.91414344

00:20:49.410 --> 00:20:52.090 If I send you for a biopsy and you

NOTE Confidence: 0.91414344

00:20:52.166 --> 00:20:54.361 had this aspiration biopsy

NOTE Confidence: 0.91414344

00:20:54.361 --> 00:20:57.660 the results can be one of the following

NOTE Confidence: 0.91414344

00:20:57.660 --> 00:21:00.500 so they can come back and say

NOTE Confidence: 0.91414344

00:21:00.500 --> 00:21:03.580 this is most likely benign.

NOTE Confidence: 0.91414344

00:21:03.580 --> 00:21:05.296 Two, they can come back and

NOTE Confidence: 0.91414344

00:21:05.296 --> 00:21:07.419 say, this is most likely cancer.

NOTE Confidence: 0.91414344

00:21:07.420 --> 00:21:09.016 And then there's this whole gray

NOTE Confidence: 0.91414344

00:21:09.016 --> 00:21:10.937 area in between of what you've

NOTE Confidence: 0.91414344

00:21:10.937 --> 00:21:12.537 described called indeterminate.

NOTE Confidence: 0.91414344

00:21:12.540 --> 00:21:13.820 It's very frustrating both

NOTE Confidence: 0.91414344

00:21:13.820 --> 00:21:15.100 for patients and providers.

NOTE Confidence: 0.91414344

00:21:15.100 --> 00:21:16.420 What does that mean?

NOTE Confidence: 0.91414344

00:21:16.420 --> 00:21:18.940 How much percentage risk of cancer is that?

NOTE Confidence: 0.91414344

00:21:18.940 --> 00:21:20.830 It's a large range and so

NOTE Confidence: 0.91414344

00:21:20.830 --> 00:21:22.827 management can be difficult if you

NOTE Confidence: 0.91414344

00:21:22.827 --> 00:21:24.697 just get this intermediate result.

NOTE Confidence: 0.91414344

00:21:24.700 --> 00:21:26.940 So over the past couple of years,

NOTE Confidence: 0.91414344

00:21:26.940 --> 00:21:28.540 what's been developed is called

NOTE Confidence: 0.91414344

00:21:28.540 --> 00:21:29.180 molecular testing,

NOTE Confidence: 0.91414344

00:21:29.180 --> 00:21:31.676 where they take the RNA or the ribo

NOTE Confidence: 0.91414344



00:21:31.676 --> 00:21:33.755 nucleic acid from these cells that  
NOTE Confidence: 0.91414344

00:21:33.755 --> 00:21:35.825 you have taken from the biopsy.  
NOTE Confidence: 0.91414344

00:21:35.830 --> 00:21:37.870 And actually test that for different  
NOTE Confidence: 0.91414344

00:21:37.870 --> 00:21:39.951 mutations or changes that  
NOTE Confidence: 0.91414344

00:21:39.951 --> 00:21:41.943 are typically seen in thyroid cancer.  
NOTE Confidence: 0.91414344

00:21:41.950 --> 00:21:44.351 If those are seen than the results  
NOTE Confidence: 0.91414344

00:21:44.351 --> 00:21:46.370 can come back and say,  
NOTE Confidence: 0.91414344

00:21:46.370 --> 00:21:48.070 you actually have, for example,  
NOTE Confidence: 0.91414344

00:21:48.070 --> 00:21:49.770 of 40% risk of cancer,  
NOTE Confidence: 0.91414344

00:21:49.770 --> 00:21:52.150 not a 15% risk of cancer in  
NOTE Confidence: 0.91414344

00:21:52.150 --> 00:21:53.170 that indeterminate category,  
NOTE Confidence: 0.91414344

00:21:53.170 --> 00:21:55.550 and that can sway you and say,  
NOTE Confidence: 0.91414344

00:21:55.550 --> 00:21:56.818 you know what?  
NOTE Confidence: 0.91414344

00:21:56.818 --> 00:21:59.500 This makes more sense to take the patient  
NOTE Confidence: 0.91414344

00:21:59.500 --> 00:22:02.348 to surgery or offer them a thyroid surgery,  
NOTE Confidence: 0.91414344

00:22:02.350 --> 00:22:05.142 at least for that side of the thyroid

NOTE Confidence: 0.91414344

00:22:05.142 --> 00:22:07.880 as opposed to watching that nodule, so

NOTE Confidence: 0.91414344

00:22:07.880 --> 00:22:09.505 this molecular testing has been

NOTE Confidence: 0.91414344

00:22:09.505 --> 00:22:11.565 very helpful in guiding us in

NOTE Confidence: 0.91414344

00:22:11.565 --> 00:22:12.699 managing these patients,

NOTE Confidence: 0.91414344

00:22:12.700 --> 00:22:13.376 but yes,

NOTE Confidence: 0.91414344

00:22:13.376 --> 00:22:14.728 a very frustrating result

NOTE Confidence: 0.91414344

00:22:14.728 --> 00:22:16.480 when you get that gray,

NOTE Confidence: 0.91414344

00:22:16.480 --> 00:22:17.856 area result.

00:22:18.200 --> 00:22:20.264 Do you find the patients tend to

NOTE Confidence: 0.91683185

00:22:20.264 --> 00:22:21.640 lean more towards surgery

NOTE Confidence: 0.91683185

00:22:21.640 --> 00:22:24.910 then follow up because of this

NOTE Confidence: 0.91683185

00:22:24.910 --> 00:22:26.335 uncertainty about the

NOTE Confidence: 0.91683185

00:22:26.335 --> 00:22:28.570 nature of the nodules.

NOTE Confidence: 0.92605644

00:22:28.570 --> 00:22:31.250 It varies. I've had both ends of the

NOTE Confidence: 0.92605644

00:22:31.250 --> 00:22:33.719 spectrum more so I would say more of

NOTE Confidence: 0.92605644

00:22:33.719 --> 00:22:36.403 my patients would be more

NOTE Confidence: 0.92605644

00:22:36.403 --> 00:22:38.228 proactive.

NOTE Confidence: 0.92605644

00:22:38.230 --> 00:22:40.228 I don't want to categorize people,

NOTE Confidence: 0.92605644

00:22:40.230 --> 00:22:42.645 but there are patients also who are

NOTE Confidence: 0.92605644

00:22:42.645 --> 00:22:44.754 very conservative and maybe with more

NOTE Confidence: 0.92605644

00:22:44.754 --> 00:22:47.120 advanced age with other risk factors for

NOTE Confidence: 0.92605644

00:22:47.190 --> 00:22:49.550 surgery they may want to just watch it

NOTE Confidence: 0.92605644

00:22:49.550 --> 00:22:51.386 and I think that makes sense

NOTE Confidence: 0.92605644

00:22:51.386 --> 00:22:53.220 if you have other reasons,

NOTE Confidence: 0.92605644

00:22:53.220 --> 00:22:55.206 severe heart disease or heart failure.

NOTE Confidence: 0.92605644

00:22:55.210 --> 00:22:57.100 Other things that may increase your

NOTE Confidence: 0.92605644

00:22:57.100 --> 00:22:59.020 risk of complications post operatively,

NOTE Confidence: 0.92605644

00:22:59.020 --> 00:23:01.756 then it would make sense to watch them,

NOTE Confidence: 0.92605644

00:23:01.760 --> 00:23:03.140 especially if your risk

NOTE Confidence: 0.9100267

00:23:03.140 --> 00:23:05.186 ends up being low.

NOTE Confidence: 0.9100267

00:23:05.190 --> 00:23:08.133 Let's move on and let me ask

NOTE Confidence: 0.9100267

00:23:08.133 --> 00:23:10.266 you this, what is endocrinology?  
NOTE Confidence: 0.9100267

00:23:10.266 --> 00:23:13.699 What is the role that hormones play and  
NOTE Confidence: 0.9100267

00:23:13.699 --> 00:23:16.347 how is that managed and what does the  
NOTE Confidence: 0.9113048

00:23:16.350 --> 00:23:18.951 thyroid do?  
NOTE Confidence: 0.9113048

00:23:18.951 --> 00:23:21.358 You're an endocrinologist.  
NOTE Confidence: 0.9113048

00:23:21.360 --> 00:23:23.868 What exactly do you do?  
NOTE Confidence: 0.9113048

00:23:23.868 --> 00:23:26.374 Endocrinology is a study of the body's  
NOTE Confidence: 0.9113048

00:23:26.374 --> 00:23:28.161 endocrine system, which is basically  
NOTE Confidence: 0.9113048

00:23:28.161 --> 00:23:30.303 the system that controls your hormones,  
NOTE Confidence: 0.9113048

00:23:30.310 --> 00:23:32.100 and this includes the pancreas,  
NOTE Confidence: 0.9113048

00:23:32.100 --> 00:23:33.180 the thyroid, parathyroid,  
NOTE Confidence: 0.9113048

00:23:33.180 --> 00:23:36.040 the parathyroid and thyroid in your neck.  
NOTE Confidence: 0.9113048

00:23:36.040 --> 00:23:38.194 The hypothalamus and pituitary which are  
NOTE Confidence: 0.9113048

00:23:38.194 --> 00:23:41.240 in your brain and adrenal glands  
NOTE Confidence: 0.9113048

00:23:41.240 --> 00:23:44.592 I like to say sit on top of the  
NOTE Confidence: 0.9113048

00:23:44.592 --> 00:23:47.968 kidneys are like little hats on the kidneys.

NOTE Confidence: 0.9113048

00:23:47.970 --> 00:23:49.926 In addition to that, sex hormones

NOTE Confidence: 0.9113048

00:23:49.926 --> 00:23:52.569 are made by the testes and ovaries.

NOTE Confidence: 0.9113048

00:23:52.570 --> 00:23:54.845 So as an endocrinologist I manage diseases

NOTE Confidence: 0.9113048

00:23:54.845 --> 00:23:56.820 that involve the endocrine system,

NOTE Confidence: 0.9113048

00:23:56.820 --> 00:23:57.876 including thyroid disorders,

NOTE Confidence: 0.9113048

00:23:57.876 --> 00:23:59.284 osteoporosis and bone diseases,

NOTE Confidence: 0.9113048

00:23:59.290 --> 00:24:00.352 diabetes, pituitary disease,

NOTE Confidence: 0.9113048

00:24:00.352 --> 00:24:01.768 and even transgender medicine.

NOTE Confidence: 0.93411225

00:24:03.030 --> 00:24:05.354 You mentioned a lot of

NOTE Confidence: 0.93411225

00:24:05.354 --> 00:24:07.400 organs that are now sometimes

NOTE Confidence: 0.93411225

00:24:07.400 --> 00:24:09.825 affected by our newer medications.

NOTE Confidence: 0.93411225

00:24:09.830 --> 00:24:12.049 We have targeted therapy and a lot

NOTE Confidence: 0.93411225

00:24:12.049 --> 00:24:14.629 of the new checkpoint inhibitors,

NOTE Confidence: 0.93411225

00:24:14.630 --> 00:24:16.630 for instance, affect these organs.

NOTE Confidence: 0.93411225

00:24:16.630 --> 00:24:20.630 Can you talk a little bit about that?

NOTE Confidence: 0.93411225

00:24:20.630 --> 00:24:20.990 Definitely,  
NOTE Confidence: 0.9177834

00:24:20.990 --> 00:24:23.126 so we've had a lot of rules over  
NOTE Confidence: 0.9177834

00:24:23.126 --> 00:24:25.955 the last few years as those  
NOTE Confidence: 0.9177834

00:24:25.955 --> 00:24:28.383 immunotherapy's have been used and these  
NOTE Confidence: 0.9177834

00:24:28.383 --> 00:24:30.563 immunotherapies are basically tricking  
NOTE Confidence: 0.9177834

00:24:30.563 --> 00:24:32.969 your body's immune system to attacking  
NOTE Confidence: 0.9177834

00:24:32.969 --> 00:24:35.510 the cancer and it works really well.  
NOTE Confidence: 0.9177834

00:24:35.510 --> 00:24:37.568 But actually also tends to attack  
NOTE Confidence: 0.9177834

00:24:37.568 --> 00:24:39.943 these glands that I treat so quite  
NOTE Confidence: 0.9177834

00:24:39.943 --> 00:24:42.120 often I will see patients who are  
NOTE Confidence: 0.9177834

00:24:42.187 --> 00:24:44.713 getting these treatments and will have  
NOTE Confidence: 0.9177834

00:24:44.713 --> 00:24:47.146 what we call thyrotoxicosis or too  
NOTE Confidence: 0.9177834

00:24:47.146 --> 00:24:49.384 much thyroid hormone because the  
NOTE Confidence: 0.9177834

00:24:49.384 --> 00:24:51.600 thyroid gland is being attacked by  
NOTE Confidence: 0.9177834

00:24:51.600 --> 00:24:53.568 the agents. In addition to that,  
NOTE Confidence: 0.9177834

00:24:53.570 --> 00:24:55.215 you can actually see also

NOTE Confidence: 0.9177834

00:24:55.215 --> 00:24:56.860 inflammation of your pituitary gland,

NOTE Confidence: 0.9177834

00:24:56.860 --> 00:24:59.108 which is the gland which is a tiny

NOTE Confidence: 0.9177834

00:24:59.108 --> 00:25:01.301 gland in the middle of your brain

NOTE Confidence: 0.9177834

00:25:01.301 --> 00:25:03.697 and we call it actually the master

NOTE Confidence: 0.9177834

00:25:03.697 --> 00:25:05.971 gland because it sends out

NOTE Confidence: 0.9177834

00:25:05.971 --> 00:25:08.046 hormones to other parts of your

NOTE Confidence: 0.9177834

00:25:08.046 --> 00:25:10.020 body and glands to control those.

00:25:10.678 --> 00:25:13.310 The beauty though is that we never tell

NOTE Confidence: 0.9177834

00:25:13.310 --> 00:25:14.960 oncologists

NOTE Confidence: 0.9177834

00:25:14.960 --> 00:25:16.280 to stop their treatment.

NOTE Confidence: 0.9177834

00:25:16.280 --> 00:25:18.184 The beauty of it is that we

NOTE Confidence: 0.9177834

00:25:18.184 --> 00:25:20.268 have all the hormones to replace

NOTE Confidence: 0.9177834

00:25:20.268 --> 00:25:22.263 that in terms of treatment.

NOTE Confidence: 0.9177834

00:25:22.270 --> 00:25:24.160 So whatever needs to be done

NOTE Confidence: 0.9177834

00:25:24.160 --> 00:25:25.420 for their primary cancer,

NOTE Confidence: 0.9177834

00:25:25.420 --> 00:25:27.571 we say go on and do what you need

NOTE Confidence: 0.9177834

00:25:27.571 --> 00:25:30.024 to do and we will take care

NOTE Confidence: 0.9177834

00:25:30.024 --> 00:25:32.168 of this equality that happens with

NOTE Confidence: 0.9177834

00:25:32.168 --> 00:25:34.484 the hormones and we will replace

NOTE Confidence: 0.9177834

00:25:34.484 --> 00:25:35.818 whatever hormones needed to

NOTE Confidence: 0.90957636

00:25:35.820 --> 00:25:37.390 be replaced so the thyroid,

NOTE Confidence: 0.90957636

00:25:37.390 --> 00:25:39.106 in my experience, can be both

NOTE Confidence: 0.90957636

00:25:39.106 --> 00:25:40.860 overactive as you just mentioned,

NOTE Confidence: 0.90957636

00:25:40.860 --> 00:25:42.028 but also under active.

NOTE Confidence: 0.90957636

00:25:42.028 --> 00:25:44.950 So you need to be able to evaluate that.

NOTE Confidence: 0.90957636

00:25:47.470 --> 00:25:50.142 One of the reasons I love endocrinology

NOTE Confidence: 0.90957636

00:25:50.142 --> 00:25:52.477 is that we can check blood work

NOTE Confidence: 0.90957636

00:25:52.480 --> 00:25:55.336 and blood work can be very helpful

NOTE Confidence: 0.90957636

00:25:55.336 --> 00:25:57.727 in telling you what is going on.

NOTE Confidence: 0.90957636

00:25:57.730 --> 00:25:59.480 So one of the things

NOTE Confidence: 0.90957636

00:25:59.480 --> 00:26:01.580 that can happen is inflammation,

NOTE Confidence: 0.90957636



00:26:01.580 --> 00:26:03.368 or thyroiditis of the  
NOTE Confidence: 0.90957636

00:26:03.368 --> 00:26:05.061 thyroid gland can happen with  
NOTE Confidence: 0.90957636

00:26:05.061 --> 00:26:06.829 these immune checkpoint inhibitors.  
NOTE Confidence: 0.90957636

00:26:06.830 --> 00:26:08.906 So initially what happens with them  
NOTE Confidence: 0.90957636

00:26:08.906 --> 00:26:11.475 is inflammation of the gland and there  
NOTE Confidence: 0.90957636

00:26:11.475 --> 00:26:13.350 is actually a thyroid hormone  
NOTE Confidence: 0.90957636

00:26:13.350 --> 00:26:16.064 within the gland that as it's attacked is  
NOTE Confidence: 0.90957636

00:26:16.064 --> 00:26:18.024 released and so because that happens,  
NOTE Confidence: 0.90957636

00:26:18.024 --> 00:26:20.453 there's a lot of extra thyroid hormone  
NOTE Confidence: 0.90957636

00:26:20.453 --> 00:26:22.803 in the body and patients can feel  
NOTE Confidence: 0.90957636

00:26:22.803 --> 00:26:25.170 symptoms of too much thyroid hormone.  
NOTE Confidence: 0.90957636

00:26:25.170 --> 00:26:27.474 What would those be?  
NOTE Confidence: 0.90957636

00:26:27.474 --> 00:26:30.028 Feeling hot when no one else is hot.  
NOTE Confidence: 0.90957636

00:26:30.030 --> 00:26:32.431 Almost like a hot flash feeling  
NOTE Confidence: 0.90957636

00:26:32.431 --> 00:26:35.267 very hungry and actually having weight loss.  
NOTE Confidence: 0.90957636

00:26:35.270 --> 00:26:37.545 You can have weight gain, just an

NOTE Confidence: 0.90957636

00:26:37.545 --> 00:26:39.794 imbalance in your thyroid

NOTE Confidence: 0.90957636

00:26:39.794 --> 00:26:41.809 hormone after that happens because

NOTE Confidence: 0.90957636

00:26:41.809 --> 00:26:44.240 the thyroid gland has been inflamed.

NOTE Confidence: 0.90957636

00:26:44.240 --> 00:26:46.858 It also can no longer make

NOTE Confidence: 0.90957636

00:26:46.858 --> 00:26:47.606 thyroid hormone,

NOTE Confidence: 0.90957636

00:26:47.610 --> 00:26:50.589 so a lot of

NOTE Confidence: 0.90957636

00:26:50.589 --> 00:26:52.473 thyroid hormone patients go through

NOTE Confidence: 0.90957636

00:26:52.473 --> 00:26:56.000 a state of

NOTE Confidence: 0.90957636

00:26:56.000 --> 00:26:57.980 very low thyroid hormone and so

NOTE Confidence: 0.90957636

00:26:57.980 --> 00:27:00.206 at that point the thyroid hormone

NOTE Confidence: 0.90957636

00:27:00.206 --> 00:27:01.870 needs to be replaced,

NOTE Confidence: 0.90957636

00:27:01.870 --> 00:27:04.072 and so that's a very typical

NOTE Confidence: 0.90957636

00:27:04.072 --> 00:27:05.540 picture that we see.

NOTE Confidence: 0.90957636

00:27:05.540 --> 00:27:07.008 We call immunotherapy related.

NOTE Confidence: 0.90957636

00:27:07.008 --> 00:27:09.210 It's like a thyroiditis and the

NOTE Confidence: 0.8940697

00:27:09.210 --> 00:27:11.779 symptoms of low thyroid.  
NOTE Confidence: 0.8940697

00:27:11.780 --> 00:27:14.188 And you can see the opposite  
NOTE Confidence: 0.8940697

00:27:14.188 --> 00:27:16.550 so you can feel very tired.  
NOTE Confidence: 0.8940697

00:27:16.550 --> 00:27:19.486 Feel cold when no one else is cold,  
NOTE Confidence: 0.8940697

00:27:19.490 --> 00:27:21.300 constipated. And you can  
NOTE Confidence: 0.8940697

00:27:21.300 --> 00:27:23.530 also have a low heart rate.  
NOTE Confidence: 0.8940697

00:27:23.530 --> 00:27:24.990 We're just about ready  
NOTE Confidence: 0.8940697

00:27:24.990 --> 00:27:28.046 to finish. But let me ask you are there any  
NOTE Confidence: 0.8940697

00:27:28.050 --> 00:27:29.850 recent advances that have been made or  
NOTE Confidence: 0.8940697

00:27:29.850 --> 00:27:31.890 exciting research in the pipeline?  
NOTE Confidence: 0.91031694

00:27:31.890 --> 00:27:33.810 You alluded to some of that.  
NOTE Confidence: 0.91031694

00:27:33.810 --> 00:27:35.586 Actually, immunotherapy is being used now  
NOTE Confidence: 0.91031694

00:27:35.586 --> 00:27:38.184 in trials to see whether that can help  
NOTE Confidence: 0.91031694

00:27:38.184 --> 00:27:39.884 patients with advanced thyroid cancer.  
NOTE Confidence: 0.91031694

00:27:39.890 --> 00:27:41.738 And at Yale, there is a trial  
NOTE Confidence: 0.91031694

00:27:41.738 --> 00:27:43.729 now ongoing with cabozantinib,

NOTE Confidence: 0.91031694

00:27:43.730 --> 00:27:45.802 which is a tyrosine kinase inhibitor in

NOTE Confidence: 0.91031694

00:27:45.802 --> 00:27:48.100 patients who have failed another type of

NOTE Confidence: 0.91031694

00:27:48.100 --> 00:27:50.128 tyrosine kinase inhibitor called Lynx VEGF,

NOTE Confidence: 0.91031694

00:27:50.130 --> 00:27:52.356 and if so, a lot of interesting

NOTE Confidence: 0.91031694

00:27:52.356 --> 00:27:54.289 research is going on in advanced

NOTE Confidence: 0.91031694

00:27:54.290 --> 00:27:55.570 thyroid cancer these days.

NOTE Confidence: 0.941881

00:27:56.310 --> 00:27:58.374 Doctor Grace Lee is an assistant

NOTE Confidence: 0.941881

00:27:58.374 --> 00:28:00.200 professor in the section of

NOTE Confidence: 0.941881

00:28:00.200 --> 00:28:01.724 endocrinology and metabolism at

NOTE Confidence: 0.941881

00:28:01.724 --> 00:28:03.629 the Yale School of Medicine.

NOTE Confidence: 0.941881

00:28:03.630 --> 00:28:05.098 If you have questions,

NOTE Confidence: 0.941881

00:28:05.098 --> 00:28:06.566 the address is canceranswers@yale.edu

NOTE Confidence: 0.941881

00:28:06.566 --> 00:28:08.596 and past editions of the program

NOTE Confidence: 0.941881

00:28:08.596 --> 00:28:10.450 are available in audio and written

NOTE Confidence: 0.941881

00:28:10.505 --> 00:28:12.050 form at Yalecancercenter.org.

NOTE Confidence: 0.941881

00:28:12.050 --> 00:28:14.474 We hope you'll join us next week to

NOTE Confidence: 0.941881

00:28:14.474 --> 00:28:16.837 learn more about the fight against

NOTE Confidence: 0.941881

00:28:16.837 --> 00:28:19.369 cancer here on Connecticut public radio.