

WEBVTT

NOTE duration: "00:55:38.154"

NOTE Confidence: 0.9945547

00:00:02.960 --> 00:00:04.319 Okay. Why don't we get

NOTE Confidence: 0.9945547

00:00:04.319 --> 00:00:04.799 started?

NOTE Confidence: 0.96520245

00:00:06.240 --> 00:00:07.060 Just a

NOTE Confidence: 0.76207584

00:00:08.720 --> 00:00:09.619 a a brief announcement.

NOTE Confidence: 0.99972135

00:00:10.160 --> 00:00:11.360 I'd like to share some

NOTE Confidence: 0.99972135

00:00:11.360 --> 00:00:11.860 exciting

NOTE Confidence: 0.9430557

00:00:13.174 --> 00:00:14.714 news. Earlier this month,

NOTE Confidence: 0.93764454

00:00:15.094 --> 00:00:16.215 the Yale Center for the

NOTE Confidence: 0.93764454

00:00:16.215 --> 00:00:17.835 Science of Cannabis and Cannabinoids

NOTE Confidence: 0.93764454

00:00:17.974 --> 00:00:19.035 announced a new

NOTE Confidence: 0.99980384

00:00:19.414 --> 00:00:19.914 collaboration

NOTE Confidence: 0.9864462

00:00:20.375 --> 00:00:21.835 with, with the McGill

NOTE Confidence: 0.9219141

00:00:22.935 --> 00:00:25.015 Research Center for Cannabis in

NOTE Confidence: 0.9219141

00:00:25.015 --> 00:00:25.515 Canada.

NOTE Confidence: 0.97007036

00:00:26.600 --> 00:00:28.380 This is a partnership that
NOTE Confidence: 0.87049025
00:00:29.000 --> 00:00:31.180 reflects a shared commitment to,
NOTE Confidence: 0.9916938
00:00:31.880 --> 00:00:33.020 to really advancing
NOTE Confidence: 0.9996908
00:00:33.400 --> 00:00:33.900 science
NOTE Confidence: 0.9618011
00:00:34.440 --> 00:00:35.720 on cannabis and,
NOTE Confidence: 0.9035747
00:00:36.120 --> 00:00:37.659 and is also an international
NOTE Confidence: 0.9035747
00:00:37.880 --> 00:00:38.380 collaboration.
NOTE Confidence: 0.9809027
00:00:39.475 --> 00:00:40.755 As part of this effort,
NOTE Confidence: 0.9809027
00:00:40.755 --> 00:00:42.915 McGill University will cosponsor and
NOTE Confidence: 0.9809027
00:00:42.915 --> 00:00:43.735 help promote
NOTE Confidence: 0.94763184
00:00:44.195 --> 00:00:45.875 these monthly webinars that we
NOTE Confidence: 0.94763184
00:00:45.875 --> 00:00:46.775 have, like today's,
NOTE Confidence: 0.9754101
00:00:47.955 --> 00:00:48.854 further expanding
NOTE Confidence: 0.8893318
00:00:49.635 --> 00:00:50.755 the re our reach and
NOTE Confidence: 0.8893318
00:00:50.755 --> 00:00:51.255 impact.
NOTE Confidence: 0.98476046
00:00:51.909 --> 00:00:53.190 We also plan at some

NOTE Confidence: 0.98476046
00:00:53.190 --> 00:00:54.310 later point in time to
NOTE Confidence: 0.98476046
00:00:54.310 --> 00:00:54.810 launch
NOTE Confidence: 0.9351664
00:00:55.830 --> 00:00:57.110 a new kind of lunch
NOTE Confidence: 0.9351664
00:00:57.110 --> 00:00:57.770 and learn
NOTE Confidence: 0.9313751
00:00:59.270 --> 00:01:01.190 session for trainees and early
NOTE Confidence: 0.9313751
00:01:01.190 --> 00:01:02.010 career investigators
NOTE Confidence: 0.95043766
00:01:03.030 --> 00:01:04.569 to talk about their research,
NOTE Confidence: 0.98096615
00:01:05.110 --> 00:01:05.850 in the cannabis
NOTE Confidence: 0.9067488
00:01:06.825 --> 00:01:08.745 space, space, and that'll offer
NOTE Confidence: 0.9067488
00:01:08.745 --> 00:01:10.045 an opportunity for,
NOTE Confidence: 0.99937755
00:01:10.584 --> 00:01:12.125 for mentorship and collaboration.
NOTE Confidence: 0.9819131
00:01:14.265 --> 00:01:15.325 So with that,
NOTE Confidence: 0.96889603
00:01:16.265 --> 00:01:17.625 I want it's my pleasure
NOTE Confidence: 0.96889603
00:01:17.625 --> 00:01:20.425 to introduce Tangam Venkatesan. Doctor
NOTE Confidence: 0.96889603
00:01:20.425 --> 00:01:21.965 Venkatesan is an internationally
NOTE Confidence: 0.9885538

00:01:22.800 --> 00:01:24.500 recognized physician scientist,
NOTE Confidence: 0.9982002

00:01:25.440 --> 00:01:26.580 and a leader
NOTE Confidence: 0.9948963

00:01:26.959 --> 00:01:27.700 in neurogastroenterology.
NOTE Confidence: 0.99780774

00:01:29.360 --> 00:01:30.740 Her work has been instrumental
NOTE Confidence: 0.99780774

00:01:30.880 --> 00:01:32.500 in advancing our understanding
NOTE Confidence: 0.9977691

00:01:33.040 --> 00:01:34.340 and treatment of
NOTE Confidence: 0.94871116

00:01:34.784 --> 00:01:37.424 cyclical vomiting syndrome, particularly in
NOTE Confidence: 0.94871116

00:01:37.424 --> 00:01:37.924 adults,
NOTE Confidence: 0.95096684

00:01:38.705 --> 00:01:39.825 where she has helped even
NOTE Confidence: 0.95096684

00:01:39.825 --> 00:01:41.525 define some of the diagnostic
NOTE Confidence: 0.95096684

00:01:41.665 --> 00:01:42.865 criteria and,
NOTE Confidence: 0.9877112

00:01:43.185 --> 00:01:44.725 and evidence based care.
NOTE Confidence: 0.9035913

00:01:45.265 --> 00:01:46.465 She has played us,
NOTE Confidence: 0.9997274

00:01:46.865 --> 00:01:48.564 an important role in distinguishing
NOTE Confidence: 0.9535947

00:01:49.090 --> 00:01:50.310 cyclically vomiting
NOTE Confidence: 0.99593806

00:01:50.610 --> 00:01:52.310 syndrome from cannabis

NOTE Confidence: 0.9863658

00:01:52.850 --> 00:01:54.770 hyperemesis syndrome, which we are

NOTE Confidence: 0.9863658

00:01:54.770 --> 00:01:56.130 hoping to hear a lot

NOTE Confidence: 0.9863658

00:01:56.130 --> 00:01:56.870 about today,

NOTE Confidence: 0.9975855

00:01:57.490 --> 00:01:59.490 improving its clinical recognition and

NOTE Confidence: 0.9975855

00:01:59.490 --> 00:01:59.990 management.

NOTE Confidence: 0.8903628

00:02:01.185 --> 00:02:02.565 More broadly, her research

NOTE Confidence: 0.9491824

00:02:03.185 --> 00:02:05.284 explores the brain gut access,

NOTE Confidence: 0.9985412

00:02:05.745 --> 00:02:07.284 including the role of stress,

NOTE Confidence: 0.9985412

00:02:07.425 --> 00:02:08.565 autonomic function,

NOTE Confidence: 0.9995277

00:02:09.505 --> 00:02:10.005 and

NOTE Confidence: 0.8205302

00:02:10.945 --> 00:02:12.245 the cannabinoid related

NOTE Confidence: 0.85151684

00:02:12.865 --> 00:02:14.084 mechanisms in

NOTE Confidence: 0.87908906

00:02:14.465 --> 00:02:14.965 gastrointestinal

NOTE Confidence: 0.85058844

00:02:15.665 --> 00:02:16.645 disorders. So,

NOTE Confidence: 0.97406816

00:02:17.240 --> 00:02:18.520 in addition to that, doctor

NOTE Confidence: 0.97406816

00:02:18.520 --> 00:02:21.099 Venkateshyan is a dedicated educator

NOTE Confidence: 0.9839884

00:02:21.800 --> 00:02:23.900 and collaborator whose work continues

NOTE Confidence: 0.9839884

00:02:23.959 --> 00:02:24.620 to shape,

NOTE Confidence: 0.9973565

00:02:25.239 --> 00:02:26.760 the field and improve patient

NOTE Confidence: 0.9973565

00:02:26.760 --> 00:02:27.580 care. So

NOTE Confidence: 0.9960708

00:02:27.959 --> 00:02:29.260 without further ado,

NOTE Confidence: 0.9522826

00:02:30.440 --> 00:02:31.819 Tanga, it's your stage.

NOTE Confidence: 0.9892513

00:02:32.745 --> 00:02:33.965 Yeah. Thank you so much,

NOTE Confidence: 0.9546871

00:02:34.585 --> 00:02:36.285 for those, kind words,

NOTE Confidence: 0.95906353

00:02:36.825 --> 00:02:38.425 Cyril. And I'm just gonna

NOTE Confidence: 0.95906353

00:02:38.425 --> 00:02:40.525 get my PowerPoint here.

NOTE Confidence: 0.9996671

00:02:42.505 --> 00:02:44.105 Alright. I think everybody can

NOTE Confidence: 0.9996671

00:02:44.105 --> 00:02:45.325 see my slides

NOTE Confidence: 0.9691927

00:02:48.600 --> 00:02:49.980 and hear me okay?

NOTE Confidence: 0.7369349

00:02:50.360 --> 00:02:52.300 Yes. Yes. I believe. Fantastic.

NOTE Confidence: 0.9776822

00:02:53.319 --> 00:02:54.520 So, again, thank you so

NOTE Confidence: 0.9776822
00:02:54.520 --> 00:02:55.880 much. Thank you so much
NOTE Confidence: 0.9776822
00:02:55.880 --> 00:02:57.560 for having me. And, today,
NOTE Confidence: 0.9776822
00:02:57.560 --> 00:02:58.600 I'm gonna talk a little
NOTE Confidence: 0.9776822
00:02:58.600 --> 00:02:59.340 bit about
NOTE Confidence: 0.9902822
00:02:59.639 --> 00:03:00.139 cannabinoid
NOTE Confidence: 0.9985833
00:03:00.440 --> 00:03:00.940 hyperemesis
NOTE Confidence: 0.99981767
00:03:01.319 --> 00:03:01.819 syndrome
NOTE Confidence: 0.9266391
00:03:02.200 --> 00:03:02.520 and,
NOTE Confidence: 0.91170114
00:03:03.065 --> 00:03:03.565 try
NOTE Confidence: 0.9844095
00:03:03.865 --> 00:03:05.865 and maybe, you know, discuss
NOTE Confidence: 0.9844095
00:03:05.865 --> 00:03:07.245 some myths and so on.
NOTE Confidence: 0.9958073
00:03:07.705 --> 00:03:09.565 And, so here we go.
NOTE Confidence: 0.9604914
00:03:10.585 --> 00:03:11.805 These are my disclosures.
NOTE Confidence: 0.9606329
00:03:14.025 --> 00:03:15.544 And, I'm gonna start with
NOTE Confidence: 0.9606329
00:03:15.544 --> 00:03:16.080 a case.
NOTE Confidence: 0.9755748

00:03:16.560 --> 00:03:17.680 So this is something that
NOTE Confidence: 0.9755748

00:03:17.680 --> 00:03:18.800 I see in my clinic,
NOTE Confidence: 0.9755748

00:03:19.120 --> 00:03:20.720 very often. Twenty eight year
NOTE Confidence: 0.9755748

00:03:20.720 --> 00:03:22.500 old female, she comes in
NOTE Confidence: 0.99739033

00:03:22.800 --> 00:03:24.639 with episodes of nausea, vomiting,
NOTE Confidence: 0.99739033

00:03:24.639 --> 00:03:26.320 and abdominal pain every three
NOTE Confidence: 0.99739033

00:03:26.320 --> 00:03:27.680 months for the past five
NOTE Confidence: 0.99739033

00:03:27.680 --> 00:03:28.180 years.
NOTE Confidence: 0.998995

00:03:28.614 --> 00:03:30.614 Her triggers include stress and
NOTE Confidence: 0.998995

00:03:30.614 --> 00:03:32.375 travel. She says her symptoms
NOTE Confidence: 0.998995

00:03:32.375 --> 00:03:33.834 are relieved by sleep
NOTE Confidence: 0.9975516

00:03:34.135 --> 00:03:35.194 and hot showers.
NOTE Confidence: 0.9892634

00:03:35.974 --> 00:03:37.735 Past medical history is significant
NOTE Confidence: 0.9892634

00:03:37.735 --> 00:03:39.355 for anxiety, which she attributes
NOTE Confidence: 0.9892634

00:03:39.415 --> 00:03:40.315 to the illness.
NOTE Confidence: 0.9961324

00:03:40.690 --> 00:03:42.450 She smokes marijuana, she says,

NOTE Confidence: 0.9961324
00:03:42.450 --> 00:03:44.470 about four times a week,
NOTE Confidence: 0.9665949
00:03:45.170 --> 00:03:46.690 for about seven years, and
NOTE Confidence: 0.9665949
00:03:46.690 --> 00:03:47.970 she says it helps with
NOTE Confidence: 0.9665949
00:03:47.970 --> 00:03:48.470 nausea,
NOTE Confidence: 0.98096734
00:03:48.850 --> 00:03:51.110 appetite, and also some stress.
NOTE Confidence: 0.9778309
00:03:51.890 --> 00:03:53.990 She has been hospitalized multiple
NOTE Confidence: 0.9778309
00:03:54.130 --> 00:03:55.944 times in the past, and,
NOTE Confidence: 0.9778309
00:03:55.944 --> 00:03:57.625 typically, she's treated with IV
NOTE Confidence: 0.9778309
00:03:57.625 --> 00:03:58.685 fluids and antiemetics,
NOTE Confidence: 0.99968725
00:03:59.465 --> 00:04:00.605 and then she improves.
NOTE Confidence: 0.97819483
00:04:01.145 --> 00:04:02.845 She's also seen three gastroenterologists.
NOTE Confidence: 0.92306554
00:04:03.224 --> 00:04:04.345 So lo and behold, she's
NOTE Confidence: 0.92306554
00:04:04.345 --> 00:04:06.125 had three EGDs, a colonoscopy,
NOTE Confidence: 0.9922225
00:04:07.224 --> 00:04:09.385 and, multiple CT scans of
NOTE Confidence: 0.9922225
00:04:09.385 --> 00:04:10.045 the abdomen.
NOTE Confidence: 0.99982697

00:04:10.550 --> 00:04:11.830 She also has a four
NOTE Confidence: 0.99982697

00:04:11.830 --> 00:04:12.330 hour
NOTE Confidence: 0.993517

00:04:12.630 --> 00:04:14.230 gastric emptying study, which is
NOTE Confidence: 0.993517

00:04:14.230 --> 00:04:15.770 actually mildly delayed.
NOTE Confidence: 0.94916487

00:04:16.230 --> 00:04:17.190 She has been given a
NOTE Confidence: 0.94916487

00:04:17.190 --> 00:04:18.330 trial of metoclopramide
NOTE Confidence: 0.9876476

00:04:18.870 --> 00:04:20.150 because she's told that she
NOTE Confidence: 0.9876476

00:04:20.150 --> 00:04:21.050 has gastroparesis.
NOTE Confidence: 0.97755075

00:04:22.150 --> 00:04:23.270 She's been asked to quit
NOTE Confidence: 0.97755075

00:04:23.270 --> 00:04:25.029 marijuana, which she actually did
NOTE Confidence: 0.97755075

00:04:25.029 --> 00:04:27.044 for six months and reported
NOTE Confidence: 0.97755075

00:04:27.264 --> 00:04:29.264 some improvement but continues to
NOTE Confidence: 0.97755075

00:04:29.264 --> 00:04:30.085 have episodes.
NOTE Confidence: 0.9900344

00:04:31.904 --> 00:04:33.185 And, so I just want
NOTE Confidence: 0.9900344

00:04:33.185 --> 00:04:34.464 you to think about that
NOTE Confidence: 0.9900344

00:04:34.464 --> 00:04:35.745 case a little bit and,

NOTE Confidence: 0.9900344

00:04:35.985 --> 00:04:36.784 sort of keep it at

NOTE Confidence: 0.9900344

00:04:36.784 --> 00:04:37.664 the back of your head,

NOTE Confidence: 0.9900344

00:04:37.664 --> 00:04:38.944 and we'll move on to

NOTE Confidence: 0.9900344

00:04:38.944 --> 00:04:41.050 marijuana now. And as we

NOTE Confidence: 0.9900344

00:04:41.050 --> 00:04:42.810 all know, marijuana has really

NOTE Confidence: 0.9900344

00:04:42.810 --> 00:04:44.669 sort of gone mainstream, particularly

NOTE Confidence: 0.9472151

00:04:45.050 --> 00:04:46.410 in the US. And I

NOTE Confidence: 0.9472151

00:04:46.410 --> 00:04:47.690 think every time I present

NOTE Confidence: 0.9472151

00:04:47.690 --> 00:04:48.190 this,

NOTE Confidence: 0.9996183

00:04:49.050 --> 00:04:50.650 particular talk, I really have

NOTE Confidence: 0.9996183

00:04:50.650 --> 00:04:52.029 to update my slides.

NOTE Confidence: 0.9782181

00:04:52.404 --> 00:04:53.285 If you look at this

NOTE Confidence: 0.9782181

00:04:53.285 --> 00:04:55.764 particular map, the only state

NOTE Confidence: 0.9782181

00:04:55.764 --> 00:04:56.964 right now where it is

NOTE Confidence: 0.9782181

00:04:56.964 --> 00:04:58.185 completely illegal

NOTE Confidence: 0.98938215

00:04:58.885 --> 00:05:00.565 is in Idaho. So you
NOTE Confidence: 0.98938215

00:05:00.565 --> 00:05:01.925 can get potatoes, but you
NOTE Confidence: 0.98938215

00:05:01.925 --> 00:05:03.445 can't get cannabis there, at
NOTE Confidence: 0.98938215

00:05:03.445 --> 00:05:04.185 least legally.
NOTE Confidence: 0.994743

00:05:05.260 --> 00:05:06.779 Now what about patterns of
NOTE Confidence: 0.994743

00:05:06.779 --> 00:05:08.700 cannabis use? And if you
NOTE Confidence: 0.994743

00:05:08.700 --> 00:05:10.220 look here, you can see
NOTE Confidence: 0.994743

00:05:10.220 --> 00:05:11.820 that between two thousand and
NOTE Confidence: 0.994743

00:05:11.820 --> 00:05:13.100 two to two thousand and
NOTE Confidence: 0.994743

00:05:13.100 --> 00:05:13.600 nineteen,
NOTE Confidence: 0.99703336

00:05:14.140 --> 00:05:16.060 the prevalence of cannabis use
NOTE Confidence: 0.99703336

00:05:16.060 --> 00:05:16.815 has gone up.
NOTE Confidence: 0.99441457

00:05:17.615 --> 00:05:18.735 It's gone up in,
NOTE Confidence: 0.9950244

00:05:19.135 --> 00:05:20.815 in those who are aged
NOTE Confidence: 0.9950244

00:05:20.815 --> 00:05:22.435 eighteen to twenty five
NOTE Confidence: 0.9709653

00:05:22.735 --> 00:05:23.775 as well as those who

NOTE Confidence: 0.9709653

00:05:23.775 --> 00:05:25.214 are twenty six years and

NOTE Confidence: 0.9709653

00:05:25.214 --> 00:05:25.714 above.

NOTE Confidence: 0.9878643

00:05:26.335 --> 00:05:28.175 And, this is another study

NOTE Confidence: 0.9878643

00:05:28.175 --> 00:05:30.095 that looked at, cannabis use

NOTE Confidence: 0.9878643

00:05:30.095 --> 00:05:31.475 in the United States

NOTE Confidence: 0.9739151

00:05:31.910 --> 00:05:33.669 and also Canada. And so

NOTE Confidence: 0.9739151

00:05:33.669 --> 00:05:34.790 in the United States, in

NOTE Confidence: 0.9739151

00:05:34.790 --> 00:05:36.630 this particular study, about thirteen

NOTE Confidence: 0.9739151

00:05:36.630 --> 00:05:38.790 percent reported use within the

NOTE Confidence: 0.9739151

00:05:38.790 --> 00:05:40.550 past month. So that's kind

NOTE Confidence: 0.9739151

00:05:40.550 --> 00:05:42.389 of a pretty significant number.

NOTE Confidence: 0.9739151

00:05:42.389 --> 00:05:43.510 It's more than one in

NOTE Confidence: 0.9739151

00:05:43.510 --> 00:05:43.875 ten.

NOTE Confidence: 0.9972807

00:05:44.355 --> 00:05:46.275 And, in twenty twenty one,

NOTE Confidence: 0.9972807

00:05:46.275 --> 00:05:47.635 more than fifty two million

NOTE Confidence: 0.9972807

00:05:47.635 --> 00:05:48.135 people
NOTE Confidence: 0.98438144

00:05:48.515 --> 00:05:49.635 said that they used it
NOTE Confidence: 0.98438144

00:05:49.635 --> 00:05:51.075 at least once during that
NOTE Confidence: 0.98438144

00:05:51.075 --> 00:05:51.575 year.
NOTE Confidence: 0.9871952

00:05:52.035 --> 00:05:53.795 And, most many users, at
NOTE Confidence: 0.9871952

00:05:53.795 --> 00:05:55.154 least forty five percent of
NOTE Confidence: 0.9871952

00:05:55.154 --> 00:05:56.835 new users, were between the
NOTE Confidence: 0.9871952

00:05:56.835 --> 00:05:58.695 ages of twelve to seventeen.
NOTE Confidence: 0.90079975

00:05:59.220 --> 00:05:59.960 So, really,
NOTE Confidence: 0.86992455

00:06:00.420 --> 00:06:02.980 there's considerable use particularly among,
NOTE Confidence: 0.9704406

00:06:03.460 --> 00:06:03.960 adolescents
NOTE Confidence: 0.9802157

00:06:04.260 --> 00:06:05.460 in the US, and that's
NOTE Confidence: 0.9802157

00:06:05.460 --> 00:06:06.360 very concerning.
NOTE Confidence: 0.9721721

00:06:07.380 --> 00:06:08.980 This is another study that
NOTE Confidence: 0.9721721

00:06:08.980 --> 00:06:10.420 looked at cannabis use in
NOTE Confidence: 0.9721721

00:06:10.420 --> 00:06:11.620 about a third. So about

NOTE Confidence: 0.9721721
00:06:11.620 --> 00:06:13.400 twenty seven percent of adults
NOTE Confidence: 0.9837747
00:06:13.955 --> 00:06:15.735 in, the US and Canada
NOTE Confidence: 0.9837747
00:06:15.875 --> 00:06:17.795 reported lifetime use for medical
NOTE Confidence: 0.9837747
00:06:17.795 --> 00:06:18.295 purposes.
NOTE Confidence: 0.9967911
00:06:18.675 --> 00:06:19.875 And I think we hear
NOTE Confidence: 0.9967911
00:06:19.875 --> 00:06:21.395 this quite often from our
NOTE Confidence: 0.9967911
00:06:21.395 --> 00:06:21.895 patients.
NOTE Confidence: 0.99273646
00:06:22.275 --> 00:06:23.475 Many of them say they,
NOTE Confidence: 0.97997606
00:06:23.955 --> 00:06:25.315 use it for pain, so
NOTE Confidence: 0.97997606
00:06:25.315 --> 00:06:26.214 about half.
NOTE Confidence: 0.9682906
00:06:26.669 --> 00:06:27.949 Another half use it for
NOTE Confidence: 0.9682906
00:06:27.949 --> 00:06:29.490 anxiety and insomnia,
NOTE Confidence: 0.98490924
00:06:30.350 --> 00:06:31.310 though I'm not sure the
NOTE Confidence: 0.98490924
00:06:31.310 --> 00:06:32.910 data is that robust to
NOTE Confidence: 0.98490924
00:06:32.910 --> 00:06:33.410 actually,
NOTE Confidence: 0.9974839

00:06:34.029 --> 00:06:35.630 support its use in this
NOTE Confidence: 0.9974839

00:06:35.630 --> 00:06:37.729 particular for these particular indications.
NOTE Confidence: 0.9966969

00:06:38.925 --> 00:06:40.285 About ten percent of the
NOTE Confidence: 0.9966969

00:06:40.285 --> 00:06:42.865 US population also report using
NOTE Confidence: 0.9966969

00:06:42.925 --> 00:06:44.865 CBD for therapeutic purposes.
NOTE Confidence: 0.9673997

00:06:46.445 --> 00:06:47.805 Now this is another sort
NOTE Confidence: 0.9673997

00:06:47.805 --> 00:06:49.165 of scary slide, if you
NOTE Confidence: 0.9673997

00:06:49.165 --> 00:06:50.365 will, and if you look
NOTE Confidence: 0.9673997

00:06:50.365 --> 00:06:51.005 at these,
NOTE Confidence: 0.92693084

00:06:51.404 --> 00:06:52.545 the this graph,
NOTE Confidence: 0.98265815

00:06:52.900 --> 00:06:55.300 you can see, that people
NOTE Confidence: 0.98265815

00:06:55.300 --> 00:06:57.460 really don't perceive cannabis to
NOTE Confidence: 0.98265815

00:06:57.460 --> 00:06:59.240 be very risky at all.
NOTE Confidence: 0.98265815

00:06:59.539 --> 00:07:00.900 And, if you look at
NOTE Confidence: 0.98265815

00:07:00.900 --> 00:07:02.279 multiple sort of populations,
NOTE Confidence: 0.8756457

00:07:02.660 --> 00:07:03.160 adolescents,

NOTE Confidence: 0.98869526
00:07:03.539 --> 00:07:05.639 emerging adults, adults, middle
NOTE Confidence: 0.9903437
00:07:06.020 --> 00:07:07.800 aged adults, and older adults,
NOTE Confidence: 0.98268354
00:07:08.225 --> 00:07:09.905 their perception as it being
NOTE Confidence: 0.98268354
00:07:09.905 --> 00:07:12.165 risky has gone down considerably.
NOTE Confidence: 0.9656419
00:07:14.865 --> 00:07:16.385 And, now when you couple
NOTE Confidence: 0.9656419
00:07:16.385 --> 00:07:18.165 this with trends in potency
NOTE Confidence: 0.9656419
00:07:18.225 --> 00:07:19.985 of marijuana products, and this
NOTE Confidence: 0.9656419
00:07:19.985 --> 00:07:21.445 is something looking at,
NOTE Confidence: 0.9861366
00:07:22.350 --> 00:07:24.290 really the content of THC
NOTE Confidence: 0.9861366
00:07:24.350 --> 00:07:25.950 and CBD. As we all
NOTE Confidence: 0.9861366
00:07:25.950 --> 00:07:26.450 know,
NOTE Confidence: 0.98102146
00:07:27.150 --> 00:07:28.590 you know, marijuana, the most,
NOTE Confidence: 0.98102146
00:07:28.910 --> 00:07:30.830 important constituents, if you will,
NOTE Confidence: 0.98102146
00:07:30.830 --> 00:07:32.210 are THC and CBD.
NOTE Confidence: 0.9859192
00:07:32.670 --> 00:07:34.190 And THC sort of gives
NOTE Confidence: 0.9859192

00:07:34.190 --> 00:07:36.370 you the high. It's, psychotropic.

NOTE Confidence: 0.899693

00:07:37.165 --> 00:07:37.905 And, typically,

NOTE Confidence: 0.9795072

00:07:38.605 --> 00:07:39.725 if you looked at a

NOTE Confidence: 0.9795072

00:07:39.725 --> 00:07:41.085 joint, so maybe in the

NOTE Confidence: 0.9795072

00:07:41.085 --> 00:07:41.585 nineties,

NOTE Confidence: 0.94000137

00:07:41.965 --> 00:07:43.165 you would see that it

NOTE Confidence: 0.94000137

00:07:43.165 --> 00:07:45.025 has a lower percentage

NOTE Confidence: 0.994947

00:07:45.405 --> 00:07:47.245 of THC, maybe around four

NOTE Confidence: 0.994947

00:07:47.245 --> 00:07:48.845 percent or so. And if

NOTE Confidence: 0.994947

00:07:48.845 --> 00:07:50.400 you look at these samples,

NOTE Confidence: 0.97561145

00:07:50.780 --> 00:07:52.539 it's really increased to fifteen

NOTE Confidence: 0.97561145

00:07:52.539 --> 00:07:54.380 percent in a joint, and

NOTE Confidence: 0.97561145

00:07:54.380 --> 00:07:57.099 meanwhile, the CBD concentration has

NOTE Confidence: 0.97561145

00:07:57.099 --> 00:07:58.319 gone down significantly.

NOTE Confidence: 0.99758106

00:07:59.020 --> 00:08:00.139 And if you actually look

NOTE Confidence: 0.99758106

00:08:00.139 --> 00:08:01.360 at what is available,

NOTE Confidence: 0.99964297
00:08:01.979 --> 00:08:03.794 in the market right now,
NOTE Confidence: 0.982923
00:08:04.495 --> 00:08:06.735 you have cannabis products that
NOTE Confidence: 0.982923
00:08:06.735 --> 00:08:08.574 have anywhere between even sixty
NOTE Confidence: 0.982923
00:08:08.574 --> 00:08:10.254 five to eighty five percent
NOTE Confidence: 0.982923
00:08:10.254 --> 00:08:10.754 THC.
NOTE Confidence: 0.8795448
00:08:11.375 --> 00:08:12.574 So this is enough to
NOTE Confidence: 0.8795448
00:08:12.574 --> 00:08:13.794 knock our hearts down.
NOTE Confidence: 0.9818221
00:08:14.335 --> 00:08:15.215 And and I think what
NOTE Confidence: 0.9818221
00:08:15.215 --> 00:08:16.590 is being sold and what
NOTE Confidence: 0.9818221
00:08:16.590 --> 00:08:18.110 is being marketed is very
NOTE Confidence: 0.9818221
00:08:18.110 --> 00:08:19.870 different from what is, quote,
NOTE Confidence: 0.9818221
00:08:19.870 --> 00:08:20.370 natural.
NOTE Confidence: 0.9887156
00:08:21.950 --> 00:08:23.810 So maybe there's some hope.
NOTE Confidence: 0.9887156
00:08:24.030 --> 00:08:25.630 And, so when we talk
NOTE Confidence: 0.9887156
00:08:25.630 --> 00:08:27.330 about marijuana and cannabis,
NOTE Confidence: 0.7025027

00:08:28.075 --> 00:08:28.895 they actually,
NOTE Confidence: 0.94963104
00:08:29.835 --> 00:08:31.435 exert their effects by working
NOTE Confidence: 0.94963104
00:08:31.435 --> 00:08:32.475 on what we call c
NOTE Confidence: 0.94963104
00:08:32.475 --> 00:08:33.455 b one receptors.
NOTE Confidence: 0.9945736
00:08:33.915 --> 00:08:35.115 There is something called the
NOTE Confidence: 0.9945736
00:08:35.115 --> 00:08:35.615 endocannabinoid
NOTE Confidence: 0.96880233
00:08:36.315 --> 00:08:37.835 system. So we all produce
NOTE Confidence: 0.96880233
00:08:37.835 --> 00:08:38.715 sort of, if you will,
NOTE Confidence: 0.96880233
00:08:38.715 --> 00:08:40.095 marijuana like substances.
NOTE Confidence: 0.97542167
00:08:40.650 --> 00:08:42.250 There are two ligands called
NOTE Confidence: 0.97542167
00:08:42.250 --> 00:08:43.790 anandamide and two AG.
NOTE Confidence: 0.95791614
00:08:44.330 --> 00:08:46.350 They act on their, respective
NOTE Confidence: 0.95791614
00:08:46.570 --> 00:08:48.010 receptors called c b one
NOTE Confidence: 0.95791614
00:08:48.010 --> 00:08:49.150 and c b two.
NOTE Confidence: 0.996965
00:08:49.690 --> 00:08:50.910 And then there are enzymes
NOTE Confidence: 0.996965
00:08:51.050 --> 00:08:52.809 that actually can degrade these

NOTE Confidence: 0.996965
00:08:52.809 --> 00:08:53.309 endocannabinoids.
NOTE Confidence: 0.9420247
00:08:54.255 --> 00:08:56.415 So they're called, fatty acid
NOTE Confidence: 0.9420247
00:08:56.415 --> 00:08:57.475 amide hydrolase
NOTE Confidence: 0.8041309
00:08:57.775 --> 00:08:59.315 and also malic lipase.
NOTE Confidence: 0.9696888
00:08:59.695 --> 00:09:00.895 And you do have things
NOTE Confidence: 0.9696888
00:09:00.895 --> 00:09:02.755 like fatty acid FAB blockers
NOTE Confidence: 0.9696888
00:09:02.815 --> 00:09:04.175 and so on. And so,
NOTE Confidence: 0.9696888
00:09:04.175 --> 00:09:06.275 potentially, you can actually increase
NOTE Confidence: 0.9696888
00:09:06.335 --> 00:09:06.835 anandamide
NOTE Confidence: 0.88995135
00:09:07.375 --> 00:09:08.115 in somebody,
NOTE Confidence: 0.9809581
00:09:08.770 --> 00:09:10.690 and anandamide was actually derived
NOTE Confidence: 0.9809581
00:09:10.690 --> 00:09:12.290 from a Sanskrit term called
NOTE Confidence: 0.9809581
00:09:12.290 --> 00:09:14.550 ananda, which actually means bliss.
NOTE Confidence: 0.98655564
00:09:16.210 --> 00:09:17.809 And, so this system is
NOTE Confidence: 0.98655564
00:09:17.809 --> 00:09:19.650 very important. It's very important
NOTE Confidence: 0.98655564

00:09:19.650 --> 00:09:21.350 for the regulation of stress,
NOTE Confidence: 0.98655564

00:09:21.490 --> 00:09:22.710 nausea, and vomiting.
NOTE Confidence: 0.997903

00:09:23.089 --> 00:09:23.684 And if you look at
NOTE Confidence: 0.997903

00:09:23.684 --> 00:09:24.505 the endocannabinoid
NOTE Confidence: 0.9601114

00:09:24.885 --> 00:09:26.804 signaling system, it's actually very
NOTE Confidence: 0.9601114

00:09:26.804 --> 00:09:28.085 unique. There is a basal
NOTE Confidence: 0.9601114

00:09:28.085 --> 00:09:29.365 tone and there's also an
NOTE Confidence: 0.9601114

00:09:29.365 --> 00:09:31.365 on demand tone. And here
NOTE Confidence: 0.9601114

00:09:31.365 --> 00:09:32.405 we are, you know, we
NOTE Confidence: 0.9601114

00:09:32.405 --> 00:09:34.085 have deadlines. This person is
NOTE Confidence: 0.9601114

00:09:34.085 --> 00:09:34.905 very stressed.
NOTE Confidence: 0.9974484

00:09:35.285 --> 00:09:36.085 And then if you look
NOTE Confidence: 0.9974484

00:09:36.085 --> 00:09:37.125 at it, there's actually a
NOTE Confidence: 0.9974484

00:09:37.125 --> 00:09:37.625 production
NOTE Confidence: 0.9977142

00:09:38.050 --> 00:09:38.630 of endocannabinoids
NOTE Confidence: 0.9992573

00:09:39.010 --> 00:09:39.990 from the postsynaptic

NOTE Confidence: 0.94967204
00:09:40.530 --> 00:09:41.970 terminal. So this is a
NOTE Confidence: 0.94967204
00:09:41.970 --> 00:09:43.570 little different, and then this
NOTE Confidence: 0.94967204
00:09:43.570 --> 00:09:44.930 actually adds on c b
NOTE Confidence: 0.94967204
00:09:44.930 --> 00:09:46.370 one receptors that are present
NOTE Confidence: 0.94967204
00:09:46.370 --> 00:09:47.270 on the presynaptic
NOTE Confidence: 0.9345842
00:09:47.730 --> 00:09:48.230 terminal.
NOTE Confidence: 0.9773036
00:09:48.770 --> 00:09:50.385 And then this actually helps,
NOTE Confidence: 0.99332917
00:09:50.945 --> 00:09:52.325 reduce sort of neurotransmission
NOTE Confidence: 0.93141997
00:09:52.865 --> 00:09:53.684 and excitability,
NOTE Confidence: 0.9771727
00:09:54.625 --> 00:09:56.625 and, it brings you back
NOTE Confidence: 0.9771727
00:09:56.625 --> 00:09:57.445 to homeostasis,
NOTE Confidence: 0.98355275
00:09:57.825 --> 00:09:58.885 and that's important.
NOTE Confidence: 0.9548738
00:09:59.665 --> 00:10:00.865 You know, whenever you have
NOTE Confidence: 0.9548738
00:10:00.865 --> 00:10:02.545 stress as an activation of
NOTE Confidence: 0.9548738
00:10:02.545 --> 00:10:03.765 the HPA axis,
NOTE Confidence: 0.9815936

00:10:04.670 --> 00:10:05.709 and you really sort of
NOTE Confidence: 0.9815936

00:10:05.709 --> 00:10:06.910 have maybe a flight or
NOTE Confidence: 0.9815936

00:10:06.910 --> 00:10:08.350 fight response, so you need
NOTE Confidence: 0.9815936

00:10:08.350 --> 00:10:09.870 to adapt to that. But
NOTE Confidence: 0.9815936

00:10:09.870 --> 00:10:11.809 the HPA system actually works
NOTE Confidence: 0.9815936

00:10:11.870 --> 00:10:12.529 in concert,
NOTE Confidence: 0.99974394

00:10:13.470 --> 00:10:14.529 with the endocannabinoid
NOTE Confidence: 0.99992085

00:10:14.990 --> 00:10:15.490 system
NOTE Confidence: 0.9927228

00:10:15.870 --> 00:10:17.149 to make sure that you
NOTE Confidence: 0.9927228

00:10:17.149 --> 00:10:18.610 are healthy and happy.
NOTE Confidence: 0.9977488

00:10:19.184 --> 00:10:20.705 And, we all know that
NOTE Confidence: 0.9977488

00:10:20.705 --> 00:10:22.225 cannabinoids have a role to
NOTE Confidence: 0.9977488

00:10:22.225 --> 00:10:23.765 play in stress regulation,
NOTE Confidence: 0.9948225

00:10:24.865 --> 00:10:26.545 in nausea and vomiting. It's
NOTE Confidence: 0.9948225

00:10:26.545 --> 00:10:28.245 very important for appetite.
NOTE Confidence: 0.8943977

00:10:28.545 --> 00:10:29.985 In fact, they use CB

NOTE Confidence: 0.8943977
00:10:29.985 --> 00:10:31.285 one receptor antagonist,
NOTE Confidence: 0.88121223
00:10:31.905 --> 00:10:32.725 for obesity.
NOTE Confidence: 0.9707077
00:10:33.870 --> 00:10:35.470 And then it also has
NOTE Confidence: 0.9707077
00:10:35.470 --> 00:10:37.309 anti inflammatory effects, and it's
NOTE Confidence: 0.9707077
00:10:37.309 --> 00:10:38.770 very important for cognition,
NOTE Confidence: 0.9933128
00:10:39.150 --> 00:10:40.050 mood, and memory.
NOTE Confidence: 0.98422635
00:10:41.390 --> 00:10:42.450 So in a sense,
NOTE Confidence: 0.97963846
00:10:42.830 --> 00:10:44.350 you know, for maybe the
NOTE Confidence: 0.97963846
00:10:44.350 --> 00:10:45.870 students there, if you wanna
NOTE Confidence: 0.97963846
00:10:45.870 --> 00:10:46.830 just kind of think about
NOTE Confidence: 0.97963846
00:10:46.830 --> 00:10:47.950 it, it makes you happy,
NOTE Confidence: 0.97963846
00:10:47.950 --> 00:10:49.465 fat, and dumb. And if
NOTE Confidence: 0.97963846
00:10:49.465 --> 00:10:50.985 it's not working, it's a
NOTE Confidence: 0.97963846
00:10:50.985 --> 00:10:52.505 problem. So, certainly, there is
NOTE Confidence: 0.97963846
00:10:52.505 --> 00:10:54.184 some hope that we can
NOTE Confidence: 0.97963846

00:10:54.184 --> 00:10:56.745 actually manipulate this. And, what
NOTE Confidence: 0.97963846

00:10:56.745 --> 00:10:59.065 about cannabinoids as antiemetics? I'm
NOTE Confidence: 0.97963846

00:10:59.065 --> 00:11:00.745 talking about a vomiting disorder,
NOTE Confidence: 0.97963846

00:11:00.745 --> 00:11:02.045 but here you have cannabinoids,
NOTE Confidence: 0.97963846

00:11:02.265 --> 00:11:03.465 which are actually used or
NOTE Confidence: 0.97963846

00:11:03.465 --> 00:11:04.515 were used as antiemetics.
NOTE Confidence: 0.9734672

00:11:05.880 --> 00:11:07.660 You have nabilone and marinol,
NOTE Confidence: 0.9315595

00:11:08.360 --> 00:11:10.120 which has synthetic analogs of
NOTE Confidence: 0.9315595

00:11:10.120 --> 00:11:11.639 THC, and they were used
NOTE Confidence: 0.9315595

00:11:11.639 --> 00:11:14.139 in chemotherapy induced nausea and,
NOTE Confidence: 0.99774826

00:11:14.600 --> 00:11:15.100 vomiting.
NOTE Confidence: 0.9710754

00:11:15.639 --> 00:11:17.240 And so, obviously, you have
NOTE Confidence: 0.9710754

00:11:17.240 --> 00:11:18.679 better drugs now for those,
NOTE Confidence: 0.9710754

00:11:18.679 --> 00:11:19.639 and you don't use it
NOTE Confidence: 0.9710754

00:11:19.639 --> 00:11:20.295 as much.
NOTE Confidence: 0.99939454

00:11:20.695 --> 00:11:21.815 But they have been shown

NOTE Confidence: 0.99939454
00:11:21.815 --> 00:11:23.514 in studies to be effective
NOTE Confidence: 0.99939454
00:11:23.575 --> 00:11:24.635 for these conditions.
NOTE Confidence: 0.98070854
00:11:26.695 --> 00:11:28.695 And, what about cannabis based
NOTE Confidence: 0.98070854
00:11:28.695 --> 00:11:29.975 medicine? So they had sort
NOTE Confidence: 0.98070854
00:11:29.975 --> 00:11:31.175 of this half and half,
NOTE Confidence: 0.98070854
00:11:31.175 --> 00:11:32.454 one is to one ratio
NOTE Confidence: 0.98070854
00:11:32.454 --> 00:11:33.274 called Sativex.
NOTE Confidence: 0.85022336
00:11:33.809 --> 00:11:35.510 It's delivered by a oromukacil,
NOTE Confidence: 0.83371603
00:11:36.530 --> 00:11:37.030 spray.
NOTE Confidence: 0.9865477
00:11:37.570 --> 00:11:39.570 And, here, it reduced the
NOTE Confidence: 0.9865477
00:11:39.570 --> 00:11:42.130 incidence of delayed chemotherapy induced
NOTE Confidence: 0.9865477
00:11:42.130 --> 00:11:43.650 nausea and vomiting compared to
NOTE Confidence: 0.9865477
00:11:43.650 --> 00:11:44.150 placebo.
NOTE Confidence: 0.9515245
00:11:44.690 --> 00:11:46.150 So, certainly, you know,
NOTE Confidence: 0.5971047
00:11:46.530 --> 00:11:47.030 cannabinoids
NOTE Confidence: 0.89845425

00:11:47.730 --> 00:11:49.190 seem to have obviously
NOTE Confidence: 0.96086526

00:11:49.825 --> 00:11:51.904 antiemetic effects, and and we
NOTE Confidence: 0.96086526

00:11:51.904 --> 00:11:53.045 sort of know that.
NOTE Confidence: 0.99745494

00:11:53.425 --> 00:11:55.184 But what about weed? So
NOTE Confidence: 0.99745494

00:11:55.184 --> 00:11:57.445 why is weed causing hyperemesis?
NOTE Confidence: 0.901785

00:11:58.385 --> 00:11:59.505 And, I think this is
NOTE Confidence: 0.901785

00:11:59.505 --> 00:12:01.665 actually a study that, Cyril
NOTE Confidence: 0.901785

00:12:01.665 --> 00:12:03.365 did with the holy festival,
NOTE Confidence: 0.901785

00:12:03.584 --> 00:12:04.084 and
NOTE Confidence: 0.9851943

00:12:04.679 --> 00:12:05.720 he described how he did
NOTE Confidence: 0.9851943

00:12:05.720 --> 00:12:06.920 it. So it's just amazing.
NOTE Confidence: 0.9851943

00:12:06.920 --> 00:12:08.840 It's aside from hyperemesis, it
NOTE Confidence: 0.9851943

00:12:08.840 --> 00:12:10.679 can also, you know, result
NOTE Confidence: 0.9851943

00:12:10.679 --> 00:12:12.200 in psychosis and so on
NOTE Confidence: 0.9851943

00:12:12.200 --> 00:12:14.059 and be associated with psychosis.
NOTE Confidence: 0.9855203

00:12:15.480 --> 00:12:17.415 So, anyways, I'm gonna switch

NOTE Confidence: 0.9855203
00:12:17.415 --> 00:12:18.934 gears a little bit. If
NOTE Confidence: 0.9855203
00:12:18.934 --> 00:12:20.215 anybody wants to kind of,
NOTE Confidence: 0.9855203
00:12:20.535 --> 00:12:22.215 you know, ask questions, feel
NOTE Confidence: 0.9855203
00:12:22.215 --> 00:12:23.895 free to jump in because
NOTE Confidence: 0.9855203
00:12:23.895 --> 00:12:25.335 I, you know, would like
NOTE Confidence: 0.9855203
00:12:25.335 --> 00:12:26.315 for this to be
NOTE Confidence: 0.9907617
00:12:26.695 --> 00:12:27.195 interactive.
NOTE Confidence: 0.99174356
00:12:27.654 --> 00:12:28.154 So,
NOTE Confidence: 0.98189616
00:12:28.615 --> 00:12:29.575 I'm not sure I can
NOTE Confidence: 0.98189616
00:12:29.575 --> 00:12:30.775 see anybody, but I'll let
NOTE Confidence: 0.98189616
00:12:30.775 --> 00:12:31.275 Cyril
NOTE Confidence: 0.99941474
00:12:31.850 --> 00:12:33.130 let me know if anybody
NOTE Confidence: 0.99941474
00:12:33.130 --> 00:12:34.190 has any questions.
NOTE Confidence: 0.9894014
00:12:37.929 --> 00:12:39.630 No no questions so far.
NOTE Confidence: 0.9894014
00:12:39.850 --> 00:12:40.670 Okay. Perfect.
NOTE Confidence: 0.99442613

00:12:41.290 --> 00:12:41.770 So,
NOTE Confidence: 0.99480283

00:12:42.490 --> 00:12:44.184 so we're gonna kinda switch
NOTE Confidence: 0.99480283

00:12:44.184 --> 00:12:45.865 gears and, really talk a
NOTE Confidence: 0.99480283

00:12:45.865 --> 00:12:47.245 little bit about cannabinoid
NOTE Confidence: 0.9995725

00:12:47.625 --> 00:12:48.764 hyperemesis syndrome.
NOTE Confidence: 0.9918318

00:12:49.304 --> 00:12:50.745 So this was a term
NOTE Confidence: 0.9918318

00:12:50.745 --> 00:12:51.944 that was coined in two
NOTE Confidence: 0.9918318

00:12:51.944 --> 00:12:53.704 thousand and four, and it
NOTE Confidence: 0.9918318

00:12:53.704 --> 00:12:55.384 actually started and the first
NOTE Confidence: 0.9918318

00:12:55.384 --> 00:12:57.065 person to actually report it
NOTE Confidence: 0.9918318

00:12:57.065 --> 00:12:59.160 was, was an internist who
NOTE Confidence: 0.9918318

00:12:59.160 --> 00:13:00.360 is in the Adelaide Hills
NOTE Confidence: 0.9918318

00:13:00.360 --> 00:13:01.100 in Australia.
NOTE Confidence: 0.9880279

00:13:01.800 --> 00:13:02.760 That's just my daughter. She
NOTE Confidence: 0.9880279

00:13:02.760 --> 00:13:03.720 wants to go to Australia,
NOTE Confidence: 0.9880279

00:13:03.720 --> 00:13:04.700 and she loves marsupials.

NOTE Confidence: 0.98243433
00:13:05.399 --> 00:13:06.760 But be as it may,
NOTE Confidence: 0.98243433
00:13:06.760 --> 00:13:08.679 the first reports were from,
NOTE Confidence: 0.98243433
00:13:09.000 --> 00:13:09.899 from Australia.
NOTE Confidence: 0.99014455
00:13:10.519 --> 00:13:11.339 And so,
NOTE Confidence: 0.92827624
00:13:11.800 --> 00:13:13.584 this person, Allen et al,
NOTE Confidence: 0.92827624
00:13:13.584 --> 00:13:15.425 and, their group noted that
NOTE Confidence: 0.92827624
00:13:15.425 --> 00:13:17.204 there were about nine adults,
NOTE Confidence: 0.99538076
00:13:17.904 --> 00:13:19.764 and, they actually reported
NOTE Confidence: 0.98957634
00:13:20.065 --> 00:13:20.944 cases of,
NOTE Confidence: 0.95467687
00:13:21.345 --> 00:13:23.745 cyclic vomiting. And, these patients
NOTE Confidence: 0.95467687
00:13:23.745 --> 00:13:24.785 also happen to be in
NOTE Confidence: 0.95467687
00:13:24.785 --> 00:13:25.985 a hot shower all the
NOTE Confidence: 0.95467687
00:13:25.985 --> 00:13:26.485 time,
NOTE Confidence: 0.9737067
00:13:27.240 --> 00:13:29.080 and he actually followed these
NOTE Confidence: 0.9737067
00:13:29.080 --> 00:13:30.280 patients for one or two
NOTE Confidence: 0.9737067

00:13:30.280 --> 00:13:31.400 years. It's kind of a
NOTE Confidence: 0.9737067

00:13:31.400 --> 00:13:33.160 small hospital, and they were
NOTE Confidence: 0.9737067

00:13:33.160 --> 00:13:34.679 able to follow these patients.
NOTE Confidence: 0.9737067

00:13:34.679 --> 00:13:36.600 And he noted that with
NOTE Confidence: 0.9737067

00:13:36.600 --> 00:13:39.160 cannabis abstinence, their symptoms seem
NOTE Confidence: 0.9737067

00:13:39.160 --> 00:13:39.900 to resolve.
NOTE Confidence: 0.9596514

00:13:42.125 --> 00:13:43.964 And so here's the, report
NOTE Confidence: 0.9596514

00:13:43.964 --> 00:13:45.745 that was, first published.
NOTE Confidence: 0.98329026

00:13:46.444 --> 00:13:47.324 And then if you move
NOTE Confidence: 0.98329026

00:13:47.324 --> 00:13:48.684 on, this is actually the
NOTE Confidence: 0.98329026

00:13:48.684 --> 00:13:50.285 second case report, and this
NOTE Confidence: 0.98329026

00:13:50.285 --> 00:13:51.504 comes from England.
NOTE Confidence: 0.9804089

00:13:51.964 --> 00:13:53.084 And it looks like they
NOTE Confidence: 0.9804089

00:13:53.084 --> 00:13:54.130 had a chef who was
NOTE Confidence: 0.9804089

00:13:54.130 --> 00:13:55.809 vomiting and using cannabis. And
NOTE Confidence: 0.9804089

00:13:55.809 --> 00:13:57.250 so these guys called the

NOTE Confidence: 0.9804089
00:13:57.250 --> 00:13:59.190 guys in Australia and said,
NOTE Confidence: 0.9804089
00:13:59.410 --> 00:14:00.290 hey. Do you know what's
NOTE Confidence: 0.9804089
00:14:00.290 --> 00:14:01.410 going on? And so this
NOTE Confidence: 0.9804089
00:14:01.410 --> 00:14:02.870 was the second case
NOTE Confidence: 0.94054544
00:14:03.250 --> 00:14:04.949 of CHS or cannabinoid
NOTE Confidence: 0.9996012
00:14:05.329 --> 00:14:05.829 hyperemesis
NOTE Confidence: 0.99821645
00:14:06.290 --> 00:14:07.429 that was reported.
NOTE Confidence: 0.9711284
00:14:08.345 --> 00:14:09.704 And, as you can see,
NOTE Confidence: 0.9711284
00:14:09.704 --> 00:14:11.404 there's been a steady explosion
NOTE Confidence: 0.9711284
00:14:11.464 --> 00:14:13.464 of articles and, you know,
NOTE Confidence: 0.9711284
00:14:13.464 --> 00:14:14.925 it it really took off.
NOTE Confidence: 0.9711284
00:14:15.065 --> 00:14:16.184 But I think what people
NOTE Confidence: 0.9711284
00:14:16.184 --> 00:14:17.964 don't realize is that's
NOTE Confidence: 0.9778884
00:14:18.345 --> 00:14:20.824 cannabinoid hyperemesis syndrome has pretty
NOTE Confidence: 0.9778884
00:14:20.824 --> 00:14:21.884 much the same
NOTE Confidence: 0.9999145

00:14:22.380 --> 00:14:22.880 clinical
NOTE Confidence: 0.9669565

00:14:23.580 --> 00:14:25.680 presentation as cyclic vomiting syndrome,
NOTE Confidence: 0.98198956

00:14:25.980 --> 00:14:27.340 and nobody knew much about
NOTE Confidence: 0.98198956

00:14:27.340 --> 00:14:28.540 CVS either. So it was
NOTE Confidence: 0.98198956

00:14:28.540 --> 00:14:29.900 only in two thousand and
NOTE Confidence: 0.98198956

00:14:29.900 --> 00:14:31.600 six that we actually had
NOTE Confidence: 0.98198956

00:14:31.820 --> 00:14:33.680 the wrong criteria for CVS.
NOTE Confidence: 0.98198956

00:14:33.900 --> 00:14:34.780 And, you know, in two
NOTE Confidence: 0.98198956

00:14:34.780 --> 00:14:36.355 thousand and ten, cannabis was
NOTE Confidence: 0.98198956

00:14:36.355 --> 00:14:38.035 legalized, so people were becoming
NOTE Confidence: 0.98198956

00:14:38.035 --> 00:14:38.855 more aware
NOTE Confidence: 0.99727404

00:14:39.395 --> 00:14:39.715 of,
NOTE Confidence: 0.99161446

00:14:40.355 --> 00:14:42.215 cyclic vomiting, if you will.
NOTE Confidence: 0.98892105

00:14:42.675 --> 00:14:44.195 And, so I think we
NOTE Confidence: 0.98892105

00:14:44.195 --> 00:14:45.655 need to think about this,
NOTE Confidence: 0.99830246

00:14:46.755 --> 00:14:47.875 and it's it's a little

NOTE Confidence: 0.99830246
00:14:47.875 --> 00:14:48.775 more nuanced.
NOTE Confidence: 0.9984691
00:14:49.350 --> 00:14:50.170 And, obviously,
NOTE Confidence: 0.9482317
00:14:50.790 --> 00:14:52.550 marijuana was first or cannabis
NOTE Confidence: 0.9482317
00:14:52.550 --> 00:14:54.649 was first legalized in Colorado
NOTE Confidence: 0.9482317
00:14:54.709 --> 00:14:55.450 and California.
NOTE Confidence: 0.93974644
00:14:56.390 --> 00:14:57.829 And, this is the study
NOTE Confidence: 0.93974644
00:14:57.829 --> 00:14:59.029 where they looked at out
NOTE Confidence: 0.93974644
00:14:59.029 --> 00:15:00.550 of state residents, and as
NOTE Confidence: 0.93974644
00:15:00.550 --> 00:15:02.325 you can see, there's actually
NOTE Confidence: 0.93974644
00:15:02.625 --> 00:15:03.205 a significant
NOTE Confidence: 0.9740894
00:15:03.825 --> 00:15:05.584 increase in the number of
NOTE Confidence: 0.9740894
00:15:05.584 --> 00:15:07.445 ED visits related to cannabis
NOTE Confidence: 0.9740894
00:15:07.584 --> 00:15:09.185 use in out of state
NOTE Confidence: 0.9740894
00:15:09.185 --> 00:15:10.865 residents who essentially came to
NOTE Confidence: 0.9740894
00:15:10.865 --> 00:15:11.365 Colorado,
NOTE Confidence: 0.98719615

00:15:12.545 --> 00:15:14.565 to smoke, to smoke weed.
NOTE Confidence: 0.9603463

00:15:15.540 --> 00:15:17.540 This is another study, that
NOTE Confidence: 0.9603463

00:15:17.540 --> 00:15:19.700 looked, during the COVID nineteen
NOTE Confidence: 0.9603463

00:15:19.700 --> 00:15:21.540 pandemic, and it was, it
NOTE Confidence: 0.9603463

00:15:21.540 --> 00:15:22.740 was it was kind of
NOTE Confidence: 0.9603463

00:15:22.740 --> 00:15:24.260 unfortunate, and it's it's really
NOTE Confidence: 0.9603463

00:15:24.260 --> 00:15:24.760 sad.
NOTE Confidence: 0.9737595

00:15:25.460 --> 00:15:27.140 But there were, children. This
NOTE Confidence: 0.9737595

00:15:27.140 --> 00:15:28.420 is between zero to ten
NOTE Confidence: 0.9737595

00:15:28.420 --> 00:15:30.245 years of age, and, this
NOTE Confidence: 0.9737595

00:15:30.245 --> 00:15:31.605 was because they were being
NOTE Confidence: 0.9737595

00:15:31.605 --> 00:15:33.465 seen in the emergency department
NOTE Confidence: 0.99266243

00:15:34.165 --> 00:15:35.465 because of ingestion
NOTE Confidence: 0.96999305

00:15:36.085 --> 00:15:38.805 of, really, cannabis edibles that
NOTE Confidence: 0.96999305

00:15:38.805 --> 00:15:40.085 adults, I guess, were,
NOTE Confidence: 0.8292582

00:15:40.485 --> 00:15:40.985 just,

NOTE Confidence: 0.968659
00:15:42.440 --> 00:15:43.880 you know, letting it accidentally
NOTE Confidence: 0.968659
00:15:43.880 --> 00:15:45.660 lie around. So clearly,
NOTE Confidence: 0.96147937
00:15:46.120 --> 00:15:47.420 you know, there are issues,
NOTE Confidence: 0.8961397
00:15:47.800 --> 00:15:48.780 surrounding this,
NOTE Confidence: 0.9296902
00:15:49.640 --> 00:15:51.340 aside from sick like vomiting.
NOTE Confidence: 0.9296902
00:15:51.480 --> 00:15:53.260 Again, there was a significant
NOTE Confidence: 0.9296902
00:15:53.400 --> 00:15:54.780 increase in ED visits,
NOTE Confidence: 0.9875038
00:15:55.865 --> 00:15:57.165 in the state of Colorado
NOTE Confidence: 0.9875038
00:15:57.385 --> 00:15:58.285 with the legalization.
NOTE Confidence: 0.9140884
00:15:59.464 --> 00:16:01.385 It's little difficult to say
NOTE Confidence: 0.9140884
00:16:01.385 --> 00:16:02.665 if they were these were
NOTE Confidence: 0.9140884
00:16:02.665 --> 00:16:03.065 just,
NOTE Confidence: 0.9642545
00:16:03.865 --> 00:16:05.865 cases of CVS rather than
NOTE Confidence: 0.9642545
00:16:05.865 --> 00:16:06.845 a true increase.
NOTE Confidence: 0.99610806
00:16:07.625 --> 00:16:09.385 Maybe they were previously diagnosed
NOTE Confidence: 0.99610806

00:16:09.385 --> 00:16:10.445 as having gastroparesis
NOTE Confidence: 0.9797272

00:16:11.440 --> 00:16:12.740 or whether there was increased
NOTE Confidence: 0.9797272

00:16:12.800 --> 00:16:14.320 reporting of cannabis used by
NOTE Confidence: 0.9797272

00:16:14.320 --> 00:16:15.440 patients. And so,
NOTE Confidence: 0.9959133

00:16:16.080 --> 00:16:17.040 again, this is a little
NOTE Confidence: 0.9959133

00:16:17.040 --> 00:16:17.540 unclear.
NOTE Confidence: 0.96826386

00:16:18.720 --> 00:16:19.840 And now I think we
NOTE Confidence: 0.96826386

00:16:19.840 --> 00:16:22.160 have, myriad studies showing,
NOTE Confidence: 0.97903275

00:16:22.720 --> 00:16:25.120 associations between cannabis use and
NOTE Confidence: 0.97903275

00:16:25.120 --> 00:16:26.100 health care utilization.
NOTE Confidence: 0.9661474

00:16:27.225 --> 00:16:28.665 So, I wanna present to
NOTE Confidence: 0.9661474

00:16:28.665 --> 00:16:29.785 you this study where they
NOTE Confidence: 0.9661474

00:16:29.785 --> 00:16:31.245 looked at a national survey
NOTE Confidence: 0.989111

00:16:31.625 --> 00:16:32.745 on drug use and health
NOTE Confidence: 0.989111

00:16:32.745 --> 00:16:34.345 data between twenty fifteen and
NOTE Confidence: 0.989111

00:16:34.345 --> 00:16:36.024 twenty nineteen. These were older

NOTE Confidence: 0.989111
00:16:36.024 --> 00:16:38.024 adults, fifty plus. And so
NOTE Confidence: 0.989111
00:16:38.024 --> 00:16:39.305 they looked at cannabis use
NOTE Confidence: 0.989111
00:16:39.305 --> 00:16:40.380 status as to why they
NOTE Confidence: 0.989111
00:16:40.380 --> 00:16:41.900 use cannabis use, and they
NOTE Confidence: 0.989111
00:16:41.900 --> 00:16:42.860 also looked at the number
NOTE Confidence: 0.989111
00:16:42.860 --> 00:16:43.920 of ED visits
NOTE Confidence: 0.99831235
00:16:44.380 --> 00:16:45.200 and hospitalizations
NOTE Confidence: 0.9514543
00:16:45.900 --> 00:16:47.840 in these patients. And importantly,
NOTE Confidence: 0.98988533
00:16:48.300 --> 00:16:49.420 what they found is when
NOTE Confidence: 0.98988533
00:16:49.420 --> 00:16:51.040 they did a regression binomial
NOTE Confidence: 0.98988533
00:16:51.180 --> 00:16:53.180 regression analysis and adjusted for
NOTE Confidence: 0.98988533
00:16:53.180 --> 00:16:54.160 various factors,
NOTE Confidence: 0.9635195
00:16:54.714 --> 00:16:56.635 they actually found that past
NOTE Confidence: 0.9635195
00:16:56.635 --> 00:16:58.955 year users did not differ
NOTE Confidence: 0.9635195
00:16:58.955 --> 00:17:00.875 from never users. And so
NOTE Confidence: 0.9635195

00:17:00.875 --> 00:17:01.995 the number of ED visits
NOTE Confidence: 0.9635195

00:17:01.995 --> 00:17:02.815 and hospitalizations
NOTE Confidence: 0.9801041

00:17:03.355 --> 00:17:04.895 were pretty much the same
NOTE Confidence: 0.9801041

00:17:05.195 --> 00:17:06.475 in those who never used
NOTE Confidence: 0.9801041

00:17:06.475 --> 00:17:08.234 cannabis versus those who were
NOTE Confidence: 0.9801041

00:17:08.234 --> 00:17:09.135 using cannabis.
NOTE Confidence: 0.9948355

00:17:09.840 --> 00:17:11.200 They did find that those
NOTE Confidence: 0.9948355

00:17:11.200 --> 00:17:12.720 who used it for medical
NOTE Confidence: 0.9948355

00:17:12.720 --> 00:17:14.900 purposes had more ED visits
NOTE Confidence: 0.9779223

00:17:15.440 --> 00:17:16.559 than those who used it
NOTE Confidence: 0.9779223

00:17:16.559 --> 00:17:18.720 for other purposes. And, this
NOTE Confidence: 0.9779223

00:17:18.720 --> 00:17:20.020 was likely explained,
NOTE Confidence: 0.9997758

00:17:20.799 --> 00:17:21.299 because
NOTE Confidence: 0.9643

00:17:21.615 --> 00:17:22.015 those,
NOTE Confidence: 0.96539634

00:17:22.415 --> 00:17:24.335 patients or who were using
NOTE Confidence: 0.96539634

00:17:24.335 --> 00:17:25.795 it for medical only,

NOTE Confidence: 0.967436
00:17:26.655 --> 00:17:28.915 purposes likely had more comorbidities,
NOTE Confidence: 0.99896854
00:17:29.295 --> 00:17:30.415 and that was why they
NOTE Confidence: 0.99896854
00:17:30.415 --> 00:17:31.535 were really showing up in
NOTE Confidence: 0.99896854
00:17:31.535 --> 00:17:32.595 the ER more.
NOTE Confidence: 0.9979254
00:17:33.470 --> 00:17:35.070 And in this particular study,
NOTE Confidence: 0.9979254
00:17:35.070 --> 00:17:36.830 cannabis use was actually not
NOTE Confidence: 0.9979254
00:17:36.830 --> 00:17:38.290 associated with hospitalizations.
NOTE Confidence: 0.9682413
00:17:39.869 --> 00:17:41.470 Again, this was in older
NOTE Confidence: 0.9682413
00:17:41.470 --> 00:17:43.230 cannabis users. And so I
NOTE Confidence: 0.9682413
00:17:43.230 --> 00:17:44.990 think, you know, clearly, the
NOTE Confidence: 0.9682413
00:17:44.990 --> 00:17:46.210 data is conflicting,
NOTE Confidence: 0.98486507
00:17:46.830 --> 00:17:47.869 and we really need to
NOTE Confidence: 0.98486507
00:17:47.869 --> 00:17:49.170 be careful because,
NOTE Confidence: 0.99965847
00:17:49.925 --> 00:17:50.425 association
NOTE Confidence: 0.99973345
00:17:50.885 --> 00:17:52.825 is not equal to causation.
NOTE Confidence: 0.9545187

00:17:54.804 --> 00:17:56.484 And what about cannabinoids? So

NOTE Confidence: 0.9545187

00:17:56.484 --> 00:17:57.285 we here, we have a

NOTE Confidence: 0.9545187

00:17:57.285 --> 00:17:57.785 syndrome,

NOTE Confidence: 0.99347067

00:17:58.165 --> 00:17:59.605 and, obviously, we don't have

NOTE Confidence: 0.99347067

00:17:59.605 --> 00:18:00.505 any biomarkers.

NOTE Confidence: 0.99794775

00:18:01.445 --> 00:18:02.744 And, so people

NOTE Confidence: 0.9701759

00:18:03.150 --> 00:18:05.650 called CHS or defined CHS

NOTE Confidence: 0.9701759

00:18:05.869 --> 00:18:07.490 any which way they wanted.

NOTE Confidence: 0.96059453

00:18:08.430 --> 00:18:10.590 Initially, they defined CHS as

NOTE Confidence: 0.96059453

00:18:10.590 --> 00:18:12.510 episodic vomiting with hot water

NOTE Confidence: 0.96059453

00:18:12.510 --> 00:18:14.510 bathing. So anybody who had

NOTE Confidence: 0.96059453

00:18:14.510 --> 00:18:16.270 this, quote, hot water bathing

NOTE Confidence: 0.96059453

00:18:16.270 --> 00:18:17.895 pattern, they were they would

NOTE Confidence: 0.96059453

00:18:17.895 --> 00:18:19.835 actually bathe multiple times,

NOTE Confidence: 0.98042315

00:18:20.695 --> 00:18:22.135 in a day along with

NOTE Confidence: 0.98042315

00:18:22.135 --> 00:18:23.275 episodic vomiting,

NOTE Confidence: 0.92326224

00:18:23.734 --> 00:18:25.595 were deemed as having CHS,

NOTE Confidence: 0.9817022

00:18:26.535 --> 00:18:28.295 or any cannabis use as

NOTE Confidence: 0.9817022

00:18:28.295 --> 00:18:29.975 well was deemed as having

NOTE Confidence: 0.9817022

00:18:29.975 --> 00:18:30.475 CHS.

NOTE Confidence: 0.9428298

00:18:33.710 --> 00:18:34.990 And and so as a

NOTE Confidence: 0.9428298

00:18:34.990 --> 00:18:35.490 gastroenterologist

NOTE Confidence: 0.9579595

00:18:36.030 --> 00:18:36.850 I'm a gastroenterologist,

NOTE Confidence: 0.9483539

00:18:37.550 --> 00:18:38.830 and, you know, we have

NOTE Confidence: 0.9483539

00:18:38.830 --> 00:18:40.369 disorders that guide brain interaction

NOTE Confidence: 0.9483539

00:18:40.430 --> 00:18:41.310 and then what we call

NOTE Confidence: 0.9483539

00:18:41.310 --> 00:18:42.770 functional GI disorders.

NOTE Confidence: 0.99880016

00:18:43.070 --> 00:18:44.350 And we don't when we

NOTE Confidence: 0.99880016

00:18:44.350 --> 00:18:45.665 don't have a biomarker,

NOTE Confidence: 0.9453576

00:18:46.045 --> 00:18:48.045 we actually rely on something

NOTE Confidence: 0.9453576

00:18:48.045 --> 00:18:49.265 called Roam criteria.

NOTE Confidence: 0.9687134

00:18:49.965 --> 00:18:51.805 The Roam criteria established by
NOTE Confidence: 0.9687134

00:18:51.805 --> 00:18:53.325 the Roam Foundation, which is
NOTE Confidence: 0.9687134

00:18:53.325 --> 00:18:55.265 an international GI organization.
NOTE Confidence: 0.9948625

00:18:56.045 --> 00:18:58.225 And, the Roam Foundation develops
NOTE Confidence: 0.9948625

00:18:58.365 --> 00:18:58.865 diagnostic
NOTE Confidence: 0.9988477

00:18:59.659 --> 00:19:00.880 symptom based criteria
NOTE Confidence: 0.9499779

00:19:01.580 --> 00:19:02.859 so to make sure that
NOTE Confidence: 0.9499779

00:19:02.859 --> 00:19:04.940 everybody is actually using the
NOTE Confidence: 0.9499779

00:19:04.940 --> 00:19:05.919 same framework
NOTE Confidence: 0.9944661

00:19:06.299 --> 00:19:07.119 for diagnosis.
NOTE Confidence: 0.868385

00:19:07.900 --> 00:19:10.080 This is typically actually accepted,
NOTE Confidence: 0.99640995

00:19:10.539 --> 00:19:11.039 universally
NOTE Confidence: 0.9945619

00:19:11.980 --> 00:19:13.119 across the globe.
NOTE Confidence: 0.99612486

00:19:14.524 --> 00:19:16.544 And, so in terms of,
NOTE Confidence: 0.9958868

00:19:17.325 --> 00:19:17.825 CHS,
NOTE Confidence: 0.99838537

00:19:18.125 --> 00:19:19.484 we first need to define

NOTE Confidence: 0.99838537

00:19:19.484 --> 00:19:21.024 what CVS is

NOTE Confidence: 0.9758632

00:19:21.325 --> 00:19:22.765 because CHS is thought to

NOTE Confidence: 0.9758632

00:19:22.765 --> 00:19:24.044 be a subset of CVS,

NOTE Confidence: 0.9758632

00:19:24.044 --> 00:19:25.164 and it has the exact

NOTE Confidence: 0.9758632

00:19:25.164 --> 00:19:26.465 same clinical presentation.

NOTE Confidence: 0.99909455

00:19:27.290 --> 00:19:28.730 So as far as CVS

NOTE Confidence: 0.99909455

00:19:28.730 --> 00:19:29.470 is concerned,

NOTE Confidence: 0.9973794

00:19:29.770 --> 00:19:31.309 one needs to have stereotypical

NOTE Confidence: 0.9372417

00:19:31.770 --> 00:19:33.850 episodes of vomiting. They're usually

NOTE Confidence: 0.9372417

00:19:33.850 --> 00:19:35.630 acute and onset, which means

NOTE Confidence: 0.9372417

00:19:35.850 --> 00:19:37.609 they occur suddenly just out

NOTE Confidence: 0.9372417

00:19:37.609 --> 00:19:38.350 of the blue.

NOTE Confidence: 0.97402006

00:19:38.650 --> 00:19:40.490 Typically, the duration is anywhere

NOTE Confidence: 0.97402006

00:19:40.490 --> 00:19:42.225 between few hours to many

NOTE Confidence: 0.97402006

00:19:42.225 --> 00:19:42.725 days.

NOTE Confidence: 0.9960684

00:19:43.105 --> 00:19:43.984 They at least have to
NOTE Confidence: 0.9960684

00:19:43.984 --> 00:19:45.265 be a week apart, and
NOTE Confidence: 0.9960684

00:19:45.265 --> 00:19:46.305 you need to have three
NOTE Confidence: 0.9960684

00:19:46.305 --> 00:19:47.905 or more episodes in the
NOTE Confidence: 0.9960684

00:19:47.905 --> 00:19:49.665 prior year to make a
NOTE Confidence: 0.9960684

00:19:49.665 --> 00:19:50.165 diagnosis.
NOTE Confidence: 0.9990493

00:19:50.865 --> 00:19:52.405 You can have some milder
NOTE Confidence: 0.9990493

00:19:52.465 --> 00:19:54.325 symptoms in between episodes,
NOTE Confidence: 0.9534766

00:19:54.705 --> 00:19:56.725 particularly patients who have severe,
NOTE Confidence: 0.9828899

00:19:57.809 --> 00:19:59.490 CVS. And, obviously, you should
NOTE Confidence: 0.9828899

00:19:59.490 --> 00:20:00.710 not have any metabolic
NOTE Confidence: 0.91669625

00:20:01.090 --> 00:20:02.609 or GI or any other
NOTE Confidence: 0.91669625

00:20:02.609 --> 00:20:03.109 CNS,
NOTE Confidence: 0.9994467

00:20:03.570 --> 00:20:04.070 causes
NOTE Confidence: 0.99876237

00:20:04.609 --> 00:20:05.429 to explain
NOTE Confidence: 0.99969244

00:20:05.730 --> 00:20:06.470 the vomiting.

NOTE Confidence: 0.9847505

00:20:07.730 --> 00:20:09.409 Now what about CHS? So

NOTE Confidence: 0.9847505

00:20:09.409 --> 00:20:10.850 the CHS, this is what

NOTE Confidence: 0.9847505

00:20:10.850 --> 00:20:11.475 we have.

NOTE Confidence: 0.9276572

00:20:11.955 --> 00:20:13.234 It says it's exactly the

NOTE Confidence: 0.9276572

00:20:13.234 --> 00:20:15.335 same. So it resembled CVS

NOTE Confidence: 0.9276572

00:20:15.475 --> 00:20:17.255 in terms of onset, duration,

NOTE Confidence: 0.9276572

00:20:17.475 --> 00:20:17.975 frequency,

NOTE Confidence: 0.9592666

00:20:18.914 --> 00:20:20.934 but then, the wrongful criteria

NOTE Confidence: 0.9592666

00:20:21.075 --> 00:20:22.115 said, well, it needs to

NOTE Confidence: 0.9592666

00:20:22.275 --> 00:20:23.335 you need to have presentation

NOTE Confidence: 0.9609531

00:20:23.794 --> 00:20:26.615 after prolonged excessive cannabis use.

NOTE Confidence: 0.9609531

00:20:26.910 --> 00:20:28.430 Obviously, this should precede the

NOTE Confidence: 0.9609531

00:20:28.430 --> 00:20:30.109 onset of symptoms because, otherwise,

NOTE Confidence: 0.9609531

00:20:30.109 --> 00:20:31.230 it's difficult to say it's

NOTE Confidence: 0.9609531

00:20:31.230 --> 00:20:31.730 causative,

NOTE Confidence: 0.98606956

00:20:32.109 --> 00:20:33.070 and you have to have
NOTE Confidence: 0.98606956

00:20:33.070 --> 00:20:35.390 relief of vomiting episodes by
NOTE Confidence: 0.98606956

00:20:35.390 --> 00:20:37.650 sustained cessation of cannabis use.
NOTE Confidence: 0.98606956

00:20:37.869 --> 00:20:39.150 And they really didn't kinda
NOTE Confidence: 0.98606956

00:20:39.150 --> 00:20:39.650 identify
NOTE Confidence: 0.96951306

00:20:40.030 --> 00:20:41.635 all of this. They also
NOTE Confidence: 0.96951306

00:20:41.635 --> 00:20:43.234 said that a supportive remark
NOTE Confidence: 0.96951306

00:20:43.234 --> 00:20:44.455 or a supportive criteria
NOTE Confidence: 0.962985

00:20:44.994 --> 00:20:45.895 is the association
NOTE Confidence: 0.99005884

00:20:46.434 --> 00:20:47.335 with the pathological
NOTE Confidence: 0.9743384

00:20:48.115 --> 00:20:50.195 bathing behavior where patients will
NOTE Confidence: 0.9743384

00:20:50.195 --> 00:20:51.075 just go in and out
NOTE Confidence: 0.9743384

00:20:51.075 --> 00:20:52.275 of a shower or a
NOTE Confidence: 0.9743384

00:20:52.275 --> 00:20:53.575 bath multiple times.
NOTE Confidence: 0.90793014

00:20:54.400 --> 00:20:55.600 Now we actually do have
NOTE Confidence: 0.90793014

00:20:55.600 --> 00:20:57.359 the ROAM PHY criteria, and,

NOTE Confidence: 0.90793014
00:20:57.359 --> 00:20:58.880 fortunately, they listened to us
NOTE Confidence: 0.90793014
00:20:58.880 --> 00:20:59.700 a little bit.
NOTE Confidence: 0.98724216
00:21:00.320 --> 00:21:01.440 And so there were a
NOTE Confidence: 0.98724216
00:21:01.440 --> 00:21:02.420 few more things,
NOTE Confidence: 0.99198323
00:21:03.280 --> 00:21:04.740 details that were added,
NOTE Confidence: 0.9755626
00:21:05.359 --> 00:21:06.720 based on some studies that
NOTE Confidence: 0.9755626
00:21:06.720 --> 00:21:07.460 we performed.
NOTE Confidence: 0.99764115
00:21:07.965 --> 00:21:09.085 So in order to make
NOTE Confidence: 0.99764115
00:21:09.085 --> 00:21:10.465 a diagnosis of CHS,
NOTE Confidence: 0.9914128
00:21:10.765 --> 00:21:12.605 you you do need chronic
NOTE Confidence: 0.9914128
00:21:12.605 --> 00:21:14.765 cannabis use. And so these
NOTE Confidence: 0.9914128
00:21:14.765 --> 00:21:15.825 were some of the criteria
NOTE Confidence: 0.9975748
00:21:16.125 --> 00:21:16.525 that,
NOTE Confidence: 0.9179686
00:21:17.005 --> 00:21:18.125 we came up with. So
NOTE Confidence: 0.9179686
00:21:18.125 --> 00:21:18.625 presentation
NOTE Confidence: 0.9723668

00:21:19.404 --> 00:21:20.845 should be after prolonged at
NOTE Confidence: 0.9723668

00:21:20.845 --> 00:21:22.205 least a year of cannabis
NOTE Confidence: 0.9723668

00:21:22.205 --> 00:21:24.149 use. It should be more
NOTE Confidence: 0.9723668

00:21:24.149 --> 00:21:25.590 than four days, four or
NOTE Confidence: 0.9723668

00:21:25.590 --> 00:21:27.190 more days per week, or
NOTE Confidence: 0.9723668

00:21:27.190 --> 00:21:28.470 more than fifteen doses a
NOTE Confidence: 0.9723668

00:21:28.470 --> 00:21:29.850 week of cannabis use.
NOTE Confidence: 0.9917372

00:21:30.549 --> 00:21:32.070 Again, you need to show
NOTE Confidence: 0.9917372

00:21:32.070 --> 00:21:33.669 that somebody has relief of
NOTE Confidence: 0.9917372

00:21:33.669 --> 00:21:36.250 vomiting episodes by sustained cessation.
NOTE Confidence: 0.9917372

00:21:36.389 --> 00:21:36.889 So,
NOTE Confidence: 0.99744046

00:21:37.315 --> 00:21:38.595 they really need to abstain
NOTE Confidence: 0.99744046

00:21:38.595 --> 00:21:40.195 for at least six months
NOTE Confidence: 0.99744046

00:21:40.195 --> 00:21:42.135 or three typical emetic cycles
NOTE Confidence: 0.927563

00:21:42.595 --> 00:21:44.035 because if you remember, this
NOTE Confidence: 0.927563

00:21:44.035 --> 00:21:44.935 is an episodic

NOTE Confidence: 0.9857934
00:21:45.315 --> 00:21:47.395 disorder. So one person might
NOTE Confidence: 0.9857934
00:21:47.395 --> 00:21:48.675 have three episodes in a
NOTE Confidence: 0.9857934
00:21:48.675 --> 00:21:50.515 year, and another person might
NOTE Confidence: 0.9857934
00:21:50.515 --> 00:21:51.875 have three episodes in two
NOTE Confidence: 0.9857934
00:21:51.875 --> 00:21:52.375 months.
NOTE Confidence: 0.99421966
00:21:52.850 --> 00:21:53.170 And,
NOTE Confidence: 0.96594965
00:21:53.730 --> 00:21:55.730 it can be associated, obviously,
NOTE Confidence: 0.96594965
00:21:55.730 --> 00:21:56.710 with the pathological
NOTE Confidence: 0.99711096
00:21:57.330 --> 00:21:58.310 bathing behavior.
NOTE Confidence: 0.9859237
00:21:59.890 --> 00:22:01.350 Now what about the prevalence
NOTE Confidence: 0.9859237
00:22:01.410 --> 00:22:03.170 of CVS and CHS? It's
NOTE Confidence: 0.9859237
00:22:03.170 --> 00:22:05.030 it's really been difficult to
NOTE Confidence: 0.95629203
00:22:06.575 --> 00:22:08.734 really study or understand this.
NOTE Confidence: 0.95629203
00:22:08.734 --> 00:22:09.775 But, b, as it may,
NOTE Confidence: 0.95629203
00:22:09.775 --> 00:22:10.575 I think some of the
NOTE Confidence: 0.95629203

00:22:10.575 --> 00:22:12.175 best studies which were done
NOTE Confidence: 0.95629203

00:22:12.175 --> 00:22:13.775 using the room criteria with
NOTE Confidence: 0.95629203

00:22:13.775 --> 00:22:15.855 CVS showed that in the
NOTE Confidence: 0.95629203

00:22:15.855 --> 00:22:17.295 US, the prevalence is about
NOTE Confidence: 0.95629203

00:22:17.295 --> 00:22:18.035 two percent.
NOTE Confidence: 0.9979214

00:22:18.494 --> 00:22:20.190 In that same study, they
NOTE Confidence: 0.9979214

00:22:20.190 --> 00:22:21.150 said that there were only
NOTE Confidence: 0.9979214

00:22:21.150 --> 00:22:23.250 about seven cases of CHS
NOTE Confidence: 0.9979214

00:22:23.309 --> 00:22:24.210 in the US,
NOTE Confidence: 0.94877595

00:22:25.150 --> 00:22:26.350 and, there were none in
NOTE Confidence: 0.94877595

00:22:26.350 --> 00:22:27.490 the UK and Canada.
NOTE Confidence: 0.981762

00:22:28.030 --> 00:22:30.130 However, there are other studies
NOTE Confidence: 0.981762

00:22:30.350 --> 00:22:32.030 suggesting that CHS is an
NOTE Confidence: 0.981762

00:22:32.030 --> 00:22:32.530 epidemic.
NOTE Confidence: 0.9935759

00:22:33.075 --> 00:22:34.455 And I'm gonna tell you
NOTE Confidence: 0.9935759

00:22:34.515 --> 00:22:36.434 that, unfortunately, many of these

NOTE Confidence: 0.9935759
00:22:36.434 --> 00:22:36.934 studies
NOTE Confidence: 0.9811885
00:22:37.234 --> 00:22:39.095 really just define CHS
NOTE Confidence: 0.9967555
00:22:39.715 --> 00:22:41.575 as any cannabis use,
NOTE Confidence: 0.9795764
00:22:42.595 --> 00:22:44.595 along with vomiting. And so
NOTE Confidence: 0.9795764
00:22:44.595 --> 00:22:45.734 I think there are certainly,
NOTE Confidence: 0.999695
00:22:46.599 --> 00:22:47.899 you know, major limitations
NOTE Confidence: 0.99964
00:22:48.279 --> 00:22:49.659 with some of those studies.
NOTE Confidence: 0.9665519
00:22:51.000 --> 00:22:52.379 In terms of the phases,
NOTE Confidence: 0.9760846
00:22:52.840 --> 00:22:53.960 it's almost like having a
NOTE Confidence: 0.9760846
00:22:53.960 --> 00:22:55.720 migraine headache, whether it's CVS
NOTE Confidence: 0.9760846
00:22:55.720 --> 00:22:57.320 or CHS. Most people are
NOTE Confidence: 0.9760846
00:22:57.320 --> 00:22:58.220 kind of okay,
NOTE Confidence: 0.99208534
00:22:58.734 --> 00:23:00.255 and, they go about their
NOTE Confidence: 0.99208534
00:23:00.255 --> 00:23:01.154 usual routine.
NOTE Confidence: 0.98465985
00:23:01.455 --> 00:23:02.414 And then you get into
NOTE Confidence: 0.98465985

00:23:02.414 --> 00:23:03.554 what is called a prodromal
NOTE Confidence: 0.98465985

00:23:03.695 --> 00:23:05.394 phase where patients can have
NOTE Confidence: 0.98465985

00:23:05.455 --> 00:23:05.955 nausea,
NOTE Confidence: 0.95936185

00:23:06.734 --> 00:23:08.575 abdominal pains. Many of them
NOTE Confidence: 0.95936185

00:23:08.575 --> 00:23:09.215 have an,
NOTE Confidence: 0.9720422

00:23:09.695 --> 00:23:11.135 really an impending sense of
NOTE Confidence: 0.9720422

00:23:11.135 --> 00:23:12.414 doom that something bad is
NOTE Confidence: 0.9720422

00:23:12.414 --> 00:23:13.315 going to happen.
NOTE Confidence: 0.96894455

00:23:13.690 --> 00:23:15.230 And then they, if you
NOTE Confidence: 0.96894455

00:23:15.450 --> 00:23:17.050 are not able to abort
NOTE Confidence: 0.96894455

00:23:17.050 --> 00:23:18.010 that phase, they will go
NOTE Confidence: 0.96894455

00:23:18.010 --> 00:23:18.830 into a emetic
NOTE Confidence: 0.89290255

00:23:19.369 --> 00:23:19.869 phase.
NOTE Confidence: 0.9371557

00:23:20.330 --> 00:23:22.410 And, the people have very,
NOTE Confidence: 0.9371557

00:23:22.410 --> 00:23:24.510 very, very severe vomiting here.
NOTE Confidence: 0.9371557

00:23:24.570 --> 00:23:25.850 They have vomiting and are

NOTE Confidence: 0.9371557
00:23:25.850 --> 00:23:27.390 retching, and, unfortunately,
NOTE Confidence: 0.98016065
00:23:27.690 --> 00:23:28.650 the only thing you can
NOTE Confidence: 0.98016065
00:23:28.650 --> 00:23:29.695 do then is support a
NOTE Confidence: 0.98016065
00:23:29.695 --> 00:23:30.195 therapy.
NOTE Confidence: 0.9627248
00:23:30.734 --> 00:23:32.095 And then finally, they go
NOTE Confidence: 0.9627248
00:23:32.095 --> 00:23:33.795 back to the bowel phase.
NOTE Confidence: 0.8936376
00:23:34.175 --> 00:23:36.175 Doctor doctor Venkatesh, I can
NOTE Confidence: 0.8936376
00:23:36.175 --> 00:23:37.295 interrupt you for just a
NOTE Confidence: 0.8936376
00:23:37.295 --> 00:23:38.815 second Yes. Exactly. To your
NOTE Confidence: 0.8936376
00:23:38.815 --> 00:23:41.215 previous slide. Yes. I saw
NOTE Confidence: 0.8936376
00:23:41.215 --> 00:23:41.715 that,
NOTE Confidence: 0.98893315
00:23:42.415 --> 00:23:43.955 you you mentioned that
NOTE Confidence: 0.9747448
00:23:45.070 --> 00:23:45.570 sumatriptan
NOTE Confidence: 0.9985945
00:23:46.510 --> 00:23:47.010 Yes.
NOTE Confidence: 0.919892
00:23:47.390 --> 00:23:49.550 Is an abortive medication. And
NOTE Confidence: 0.919892

00:23:49.550 --> 00:23:51.630 I'm that's I'm really curious
NOTE Confidence: 0.919892

00:23:51.630 --> 00:23:52.690 about that because
NOTE Confidence: 0.9904311

00:23:53.230 --> 00:23:54.190 we know quite a bit
NOTE Confidence: 0.9904311

00:23:54.190 --> 00:23:55.630 about the mechanism of action
NOTE Confidence: 0.9904311

00:23:55.630 --> 00:23:56.290 of sumatriptan.
NOTE Confidence: 0.9597669

00:23:57.225 --> 00:23:58.984 And I'm curious why,
NOTE Confidence: 0.98126376

00:23:59.545 --> 00:24:00.205 a serotonergic
NOTE Confidence: 0.99821186

00:24:00.585 --> 00:24:01.405 drug would
NOTE Confidence: 0.9974492

00:24:01.785 --> 00:24:02.525 would work
NOTE Confidence: 0.9855628

00:24:02.984 --> 00:24:03.484 for,
NOTE Confidence: 0.919041

00:24:03.865 --> 00:24:06.125 for kind cannabis hyperemesis syndrome.
NOTE Confidence: 0.9977489

00:24:06.905 --> 00:24:07.945 And maybe you can get
NOTE Confidence: 0.9977489

00:24:07.945 --> 00:24:09.725 to answer this later on.
NOTE Confidence: 0.9977489

00:24:09.785 --> 00:24:10.285 Yeah.
NOTE Confidence: 0.9941875

00:24:11.640 --> 00:24:12.040 So,
NOTE Confidence: 0.9744124

00:24:12.440 --> 00:24:13.320 so that's a that's a

NOTE Confidence: 0.9744124

00:24:13.320 --> 00:24:14.920 good question. And so, you

NOTE Confidence: 0.9744124

00:24:14.920 --> 00:24:16.440 know, so what we when

NOTE Confidence: 0.9744124

00:24:16.440 --> 00:24:18.220 we think about cannabinoid hyperemesis

NOTE Confidence: 0.9744124

00:24:18.360 --> 00:24:19.560 syndrome, because there's so much

NOTE Confidence: 0.9744124

00:24:19.560 --> 00:24:19.960 of,

NOTE Confidence: 0.97800094

00:24:20.920 --> 00:24:21.960 you know, like I said,

NOTE Confidence: 0.97800094

00:24:21.960 --> 00:24:23.480 the literature is so limited,

NOTE Confidence: 0.97800094

00:24:23.480 --> 00:24:25.235 and we tend to, at

NOTE Confidence: 0.97800094

00:24:25.235 --> 00:24:26.195 least think of it as

NOTE Confidence: 0.97800094

00:24:26.195 --> 00:24:27.494 a subset of CVS.

NOTE Confidence: 0.93745464

00:24:28.035 --> 00:24:28.994 And when you look at

NOTE Confidence: 0.93745464

00:24:28.994 --> 00:24:31.155 sixty sickly vomiting syndrome, there's

NOTE Confidence: 0.93745464

00:24:31.155 --> 00:24:32.535 actually a huge

NOTE Confidence: 0.83782387

00:24:32.835 --> 00:24:34.215 overlap with migraine.

NOTE Confidence: 0.96861833

00:24:34.755 --> 00:24:36.355 A lot of children, yeah,

NOTE Confidence: 0.96861833

00:24:36.355 --> 00:24:37.590 a lot of children who
NOTE Confidence: 0.96861833

00:24:37.590 --> 00:24:38.730 actually develop,
NOTE Confidence: 0.9768243

00:24:39.270 --> 00:24:40.869 who have CVS as children,
NOTE Confidence: 0.9768243

00:24:40.869 --> 00:24:42.490 about seventy percent of them
NOTE Confidence: 0.97801936

00:24:42.950 --> 00:24:43.450 outgrow
NOTE Confidence: 0.9001061

00:24:44.070 --> 00:24:45.430 the condition and they develop
NOTE Confidence: 0.9001061

00:24:45.430 --> 00:24:46.490 migraine headaches,
NOTE Confidence: 0.9982548

00:24:46.790 --> 00:24:47.910 and so they can sort
NOTE Confidence: 0.9982548

00:24:47.910 --> 00:24:49.050 of flip flop.
NOTE Confidence: 0.9967242

00:24:49.545 --> 00:24:50.985 In fact, when you're treating
NOTE Confidence: 0.9967242

00:24:50.985 --> 00:24:52.345 a patient with CVS and
NOTE Confidence: 0.9967242

00:24:52.345 --> 00:24:53.244 they're getting better,
NOTE Confidence: 0.966533

00:24:53.545 --> 00:24:54.985 they might actually start developing
NOTE Confidence: 0.966533

00:24:54.985 --> 00:24:56.185 migraines, and then you have
NOTE Confidence: 0.966533

00:24:56.185 --> 00:24:57.405 to increase the medication
NOTE Confidence: 0.9997107

00:24:57.705 --> 00:24:58.525 even more.

NOTE Confidence: 0.9886818
00:24:59.385 --> 00:25:00.744 So in terms of, like,
NOTE Confidence: 0.9886818
00:25:00.744 --> 00:25:01.244 sumatriptan,
NOTE Confidence: 0.95873827
00:25:02.265 --> 00:25:03.465 I mean, there aren't I
NOTE Confidence: 0.95873827
00:25:03.465 --> 00:25:03.965 I
NOTE Confidence: 0.5301488
00:25:04.380 --> 00:25:05.040 there really
NOTE Confidence: 0.88749975
00:25:05.580 --> 00:25:06.540 aren't too many there aren't
NOTE Confidence: 0.88749975
00:25:06.540 --> 00:25:07.119 no randomized
NOTE Confidence: 0.8720165
00:25:07.420 --> 00:25:08.800 controlled trials in adults,
NOTE Confidence: 0.9546118
00:25:09.260 --> 00:25:10.820 but, certainly, we have,
NOTE Confidence: 0.99784535
00:25:11.260 --> 00:25:12.080 you know, retrospective
NOTE Confidence: 0.9585314
00:25:12.540 --> 00:25:13.680 open label studies,
NOTE Confidence: 0.99463636
00:25:14.700 --> 00:25:16.160 to show that they're effective
NOTE Confidence: 0.96547145
00:25:16.540 --> 00:25:18.480 in these, patients. So, typically,
NOTE Confidence: 0.9865999
00:25:18.965 --> 00:25:20.665 when somebody comes with CVS
NOTE Confidence: 0.9865999
00:25:20.725 --> 00:25:22.085 and we really don't know
NOTE Confidence: 0.9865999

00:25:22.085 --> 00:25:23.605 if they have CHS or
NOTE Confidence: 0.9865999

00:25:23.605 --> 00:25:24.105 not,
NOTE Confidence: 0.93919903

00:25:24.484 --> 00:25:25.845 we tend to get, treat
NOTE Confidence: 0.93919903

00:25:25.845 --> 00:25:27.545 them actually like,
NOTE Confidence: 0.8991815

00:25:28.085 --> 00:25:29.465 you would say a migraine
NOTE Confidence: 0.8991815

00:25:29.605 --> 00:25:30.565 and tell them to use
NOTE Confidence: 0.8991815

00:25:30.565 --> 00:25:31.945 sumatriptan and antiemetics,
NOTE Confidence: 0.9474948

00:25:33.230 --> 00:25:34.850 and even some mild sedation
NOTE Confidence: 0.9474948

00:25:35.070 --> 00:25:36.350 to make the, you know,
NOTE Confidence: 0.9474948

00:25:36.350 --> 00:25:38.350 episode better. And so one
NOTE Confidence: 0.9474948

00:25:38.350 --> 00:25:39.950 one other related question is
NOTE Confidence: 0.9474948

00:25:39.950 --> 00:25:41.890 what what does CGRP inhibitors
NOTE Confidence: 0.9474948

00:25:42.030 --> 00:25:43.970 do in for for cyclical,
NOTE Confidence: 0.76428705

00:25:44.350 --> 00:25:45.490 for hype hyperemesis?
NOTE Confidence: 0.9954821

00:25:45.869 --> 00:25:46.794 Because Yeah.
NOTE Confidence: 0.9175629

00:25:47.234 --> 00:25:48.755 It revolutionized the treatment of

NOTE Confidence: 0.9175629
00:25:48.755 --> 00:25:50.275 migraine, and so I'm curious
NOTE Confidence: 0.9175629
00:25:50.275 --> 00:25:52.115 about whether they have some
NOTE Confidence: 0.9175629
00:25:52.115 --> 00:25:52.615 effects.
NOTE Confidence: 0.98145676
00:25:53.155 --> 00:25:54.195 You know, that's a great
NOTE Confidence: 0.98145676
00:25:54.195 --> 00:25:55.795 question. Absolutely. And we were
NOTE Confidence: 0.98145676
00:25:55.795 --> 00:25:57.075 trying to get funding to
NOTE Confidence: 0.98145676
00:25:57.075 --> 00:25:58.775 actually study, like, CGRP
NOTE Confidence: 0.9036598
00:25:59.155 --> 00:26:00.915 and see whether it's CVS
NOTE Confidence: 0.9036598
00:26:00.915 --> 00:26:01.575 or CHS.
NOTE Confidence: 0.9824839
00:26:02.140 --> 00:26:02.880 And, unfortunately,
NOTE Confidence: 0.99924356
00:26:03.260 --> 00:26:04.400 there's no data.
NOTE Confidence: 0.9981744
00:26:05.419 --> 00:26:06.799 I will say that,
NOTE Confidence: 0.9654855
00:26:07.179 --> 00:26:08.619 you know, sometimes when people
NOTE Confidence: 0.9654855
00:26:08.619 --> 00:26:10.220 don't respond and we do
NOTE Confidence: 0.9654855
00:26:10.220 --> 00:26:12.559 have patients with CVS and
NOTE Confidence: 0.9654855

00:26:12.700 --> 00:26:13.200 hyperemesis
NOTE Confidence: 0.92527676

00:26:13.500 --> 00:26:15.100 who also have migraine headaches,
NOTE Confidence: 0.92527676

00:26:15.100 --> 00:26:16.220 and we sent them to
NOTE Confidence: 0.92527676

00:26:16.220 --> 00:26:16.880 the neurologist.
NOTE Confidence: 0.9699046

00:26:18.145 --> 00:26:19.665 Again, this is completely, like,
NOTE Confidence: 0.9699046

00:26:19.665 --> 00:26:20.165 anecdotal,
NOTE Confidence: 0.99948007

00:26:21.105 --> 00:26:22.085 you know, evidence.
NOTE Confidence: 0.9989465

00:26:22.625 --> 00:26:24.085 I haven't seen CGRP,
NOTE Confidence: 0.9421352

00:26:25.105 --> 00:26:26.785 you know, antagonist to be
NOTE Confidence: 0.9421352

00:26:26.785 --> 00:26:27.525 as effective
NOTE Confidence: 0.98884714

00:26:28.545 --> 00:26:30.484 in, you know, either hyperemesis
NOTE Confidence: 0.9804198

00:26:30.945 --> 00:26:31.685 or vomiting,
NOTE Confidence: 0.9672433

00:26:32.750 --> 00:26:33.950 you know, as in migraine.
NOTE Confidence: 0.9672433

00:26:33.950 --> 00:26:35.149 So the migraine headache seems
NOTE Confidence: 0.9672433

00:26:35.149 --> 00:26:36.750 to be, you know, better.
NOTE Confidence: 0.9672433

00:26:36.750 --> 00:26:38.129 So I'm a little unclear

NOTE Confidence: 0.9577168

00:26:38.750 --> 00:26:40.049 as to whether CGRP

NOTE Confidence: 0.8458017

00:26:40.590 --> 00:26:42.429 and you're absolutely right because

NOTE Confidence: 0.8458017

00:26:42.429 --> 00:26:43.169 it's completely,

NOTE Confidence: 0.9987479

00:26:43.789 --> 00:26:45.470 changed the way migraine headaches

NOTE Confidence: 0.9987479

00:26:45.470 --> 00:26:46.129 are managed.

NOTE Confidence: 0.9579918

00:26:46.755 --> 00:26:48.195 There there was, there was

NOTE Confidence: 0.9579918

00:26:48.195 --> 00:26:49.475 also as I was asking,

NOTE Confidence: 0.9579918

00:26:49.475 --> 00:26:50.675 there was another comment in

NOTE Confidence: 0.9579918

00:26:50.675 --> 00:26:51.895 the chat also about

NOTE Confidence: 0.8993554

00:26:52.275 --> 00:26:53.815 CGRP or Amylin,

NOTE Confidence: 0.9874614

00:26:55.234 --> 00:26:56.195 but maybe we can get

NOTE Confidence: 0.9874614

00:26:56.195 --> 00:26:57.155 to that later. I I

NOTE Confidence: 0.9874614

00:26:57.155 --> 00:26:58.055 don't want to,

NOTE Confidence: 0.977233

00:26:58.435 --> 00:26:59.875 interrupt you anymore. There there's

NOTE Confidence: 0.977233

00:26:59.955 --> 00:27:01.155 there are more questions, which

NOTE Confidence: 0.977233

00:27:01.155 --> 00:27:02.490 I'll bring up later on
NOTE Confidence: 0.977233

00:27:02.730 --> 00:27:03.950 in in your Absolutely.
NOTE Confidence: 0.9837738

00:27:04.490 --> 00:27:04.990 Yeah.
NOTE Confidence: 0.99472314

00:27:06.170 --> 00:27:07.609 And so, the other thing
NOTE Confidence: 0.99472314

00:27:07.609 --> 00:27:08.570 is when you think of
NOTE Confidence: 0.99472314

00:27:08.570 --> 00:27:10.330 somebody with either CVS or
NOTE Confidence: 0.99472314

00:27:10.330 --> 00:27:10.830 CHS,
NOTE Confidence: 0.98435575

00:27:11.690 --> 00:27:13.770 many people kind of, think
NOTE Confidence: 0.98435575

00:27:13.770 --> 00:27:15.130 that they only have nausea
NOTE Confidence: 0.98435575

00:27:15.130 --> 00:27:15.869 and vomiting.
NOTE Confidence: 0.99499726

00:27:16.265 --> 00:27:17.385 But this is almost like,
NOTE Confidence: 0.99499726

00:27:17.705 --> 00:27:18.845 you know, an autonomic
NOTE Confidence: 0.9822164

00:27:19.385 --> 00:27:21.225 attack, if you will. And
NOTE Confidence: 0.9822164

00:27:21.225 --> 00:27:21.725 so,
NOTE Confidence: 0.9872804

00:27:22.105 --> 00:27:23.545 you know, we actually did
NOTE Confidence: 0.9872804

00:27:23.545 --> 00:27:25.065 a study where we,

NOTE Confidence: 0.98391074
00:27:25.545 --> 00:27:26.745 looked at their symptoms with
NOTE Confidence: 0.98391074
00:27:26.745 --> 00:27:27.805 a daily diary,
NOTE Confidence: 0.9988731
00:27:28.105 --> 00:27:29.385 and we found that people
NOTE Confidence: 0.9988731
00:27:29.385 --> 00:27:30.840 have a lot of symptoms.
NOTE Confidence: 0.99813735
00:27:31.220 --> 00:27:32.840 They have nausea, vomiting,
NOTE Confidence: 0.99306303
00:27:33.619 --> 00:27:35.220 profuse sweating in about ninety
NOTE Confidence: 0.99306303
00:27:35.220 --> 00:27:36.580 three percent of patients. They'll
NOTE Confidence: 0.99306303
00:27:36.580 --> 00:27:38.200 actually have abdominal pain.
NOTE Confidence: 0.9889276
00:27:38.740 --> 00:27:40.340 They feel hot or cold.
NOTE Confidence: 0.9889276
00:27:40.340 --> 00:27:41.859 There's something off with their
NOTE Confidence: 0.9889276
00:27:41.859 --> 00:27:42.359 thermoregulation.
NOTE Confidence: 0.9349944
00:27:44.015 --> 00:27:45.075 They have photosensitivity
NOTE Confidence: 0.9804263
00:27:45.615 --> 00:27:46.434 and headaches.
NOTE Confidence: 0.98891073
00:27:47.534 --> 00:27:49.054 And so, again, the hot
NOTE Confidence: 0.98891073
00:27:49.054 --> 00:27:51.375 water bathing was initially thought
NOTE Confidence: 0.98891073

00:27:51.375 --> 00:27:52.274 to be pathognomonic
NOTE Confidence: 0.97586167

00:27:52.815 --> 00:27:53.475 of CHS.
NOTE Confidence: 0.9979309

00:27:54.095 --> 00:27:55.315 While it is statistically
NOTE Confidence: 0.98248094

00:27:55.855 --> 00:27:58.260 associated with cannabis use, we
NOTE Confidence: 0.98248094

00:27:58.260 --> 00:27:59.700 didn't do a study, and
NOTE Confidence: 0.98248094

00:27:59.700 --> 00:28:01.460 about half the patients who
NOTE Confidence: 0.98248094

00:28:01.460 --> 00:28:03.320 don't have any cannabis use
NOTE Confidence: 0.98248094

00:28:03.619 --> 00:28:04.980 also have this hot water
NOTE Confidence: 0.98248094

00:28:04.980 --> 00:28:06.740 bathing pattern. It's actually very
NOTE Confidence: 0.98248094

00:28:06.740 --> 00:28:07.240 peculiar
NOTE Confidence: 0.99931663

00:28:07.780 --> 00:28:08.980 to this condition. It has
NOTE Confidence: 0.99931663

00:28:08.980 --> 00:28:10.260 not been described in any
NOTE Confidence: 0.99931663

00:28:10.260 --> 00:28:11.320 other medical condition,
NOTE Confidence: 0.97937846

00:28:12.255 --> 00:28:13.295 you know, that I'm aware
NOTE Confidence: 0.97937846

00:28:13.295 --> 00:28:14.655 of. And so patients go
NOTE Confidence: 0.97937846

00:28:14.655 --> 00:28:16.895 in and, they will feel

NOTE Confidence: 0.97937846
00:28:16.895 --> 00:28:17.395 better
NOTE Confidence: 0.9534118
00:28:17.855 --> 00:28:19.455 after ten minutes or so.
NOTE Confidence: 0.9534118
00:28:19.455 --> 00:28:20.575 And we actually looked at
NOTE Confidence: 0.9534118
00:28:20.575 --> 00:28:22.095 this and, again, this was
NOTE Confidence: 0.9534118
00:28:22.095 --> 00:28:23.215 a study we did where
NOTE Confidence: 0.9534118
00:28:23.215 --> 00:28:24.575 we asked patients about their
NOTE Confidence: 0.9534118
00:28:24.575 --> 00:28:25.955 hot water bathing patterns.
NOTE Confidence: 0.96850646
00:28:27.040 --> 00:28:28.720 And then we divided these
NOTE Confidence: 0.96850646
00:28:28.720 --> 00:28:30.000 patients and we looked at
NOTE Confidence: 0.96850646
00:28:30.000 --> 00:28:31.140 the cannabis users.
NOTE Confidence: 0.97216016
00:28:32.080 --> 00:28:33.380 So we looked at occasional
NOTE Confidence: 0.97216016
00:28:33.440 --> 00:28:35.780 and nonusers versus cannabis users.
NOTE Confidence: 0.98105663
00:28:36.320 --> 00:28:37.680 And as you can see,
NOTE Confidence: 0.98105663
00:28:37.680 --> 00:28:39.440 there were, you know, greater
NOTE Confidence: 0.98105663
00:28:39.440 --> 00:28:40.395 number of males,
NOTE Confidence: 0.98020947

00:28:40.875 --> 00:28:42.795 in the, in the regular
NOTE Confidence: 0.98020947

00:28:42.795 --> 00:28:44.175 cannabis users group.
NOTE Confidence: 0.9786139

00:28:45.435 --> 00:28:46.795 The other thing we noticed
NOTE Confidence: 0.9786139

00:28:46.795 --> 00:28:47.915 is that if you looked
NOTE Confidence: 0.9786139

00:28:47.915 --> 00:28:49.275 at the CU group or
NOTE Confidence: 0.9786139

00:28:49.275 --> 00:28:51.295 the regular cannabis users group,
NOTE Confidence: 0.9786139

00:28:51.595 --> 00:28:52.635 we looked at the number
NOTE Confidence: 0.9786139

00:28:52.635 --> 00:28:54.395 of symptoms they had during
NOTE Confidence: 0.9786139

00:28:54.395 --> 00:28:55.950 the prodromal phase as well
NOTE Confidence: 0.9786139

00:28:55.950 --> 00:28:57.250 as the vomiting phase.
NOTE Confidence: 0.979423

00:28:57.710 --> 00:28:59.230 And, you know, curiously, they
NOTE Confidence: 0.979423

00:28:59.230 --> 00:29:01.230 actually had more symptoms. So
NOTE Confidence: 0.979423

00:29:01.230 --> 00:29:02.130 they had a greater
NOTE Confidence: 0.95285106

00:29:02.750 --> 00:29:03.890 symptom burden,
NOTE Confidence: 0.94507873

00:29:04.590 --> 00:29:06.270 and they also tended to
NOTE Confidence: 0.94507873

00:29:06.270 --> 00:29:07.890 use very hot water.

NOTE Confidence: 0.98567307
00:29:08.765 --> 00:29:09.965 So, I mean, these are
NOTE Confidence: 0.98567307
00:29:09.965 --> 00:29:11.725 some clues as to what
NOTE Confidence: 0.98567307
00:29:11.725 --> 00:29:12.705 is going on,
NOTE Confidence: 0.9562661
00:29:13.164 --> 00:29:14.605 you know, with cannabis, and
NOTE Confidence: 0.9562661
00:29:14.605 --> 00:29:15.085 it's,
NOTE Confidence: 0.92462504
00:29:15.485 --> 00:29:16.945 it's really very intriguing.
NOTE Confidence: 0.95696366
00:29:17.725 --> 00:29:19.485 Now when we talk about
NOTE Confidence: 0.95696366
00:29:19.485 --> 00:29:21.725 CHS, I know that people
NOTE Confidence: 0.95696366
00:29:21.725 --> 00:29:23.680 have co coined this disorder,
NOTE Confidence: 0.99087936
00:29:24.220 --> 00:29:25.180 but we tend to think
NOTE Confidence: 0.99087936
00:29:25.180 --> 00:29:26.780 of it as a subset
NOTE Confidence: 0.99087936
00:29:26.780 --> 00:29:27.600 of CVS,
NOTE Confidence: 0.7049958
00:29:27.980 --> 00:29:29.040 you know, and analogous
NOTE Confidence: 0.8562969
00:29:29.820 --> 00:29:30.640 maybe to
NOTE Confidence: 0.96201557
00:29:30.940 --> 00:29:32.700 Crohn's disease where NSAIDs can
NOTE Confidence: 0.96201557

00:29:32.700 --> 00:29:34.395 make Crohn's disease worse. Perhaps

NOTE Confidence: 0.96201557

00:29:34.635 --> 00:29:36.475 cannabis is making making things

NOTE Confidence: 0.96201557

00:29:36.475 --> 00:29:36.975 worse.

NOTE Confidence: 0.94075906

00:29:37.595 --> 00:29:38.955 We do have some data

NOTE Confidence: 0.94075906

00:29:38.955 --> 00:29:40.235 looking at c n r

NOTE Confidence: 0.94075906

00:29:40.235 --> 00:29:40.735 one,

NOTE Confidence: 0.9672334

00:29:41.035 --> 00:29:42.015 you know, polymorphisms,

NOTE Confidence: 0.9678524

00:29:42.875 --> 00:29:43.995 and we found that there

NOTE Confidence: 0.9678524

00:29:43.995 --> 00:29:45.195 has been a that has

NOTE Confidence: 0.9678524

00:29:45.195 --> 00:29:46.955 been associated with an increased

NOTE Confidence: 0.9678524

00:29:46.955 --> 00:29:48.895 risk of, cyclic vomiting.

NOTE Confidence: 0.9749233

00:29:49.930 --> 00:29:52.010 Now, obviously, cannabis use is

NOTE Confidence: 0.9749233

00:29:52.010 --> 00:29:54.250 a huge trigger, we think,

NOTE Confidence: 0.9941329

00:29:54.570 --> 00:29:55.470 for episodes.

NOTE Confidence: 0.97291034

00:29:56.250 --> 00:29:57.850 Certainly, stress is a big

NOTE Confidence: 0.97291034

00:29:57.850 --> 00:29:58.350 factor,

NOTE Confidence: 0.98427105
00:29:59.290 --> 00:30:00.990 and and and endocannabinoid
NOTE Confidence: 0.98835564
00:30:01.610 --> 00:30:03.130 functioning and so on and
NOTE Confidence: 0.98835564
00:30:03.130 --> 00:30:03.790 so forth.
NOTE Confidence: 0.98519295
00:30:05.054 --> 00:30:06.575 So is CHS a valid
NOTE Confidence: 0.98519295
00:30:06.575 --> 00:30:07.075 diagnosis?
NOTE Confidence: 0.998612
00:30:07.695 --> 00:30:08.975 You know, people keep saying
NOTE Confidence: 0.998612
00:30:08.975 --> 00:30:09.475 that
NOTE Confidence: 0.92309254
00:30:10.255 --> 00:30:11.534 it's you it's it's thought
NOTE Confidence: 0.92309254
00:30:11.534 --> 00:30:12.755 to be related to cannabis.
NOTE Confidence: 0.9825001
00:30:13.615 --> 00:30:14.895 Now we actually this was
NOTE Confidence: 0.9825001
00:30:14.895 --> 00:30:15.855 a study that I did
NOTE Confidence: 0.9825001
00:30:15.855 --> 00:30:17.215 in my patient cohort. There
NOTE Confidence: 0.9825001
00:30:17.215 --> 00:30:18.674 were more than hundred patients,
NOTE Confidence: 0.97154266
00:30:19.240 --> 00:30:20.600 And, this was the first
NOTE Confidence: 0.97154266
00:30:20.600 --> 00:30:22.120 study which actually used a
NOTE Confidence: 0.97154266

00:30:22.120 --> 00:30:24.200 validated questionnaire called the QDIP,
NOTE Confidence: 0.97154266

00:30:24.200 --> 00:30:26.299 the cannabis use disorder identification
NOTE Confidence: 0.9888051

00:30:26.600 --> 00:30:28.440 test. And so we found
NOTE Confidence: 0.9888051

00:30:28.440 --> 00:30:30.299 that in this particular cohort,
NOTE Confidence: 0.9738604

00:30:31.320 --> 00:30:33.240 about sixty percent really never
NOTE Confidence: 0.9738604

00:30:33.240 --> 00:30:34.460 used any cannabis,
NOTE Confidence: 0.991349

00:30:34.985 --> 00:30:36.665 and there were, one in
NOTE Confidence: 0.991349

00:30:36.665 --> 00:30:38.105 five patients. So about twenty
NOTE Confidence: 0.991349

00:30:38.105 --> 00:30:40.585 five twenty one percent used
NOTE Confidence: 0.991349

00:30:40.585 --> 00:30:42.025 cannabis four or more times
NOTE Confidence: 0.991349

00:30:42.025 --> 00:30:42.685 a week.
NOTE Confidence: 0.9854643

00:30:43.305 --> 00:30:44.985 Obviously, this is by patient
NOTE Confidence: 0.9854643

00:30:44.985 --> 00:30:45.485 report,
NOTE Confidence: 0.97282547

00:30:45.865 --> 00:30:47.225 and they essentially said they've
NOTE Confidence: 0.97282547

00:30:47.225 --> 00:30:49.145 improved all their symptoms. So
NOTE Confidence: 0.97282547

00:30:49.145 --> 00:30:50.845 it improved vomiting. It improved

NOTE Confidence: 0.97282547
00:30:51.090 --> 00:30:52.390 abdominal pain, appetite.
NOTE Confidence: 0.9891119
00:30:53.169 --> 00:30:54.530 They even said it helped
NOTE Confidence: 0.9891119
00:30:54.530 --> 00:30:54.929 them,
NOTE Confidence: 0.9937563
00:30:55.490 --> 00:30:56.870 avoid going to the emergency
NOTE Confidence: 0.9937563
00:30:57.010 --> 00:30:58.549 department and so on.
NOTE Confidence: 0.9966578
00:30:59.490 --> 00:31:00.770 And and and many of
NOTE Confidence: 0.9966578
00:31:00.770 --> 00:31:01.590 these patients,
NOTE Confidence: 0.98034257
00:31:01.890 --> 00:31:03.490 almost eighty six percent, did
NOTE Confidence: 0.98034257
00:31:03.490 --> 00:31:05.110 try to abstain from cannabis
NOTE Confidence: 0.98034257
00:31:05.250 --> 00:31:06.465 for at least a month.
NOTE Confidence: 0.97147775
00:31:07.265 --> 00:31:08.865 And in this entire cohort,
NOTE Confidence: 0.97147775
00:31:08.865 --> 00:31:09.985 there was only one patient
NOTE Confidence: 0.97147775
00:31:09.985 --> 00:31:12.085 who reported resolution of symptoms.
NOTE Confidence: 0.9718348
00:31:13.105 --> 00:31:15.265 This particular patient actually started
NOTE Confidence: 0.9718348
00:31:15.265 --> 00:31:17.525 using cannabis with higher CBD.
NOTE Confidence: 0.9877036

00:31:18.544 --> 00:31:20.565 And, on long term follow-up,
NOTE Confidence: 0.9877036

00:31:20.625 --> 00:31:22.429 he was actually symptom free.
NOTE Confidence: 0.9792616

00:31:23.289 --> 00:31:24.909 So I think cannabis abstinence,
NOTE Confidence: 0.9792616

00:31:24.970 --> 00:31:26.330 obviously, is a very, very
NOTE Confidence: 0.9792616

00:31:26.330 --> 00:31:28.330 difficult bar because most people
NOTE Confidence: 0.9792616

00:31:28.330 --> 00:31:29.710 don't think it's harmful,
NOTE Confidence: 0.9995538

00:31:30.090 --> 00:31:31.450 and it's very difficult to
NOTE Confidence: 0.9995538

00:31:31.450 --> 00:31:32.750 convince your patient.
NOTE Confidence: 0.9736889

00:31:33.610 --> 00:31:34.889 And then we also looked
NOTE Confidence: 0.9736889

00:31:34.889 --> 00:31:36.010 at we also did a
NOTE Confidence: 0.9736889

00:31:36.010 --> 00:31:37.825 systematic review of CHS CHS
NOTE Confidence: 0.9736889

00:31:37.825 --> 00:31:38.865 when we did the twenty
NOTE Confidence: 0.9736889

00:31:38.865 --> 00:31:40.625 nineteen guidelines and the management
NOTE Confidence: 0.9736889

00:31:40.625 --> 00:31:41.285 of CVS,
NOTE Confidence: 0.99749684

00:31:42.305 --> 00:31:43.905 because there were multiple case
NOTE Confidence: 0.99749684

00:31:43.905 --> 00:31:45.525 series and case reports.

NOTE Confidence: 0.95560926
00:31:46.305 --> 00:31:47.745 And, many of these case
NOTE Confidence: 0.95560926
00:31:47.745 --> 00:31:49.265 series and case reports were
NOTE Confidence: 0.95560926
00:31:49.265 --> 00:31:50.945 before the Rome criteria were
NOTE Confidence: 0.95560926
00:31:50.945 --> 00:31:51.925 actually established.
NOTE Confidence: 0.9841487
00:31:52.460 --> 00:31:54.320 And so, certainly, the diagnosis
NOTE Confidence: 0.9841487
00:31:54.540 --> 00:31:55.280 was made,
NOTE Confidence: 0.9838218
00:31:55.900 --> 00:31:57.820 using really different criteria in
NOTE Confidence: 0.9838218
00:31:57.820 --> 00:31:59.740 these various, case series and
NOTE Confidence: 0.9838218
00:31:59.740 --> 00:32:00.560 case reports.
NOTE Confidence: 0.94404745
00:32:01.580 --> 00:32:02.860 B as it may, in
NOTE Confidence: 0.94404745
00:32:02.860 --> 00:32:04.780 CHS or purported CHS, the
NOTE Confidence: 0.94404745
00:32:04.780 --> 00:32:06.640 duration of cannabis use was
NOTE Confidence: 0.94404745
00:32:06.700 --> 00:32:08.355 between six and eight years.
NOTE Confidence: 0.96546346
00:32:08.995 --> 00:32:10.355 But what was really striking
NOTE Confidence: 0.96546346
00:32:10.355 --> 00:32:12.035 in the systematic review is
NOTE Confidence: 0.96546346

00:32:12.035 --> 00:32:13.475 that most of these patients
NOTE Confidence: 0.96546346

00:32:13.475 --> 00:32:14.934 did not have any follow-up.
NOTE Confidence: 0.99704474

00:32:15.715 --> 00:32:16.835 And I think in an
NOTE Confidence: 0.99704474

00:32:16.835 --> 00:32:18.835 episodic disorder, it is very
NOTE Confidence: 0.99704474

00:32:18.835 --> 00:32:20.515 important to have a longer
NOTE Confidence: 0.99704474

00:32:20.515 --> 00:32:21.415 term follow-up.
NOTE Confidence: 0.90672433

00:32:22.190 --> 00:32:23.490 And then we retro,
NOTE Confidence: 0.99880636

00:32:24.110 --> 00:32:24.610 retrospectively
NOTE Confidence: 0.86891544

00:32:25.310 --> 00:32:26.850 applied the room for criteria,
NOTE Confidence: 0.99661916

00:32:27.390 --> 00:32:28.590 and we found that only
NOTE Confidence: 0.99661916

00:32:28.590 --> 00:32:30.590 fourteen to twenty percent actually
NOTE Confidence: 0.99661916

00:32:30.590 --> 00:32:31.570 met the criteria,
NOTE Confidence: 0.9867487

00:32:32.590 --> 00:32:33.490 for CHS,
NOTE Confidence: 0.99960566

00:32:34.270 --> 00:32:36.030 in this entire cohort of
NOTE Confidence: 0.99960566

00:32:36.030 --> 00:32:36.530 patients.
NOTE Confidence: 0.9457252

00:32:37.495 --> 00:32:38.934 So it's really difficult to

NOTE Confidence: 0.9457252
00:32:38.934 --> 00:32:40.294 understand why all of this
NOTE Confidence: 0.9457252
00:32:40.294 --> 00:32:40.955 is happening.
NOTE Confidence: 0.95971626
00:32:41.735 --> 00:32:42.875 Could there be a genetic
NOTE Confidence: 0.95971626
00:32:42.934 --> 00:32:43.434 predisposition,
NOTE Confidence: 0.93566585
00:32:43.895 --> 00:32:45.895 like in, say, alcoholic liver
NOTE Confidence: 0.93566585
00:32:45.895 --> 00:32:47.335 disease? Perhaps there are only
NOTE Confidence: 0.93566585
00:32:47.335 --> 00:32:47.835 certain
NOTE Confidence: 0.89596564
00:32:48.135 --> 00:32:49.815 small subset of patients who
NOTE Confidence: 0.89596564
00:32:49.815 --> 00:32:50.955 develop hyperemesis.
NOTE Confidence: 0.93716395
00:32:52.150 --> 00:32:53.450 Could there be an endocannabinoid
NOTE Confidence: 0.9913876
00:32:53.910 --> 00:32:55.590 deficiency? We have some studies
NOTE Confidence: 0.9913876
00:32:55.590 --> 00:32:56.810 in CVS patients,
NOTE Confidence: 0.981316
00:32:57.510 --> 00:32:58.890 you know, pointing to that.
NOTE Confidence: 0.981316
00:32:59.030 --> 00:33:00.070 And the other thing is,
NOTE Confidence: 0.981316
00:33:00.310 --> 00:33:01.670 you know, really the potency
NOTE Confidence: 0.981316

00:33:01.670 --> 00:33:03.110 of the cannabis products. Like
NOTE Confidence: 0.981316

00:33:03.110 --> 00:33:04.230 I said in the previous
NOTE Confidence: 0.981316

00:33:04.230 --> 00:33:04.730 slide,
NOTE Confidence: 0.97894925

00:33:05.405 --> 00:33:06.525 you know, the amount of
NOTE Confidence: 0.97894925

00:33:06.525 --> 00:33:07.645 THC in a joint was
NOTE Confidence: 0.97894925

00:33:07.645 --> 00:33:09.005 four percent in the nineties,
NOTE Confidence: 0.97894925

00:33:09.005 --> 00:33:10.284 and now people are using
NOTE Confidence: 0.97894925

00:33:10.284 --> 00:33:11.965 sixty five and eighty five
NOTE Confidence: 0.97894925

00:33:11.965 --> 00:33:12.465 percent.
NOTE Confidence: 0.99213105

00:33:13.405 --> 00:33:15.485 And, it appears that THC
NOTE Confidence: 0.99213105

00:33:15.485 --> 00:33:17.424 has a biphasic effect. So,
NOTE Confidence: 0.97796685

00:33:17.725 --> 00:33:19.105 you know, where low doses
NOTE Confidence: 0.97796685

00:33:19.164 --> 00:33:21.190 are antiemetic, but higher doses
NOTE Confidence: 0.97796685

00:33:21.190 --> 00:33:23.350 and frequent dosing actually leads
NOTE Confidence: 0.97796685

00:33:23.350 --> 00:33:24.410 to hyperemesis
NOTE Confidence: 0.9296854

00:33:25.270 --> 00:33:27.290 and, c b one downregulation.

NOTE Confidence: 0.97781855

00:33:29.430 --> 00:33:30.470 Now I'm gonna come back

NOTE Confidence: 0.97781855

00:33:30.470 --> 00:33:31.450 to that case,

NOTE Confidence: 0.9505709

00:33:31.910 --> 00:33:33.610 and, you know, so, essentially,

NOTE Confidence: 0.99024487

00:33:34.205 --> 00:33:35.085 like I said,

NOTE Confidence: 0.96746546

00:33:35.405 --> 00:33:36.685 this patient came to me

NOTE Confidence: 0.96746546

00:33:36.685 --> 00:33:38.445 and she, tried to quit

NOTE Confidence: 0.96746546

00:33:38.445 --> 00:33:40.705 marijuana. She reported some improvement,

NOTE Confidence: 0.994717

00:33:41.645 --> 00:33:43.585 but she was having episodes.

NOTE Confidence: 0.989977

00:33:44.365 --> 00:33:44.685 And,

NOTE Confidence: 0.9880195

00:33:45.245 --> 00:33:46.605 we actually treated her with

NOTE Confidence: 0.9880195

00:33:46.605 --> 00:33:48.205 amitriptyline. She reached a target

NOTE Confidence: 0.9880195

00:33:48.205 --> 00:33:49.425 dose of hundred milligrams

NOTE Confidence: 0.9439787

00:33:50.260 --> 00:33:51.780 at night, and, she improved

NOTE Confidence: 0.9439787

00:33:51.780 --> 00:33:53.780 significantly with market reduction in

NOTE Confidence: 0.9439787

00:33:53.780 --> 00:33:54.280 symptoms.

NOTE Confidence: 0.9904052

00:33:55.140 --> 00:33:56.420 She does continue to smoke
NOTE Confidence: 0.9904052

00:33:56.420 --> 00:33:57.620 cannabis, though I do tell
NOTE Confidence: 0.9904052

00:33:57.620 --> 00:33:59.300 my patients to reduce cannabis
NOTE Confidence: 0.9904052

00:33:59.300 --> 00:34:00.580 usage. So she did reduce
NOTE Confidence: 0.9904052

00:34:00.580 --> 00:34:01.080 it,
NOTE Confidence: 0.9808012

00:34:01.780 --> 00:34:03.059 to two times a week.
NOTE Confidence: 0.9808012

00:34:03.059 --> 00:34:04.760 She's happy with her progress.
NOTE Confidence: 0.94619924

00:34:06.085 --> 00:34:08.405 And, so here's the case.
NOTE Confidence: 0.94619924

00:34:08.405 --> 00:34:10.085 And then, this was actually
NOTE Confidence: 0.94619924

00:34:10.085 --> 00:34:11.445 by the Canadian society, and
NOTE Confidence: 0.94619924

00:34:11.445 --> 00:34:12.484 this is actually a real
NOTE Confidence: 0.94619924

00:34:12.484 --> 00:34:12.984 book.
NOTE Confidence: 0.98263824

00:34:13.364 --> 00:34:14.244 They said this has to
NOTE Confidence: 0.98263824

00:34:14.244 --> 00:34:15.545 be shared with adolescents,
NOTE Confidence: 0.9812757

00:34:16.244 --> 00:34:17.765 because use is so high
NOTE Confidence: 0.9812757

00:34:17.765 --> 00:34:19.785 nowadays, particularly in adolescents.

NOTE Confidence: 0.9226328
00:34:21.170 --> 00:34:21.670 Obviously,
NOTE Confidence: 0.96276826
00:34:22.290 --> 00:34:23.650 there are so many adverse
NOTE Confidence: 0.96276826
00:34:23.650 --> 00:34:25.110 effects with cannabis,
NOTE Confidence: 0.9941205
00:34:25.570 --> 00:34:26.950 and so the most effective,
NOTE Confidence: 0.9665772
00:34:28.370 --> 00:34:29.730 the most effective advice would
NOTE Confidence: 0.9665772
00:34:29.730 --> 00:34:31.090 be abstinence, but that can
NOTE Confidence: 0.9665772
00:34:31.090 --> 00:34:31.990 be quite difficult.
NOTE Confidence: 0.96743405
00:34:32.895 --> 00:34:34.835 So, typically, for my patients,
NOTE Confidence: 0.96743405
00:34:35.055 --> 00:34:36.175 I I tell them to
NOTE Confidence: 0.96743405
00:34:36.175 --> 00:34:37.635 choose maybe lower potency
NOTE Confidence: 0.80498874
00:34:37.935 --> 00:34:38.755 t THC,
NOTE Confidence: 0.965244
00:34:39.935 --> 00:34:40.435 nonsmoking
NOTE Confidence: 0.99677145
00:34:40.735 --> 00:34:42.094 methods, and I do encourage
NOTE Confidence: 0.99677145
00:34:42.094 --> 00:34:43.715 them to reduce the frequency
NOTE Confidence: 0.999671
00:34:44.255 --> 00:34:44.755 considerably.
NOTE Confidence: 0.97686046

00:34:45.950 --> 00:34:47.950 Obviously, early age initiation is
NOTE Confidence: 0.97686046

00:34:47.950 --> 00:34:49.250 also a problem,
NOTE Confidence: 0.99906164

00:34:50.510 --> 00:34:51.950 and it really remains to
NOTE Confidence: 0.99906164

00:34:51.950 --> 00:34:52.690 be seen.
NOTE Confidence: 0.9970447

00:34:53.469 --> 00:34:54.670 So there are actually a
NOTE Confidence: 0.9970447

00:34:54.670 --> 00:34:55.650 lot more questions
NOTE Confidence: 0.90211165

00:34:56.750 --> 00:34:58.609 and, you know, and
NOTE Confidence: 0.8600047

00:34:59.150 --> 00:35:00.195 for research. So so what
NOTE Confidence: 0.8600047

00:35:00.195 --> 00:35:00.935 is the relationship
NOTE Confidence: 0.98227483

00:35:01.395 --> 00:35:03.094 between cannabis use and hyperemesis?
NOTE Confidence: 0.98227483

00:35:03.315 --> 00:35:04.614 Does it really cause it?
NOTE Confidence: 0.9692725

00:35:05.315 --> 00:35:06.935 What is the underlying mechanism?
NOTE Confidence: 0.9692725

00:35:07.155 --> 00:35:08.195 Is it c b one
NOTE Confidence: 0.9692725

00:35:08.195 --> 00:35:10.114 receptor down regulation, and how
NOTE Confidence: 0.9692725

00:35:10.114 --> 00:35:11.235 long does it take? And
NOTE Confidence: 0.9692725

00:35:11.235 --> 00:35:12.355 if even if your c

NOTE Confidence: 0.9692725

00:35:12.355 --> 00:35:13.175 b one receptors,

NOTE Confidence: 0.9907234

00:35:14.580 --> 00:35:15.960 really sort of come back,

NOTE Confidence: 0.9907234

00:35:16.260 --> 00:35:17.220 how long does it take

NOTE Confidence: 0.9907234

00:35:17.220 --> 00:35:18.680 to reverse all of these

NOTE Confidence: 0.9907234

00:35:18.740 --> 00:35:20.440 effects in CHS,

NOTE Confidence: 0.99728215

00:35:21.620 --> 00:35:22.360 high potency

NOTE Confidence: 0.9487231

00:35:22.660 --> 00:35:24.260 products? And, you know, obviously,

NOTE Confidence: 0.9487231

00:35:24.260 --> 00:35:25.460 there are other countries where

NOTE Confidence: 0.9487231

00:35:25.460 --> 00:35:26.820 cannabis is legal such as

NOTE Confidence: 0.9487231

00:35:26.820 --> 00:35:27.480 in Amsterdam,

NOTE Confidence: 0.98344576

00:35:28.155 --> 00:35:30.255 and, there is no epidemic

NOTE Confidence: 0.98344576

00:35:30.315 --> 00:35:31.594 or there are no major

NOTE Confidence: 0.98344576

00:35:31.594 --> 00:35:32.795 reports of CHS coming out

NOTE Confidence: 0.98344576

00:35:32.795 --> 00:35:33.535 of Amsterdam.

NOTE Confidence: 0.99031544

00:35:34.555 --> 00:35:36.155 And, you know, the genetic

NOTE Confidence: 0.99031544

00:35:36.155 --> 00:35:36.655 predisposition,
NOTE Confidence: 0.9927803

00:35:37.755 --> 00:35:39.355 is there a correlation between
NOTE Confidence: 0.9927803

00:35:39.355 --> 00:35:40.415 THC concentration
NOTE Confidence: 0.9610093

00:35:40.715 --> 00:35:41.614 and the symptoms?
NOTE Confidence: 0.9022905

00:35:42.390 --> 00:35:44.069 Do symptoms improve with cessation,
NOTE Confidence: 0.9022905

00:35:44.069 --> 00:35:45.690 or is just reduction enough,
NOTE Confidence: 0.97792625

00:35:46.549 --> 00:35:47.910 and and and so on.
NOTE Confidence: 0.97792625

00:35:47.910 --> 00:35:48.789 So I think there are
NOTE Confidence: 0.97792625

00:35:48.789 --> 00:35:49.289 really
NOTE Confidence: 0.9868038

00:35:49.829 --> 00:35:51.190 a lot of questions. I
NOTE Confidence: 0.9868038

00:35:51.190 --> 00:35:51.670 think,
NOTE Confidence: 0.9568885

00:35:52.549 --> 00:35:53.510 you know, the area is
NOTE Confidence: 0.9568885

00:35:53.510 --> 00:35:53.925 ripe.
NOTE Confidence: 0.99419844

00:35:54.565 --> 00:35:54.965 And,
NOTE Confidence: 0.99738705

00:35:55.445 --> 00:35:56.565 I I really would like
NOTE Confidence: 0.99738705

00:35:56.565 --> 00:35:57.125 to thank,

NOTE Confidence: 0.9264572
00:35:57.445 --> 00:35:58.725 Suril so much. I was
NOTE Confidence: 0.9264572
00:35:58.725 --> 00:36:00.245 very excited to be here.
NOTE Confidence: 0.9264572
00:36:00.245 --> 00:36:00.745 And,
NOTE Confidence: 0.92448735
00:36:01.844 --> 00:36:02.885 you know, I was I
NOTE Confidence: 0.92448735
00:36:02.885 --> 00:36:04.005 was just wishing, oh my
NOTE Confidence: 0.92448735
00:36:04.005 --> 00:36:05.225 god, I would just, like,
NOTE Confidence: 0.974996
00:36:05.685 --> 00:36:06.805 salivate at being at the
NOTE Confidence: 0.974996
00:36:06.805 --> 00:36:08.730 center of cannabis and talking
NOTE Confidence: 0.974996
00:36:08.730 --> 00:36:10.310 to you guys more often.
NOTE Confidence: 0.98792994
00:36:10.730 --> 00:36:11.850 And, of course, thank you
NOTE Confidence: 0.98792994
00:36:11.850 --> 00:36:12.489 so much,
NOTE Confidence: 0.9529808
00:36:12.810 --> 00:36:14.489 to Wendy who's been very
NOTE Confidence: 0.9529808
00:36:14.489 --> 00:36:16.489 patient in in getting this
NOTE Confidence: 0.9529808
00:36:16.489 --> 00:36:17.230 all organized.
NOTE Confidence: 0.99463165
00:36:17.930 --> 00:36:19.210 And I think I'll pause
NOTE Confidence: 0.99463165

00:36:19.210 --> 00:36:20.250 here and,
NOTE Confidence: 0.99987984
00:36:20.570 --> 00:36:21.310 take questions.
NOTE Confidence: 0.96906585
00:36:23.285 --> 00:36:25.125 Great. Thank you. That was,
NOTE Confidence: 0.9980872
00:36:25.765 --> 00:36:26.985 that was really informative.
NOTE Confidence: 0.989107
00:36:27.364 --> 00:36:28.725 There's a question in the
NOTE Confidence: 0.989107
00:36:28.725 --> 00:36:30.905 chat chat from, Beatrice Carlini.
NOTE Confidence: 0.9957984
00:36:31.844 --> 00:36:33.364 What if the patient cannot
NOTE Confidence: 0.9957984
00:36:33.364 --> 00:36:34.985 achieve sustained cessation?
NOTE Confidence: 0.99274194
00:36:35.829 --> 00:36:37.290 Most of them are unable
NOTE Confidence: 0.99274194
00:36:37.589 --> 00:36:39.609 to or unwilling to quit.
NOTE Confidence: 0.99558055
00:36:40.790 --> 00:36:41.989 Correct. So,
NOTE Confidence: 0.9776821
00:36:42.390 --> 00:36:43.589 so, yes, that's a great
NOTE Confidence: 0.9776821
00:36:43.589 --> 00:36:45.190 question. And like I said,
NOTE Confidence: 0.9776821
00:36:45.430 --> 00:36:46.710 it's very important to have
NOTE Confidence: 0.9776821
00:36:46.710 --> 00:36:48.390 this conversation with your patient.
NOTE Confidence: 0.9776821
00:36:48.390 --> 00:36:49.829 I I see hundreds of

NOTE Confidence: 0.9776821

00:36:49.829 --> 00:36:51.145 patients like this. And one

NOTE Confidence: 0.9776821

00:36:51.145 --> 00:36:52.205 is to be nonjudgmental.

NOTE Confidence: 0.9808456

00:36:52.985 --> 00:36:54.425 And two, like everything else,

NOTE Confidence: 0.9808456

00:36:54.425 --> 00:36:55.385 there's a little bit of

NOTE Confidence: 0.9808456

00:36:55.385 --> 00:36:56.745 negotiation, you know, like you

NOTE Confidence: 0.9808456

00:36:56.745 --> 00:36:57.965 do it with your children

NOTE Confidence: 0.9808456

00:36:58.025 --> 00:36:59.625 or anything else, when your

NOTE Confidence: 0.9808456

00:36:59.625 --> 00:37:00.605 patient is there.

NOTE Confidence: 0.96558267

00:37:01.225 --> 00:37:03.065 One is, we do recommend

NOTE Confidence: 0.96558267

00:37:03.065 --> 00:37:04.440 treating them like they have

NOTE Confidence: 0.96558267

00:37:04.440 --> 00:37:05.800 CVS because we don't know

NOTE Confidence: 0.96558267

00:37:05.800 --> 00:37:07.079 if the cannabis is actually

NOTE Confidence: 0.96558267

00:37:07.079 --> 00:37:09.260 causing it. So in general,

NOTE Confidence: 0.96558267

00:37:09.400 --> 00:37:11.180 I give them aborted medications.

NOTE Confidence: 0.9893366

00:37:11.480 --> 00:37:13.180 Cyril was talking about sumatriptan

NOTE Confidence: 0.9747765

00:37:13.560 --> 00:37:14.300 and antiemetics.
NOTE Confidence: 0.96307105
00:37:15.319 --> 00:37:16.920 If they have severe CVS,
NOTE Confidence: 0.96307105
00:37:16.920 --> 00:37:18.200 I'll probably start them on
NOTE Confidence: 0.96307105
00:37:18.200 --> 00:37:18.700 neuromodulators.
NOTE Confidence: 0.9358314
00:37:20.094 --> 00:37:21.375 And I also have them
NOTE Confidence: 0.9358314
00:37:21.375 --> 00:37:22.575 reduced at the same time,
NOTE Confidence: 0.9358314
00:37:22.575 --> 00:37:23.955 and you you'll be surprised
NOTE Confidence: 0.9358314
00:37:24.015 --> 00:37:24.895 a lot of them will
NOTE Confidence: 0.9358314
00:37:24.895 --> 00:37:25.395 actually,
NOTE Confidence: 0.9796786
00:37:26.655 --> 00:37:28.335 respond to that conversation a
NOTE Confidence: 0.9796786
00:37:28.335 --> 00:37:29.555 little bit more.
NOTE Confidence: 0.9625045
00:37:30.495 --> 00:37:30.995 Many,
NOTE Confidence: 0.98793817
00:37:31.535 --> 00:37:33.375 physicians or most people tend
NOTE Confidence: 0.98793817
00:37:33.375 --> 00:37:35.079 to just say, hey. You've
NOTE Confidence: 0.98793817
00:37:35.079 --> 00:37:36.760 gotta stop, and I'm not
NOTE Confidence: 0.98793817
00:37:36.760 --> 00:37:37.719 gonna see you till you

NOTE Confidence: 0.98793817

00:37:37.719 --> 00:37:39.239 stop. And if you do

NOTE Confidence: 0.98793817

00:37:39.239 --> 00:37:40.680 that, you've just lost your

NOTE Confidence: 0.98793817

00:37:40.680 --> 00:37:41.180 patient.

NOTE Confidence: 0.97701645

00:37:41.800 --> 00:37:42.760 A, they're not gonna do

NOTE Confidence: 0.97701645

00:37:42.760 --> 00:37:43.719 it, and b, they won't

NOTE Confidence: 0.97701645

00:37:43.719 --> 00:37:44.780 come back to you.

NOTE Confidence: 0.99706835

00:37:45.319 --> 00:37:46.040 So I think,

NOTE Confidence: 0.92394537

00:37:46.359 --> 00:37:47.739 you know, certainly messaging,

NOTE Confidence: 0.9485283

00:37:48.040 --> 00:37:50.140 unfortunately, it's marketed so widely.

NOTE Confidence: 0.9608722

00:37:51.075 --> 00:37:52.035 And, you know, you see

NOTE Confidence: 0.9608722

00:37:52.035 --> 00:37:53.255 cannabis dispensaries

NOTE Confidence: 0.9925481

00:37:53.555 --> 00:37:55.575 and and cropping up everywhere.

NOTE Confidence: 0.9347358

00:37:56.114 --> 00:37:57.635 So I think, you know,

NOTE Confidence: 0.9347358

00:37:57.635 --> 00:37:58.994 really, we as a society

NOTE Confidence: 0.9347358

00:37:58.994 --> 00:38:00.755 and the medical community and

NOTE Confidence: 0.9347358

00:38:00.755 --> 00:38:01.795 and and and really the
NOTE Confidence: 0.9347358

00:38:01.795 --> 00:38:02.295 government,
NOTE Confidence: 0.9650383

00:38:03.069 --> 00:38:04.510 it's very important that it's
NOTE Confidence: 0.9650383

00:38:04.510 --> 00:38:06.670 regulated and there's messaging and
NOTE Confidence: 0.9650383

00:38:06.670 --> 00:38:07.650 there's more research,
NOTE Confidence: 0.9946835

00:38:08.109 --> 00:38:08.829 you know, so that we
NOTE Confidence: 0.9946835

00:38:08.829 --> 00:38:10.430 can actually educate the public
NOTE Confidence: 0.9946835

00:38:10.430 --> 00:38:11.089 about this.
NOTE Confidence: 0.9314971

00:38:12.670 --> 00:38:13.549 Beatrice, did you,
NOTE Confidence: 0.9886053

00:38:14.430 --> 00:38:15.790 want to ask any more
NOTE Confidence: 0.9886053

00:38:15.790 --> 00:38:16.290 details?
NOTE Confidence: 0.7169479

00:38:16.670 --> 00:38:17.329 Was that
NOTE Confidence: 0.99819326

00:38:19.235 --> 00:38:20.275 okay. Yes.
NOTE Confidence: 0.9839873

00:38:20.995 --> 00:38:22.275 I was wondering. Thank you
NOTE Confidence: 0.9839873

00:38:22.275 --> 00:38:23.395 so much for your response,
NOTE Confidence: 0.9839873

00:38:23.395 --> 00:38:24.435 and thanks so much for

NOTE Confidence: 0.9839873
00:38:24.435 --> 00:38:25.094 your presentation.
NOTE Confidence: 0.9554507
00:38:26.035 --> 00:38:27.635 I was actually wondering in
NOTE Confidence: 0.9554507
00:38:27.635 --> 00:38:29.235 terms of the ROM,
NOTE Confidence: 0.9405397
00:38:29.875 --> 00:38:30.375 diagnostic.
NOTE Confidence: 0.9836453
00:38:30.675 --> 00:38:32.640 Yeah. I'm afraid that very
NOTE Confidence: 0.9836453
00:38:32.960 --> 00:38:34.160 little very few people are
NOTE Confidence: 0.9836453
00:38:34.160 --> 00:38:35.680 gonna get this diagnostic. They
NOTE Confidence: 0.9836453
00:38:35.680 --> 00:38:36.500 have to be,
NOTE Confidence: 0.9453708
00:38:37.279 --> 00:38:38.960 you know, quit cannabis to
NOTE Confidence: 0.9453708
00:38:38.960 --> 00:38:40.160 have their diagnosis. So I
NOTE Confidence: 0.9453708
00:38:40.160 --> 00:38:41.440 was curious about that in
NOTE Confidence: 0.9453708
00:38:41.440 --> 00:38:42.799 terms of getting treatment and
NOTE Confidence: 0.9453708
00:38:42.799 --> 00:38:43.299 support.
NOTE Confidence: 0.99968827
00:38:43.839 --> 00:38:44.660 Yeah. Absolutely.
NOTE Confidence: 0.98856246
00:38:44.960 --> 00:38:46.480 So, you know, again, you
NOTE Confidence: 0.98856246

00:38:46.480 --> 00:38:47.440 just hit the nail on
NOTE Confidence: 0.98856246

00:38:47.440 --> 00:38:48.339 the head because,
NOTE Confidence: 0.9644137

00:38:49.255 --> 00:38:50.215 now be as it may,
NOTE Confidence: 0.9644137

00:38:50.215 --> 00:38:51.815 we do we those are
NOTE Confidence: 0.9644137

00:38:51.815 --> 00:38:53.094 the criteria. And as you
NOTE Confidence: 0.9644137

00:38:53.094 --> 00:38:53.895 can see, it's such a
NOTE Confidence: 0.9644137

00:38:53.895 --> 00:38:55.415 high bar because there are
NOTE Confidence: 0.9644137

00:38:55.415 --> 00:38:56.855 only so many people who
NOTE Confidence: 0.9644137

00:38:56.855 --> 00:38:58.075 are going to completely
NOTE Confidence: 0.99628645

00:38:58.375 --> 00:38:58.875 abstain,
NOTE Confidence: 0.9981089

00:38:59.495 --> 00:39:00.614 for a period of six
NOTE Confidence: 0.9981089

00:39:00.614 --> 00:39:01.114 months,
NOTE Confidence: 0.9990635

00:39:01.415 --> 00:39:02.695 you know, six months or
NOTE Confidence: 0.9990635

00:39:02.695 --> 00:39:03.195 so.
NOTE Confidence: 0.9660734

00:39:03.500 --> 00:39:05.200 And so in some instances
NOTE Confidence: 0.9660734

00:39:05.339 --> 00:39:07.119 and and, again, when I'm

NOTE Confidence: 0.9775828
00:39:07.660 --> 00:39:09.260 so one is for research
NOTE Confidence: 0.9775828
00:39:09.260 --> 00:39:10.700 purposes and two for clinical
NOTE Confidence: 0.9775828
00:39:10.700 --> 00:39:13.020 purposes. Right? So, I think
NOTE Confidence: 0.9775828
00:39:13.020 --> 00:39:14.540 in clinic, more than getting
NOTE Confidence: 0.9775828
00:39:14.540 --> 00:39:15.579 hung up too much on
NOTE Confidence: 0.9775828
00:39:15.579 --> 00:39:17.295 whether it's CHS or CVS,
NOTE Confidence: 0.9775828
00:39:17.295 --> 00:39:18.974 you have that conversation with
NOTE Confidence: 0.9775828
00:39:18.974 --> 00:39:20.494 them and say, well, it
NOTE Confidence: 0.9775828
00:39:20.494 --> 00:39:22.035 could be due to cannabis,
NOTE Confidence: 0.9775828
00:39:22.094 --> 00:39:22.974 and you really need to
NOTE Confidence: 0.9775828
00:39:22.974 --> 00:39:23.795 cut it down.
NOTE Confidence: 0.9928776
00:39:24.335 --> 00:39:25.375 And then I'm gonna give
NOTE Confidence: 0.9928776
00:39:25.375 --> 00:39:26.755 you x, y, and z.
NOTE Confidence: 0.9982893
00:39:27.454 --> 00:39:28.755 It's not potentially
NOTE Confidence: 0.9978234
00:39:29.375 --> 00:39:30.835 wrong to make a presumptive
NOTE Confidence: 0.9978234

00:39:31.055 --> 00:39:32.435 diagnosis of CHS,
NOTE Confidence: 0.9982739

00:39:33.190 --> 00:39:34.950 but I worry that it
NOTE Confidence: 0.9982739

00:39:34.950 --> 00:39:35.450 stigmatizes
NOTE Confidence: 0.9592366

00:39:35.830 --> 00:39:38.070 patients a lot because not
NOTE Confidence: 0.9592366

00:39:38.070 --> 00:39:40.150 all cannabis users equal. I
NOTE Confidence: 0.9592366

00:39:40.150 --> 00:39:41.510 would really look at patients
NOTE Confidence: 0.9592366

00:39:41.510 --> 00:39:43.210 who are maybe heavy users.
NOTE Confidence: 0.9795716

00:39:43.989 --> 00:39:45.190 You do have some people
NOTE Confidence: 0.9795716

00:39:45.190 --> 00:39:46.230 who are heavy users. And
NOTE Confidence: 0.9795716

00:39:46.230 --> 00:39:47.110 when we looked at our
NOTE Confidence: 0.9795716

00:39:47.110 --> 00:39:47.610 cohort,
NOTE Confidence: 0.977563

00:39:48.775 --> 00:39:50.395 you know, among the cannabis
NOTE Confidence: 0.977563

00:39:50.455 --> 00:39:51.975 users, the incidence of cannabis
NOTE Confidence: 0.977563

00:39:51.975 --> 00:39:53.575 use disorder was not much
NOTE Confidence: 0.977563

00:39:53.575 --> 00:39:54.075 higher.
NOTE Confidence: 0.9804449

00:39:54.535 --> 00:39:54.855 And,

NOTE Confidence: 0.9363921
00:39:55.575 --> 00:39:56.875 so I think we,
NOTE Confidence: 0.9480564
00:39:57.815 --> 00:39:58.855 you know, they really put
NOTE Confidence: 0.9480564
00:39:58.855 --> 00:40:00.055 the cart before the horse
NOTE Confidence: 0.9480564
00:40:00.055 --> 00:40:01.489 with us. And I think,
NOTE Confidence: 0.9911941
00:40:01.890 --> 00:40:03.430 there was this huge hurry
NOTE Confidence: 0.9911941
00:40:03.489 --> 00:40:04.690 to to make up this
NOTE Confidence: 0.9911941
00:40:04.690 --> 00:40:05.190 diagnosis,
NOTE Confidence: 0.9994099
00:40:05.810 --> 00:40:06.849 and I'm not sure there's
NOTE Confidence: 0.9994099
00:40:06.849 --> 00:40:08.770 not enough evidence to show
NOTE Confidence: 0.9994099
00:40:08.770 --> 00:40:09.270 causation.
NOTE Confidence: 0.9146126
00:40:10.050 --> 00:40:12.390 So possibly with high,
NOTE Confidence: 0.995412
00:40:12.849 --> 00:40:14.050 you know, really high risk
NOTE Confidence: 0.995412
00:40:14.050 --> 00:40:15.109 cannabis users,
NOTE Confidence: 0.89862037
00:40:15.485 --> 00:40:16.605 there could be that. But
NOTE Confidence: 0.89862037
00:40:16.605 --> 00:40:18.065 you're right. The wrong criteria
NOTE Confidence: 0.89862037

00:40:18.205 --> 00:40:18.765 is not,
NOTE Confidence: 0.9524975
00:40:19.725 --> 00:40:21.405 perfect, and, it does have
NOTE Confidence: 0.9524975
00:40:21.405 --> 00:40:22.305 several limitations.
NOTE Confidence: 0.9142466
00:40:22.685 --> 00:40:24.285 And we have said, okay.
NOTE Confidence: 0.9142466
00:40:24.285 --> 00:40:25.565 You could say make a
NOTE Confidence: 0.9142466
00:40:25.565 --> 00:40:26.065 presumptive
NOTE Confidence: 0.9853069
00:40:26.525 --> 00:40:27.825 diagnosis of CHS
NOTE Confidence: 0.96135855
00:40:28.660 --> 00:40:30.280 if they're not willing to,
NOTE Confidence: 0.96135855
00:40:30.420 --> 00:40:31.780 you know, stop and they
NOTE Confidence: 0.96135855
00:40:31.780 --> 00:40:33.960 truly have either cannabis dependence
NOTE Confidence: 0.96135855
00:40:34.100 --> 00:40:35.640 or cannabis use disorder.
NOTE Confidence: 0.99537295
00:40:37.140 --> 00:40:38.920 Okay. Thank you very much.
NOTE Confidence: 0.89457333
00:40:39.380 --> 00:40:39.880 Yes.
NOTE Confidence: 0.79472816
00:40:40.180 --> 00:40:41.700 Vic, a couple of,
NOTE Confidence: 0.98873216
00:40:42.435 --> 00:40:43.875 questions and comments in the
NOTE Confidence: 0.98873216
00:40:43.875 --> 00:40:45.315 chat by Eric. Eric, do

NOTE Confidence: 0.98873216
00:40:45.315 --> 00:40:45.795 you wanna,
NOTE Confidence: 0.99366784
00:40:46.594 --> 00:40:47.815 do you wanna just
NOTE Confidence: 0.94997203
00:40:49.555 --> 00:40:51.155 unmute yourself and ask? Yeah.
NOTE Confidence: 0.94997203
00:40:51.155 --> 00:40:52.355 Go ahead. Hi.
NOTE Confidence: 0.9882759
00:40:52.675 --> 00:40:53.475 Great talk.
NOTE Confidence: 0.96787673
00:40:53.795 --> 00:40:55.015 I had a few questions.
NOTE Confidence: 0.96787673
00:40:55.075 --> 00:40:55.475 So,
NOTE Confidence: 0.943134
00:40:56.609 --> 00:40:58.150 regarding the route of administration,
NOTE Confidence: 0.943134
00:40:58.289 --> 00:40:59.569 there was a recently published
NOTE Confidence: 0.943134
00:40:59.569 --> 00:41:01.489 study by, Peterson et al
NOTE Confidence: 0.943134
00:41:01.489 --> 00:41:02.630 this month, actually.
NOTE Confidence: 0.99190825
00:41:03.009 --> 00:41:05.029 And the authors found that
NOTE Confidence: 0.99190825
00:41:05.089 --> 00:41:07.089 consumption of vape cartridges led
NOTE Confidence: 0.99190825
00:41:07.089 --> 00:41:08.289 to a shorter time to
NOTE Confidence: 0.99190825
00:41:08.289 --> 00:41:09.269 develop CHS,
NOTE Confidence: 0.99842906

00:41:10.075 --> 00:41:11.195 compared to other routes of
NOTE Confidence: 0.99842906

00:41:11.195 --> 00:41:12.475 consumption. So I was wondering
NOTE Confidence: 0.99842906

00:41:12.475 --> 00:41:14.795 if you're seeing something similar
NOTE Confidence: 0.99842906

00:41:14.795 --> 00:41:15.614 in the clinic,
NOTE Confidence: 0.8913969

00:41:16.475 --> 00:41:17.835 or overall what your thoughts
NOTE Confidence: 0.8913969

00:41:17.835 --> 00:41:19.775 are on, on this finding.
NOTE Confidence: 0.9854357

00:41:21.035 --> 00:41:22.599 Yeah. So I you know,
NOTE Confidence: 0.9854357

00:41:22.599 --> 00:41:23.880 again, I'm sorry. I haven't
NOTE Confidence: 0.9854357

00:41:23.880 --> 00:41:25.320 actually specifically looked at that
NOTE Confidence: 0.9854357

00:41:25.320 --> 00:41:26.520 study. I'd be interested in
NOTE Confidence: 0.9854357

00:41:26.520 --> 00:41:27.719 knowing a little bit more
NOTE Confidence: 0.9854357

00:41:27.719 --> 00:41:29.420 about the the methodology
NOTE Confidence: 0.9619783

00:41:30.359 --> 00:41:32.280 because when they say it
NOTE Confidence: 0.9619783

00:41:32.280 --> 00:41:33.900 led to a shorter time
NOTE Confidence: 0.9619783

00:41:33.960 --> 00:41:35.640 to develop CHS,
NOTE Confidence: 0.90463215

00:41:37.224 --> 00:41:38.344 you know, do they compare

NOTE Confidence: 0.90463215
00:41:38.344 --> 00:41:39.305 it to people who are,
NOTE Confidence: 0.90463215
00:41:39.305 --> 00:41:40.744 like, you know, smoking was
NOTE Confidence: 0.90463215
00:41:40.744 --> 00:41:41.724 a survey finding.
NOTE Confidence: 0.9673517
00:41:43.145 --> 00:41:43.645 Yeah.
NOTE Confidence: 0.9887426
00:41:44.025 --> 00:41:45.145 You know, so it's an
NOTE Confidence: 0.9887426
00:41:45.145 --> 00:41:45.645 episodic
NOTE Confidence: 0.7302108
00:41:46.105 --> 00:41:46.605 disorder,
NOTE Confidence: 0.9348929
00:41:46.905 --> 00:41:48.105 and and so, you know,
NOTE Confidence: 0.9348929
00:41:48.105 --> 00:41:50.025 sometimes patients have episodes if
NOTE Confidence: 0.9348929
00:41:50.025 --> 00:41:51.065 you actually go and talk
NOTE Confidence: 0.9348929
00:41:51.065 --> 00:41:51.974 to them. This
NOTE Confidence: 0.97019833
00:41:52.480 --> 00:41:53.440 is one of the disorders
NOTE Confidence: 0.97019833
00:41:53.440 --> 00:41:54.560 where the history is very
NOTE Confidence: 0.97019833
00:41:54.560 --> 00:41:55.920 important, and they might have,
NOTE Confidence: 0.97019833
00:41:55.920 --> 00:41:57.300 say, one or two episodes
NOTE Confidence: 0.9679733

00:41:57.760 --> 00:41:59.040 or in a year. And
NOTE Confidence: 0.9679733

00:41:59.040 --> 00:41:59.920 then if you look at
NOTE Confidence: 0.9679733

00:41:59.920 --> 00:42:01.280 it, they're having three episodes
NOTE Confidence: 0.9679733

00:42:01.280 --> 00:42:02.080 in a year, and then
NOTE Confidence: 0.9679733

00:42:02.080 --> 00:42:03.120 say, well, they're told they
NOTE Confidence: 0.9679733

00:42:03.120 --> 00:42:03.860 have gastroenteritis.
NOTE Confidence: 0.96044326

00:42:04.640 --> 00:42:05.600 And then they have five
NOTE Confidence: 0.96044326

00:42:05.600 --> 00:42:06.960 and they have ten. And
NOTE Confidence: 0.96044326

00:42:06.960 --> 00:42:09.015 so, you know, the fourth
NOTE Confidence: 0.96044326

00:42:09.015 --> 00:42:10.135 year, they'll come to you
NOTE Confidence: 0.96044326

00:42:10.135 --> 00:42:11.174 and say, oh my god.
NOTE Confidence: 0.96044326

00:42:11.174 --> 00:42:12.295 This is really bad because
NOTE Confidence: 0.96044326

00:42:12.295 --> 00:42:13.415 it's happening every month, and
NOTE Confidence: 0.96044326

00:42:13.415 --> 00:42:14.555 I cannot have gastroenteritis
NOTE Confidence: 0.9618207

00:42:14.934 --> 00:42:16.635 every month. So I really,
NOTE Confidence: 0.9570504

00:42:17.974 --> 00:42:19.335 you know, I am, very

NOTE Confidence: 0.9570504
00:42:19.335 --> 00:42:19.835 skeptical.
NOTE Confidence: 0.94682986
00:42:20.559 --> 00:42:22.319 Certainly, I think smoking, most
NOTE Confidence: 0.94682986
00:42:22.319 --> 00:42:23.920 of the cold CHS cases
NOTE Confidence: 0.94682986
00:42:23.920 --> 00:42:25.520 have been associated with smoking
NOTE Confidence: 0.94682986
00:42:25.520 --> 00:42:26.180 or inhalation.
NOTE Confidence: 0.9582098
00:42:26.480 --> 00:42:27.299 It it obviously,
NOTE Confidence: 0.9627959
00:42:28.239 --> 00:42:29.680 you know, is absorbed much
NOTE Confidence: 0.9627959
00:42:29.680 --> 00:42:30.180 faster,
NOTE Confidence: 0.9894826
00:42:31.279 --> 00:42:33.039 and, there is not much
NOTE Confidence: 0.9894826
00:42:33.039 --> 00:42:34.660 data that edibles
NOTE Confidence: 0.9776808
00:42:34.960 --> 00:42:36.375 per se have been associated
NOTE Confidence: 0.9776808
00:42:36.535 --> 00:42:38.135 with hyperemesis, at least looking
NOTE Confidence: 0.9776808
00:42:38.135 --> 00:42:39.175 at all the evidence and
NOTE Confidence: 0.9776808
00:42:39.175 --> 00:42:40.635 everything that's been published.
NOTE Confidence: 0.90094733
00:42:42.375 --> 00:42:43.114 Yeah. Sorry.
NOTE Confidence: 0.9982164

00:42:43.495 --> 00:42:44.135 Good point.
NOTE Confidence: 0.9458646

00:42:44.855 --> 00:42:46.055 And the other question was
NOTE Confidence: 0.9458646

00:42:46.055 --> 00:42:47.094 kind of going back to
NOTE Confidence: 0.9458646

00:42:47.094 --> 00:42:47.594 triptans.
NOTE Confidence: 0.997044

00:42:48.135 --> 00:42:49.255 You mentioned that it could
NOTE Confidence: 0.997044

00:42:49.255 --> 00:42:49.995 be used
NOTE Confidence: 0.8751548

00:42:51.140 --> 00:42:52.260 to kinda treat,
NOTE Confidence: 0.97112536

00:42:52.580 --> 00:42:54.040 CHS. And I'm wondering
NOTE Confidence: 0.9808032

00:42:54.739 --> 00:42:55.640 if maybe
NOTE Confidence: 0.962895

00:42:56.100 --> 00:42:57.460 you think that amylin could
NOTE Confidence: 0.962895

00:42:57.460 --> 00:42:58.980 be implicated given that,
NOTE Confidence: 0.99876827

00:42:59.540 --> 00:43:00.500 you know, it also plays
NOTE Confidence: 0.99876827

00:43:00.500 --> 00:43:01.480 a role in migraine
NOTE Confidence: 0.8201158

00:43:01.780 --> 00:43:02.260 and,
NOTE Confidence: 0.9851003

00:43:02.580 --> 00:43:03.540 you know, there's a lot
NOTE Confidence: 0.9851003

00:43:03.540 --> 00:43:04.900 more amylin receptors in the

NOTE Confidence: 0.9851003
00:43:04.900 --> 00:43:05.400 gut.
NOTE Confidence: 0.9973564
00:43:06.685 --> 00:43:08.305 I don't think there's any,
NOTE Confidence: 0.9987793
00:43:08.765 --> 00:43:09.905 there's any evidence
NOTE Confidence: 0.96850663
00:43:10.525 --> 00:43:11.984 about amylin specifically.
NOTE Confidence: 0.9906542
00:43:12.765 --> 00:43:13.665 I do think,
NOTE Confidence: 0.944087
00:43:14.045 --> 00:43:15.085 at least based on what
NOTE Confidence: 0.944087
00:43:15.085 --> 00:43:16.525 we know about all this
NOTE Confidence: 0.944087
00:43:16.525 --> 00:43:18.140 and the stress response, I
NOTE Confidence: 0.944087
00:43:18.140 --> 00:43:19.660 think things that have been
NOTE Confidence: 0.944087
00:43:19.660 --> 00:43:21.660 looked at very extensively are
NOTE Confidence: 0.944087
00:43:21.980 --> 00:43:23.260 or looked at is, like,
NOTE Confidence: 0.944087
00:43:23.260 --> 00:43:24.160 vagal activity,
NOTE Confidence: 0.90958846
00:43:24.700 --> 00:43:25.840 autonomic dysfunction.
NOTE Confidence: 0.9411685
00:43:27.500 --> 00:43:29.100 You know, there's reduced vagal
NOTE Confidence: 0.9411685
00:43:29.100 --> 00:43:31.360 efficiency in in CPS
NOTE Confidence: 0.8551681

00:43:31.660 --> 00:43:32.160 patients,
NOTE Confidence: 0.8894722

00:43:33.355 --> 00:43:34.255 maybe an endocannabinoid
NOTE Confidence: 0.964548

00:43:34.715 --> 00:43:35.835 deficiency, and all of these
NOTE Confidence: 0.964548

00:43:35.835 --> 00:43:37.455 are sort of, like, interconnected.
NOTE Confidence: 0.964548

00:43:37.595 --> 00:43:39.114 They've used, they've looked at
NOTE Confidence: 0.964548

00:43:39.114 --> 00:43:40.335 fMRI studies,
NOTE Confidence: 0.98723

00:43:41.275 --> 00:43:42.555 in patients with,
NOTE Confidence: 0.9989307

00:43:43.114 --> 00:43:44.015 with CVS
NOTE Confidence: 0.96878165

00:43:44.315 --> 00:43:45.835 and migraine and controls. And
NOTE Confidence: 0.96878165

00:43:45.835 --> 00:43:46.590 there are some,
NOTE Confidence: 0.98028576

00:43:47.070 --> 00:43:49.070 there are differences between CVS
NOTE Confidence: 0.98028576

00:43:49.070 --> 00:43:50.590 migraine and controls, but there
NOTE Confidence: 0.98028576

00:43:50.590 --> 00:43:51.730 are also some similarities
NOTE Confidence: 0.9705788

00:43:52.350 --> 00:43:52.850 between,
NOTE Confidence: 0.97991824

00:43:53.550 --> 00:43:55.250 CVS patients and migraineurs.
NOTE Confidence: 0.9817991

00:43:56.190 --> 00:43:57.469 I don't think anybody's looked

NOTE Confidence: 0.9817991
00:43:57.469 --> 00:43:59.310 at amylin in this, in
NOTE Confidence: 0.9817991
00:43:59.310 --> 00:44:00.290 this context.
NOTE Confidence: 0.96004033
00:44:01.994 --> 00:44:03.114 It could be interesting to
NOTE Confidence: 0.96004033
00:44:03.114 --> 00:44:04.714 look at. Thank you. Yeah.
NOTE Confidence: 0.96004033
00:44:04.714 --> 00:44:05.454 Thank you.
NOTE Confidence: 0.96827847
00:44:07.914 --> 00:44:09.674 I had a a, a
NOTE Confidence: 0.96827847
00:44:09.674 --> 00:44:11.434 couple of follow-up questions. You
NOTE Confidence: 0.96827847
00:44:11.434 --> 00:44:12.635 you made the point about
NOTE Confidence: 0.96827847
00:44:12.635 --> 00:44:13.694 the route of
NOTE Confidence: 0.9390215
00:44:14.140 --> 00:44:14.960 of consumption.
NOTE Confidence: 0.9946774
00:44:15.660 --> 00:44:16.160 And
NOTE Confidence: 0.9873197
00:44:16.619 --> 00:44:17.980 would you say there's you
NOTE Confidence: 0.9873197
00:44:17.980 --> 00:44:19.359 made a distinction between,
NOTE Confidence: 0.9965346
00:44:20.380 --> 00:44:20.880 inhaled
NOTE Confidence: 0.908432
00:44:21.180 --> 00:44:22.640 versus edible oral.
NOTE Confidence: 0.9974741

00:44:25.260 --> 00:44:26.400 Do you make a distinction
NOTE Confidence: 0.9974741

00:44:26.460 --> 00:44:28.219 also between vaping and smoking?
NOTE Confidence: 0.9974741

00:44:28.219 --> 00:44:29.200 I'm just wondering
NOTE Confidence: 0.9988567

00:44:29.724 --> 00:44:30.704 to what extent
NOTE Confidence: 0.99582356

00:44:31.085 --> 00:44:32.145 some of the other,
NOTE Confidence: 0.99957925

00:44:33.085 --> 00:44:34.305 you know Yeah.
NOTE Confidence: 0.9719529

00:44:35.165 --> 00:44:36.685 I think we haven't looked
NOTE Confidence: 0.9719529

00:44:36.685 --> 00:44:37.344 at it,
NOTE Confidence: 0.98007876

00:44:38.204 --> 00:44:39.165 and we hope to look
NOTE Confidence: 0.98007876

00:44:39.165 --> 00:44:40.125 at it in the future.
NOTE Confidence: 0.98007876

00:44:40.125 --> 00:44:41.244 But one of the things
NOTE Confidence: 0.98007876

00:44:41.244 --> 00:44:43.244 we're thinking about is really
NOTE Confidence: 0.98007876

00:44:43.244 --> 00:44:44.785 potency of the product
NOTE Confidence: 0.99975264

00:44:45.450 --> 00:44:46.270 and concentration
NOTE Confidence: 0.9520845

00:44:46.570 --> 00:44:48.670 and what is ultimately happening
NOTE Confidence: 0.9520845

00:44:48.810 --> 00:44:49.710 in the blood.

NOTE Confidence: 0.9816553

00:44:50.330 --> 00:44:51.450 You know, if somebody is

NOTE Confidence: 0.9816553

00:44:51.450 --> 00:44:53.609 using a lower potency product,

NOTE Confidence: 0.9816553

00:44:53.609 --> 00:44:55.070 it doesn't seem to be,

NOTE Confidence: 0.98616

00:44:55.770 --> 00:44:57.210 you know, as harmful as

NOTE Confidence: 0.98616

00:44:57.210 --> 00:44:58.905 somebody who's using maybe cannabis

NOTE Confidence: 0.98616

00:44:59.145 --> 00:45:00.745 concentrate or just getting very

NOTE Confidence: 0.98616

00:45:00.745 --> 00:45:01.245 high,

NOTE Confidence: 0.9864627

00:45:02.105 --> 00:45:03.405 you know, highly potent,

NOTE Confidence: 0.9878187

00:45:03.945 --> 00:45:05.645 products. And and so,

NOTE Confidence: 0.9978603

00:45:06.585 --> 00:45:07.545 you know, we hope to

NOTE Confidence: 0.9978603

00:45:07.545 --> 00:45:08.985 study this where we want

NOTE Confidence: 0.9978603

00:45:08.985 --> 00:45:09.945 to actually look at the

NOTE Confidence: 0.9978603

00:45:09.945 --> 00:45:10.445 concentration

NOTE Confidence: 0.91419715

00:45:10.745 --> 00:45:11.245 itself,

NOTE Confidence: 0.9792562

00:45:12.440 --> 00:45:13.640 of THC in the blood

NOTE Confidence: 0.9792562

00:45:13.640 --> 00:45:14.920 and then see if there's
NOTE Confidence: 0.9792562

00:45:14.920 --> 00:45:15.739 any correlation
NOTE Confidence: 0.89302284

00:45:16.200 --> 00:45:17.819 with, you know, symptom severity,
NOTE Confidence: 0.9985589

00:45:19.239 --> 00:45:19.980 as to
NOTE Confidence: 0.94235

00:45:20.680 --> 00:45:22.599 necessarily between sort of vaping
NOTE Confidence: 0.94235

00:45:22.599 --> 00:45:23.980 and using other methods.
NOTE Confidence: 0.99200296

00:45:25.364 --> 00:45:25.864 Great.
NOTE Confidence: 0.95760727

00:45:26.525 --> 00:45:28.425 Couple of questions about management.
NOTE Confidence: 0.95760727

00:45:28.645 --> 00:45:29.864 I know in the emergency
NOTE Confidence: 0.95760727

00:45:29.925 --> 00:45:30.425 room,
NOTE Confidence: 0.97790134

00:45:31.445 --> 00:45:33.145 people have used, haloperidol,
NOTE Confidence: 0.9892857

00:45:33.844 --> 00:45:34.344 capsaicin.
NOTE Confidence: 0.9597975

00:45:36.085 --> 00:45:37.685 Yes. What's your what's the
NOTE Confidence: 0.9597975

00:45:37.685 --> 00:45:38.665 go to treatment,
NOTE Confidence: 0.9905077

00:45:39.364 --> 00:45:40.825 in the emergency room?
NOTE Confidence: 0.89284

00:45:41.260 --> 00:45:43.340 Yeah. Besides, of course, you

NOTE Confidence: 0.89284
00:45:43.340 --> 00:45:44.620 know, the people who And
NOTE Confidence: 0.89284
00:45:44.620 --> 00:45:45.340 and I'm sorry. In the
NOTE Confidence: 0.89284
00:45:45.340 --> 00:45:46.220 interest of time, I didn't
NOTE Confidence: 0.89284
00:45:46.220 --> 00:45:47.340 wanna go too much. I
NOTE Confidence: 0.89284
00:45:47.340 --> 00:45:48.780 didn't wanna go into management.
NOTE Confidence: 0.89284
00:45:48.780 --> 00:45:49.280 But,
NOTE Confidence: 0.9970895
00:45:49.820 --> 00:45:50.320 unfortunately,
NOTE Confidence: 0.9581625
00:45:52.620 --> 00:45:54.060 you know, the the data
NOTE Confidence: 0.9581625
00:45:54.060 --> 00:45:55.580 on capsaicin is is kind
NOTE Confidence: 0.9581625
00:45:55.580 --> 00:45:56.025 of
NOTE Confidence: 0.9962464
00:45:56.424 --> 00:45:57.724 not good and poor.
NOTE Confidence: 0.9841952
00:45:58.585 --> 00:45:59.404 Many patients,
NOTE Confidence: 0.9668209
00:45:59.785 --> 00:46:00.585 you know, many of these
NOTE Confidence: 0.9668209
00:46:00.585 --> 00:46:02.444 are sort of observational studies,
NOTE Confidence: 0.9668209
00:46:02.505 --> 00:46:03.625 and and and there are
NOTE Confidence: 0.9668209

00:46:03.625 --> 00:46:04.984 a lot of limitations to
NOTE Confidence: 0.9668209

00:46:04.984 --> 00:46:05.645 these studies,
NOTE Confidence: 0.9461066

00:46:06.505 --> 00:46:07.964 and there's really no convincing
NOTE Confidence: 0.9461066

00:46:08.105 --> 00:46:09.785 data necessarily to support its
NOTE Confidence: 0.9461066

00:46:09.785 --> 00:46:11.190 use, and many patients actually
NOTE Confidence: 0.9787496

00:46:14.390 --> 00:46:16.150 so I don't recommend it.
NOTE Confidence: 0.9787496

00:46:16.150 --> 00:46:17.770 I mean, we have, guidelines
NOTE Confidence: 0.9787496

00:46:17.910 --> 00:46:19.190 for our ED, and we
NOTE Confidence: 0.9787496

00:46:19.190 --> 00:46:20.329 don't recommend capsaicin,
NOTE Confidence: 0.9984529

00:46:21.589 --> 00:46:22.650 based on that.
NOTE Confidence: 0.6686905

00:46:23.270 --> 00:46:23.989 Certainly, hallo
NOTE Confidence: 0.98245186

00:46:24.710 --> 00:46:25.210 haloperidol
NOTE Confidence: 0.94888777

00:46:25.750 --> 00:46:26.730 has been used.
NOTE Confidence: 0.9703168

00:46:27.405 --> 00:46:28.945 And, one of the things
NOTE Confidence: 0.9703168

00:46:29.005 --> 00:46:30.465 that people don't,
NOTE Confidence: 0.982056

00:46:31.405 --> 00:46:33.005 know or realize is that

NOTE Confidence: 0.982056
00:46:33.005 --> 00:46:34.705 whether it's CVS or CHS,
NOTE Confidence: 0.98006994
00:46:35.885 --> 00:46:37.005 we've looked at this. There
NOTE Confidence: 0.98006994
00:46:37.005 --> 00:46:38.364 are very high rates of
NOTE Confidence: 0.98006994
00:46:38.364 --> 00:46:38.864 anxiety,
NOTE Confidence: 0.9673259
00:46:39.989 --> 00:46:41.270 and in fact, a large
NOTE Confidence: 0.9673259
00:46:41.270 --> 00:46:43.050 number of them meet DSM
NOTE Confidence: 0.9673259
00:46:43.110 --> 00:46:44.410 criteria for panic
NOTE Confidence: 0.9878414
00:46:45.190 --> 00:46:46.410 when they're in the prodrome.
NOTE Confidence: 0.99628735
00:46:46.790 --> 00:46:47.750 And I think what,
NOTE Confidence: 0.99128425
00:46:48.150 --> 00:46:48.650 haloperidol
NOTE Confidence: 0.9981332
00:46:49.030 --> 00:46:50.390 does is that it actually
NOTE Confidence: 0.9981332
00:46:50.390 --> 00:46:51.450 calms them down.
NOTE Confidence: 0.9938606
00:46:51.765 --> 00:46:53.065 So whether it's haloperidol
NOTE Confidence: 0.9415148
00:46:53.444 --> 00:46:54.825 or whether it's, lorazepam
NOTE Confidence: 0.95411396
00:46:55.125 --> 00:46:55.864 or Ativan,
NOTE Confidence: 0.9754155

00:46:56.645 --> 00:46:57.844 it's just kinda calming the
NOTE Confidence: 0.9754155

00:46:57.844 --> 00:46:58.825 patient down.
NOTE Confidence: 0.982546

00:47:00.005 --> 00:47:00.505 Great.
NOTE Confidence: 0.9098182

00:47:01.444 --> 00:47:01.924 Any,
NOTE Confidence: 0.99176425

00:47:02.565 --> 00:47:03.924 other than, of course, getting
NOTE Confidence: 0.99176425

00:47:03.924 --> 00:47:05.364 people to abstain or cut
NOTE Confidence: 0.99176425

00:47:05.364 --> 00:47:07.065 down on their cannabis use,
NOTE Confidence: 0.9900486

00:47:08.380 --> 00:47:09.920 are there any other prophylactic
NOTE Confidence: 0.99635005

00:47:10.300 --> 00:47:11.760 treatments the way that,
NOTE Confidence: 0.9978285

00:47:12.380 --> 00:47:13.600 you know, you have prophylactic
NOTE Confidence: 0.9978285

00:47:13.739 --> 00:47:14.880 treatments for migraine?
NOTE Confidence: 0.99722964

00:47:15.580 --> 00:47:17.040 Yeah. Absolutely. So,
NOTE Confidence: 0.97673863

00:47:17.500 --> 00:47:18.460 so even though,
NOTE Confidence: 0.99089116

00:47:18.780 --> 00:47:20.000 there's no specific,
NOTE Confidence: 0.90467983

00:47:20.940 --> 00:47:21.760 co treatment,
NOTE Confidence: 0.9962934

00:47:22.364 --> 00:47:23.425 you know, for CHS,

NOTE Confidence: 0.972384
00:47:24.525 --> 00:47:26.205 we do specify in our
NOTE Confidence: 0.972384
00:47:26.205 --> 00:47:27.645 guidelines that if you have
NOTE Confidence: 0.972384
00:47:27.645 --> 00:47:29.565 somebody with CVS who is
NOTE Confidence: 0.972384
00:47:29.565 --> 00:47:31.165 also using cannabis and they
NOTE Confidence: 0.972384
00:47:31.165 --> 00:47:31.665 have
NOTE Confidence: 0.9983636
00:47:31.965 --> 00:47:33.425 moderate to severe disease,
NOTE Confidence: 0.939379
00:47:34.445 --> 00:47:35.245 we use,
NOTE Confidence: 0.906227
00:47:35.565 --> 00:47:36.065 neuromodulators.
NOTE Confidence: 0.84990597
00:47:36.925 --> 00:47:37.380 And,
NOTE Confidence: 0.9888422
00:47:37.940 --> 00:47:39.539 the first line really is,
NOTE Confidence: 0.9573661
00:47:39.940 --> 00:47:40.440 tricyclics
NOTE Confidence: 0.8456965
00:47:40.739 --> 00:47:42.119 or neuro, amitriptyline.
NOTE Confidence: 0.91929126
00:47:43.059 --> 00:47:44.099 And I can tell you
NOTE Confidence: 0.91929126
00:47:44.099 --> 00:47:45.779 that this is unpublished. There
NOTE Confidence: 0.91929126
00:47:45.779 --> 00:47:46.900 is course of patients I
NOTE Confidence: 0.91929126

00:47:46.900 --> 00:47:47.400 have
NOTE Confidence: 0.9731012
00:47:47.779 --> 00:47:50.119 who've improved significantly with amitriptyline.
NOTE Confidence: 0.9731012
00:47:50.339 --> 00:47:51.299 They were told they had
NOTE Confidence: 0.9731012
00:47:51.299 --> 00:47:51.799 CHS
NOTE Confidence: 0.9985506
00:47:52.215 --> 00:47:53.355 by other people,
NOTE Confidence: 0.9691463
00:47:54.375 --> 00:47:55.175 and so on and so
NOTE Confidence: 0.9691463
00:47:55.175 --> 00:47:56.235 forth, and they actually
NOTE Confidence: 0.8433756
00:47:56.695 --> 00:47:57.195 improved
NOTE Confidence: 0.9922124
00:47:57.575 --> 00:47:58.075 markedly.
NOTE Confidence: 0.9692173
00:47:58.455 --> 00:47:59.575 And there are many people
NOTE Confidence: 0.9692173
00:47:59.575 --> 00:48:01.815 who actually have multiple periods
NOTE Confidence: 0.9692173
00:48:01.815 --> 00:48:02.475 of abstinence,
NOTE Confidence: 0.975654
00:48:03.815 --> 00:48:05.815 and, they don't see a
NOTE Confidence: 0.975654
00:48:05.815 --> 00:48:07.539 resolution of their symptoms. And
NOTE Confidence: 0.975654
00:48:07.539 --> 00:48:08.420 so they said, well, I
NOTE Confidence: 0.975654
00:48:08.420 --> 00:48:09.559 tried it for one year,

NOTE Confidence: 0.99688375
00:48:10.260 --> 00:48:12.019 or I went without cannabis
NOTE Confidence: 0.99688375
00:48:12.019 --> 00:48:14.180 for one year. So, again,
NOTE Confidence: 0.99688375
00:48:14.180 --> 00:48:15.460 hopefully, we'll be able to
NOTE Confidence: 0.99688375
00:48:15.460 --> 00:48:16.920 put all that data together,
NOTE Confidence: 0.99873656
00:48:17.299 --> 00:48:18.579 which is why I'm I'm
NOTE Confidence: 0.99873656
00:48:18.579 --> 00:48:19.079 concerned
NOTE Confidence: 0.9901093
00:48:19.700 --> 00:48:20.200 that,
NOTE Confidence: 0.9494125
00:48:20.715 --> 00:48:22.235 you know, not all cannabis
NOTE Confidence: 0.9494125
00:48:22.235 --> 00:48:23.995 use in the context of
NOTE Confidence: 0.9494125
00:48:23.995 --> 00:48:26.235 cyclic vomiting is called CHS,
NOTE Confidence: 0.9494125
00:48:26.235 --> 00:48:26.895 and I,
NOTE Confidence: 0.9915302
00:48:27.515 --> 00:48:28.555 I really do believe that
NOTE Confidence: 0.9915302
00:48:28.555 --> 00:48:30.315 there's probably a very, very
NOTE Confidence: 0.9915302
00:48:30.315 --> 00:48:32.395 small subset who really fall
NOTE Confidence: 0.9915302
00:48:32.395 --> 00:48:33.455 into that category.
NOTE Confidence: 0.98696846

00:48:35.200 --> 00:48:35.700 Great.
NOTE Confidence: 0.95336443
00:48:37.840 --> 00:48:38.820 A question about,
NOTE Confidence: 0.86322075
00:48:39.360 --> 00:48:39.860 about,
NOTE Confidence: 0.9829811
00:48:41.200 --> 00:48:41.940 the pathophysiology.
NOTE Confidence: 0.89746135
00:48:43.040 --> 00:48:44.660 I mean, this peculiar
NOTE Confidence: 0.9995573
00:48:45.120 --> 00:48:46.420 constellation of symptoms
NOTE Confidence: 0.9494291
00:48:47.120 --> 00:48:49.060 Yeah. You know, vomiting,
NOTE Confidence: 0.88897437
00:48:50.165 --> 00:48:51.305 it seems like thermal
NOTE Confidence: 0.82334316
00:48:51.765 --> 00:48:52.265 dysregulation
NOTE Confidence: 0.91521096
00:48:52.805 --> 00:48:54.905 Yes. Relieved by warm,
NOTE Confidence: 0.8645735
00:48:55.364 --> 00:48:56.344 or hot showers.
NOTE Confidence: 0.9193578
00:48:57.045 --> 00:48:58.344 It's it's to point
NOTE Confidence: 0.9665672
00:48:58.725 --> 00:48:59.305 to maybe
NOTE Confidence: 0.9991176
00:48:59.844 --> 00:49:00.585 the hypothalamus
NOTE Confidence: 0.96370244
00:49:00.965 --> 00:49:02.645 or Exactly. Has has anyone
NOTE Confidence: 0.96370244
00:49:02.645 --> 00:49:03.925 done work on that in

NOTE Confidence: 0.96370244
00:49:03.925 --> 00:49:05.465 that space to try and
NOTE Confidence: 0.90666026
00:49:05.920 --> 00:49:06.420 investigate,
NOTE Confidence: 0.99777067
00:49:06.800 --> 00:49:07.300 other
NOTE Confidence: 0.96362597
00:49:08.000 --> 00:49:09.440 abnormalities that could be linked
NOTE Confidence: 0.96362597
00:49:09.440 --> 00:49:10.480 to Yeah. I mean, I
NOTE Confidence: 0.96362597
00:49:10.560 --> 00:49:12.160 we we would love to
NOTE Confidence: 0.96362597
00:49:12.160 --> 00:49:13.920 obviously do that because you're
NOTE Confidence: 0.96362597
00:49:13.920 --> 00:49:15.060 absolutely right.
NOTE Confidence: 0.9512859
00:49:15.360 --> 00:49:16.400 And so, I mean, there
NOTE Confidence: 0.9512859
00:49:16.400 --> 00:49:18.080 is data to show that,
NOTE Confidence: 0.9512859
00:49:18.080 --> 00:49:19.305 you know, maybe, like, chronic
NOTE Confidence: 0.9512859
00:49:19.305 --> 00:49:21.085 cannabis use causes core,
NOTE Confidence: 0.999781
00:49:21.545 --> 00:49:22.445 body temperature
NOTE Confidence: 0.8645078
00:49:23.305 --> 00:49:23.805 dysregulation
NOTE Confidence: 0.97498095
00:49:24.105 --> 00:49:25.305 and can reduce the core
NOTE Confidence: 0.97498095

00:49:25.305 --> 00:49:26.125 body temperature.
NOTE Confidence: 0.9841888

00:49:26.744 --> 00:49:27.704 And so if you look
NOTE Confidence: 0.9841888

00:49:27.704 --> 00:49:29.065 at these hot showers, it's
NOTE Confidence: 0.9841888

00:49:29.065 --> 00:49:29.964 very intriguing.
NOTE Confidence: 0.890964

00:49:31.145 --> 00:49:32.825 You know, perhaps they they
NOTE Confidence: 0.890964

00:49:32.825 --> 00:49:33.645 are somehow,
NOTE Confidence: 0.9989519

00:49:34.960 --> 00:49:35.460 working
NOTE Confidence: 0.98713243

00:49:36.000 --> 00:49:36.480 on,
NOTE Confidence: 0.918373

00:49:36.960 --> 00:49:38.180 c v one receptors
NOTE Confidence: 0.9990077

00:49:38.560 --> 00:49:39.620 in the hypothalamus
NOTE Confidence: 0.8904644

00:49:40.719 --> 00:49:41.219 and,
NOTE Confidence: 0.99958485

00:49:41.840 --> 00:49:42.900 you know, possibly
NOTE Confidence: 0.9841425

00:49:43.360 --> 00:49:44.020 kind of
NOTE Confidence: 0.9728909

00:49:44.320 --> 00:49:46.660 reversing those effects of excessive
NOTE Confidence: 0.9728909

00:49:46.719 --> 00:49:47.685 cannabis use.
NOTE Confidence: 0.89587194

00:49:48.645 --> 00:49:50.565 That hasn't been sort of,

NOTE Confidence: 0.9306031
00:49:51.125 --> 00:49:52.185 looked at really.
NOTE Confidence: 0.9946577
00:49:52.725 --> 00:49:53.225 And,
NOTE Confidence: 0.93637097
00:49:53.925 --> 00:49:54.965 you know, it is very
NOTE Confidence: 0.93637097
00:49:54.965 --> 00:49:56.485 intriguing because clearly there's,
NOTE Confidence: 0.98866194
00:49:56.885 --> 00:49:58.585 they have problems with thermoregulation.
NOTE Confidence: 0.9937212
00:49:59.525 --> 00:49:59.925 And,
NOTE Confidence: 0.9728835
00:50:00.885 --> 00:50:01.765 you know, if if you
NOTE Confidence: 0.9728835
00:50:01.844 --> 00:50:03.250 if talk to many of
NOTE Confidence: 0.9728835
00:50:03.250 --> 00:50:04.150 my patients,
NOTE Confidence: 0.78895307
00:50:05.489 --> 00:50:06.849 they they they feel very
NOTE Confidence: 0.78895307
00:50:06.849 --> 00:50:07.349 cold,
NOTE Confidence: 0.9950571
00:50:07.809 --> 00:50:08.950 and some of them,
NOTE Confidence: 0.9700605
00:50:09.410 --> 00:50:11.029 you know, record their temperature,
NOTE Confidence: 0.9700605
00:50:11.089 --> 00:50:11.890 and they say, oh, it's
NOTE Confidence: 0.9700605
00:50:11.890 --> 00:50:13.890 very low. And, we actually
NOTE Confidence: 0.9700605

00:50:13.890 --> 00:50:15.250 did a study, and we
NOTE Confidence: 0.9700605

00:50:15.250 --> 00:50:16.869 didn't fully publish the data,
NOTE Confidence: 0.9919931

00:50:17.994 --> 00:50:18.475 because,
NOTE Confidence: 0.95792484

00:50:18.955 --> 00:50:20.155 you know, we had them
NOTE Confidence: 0.95792484

00:50:20.155 --> 00:50:21.375 use wearable devices
NOTE Confidence: 0.95189184

00:50:21.994 --> 00:50:22.955 and try to look at
NOTE Confidence: 0.95189184

00:50:22.955 --> 00:50:24.795 temperature, but we just felt
NOTE Confidence: 0.95189184

00:50:24.795 --> 00:50:25.195 like,
NOTE Confidence: 0.9896484

00:50:25.594 --> 00:50:26.735 we were not getting
NOTE Confidence: 0.96763164

00:50:27.275 --> 00:50:29.035 necessarily a good signal because
NOTE Confidence: 0.96763164

00:50:29.035 --> 00:50:30.475 of the contact between the
NOTE Confidence: 0.96763164

00:50:30.475 --> 00:50:31.455 variable devices.
NOTE Confidence: 0.93160933

00:50:32.109 --> 00:50:33.310 But b as it may,
NOTE Confidence: 0.93160933

00:50:33.310 --> 00:50:34.510 you know, the statistician and
NOTE Confidence: 0.93160933

00:50:34.510 --> 00:50:35.469 I were going back and
NOTE Confidence: 0.93160933

00:50:35.469 --> 00:50:37.010 forth because there were outliers

NOTE Confidence: 0.93160933
00:50:37.150 --> 00:50:38.670 where their core body where
NOTE Confidence: 0.93160933
00:50:38.829 --> 00:50:39.950 not core body, but their
NOTE Confidence: 0.93160933
00:50:39.950 --> 00:50:40.770 body temperature,
NOTE Confidence: 0.99517256
00:50:42.030 --> 00:50:43.089 was much lower.
NOTE Confidence: 0.9826446
00:50:43.790 --> 00:50:45.310 And, you know, he said,
NOTE Confidence: 0.9826446
00:50:45.310 --> 00:50:47.315 well, it's artifact, and we
NOTE Confidence: 0.9826446
00:50:47.315 --> 00:50:48.114 have to throw it out
NOTE Confidence: 0.9826446
00:50:48.114 --> 00:50:48.915 maybe. And I said, no.
NOTE Confidence: 0.9826446
00:50:48.915 --> 00:50:50.114 I don't think it's artifact,
NOTE Confidence: 0.9826446
00:50:50.114 --> 00:50:51.335 and I think it's real.
NOTE Confidence: 0.96042645
00:50:52.515 --> 00:50:54.114 So that's something we really
NOTE Confidence: 0.96042645
00:50:54.114 --> 00:50:55.234 need to look at, and
NOTE Confidence: 0.96042645
00:50:55.234 --> 00:50:56.755 that's, you know, that's an
NOTE Confidence: 0.96042645
00:50:56.755 --> 00:50:58.375 excellent, kind of question.
NOTE Confidence: 0.88751245
00:50:59.780 --> 00:51:01.060 Two two more questions if
NOTE Confidence: 0.88751245

00:51:01.060 --> 00:51:01.940 you don't mind. I I
NOTE Confidence: 0.88751245

00:51:02.260 --> 00:51:03.219 No. Of course. No. I
NOTE Confidence: 0.88751245

00:51:03.219 --> 00:51:04.580 don't wanna have this, but
NOTE Confidence: 0.88751245

00:51:04.580 --> 00:51:06.099 if anyone else has questions,
NOTE Confidence: 0.88751245

00:51:06.099 --> 00:51:06.599 please,
NOTE Confidence: 0.99556744

00:51:06.900 --> 00:51:07.859 put them in the chat
NOTE Confidence: 0.99556744

00:51:07.859 --> 00:51:09.400 or unmute yourself.
NOTE Confidence: 0.8539214

00:51:10.420 --> 00:51:11.480 One one question,
NOTE Confidence: 0.9977119

00:51:12.099 --> 00:51:13.080 I have is
NOTE Confidence: 0.9583639

00:51:13.665 --> 00:51:15.985 there are cannabinoid antagonists that
NOTE Confidence: 0.9583639

00:51:15.985 --> 00:51:17.844 are available for use for
NOTE Confidence: 0.9583639

00:51:17.905 --> 00:51:18.405 administration
NOTE Confidence: 0.9986802

00:51:18.705 --> 00:51:20.705 to humans. Are you aware
NOTE Confidence: 0.9986802

00:51:20.705 --> 00:51:21.445 of any
NOTE Confidence: 0.8913342

00:51:21.825 --> 00:51:23.045 work that's being done
NOTE Confidence: 0.99913085

00:51:23.505 --> 00:51:24.565 using cannabinoid

NOTE Confidence: 0.7669185
00:51:24.864 --> 00:51:25.364 antagonists
NOTE Confidence: 0.9979241
00:51:25.665 --> 00:51:26.405 to either
NOTE Confidence: 0.9992848
00:51:27.090 --> 00:51:27.590 reverse
NOTE Confidence: 0.9996495
00:51:28.050 --> 00:51:29.270 the acute syndrome
NOTE Confidence: 0.9816718
00:51:29.890 --> 00:51:31.190 or to treat prophylactically?
NOTE Confidence: 0.7240633
00:51:32.610 --> 00:51:33.110 No.
NOTE Confidence: 0.9993781
00:51:33.970 --> 00:51:34.470 None.
NOTE Confidence: 0.940629
00:51:35.890 --> 00:51:36.370 We,
NOTE Confidence: 0.9589426
00:51:36.770 --> 00:51:37.890 you know, at one point,
NOTE Confidence: 0.9589426
00:51:37.890 --> 00:51:39.885 I tried calling this company
NOTE Confidence: 0.9589426
00:51:39.885 --> 00:51:41.245 and said, can we have
NOTE Confidence: 0.9589426
00:51:41.245 --> 00:51:43.245 CBD and, you know, something,
NOTE Confidence: 0.9589426
00:51:43.245 --> 00:51:44.285 but that it would just
NOTE Confidence: 0.9589426
00:51:44.285 --> 00:51:45.565 never went anywhere. So
NOTE Confidence: 0.82020855
00:51:46.605 --> 00:51:47.105 k.
NOTE Confidence: 0.99911004

00:51:49.805 --> 00:51:51.565 I I'm curious about whether
NOTE Confidence: 0.99911004

00:51:51.565 --> 00:51:53.005 there are any other syndromes
NOTE Confidence: 0.8170226

00:51:53.485 --> 00:51:54.545 any other symptoms
NOTE Confidence: 0.91765374

00:51:55.070 --> 00:51:56.530 related to this such as,
NOTE Confidence: 0.91765374

00:51:56.750 --> 00:51:57.410 you know,
NOTE Confidence: 0.9852746

00:51:57.710 --> 00:51:58.850 are they hyperalgesic?
NOTE Confidence: 0.99734324

00:51:59.550 --> 00:52:00.830 Are they more sensitive to
NOTE Confidence: 0.99734324

00:52:00.830 --> 00:52:02.350 pain or less sensitive to
NOTE Confidence: 0.99734324

00:52:02.350 --> 00:52:02.850 pain?
NOTE Confidence: 0.9775772

00:52:04.910 --> 00:52:05.410 Yeah.
NOTE Confidence: 0.968031

00:52:06.110 --> 00:52:07.505 So these patients,
NOTE Confidence: 0.9996909

00:52:08.684 --> 00:52:10.364 do have a lot of
NOTE Confidence: 0.9996909

00:52:10.364 --> 00:52:11.585 abdominal pain
NOTE Confidence: 0.9816429

00:52:12.204 --> 00:52:13.344 during an episode.
NOTE Confidence: 0.9893699

00:52:14.844 --> 00:52:16.684 You know, so abdominal pain
NOTE Confidence: 0.9893699

00:52:16.684 --> 00:52:17.825 is a significant

NOTE Confidence: 0.9941924
00:52:18.125 --> 00:52:18.625 component,
NOTE Confidence: 0.85016876
00:52:19.565 --> 00:52:20.704 really, of the symptoms.
NOTE Confidence: 0.9348068
00:52:21.404 --> 00:52:22.045 And I,
NOTE Confidence: 0.9968948
00:52:22.820 --> 00:52:23.940 you know, we've looked at
NOTE Confidence: 0.9968948
00:52:23.940 --> 00:52:25.060 it. They have very high
NOTE Confidence: 0.9968948
00:52:25.060 --> 00:52:26.119 rates of anxiety.
NOTE Confidence: 0.9636943
00:52:26.900 --> 00:52:28.420 I think the patients who
NOTE Confidence: 0.9636943
00:52:28.420 --> 00:52:30.180 use more cannabis are more
NOTE Confidence: 0.9636943
00:52:30.180 --> 00:52:31.460 anxious, and I think it's
NOTE Confidence: 0.9636943
00:52:31.460 --> 00:52:32.580 this thing, oh, I'm using
NOTE Confidence: 0.9636943
00:52:32.580 --> 00:52:34.020 it for anxiety and you're
NOTE Confidence: 0.9636943
00:52:34.020 --> 00:52:35.460 stoned. But then it's like
NOTE Confidence: 0.9636943
00:52:35.460 --> 00:52:36.739 a vicious cycle, I think,
NOTE Confidence: 0.9636943
00:52:36.739 --> 00:52:38.020 and it's just going round
NOTE Confidence: 0.9636943
00:52:38.020 --> 00:52:38.625 and round.
NOTE Confidence: 0.9709543

00:52:40.864 --> 00:52:42.305 Yeah. I I don't think,
NOTE Confidence: 0.92990494

00:52:42.625 --> 00:52:44.325 like, in the, quote, interepisodic
NOTE Confidence: 0.99402255

00:52:44.945 --> 00:52:46.705 phase, we don't have any
NOTE Confidence: 0.99402255

00:52:46.705 --> 00:52:47.205 indication,
NOTE Confidence: 0.9791641

00:52:48.864 --> 00:52:49.825 you know, that they have
NOTE Confidence: 0.9791641

00:52:49.825 --> 00:52:50.145 this,
NOTE Confidence: 0.9887951

00:52:50.625 --> 00:52:51.765 visceral hyperalgesia,
NOTE Confidence: 0.96301126

00:52:52.465 --> 00:52:53.364 if you will.
NOTE Confidence: 0.8878521

00:52:54.090 --> 00:52:55.630 But they definitely have
NOTE Confidence: 0.97337914

00:52:56.090 --> 00:52:58.410 a significant abdominal pain during
NOTE Confidence: 0.97337914

00:52:58.410 --> 00:53:00.270 the, during the episode.
NOTE Confidence: 0.8450713

00:53:01.050 --> 00:53:02.270 Any sleep disturbances?
NOTE Confidence: 0.9947489

00:53:03.850 --> 00:53:04.810 Most of them have sleep
NOTE Confidence: 0.9947489

00:53:04.810 --> 00:53:05.310 disturbances.
NOTE Confidence: 0.933725

00:53:05.770 --> 00:53:07.035 Most of them do. And
NOTE Confidence: 0.933725

00:53:07.194 --> 00:53:08.714 that's not part of that's

NOTE Confidence: 0.933725
00:53:08.714 --> 00:53:09.694 not an official
NOTE Confidence: 0.95692635
00:53:10.315 --> 00:53:11.275 that's not part of the
NOTE Confidence: 0.95692635
00:53:11.275 --> 00:53:11.775 syndrome.
NOTE Confidence: 0.99553376
00:53:12.315 --> 00:53:13.295 That's not included.
NOTE Confidence: 0.84039295
00:53:13.914 --> 00:53:15.434 I'm curious because, you know,
NOTE Confidence: 0.84039295
00:53:15.434 --> 00:53:17.114 we have cannabis on sleep
NOTE Confidence: 0.84039295
00:53:17.114 --> 00:53:19.599 and Correct. Wondering whether, you
NOTE Confidence: 0.84039295
00:53:19.599 --> 00:53:21.040 know Yeah. That appetite
NOTE Confidence: 0.9950947
00:53:21.520 --> 00:53:23.280 yeah. Yeah. So it's always
NOTE Confidence: 0.9950947
00:53:23.280 --> 00:53:24.640 been a little hard to
NOTE Confidence: 0.9950947
00:53:24.640 --> 00:53:26.339 sort of define this particular
NOTE Confidence: 0.96493524
00:53:26.640 --> 00:53:28.000 population because, you know, how
NOTE Confidence: 0.96493524
00:53:28.000 --> 00:53:29.200 do you diagnose them? And,
NOTE Confidence: 0.96493524
00:53:29.200 --> 00:53:29.700 obviously,
NOTE Confidence: 0.97496516
00:53:30.480 --> 00:53:31.839 like, one of your, you
NOTE Confidence: 0.97496516

00:53:31.839 --> 00:53:32.800 know, one of the other
NOTE Confidence: 0.97496516

00:53:32.800 --> 00:53:34.420 people in the audience said,
NOTE Confidence: 0.97496516

00:53:34.605 --> 00:53:35.965 it's a very high bar
NOTE Confidence: 0.97496516

00:53:35.965 --> 00:53:37.565 to prove that somebody, you
NOTE Confidence: 0.97496516

00:53:37.565 --> 00:53:39.244 know, has CHS. But when
NOTE Confidence: 0.97496516

00:53:39.244 --> 00:53:40.364 you look at it overall
NOTE Confidence: 0.97496516

00:53:40.364 --> 00:53:41.484 and we've looked at it
NOTE Confidence: 0.97496516

00:53:41.484 --> 00:53:43.484 and, you know, we've done
NOTE Confidence: 0.97496516

00:53:43.484 --> 00:53:43.984 questionnaires,
NOTE Confidence: 0.96466255

00:53:45.005 --> 00:53:46.864 not necessarily sleep studies, but,
NOTE Confidence: 0.9981225

00:53:47.405 --> 00:53:48.864 and and they all have,
NOTE Confidence: 0.9991675

00:53:49.210 --> 00:53:50.830 you know, dysfunctional sleep.
NOTE Confidence: 0.99841434

00:53:51.370 --> 00:53:52.989 They have problems with sleeping.
NOTE Confidence: 0.9706971

00:53:53.530 --> 00:53:55.050 Suddenly, you know, we ourselves
NOTE Confidence: 0.9706971

00:53:55.050 --> 00:53:56.730 know many patients, not just
NOTE Confidence: 0.9706971

00:53:56.730 --> 00:53:58.250 serious patients. They use it

NOTE Confidence: 0.9706971
00:53:58.250 --> 00:53:58.750 for,
NOTE Confidence: 0.99956185
00:53:59.610 --> 00:54:00.110 insomnia
NOTE Confidence: 0.998215
00:54:00.650 --> 00:54:01.390 and sleep.
NOTE Confidence: 0.8700472
00:54:02.515 --> 00:54:04.135 So, yes, a significant,
NOTE Confidence: 0.9993424
00:54:05.075 --> 00:54:06.995 proportion of patients do have
NOTE Confidence: 0.9993424
00:54:06.995 --> 00:54:07.895 sleep disturbance.
NOTE Confidence: 0.9671044
00:54:08.594 --> 00:54:09.715 I think those tend to
NOTE Confidence: 0.9671044
00:54:09.715 --> 00:54:11.415 be more, maybe comorbidities,
NOTE Confidence: 0.9996208
00:54:11.795 --> 00:54:12.855 and it's a particular
NOTE Confidence: 0.7113083
00:54:13.235 --> 00:54:13.735 phenotype.
NOTE Confidence: 0.9358133
00:54:14.540 --> 00:54:16.160 I think, we're looking at,
NOTE Confidence: 0.9309821
00:54:16.700 --> 00:54:17.739 where it's sort of, you
NOTE Confidence: 0.9309821
00:54:17.739 --> 00:54:19.100 know, people who have this
NOTE Confidence: 0.9309821
00:54:19.100 --> 00:54:20.619 also have that and also
NOTE Confidence: 0.9309821
00:54:20.619 --> 00:54:21.980 have that. You never see
NOTE Confidence: 0.9309821

00:54:21.980 --> 00:54:22.960 a patient coming.
NOTE Confidence: 0.96329194

00:54:23.500 --> 00:54:24.700 It's very rare where they
NOTE Confidence: 0.96329194

00:54:24.700 --> 00:54:25.580 say, oh, they have just
NOTE Confidence: 0.96329194

00:54:25.580 --> 00:54:26.700 pure CVS and they don't
NOTE Confidence: 0.96329194

00:54:26.700 --> 00:54:27.660 have anything else. So they
NOTE Confidence: 0.96329194

00:54:27.660 --> 00:54:28.965 have only pure CHS, and
NOTE Confidence: 0.96329194

00:54:28.965 --> 00:54:30.585 they don't have anything else.
NOTE Confidence: 0.9533161

00:54:32.725 --> 00:54:33.765 Great. That's,
NOTE Confidence: 0.95877403

00:54:35.525 --> 00:54:36.405 I I mean, I can
NOTE Confidence: 0.95877403

00:54:36.405 --> 00:54:37.765 continue to ask questions, but
NOTE Confidence: 0.95877403

00:54:37.765 --> 00:54:38.805 I'm not No. No. I
NOTE Confidence: 0.95877403

00:54:38.805 --> 00:54:40.405 mean, it's very intriguing. I
NOTE Confidence: 0.95877403

00:54:40.565 --> 00:54:41.065 yeah.
NOTE Confidence: 0.98247766

00:54:42.549 --> 00:54:44.569 Any other any other questions,
NOTE Confidence: 0.97837776

00:54:45.349 --> 00:54:46.730 for doctor Venkatesh?
NOTE Confidence: 0.9986782

00:54:50.469 --> 00:54:52.069 Great. Well, thank you so

NOTE Confidence: 0.9986782
00:54:52.069 --> 00:54:52.569 much
NOTE Confidence: 0.9866986
00:54:52.950 --> 00:54:54.069 for this talk. It was
NOTE Confidence: 0.9866986
00:54:54.069 --> 00:54:56.069 great. Next month, we have
NOTE Confidence: 0.9866986
00:54:56.069 --> 00:54:56.969 Ziva Cooper,
NOTE Confidence: 0.9117748
00:54:57.825 --> 00:54:58.305 who's,
NOTE Confidence: 0.9685327
00:54:59.265 --> 00:55:00.385 who's gonna be talking about
NOTE Confidence: 0.9685327
00:55:00.385 --> 00:55:02.405 cannabis and likely about addiction.
NOTE Confidence: 0.9709461
00:55:02.945 --> 00:55:03.825 So I hope you all
NOTE Confidence: 0.9709461
00:55:03.825 --> 00:55:05.425 can join us for next
NOTE Confidence: 0.9709461
00:55:05.425 --> 00:55:05.905 month's,
NOTE Confidence: 0.99403507
00:55:06.305 --> 00:55:07.425 webinar, which is on the
NOTE Confidence: 0.99403507
00:55:07.425 --> 00:55:08.645 twenty eighth of April.
NOTE Confidence: 0.66663927
00:55:08.945 --> 00:55:09.625 Yeah. I see.
NOTE Confidence: 0.9511825
00:55:10.785 --> 00:55:11.905 Thank you very much. This
NOTE Confidence: 0.9511825
00:55:11.905 --> 00:55:12.545 was really,
NOTE Confidence: 0.98429835

00:55:13.070 --> 00:55:13.969 this was really great.
NOTE Confidence: 0.98399407
00:55:14.590 --> 00:55:15.710 Yeah. No. Thank you so
NOTE Confidence: 0.98399407
00:55:15.710 --> 00:55:16.989 much, and it's very nice
NOTE Confidence: 0.98399407
00:55:16.989 --> 00:55:18.850 that it's actually available for,
NOTE Confidence: 0.9839792
00:55:19.550 --> 00:55:20.989 for everybody, if you will.
NOTE Confidence: 0.9839792
00:55:20.989 --> 00:55:22.030 So I think some of
NOTE Confidence: 0.9839792
00:55:22.030 --> 00:55:23.550 my mentees also managed to
NOTE Confidence: 0.9839792
00:55:23.550 --> 00:55:24.850 join, and I hope to
NOTE Confidence: 0.9975649
00:55:25.310 --> 00:55:25.810 continue
NOTE Confidence: 0.98568106
00:55:26.110 --> 00:55:27.465 participating. Thank you so much.
NOTE Confidence: 0.98568106
00:55:27.945 --> 00:55:29.705 Sounds good. Thanks. Yeah. Bye
NOTE Confidence: 0.98568106
00:55:29.705 --> 00:55:31.165 soon. Everyone. Bye bye.