WEBVTT

NOTE duration:"00:59:18.6240000"

NOTE language:en-us

NOTE Confidence: 0.8860755

00:00:00.000 --> 00:00:03.790 We're recording great thank you.

NOTE Confidence: 0.9019502

00:00:26.080 --> 00:00:27.252 Alright, welcome everyone,

NOTE Confidence: 0.9019502

00:00:27.252 --> 00:00:30.540 I just got a message that my Internet

NOTE Confidence: 0.9019502

00:00:30.619 --> 00:00:33.448 connection is unstable. Are you guys able

NOTE Confidence: 0.9402

00:00:33.450 --> 00:00:34.558 to hear me OK?

NOTE Confidence: 0.85074294

00:00:35.590 --> 00:00:37.096 Can you hear me Isabel OK?

NOTE Confidence: 0.85108465

00:00:39.190 --> 00:00:40.698 Alright, I think will

NOTE Confidence: 0.85108465

00:00:40.698 --> 00:00:42.206 begin so good afternoon.

NOTE Confidence: 0.85108465

00:00:42.210 --> 00:00:44.100 My name is Lauren Tobias.

NOTE Confidence: 0.85108465

00:00:44.100 --> 00:00:46.494 I'd like to welcome you to our

NOTE Confidence: 0.85108465

00:00:46.494 --> 00:00:48.640 Yale Sleep Seminar this afternoon.

NOTE Confidence: 0.85108465

00:00:48.640 --> 00:00:51.340 I have a few quick announcements

NOTE Confidence: 0.85108465

00:00:51.340 --> 00:00:53.830 before I introduce today's speaker.

NOTE Confidence: 0.85108465

00:00:53.830 --> 00:00:55.909 Um, first please take a moment to

1

NOTE Confidence: 0.85108465

00:00:55.909 --> 00:00:58.179 ensure that you're muted in order to

NOTE Confidence: 0.85108465

00:00:58.179 --> 00:00:59.829 receive CME credit for attendance,

NOTE Confidence: 0.85108465

00:00:59.830 --> 00:01:01.636 please see the chat room for

NOTE Confidence: 0.85108465

00:01:01.636 --> 00:01:03.198 instructions and you will need

NOTE Confidence: 0.85108465

00:01:03.198 --> 00:01:05.305 to text the unique ID for this

NOTE Confidence: 0.85108465

00:01:05.305 --> 00:01:06.966 conference anytime before 3:15 PM

NOTE Confidence: 0.85108465

00:01:06.966 --> 00:01:08.970 Eastern Time if you're not already

NOTE Confidence: 0.85108465

00:01:08.970 --> 00:01:10.574 registered with yellow, see me.

NOTE Confidence: 0.85108465

00:01:10.574 --> 00:01:12.470 You'll need to do that first.

NOTE Confidence: 0.85108465

00:01:12.470 --> 00:01:14.050 If you have any questions

NOTE Confidence: 0.85108465

00:01:14.050 --> 00:01:14.998 during the presentation,

NOTE Confidence: 0.85108465

00:01:15.000 --> 00:01:16.946 I encourage you to make use of

NOTE Confidence: 0.85108465

00:01:16.946 --> 00:01:19.108 the chat room throughout the hour.

NOTE Confidence: 0.85108465

00:01:19.110 --> 00:01:20.970 Recorded versions of these lectures

NOTE Confidence: 0.85108465

00:01:20.970 --> 00:01:23.155 will be available online within two

NOTE Confidence: 0.85108465

00:01:23.155 --> 00:01:25.275 weeks at the link provided in the chat.

NOTE Confidence: 0.85108465

00:01:25.280 --> 00:01:26.002 And finally,

NOTE Confidence: 0.85108465

00:01:26.002 --> 00:01:28.168 please feel free to share the

NOTE Confidence: 0.85108465

00:01:28.168 --> 00:01:29.632 announcements for our weekly

NOTE Confidence: 0.85108465

00:01:29.632 --> 00:01:31.317 lecture series to anyone that

NOTE Confidence: 0.85108465

00:01:31.317 --> 00:01:33.240 you think might be interested,

NOTE Confidence: 0.85108465

00:01:33.240 --> 00:01:35.020 or contact Debbie Lovejoy to

NOTE Confidence: 0.85108465

00:01:35.020 --> 00:01:37.230 be added to our email list.

NOTE Confidence: 0.85108465

00:01:37.230 --> 00:01:39.432 So now I'm delighted to introduce

NOTE Confidence: 0.85108465

00:01:39.432 --> 00:01:41.930 Doctor Isabella Al Nouf as our speaker.

NOTE Confidence: 0.85108465

00:01:41.930 --> 00:01:42.262 Today,

NOTE Confidence: 0.85108465

00:01:42.262 --> 00:01:44.254 Doctor Ave is a neurologist who

NOTE Confidence: 0.85108465

00:01:44.254 --> 00:01:46.476 graduated from the School of Medicine

NOTE Confidence: 0.85108465

00:01:46.476 --> 00:01:48.804 of Joseph Fourier University in Grenoble,

NOTE Confidence: 0.85108465

00:01:48.810 --> 00:01:49.157 France,

NOTE Confidence: 0.85108465

00:01:49.157 --> 00:01:51.239 and she received her PhD in

NOTE Confidence: 0.85108465

00:01:51.239 --> 00:01:53.090 neuroscience from the Pierre and

NOTE Confidence: 0.85108465

00:01:53.090 --> 00:01:54.960 Marie Curie University in Paris.

NOTE Confidence: 0.85108465

00:01:54.960 --> 00:01:57.010 She studied Pantin Cat models

NOTE Confidence: 0.85108465

00:01:57.010 --> 00:01:58.650 in the Sleep laboratory.

NOTE Confidence: 0.85108465

00:01:58.650 --> 00:02:01.940 Michelle Ruby in Lyon and then did

NOTE Confidence: 0.85108465

00:02:01.940 --> 00:02:04.477 clinical clinical studies on sleep

NOTE Confidence: 0.85108465

00:02:04.477 --> 00:02:06.565 in various neurologic diseases,

NOTE Confidence: 0.85108465

00:02:06.570 --> 00:02:08.085 including Parkinson's disease,

NOTE Confidence: 0.85108465

00:02:08.085 --> 00:02:11.620 a LS and Guyan Barre syndrome while

NOTE Confidence: 0.85108465

00:02:11.699 --> 00:02:14.989 visiting the Stanford Sleep Center in 2004.

NOTE Confidence: 0.85108465

00:02:14.990 --> 00:02:17.765 Five she coordinated the Stanford

NOTE Confidence: 0.85108465

00:02:17.765 --> 00:02:20.540 kleine Levin Syndrome research program

NOTE Confidence: 0.85108465

00:02:20.624 --> 00:02:23.480 under the direction of Immanuel Menu.

NOTE Confidence: 0.85108465

00:02:23.480 --> 00:02:25.800 Doctor Arnouk is currently head

NOTE Confidence: 0.85108465

00:02:25.800 --> 00:02:28.120 of the 20 sleep disorder.

NOTE Confidence: 0.85108465

00:02:28.120 --> 00:02:31.445 The 20 bed Sleep Disorder unit of

NOTE Confidence: 0.85108465

00:02:31.445 --> 00:02:33.689 PTA Salpetriere Hospital in Paris,

NOTE Confidence: 0.85108465

00:02:33.690 --> 00:02:35.775 which unfortunately she said just

NOTE Confidence: 0.85108465

00:02:35.775 --> 00:02:38.892 had to close this week due to

NOTE Confidence: 0.85108465

00:02:38.892 --> 00:02:41.754 Kovid and she's overseeing a large

NOTE Confidence: 0.85108465

00:02:41.754 --> 00:02:43.900 multidisciplinary team of neurologist.

NOTE Confidence: 0.85108465

00:02:43.900 --> 00:02:44.824 Neuro scientist,

NOTE Confidence: 0.85108465

00:02:44.824 --> 00:02:45.286 psychiatrists,

NOTE Confidence: 0.85108465

00:02:45.286 --> 00:02:47.134 pulmonologists and nurses there.

NOTE Confidence: 0.85108465

00:02:47.140 --> 00:02:50.452 Her current research focuses on central

NOTE Confidence: 0.85108465

00:02:50.452 --> 00:02:53.481 hypersomnia Zan parasomnias an I am

NOTE Confidence: 0.85108465

00:02:53.481 --> 00:02:56.057 delighted that she agreed to join us.

NOTE Confidence: 0.85108465

00:02:56.060 --> 00:02:58.419 Today to speak to us about REM

NOTE Confidence: 0.85108465

00:02:58.419 --> 00:02:59.430 sleep behavior disorder.

NOTE Confidence: 0.85108465

00:02:59.430 --> 00:03:00.802 A window into dreams.

NOTE Confidence: 0.85108465

00:03:00.802 --> 00:03:03.810 So with that I'll turn it over to you.

NOTE Confidence: 0.83399564

00:03:05.470 --> 00:03:08.620 Thank you Lauren and thank you Francesco.

NOTE Confidence: 0.83399564

00:03:08.620 --> 00:03:10.870 This invitation to speak about

NOTE Confidence: 0.83399564

00:03:10.870 --> 00:03:12.670 REM sleep behavior disorders.

NOTE Confidence: 0.83399564

00:03:12.670 --> 00:03:16.036 I would like you guys to stop to hear

NOTE Confidence: 0.83399564

00:03:16.036 --> 00:03:19.693 the news for 60 minutes and stop and

NOTE Confidence: 0.83399564

00:03:19.693 --> 00:03:22.656 forget this virus during 60 minutes

NOTE Confidence: 0.83399564

00:03:22.656 --> 00:03:26.163 and just think about dreams with this

NOTE Confidence: 0.83399564

00:03:26.170 --> 00:03:30.460 knew no scientific approach for those.

NOTE Confidence: 0.83399564

00:03:30.460 --> 00:03:35.204 Not go to the next one, can I know?

NOTE Confidence: 0.83399564

00:03:35.204 --> 00:03:36.998 Sorry I cannot.

NOTE Confidence: 0.83399564

00:03:37.000 --> 00:03:39.888 Change my video overnight.

NOTE Confidence: 0.83399564

00:03:39.888 --> 00:03:42.920 OK, so for those we need the

NOTE Confidence: 0.83399564

00:03:42.920 --> 00:03:45.000 cell phone and the code.

NOTE Confidence: 0.83399564

00:03:45.000 --> 00:03:46.580 It's it's shown here.

NOTE Confidence: 0.83399564

00:03:46.580 --> 00:03:49.517 This talk has nothing to do with

NOTE Confidence: 0.83399564

00:03:49.517 --> 00:03:51.453 the pharmaceutic industries and

NOTE Confidence: 0.83399564

00:03:51.453 --> 00:03:54.680 there is no conflict of interest.

NOTE Confidence: 0.83399564

00:03:54.680 --> 00:03:57.529 So REM sleep behavior disorder is Opossum.

NOTE Confidence: 0.83399564

00:03:57.530 --> 00:04:00.212 Yeah, you can see these guys

NOTE Confidence: 0.83399564

00:04:00.212 --> 00:04:03.009 sleeping here in her sleep and.

NOTE Confidence: 0.83399564

00:04:03.010 --> 00:04:05.898 Instead of being quiet,

NOTE Confidence: 0.83399564

00:04:05.898 --> 00:04:08.786 is moving and fighting.

NOTE Confidence: 0.9029803

00:04:15.000 --> 00:04:17.520 If you wake him up at that moment,

NOTE Confidence: 0.9029803

00:04:17.520 --> 00:04:19.488 he would tell you.

NOTE Confidence: 0.9029803

00:04:19.488 --> 00:04:22.440 That is fighting some people and

NOTE Confidence: 0.9029803

00:04:22.539 --> 00:04:25.815 then he wakes up and resume sleep.

NOTE Confidence: 0.9029803

00:04:25.820 --> 00:04:28.215 So I'm still behavior disorder

NOTE Confidence: 0.9029803

00:04:28.215 --> 00:04:31.514 is sorry is caused by a loss

NOTE Confidence: 0.9029803

00:04:31.514 --> 00:04:33.944 of the normal ram atonia that

NOTE Confidence: 0.9029803

00:04:33.944 --> 00:04:36.966 you can see here on the police.

NOTE Confidence: 0.9029803

00:04:36.970 --> 00:04:39.790 Sonography at some moment the what

NOTE Confidence: 0.9029803

00:04:39.790 --> 00:04:42.785 blocks our muscle tone during Hanslip

NOTE Confidence: 0.9029803

00:04:42.785 --> 00:04:45.875 disappears like here and then here.

NOTE Confidence: 0.9029803

00:04:45.880 --> 00:04:49.224 And when it disappears when we have possibly,

NOTE Confidence: 0.9029803

00:04:49.230 --> 00:04:52.910 this movements has here.

NOTE Confidence: 0.9029803

00:04:52.910 --> 00:04:55.454 YouTube awesome yeah so people join

NOTE Confidence: 0.9029803

00:04:55.454 --> 00:04:58.518 our refer to the Sleep Lab mostly

NOTE Confidence: 0.9029803

00:04:58.518 --> 00:05:01.074 because of the risk of injury.

NOTE Confidence: 0.9029803

00:05:01.080 --> 00:05:03.726 As you can see here because people

NOTE Confidence: 0.9029803

00:05:03.726 --> 00:05:06.960 have the eyes closed and have some

NOTE Confidence: 0.9029803

00:05:06.960 --> 00:05:09.480 violent movement they can injure

NOTE Confidence: 0.9029803

00:05:09.480 --> 00:05:12.037 themselves and ensure their schools.

NOTE Confidence: 0.9029803

00:05:12.040 --> 00:05:12.740 In addition,

NOTE Confidence: 0.9029803

00:05:12.740 --> 00:05:15.540 the person yeah has gained a lot of

NOTE Confidence: 0.9029803

00:05:15.616 --> 00:05:18.766 attention from the knowledge Ikle field

NOTE Confidence: 0.9029803

00:05:18.766 --> 00:05:21.465 becausw isolated patient patient with

NOTE Confidence: 0.9029803

00:05:21.465 --> 00:05:24.080 isolated REM sleep behavior disorders.

NOTE Confidence: 0.9029803

00:05:24.080 --> 00:05:25.319 No other symptoms,

NOTE Confidence: 0.9029803

00:05:25.319 --> 00:05:27.797 most of them have overtime conversion

NOTE Confidence: 0.9029803

00:05:27.797 --> 00:05:30.098 to parkinsonism and dementia.

NOTE Confidence: 0.9029803

00:05:30.100 --> 00:05:33.276 Here you can see more than 1000 of

NOTE Confidence: 0.9029803

00:05:33.276 --> 00:05:35.858 people with no other signs that

NOTE Confidence: 0.9029803

00:05:35.858 --> 00:05:39.729 ebbed and after 15 years most of them

NOTE Confidence: 0.9029803

00:05:39.729 --> 00:05:42.205 have developed Parkinson's disease.

NOTE Confidence: 0.9029803

00:05:42.210 --> 00:05:44.946 Although the dementia with Lewy bodies

NOTE Confidence: 0.9029803

00:05:44.946 --> 00:05:48.008 within a median time of seven years,

NOTE Confidence: 0.9029803

00:05:48.010 --> 00:05:52.015 so there's a lot of research on this program,

NOTE Confidence: 0.9029803

00:05:52.020 --> 00:05:53.800 all aspect of herbed.

NOTE Confidence: 0.9029803

00:05:53.800 --> 00:05:55.135 How could we,

NOTE Confidence: 0.9029803

00:05:55.140 --> 00:05:56.577 in the future,

NOTE Confidence: 0.9029803

00:05:56.577 --> 00:05:58.972 present ability to develop every

NOTE Confidence: 0.9029803

00:05:58.972 --> 00:06:01.760 patient to develop parkinsonism?

NOTE Confidence: 0.9029803

00:06:01.760 --> 00:06:04.658 I will not cover this part.

NOTE Confidence: 0.9029803

00:06:04.660 --> 00:06:06.958 But another third part of her

NOTE Confidence: 0.9029803

00:06:06.958 --> 00:06:10.211 body and I would like you guys to

NOTE Confidence: 0.9029803

00:06:10.211 --> 00:06:12.659 consider RBD as an important and

NOTE Confidence: 0.9029803

00:06:12.748 --> 00:06:15.598 new window on motor control during

NOTE Confidence: 0.9029803

00:06:15.598 --> 00:06:18.012 REM sleep and dreaming process.

NOTE Confidence: 0.9029803

00:06:18.012 --> 00:06:21.084 What could help her body tenses

NOTE Confidence: 0.9029803

00:06:21.084 --> 00:06:24.160 about motor control during REM sleep.

NOTE Confidence: 0.9029803

00:06:24.160 --> 00:06:26.830 What unblocks unblock the muscle tone?

NOTE Confidence: 0.82646024

00:06:28.860 --> 00:06:31.121 What we know from early as early

NOTE Confidence: 0.82646024

00:06:31.121 --> 00:06:34.334 as in 65 by Michelle Judy is that

NOTE Confidence: 0.82646024

00:06:34.334 --> 00:06:36.499 if you damaged very restricted

NOTE Confidence: 0.82646024

00:06:36.581 --> 00:06:39.253 area here in the palms of the cat.

NOTE Confidence: 0.82646024

00:06:39.260 --> 00:06:41.768 Took an only this area not

NOTE Confidence: 0.82646024

00:06:41.768 --> 00:06:43.860 know nothing around you can.

NOTE Confidence: 0.82646024

00:06:43.860 --> 00:06:46.660 Your cat will lose the normal atonia

NOTE Confidence: 0.82646024

00:06:46.660 --> 00:06:49.226 during atonia during REM sleep and

NOTE Confidence: 0.82646024

00:06:49.226 --> 00:06:51.376 will develop some complex behavior.

NOTE Confidence: 0.82646024

00:06:51.380 --> 00:06:54.908 I will not show you some cats but you

NOTE Confidence: 0.82646024

00:06:54.908 --> 00:06:57.897 probably all of you have already seen

NOTE Confidence: 0.82646024

00:06:57.897 --> 00:07:00.933 some dogs with their body like this

NOTE Confidence: 0.82646024

00:07:00.933 --> 00:07:03.915 one with sleeping in REM sleep with

NOTE Confidence: 0.82646024

00:07:03.920 --> 00:07:08.210 twitches of the legs and the names. And.

NOTE Confidence: 0.60349625

00:07:10.510 --> 00:07:14.470 Sitting too long during monthly and then.

NOTE Confidence: 0.769148

00:07:17.190 --> 00:07:21.216 Localization. I think it's

NOTE Confidence: 0.769148

00:07:21.216 --> 00:07:23.528 itself exactly like human.

NOTE Confidence: 0.8600588

00:07:23.530 --> 00:07:26.218 Because we know we knew from from

NOTE Confidence: 0.8600588

00:07:26.218 --> 00:07:29.274 my schedule is a place that was

NOTE Confidence: 0.8600588

00:07:29.274 --> 00:07:32.010 responsible for atonia during REM sleep.

NOTE Confidence: 0.8600588

00:07:32.010 --> 00:07:35.194 We wanted to look if the same place

NOTE Confidence: 0.8600588

00:07:35.194 --> 00:07:38.370 was altered or damaged in human brains.

NOTE Confidence: 0.8600588

00:07:38.370 --> 00:07:40.490 We started with no pathology,

NOTE Confidence: 0.8600588

00:07:40.490 --> 00:07:43.270 which means that patient has

NOTE Confidence: 0.8600588

00:07:43.270 --> 00:07:46.720 to be dead before and then.

NOTE Confidence: 0.8600588

00:07:46.720 --> 00:07:49.080 As early as in 2013,

NOTE Confidence: 0.8600588

00:07:49.080 --> 00:07:53.790 we found that this area here in in the palms,

NOTE Confidence: 0.8600588

00:07:53.790 --> 00:07:56.140 which contains both the subsidiaries,

NOTE Confidence: 0.8600588

00:07:56.140 --> 00:07:58.500 unserious lockers in human brands,

NOTE Confidence: 0.8600588

00:07:58.500 --> 00:08:00.855 could be recognized by using

NOTE Confidence: 0.8600588

00:08:00.855 --> 00:08:03.210 a new pigment in MRI.

NOTE Confidence: 0.8600588

00:08:03.210 --> 00:08:06.213 Three Tesla normal and in and you

NOTE Confidence: 0.8600588

00:08:06.213 --> 00:08:09.026 can see here the sub Solution

NOTE Confidence: 0.8600588

00:08:09.026 --> 00:08:11.882 series locus in the human brain

NOTE Confidence: 0.8600588

00:08:11.882 --> 00:08:15.157 is the 4th ventricle cerebellum.

NOTE Confidence: 0.8600588

00:08:15.160 --> 00:08:18.488 This area in human is the equivalent to

NOTE Confidence: 0.8600588

00:08:18.488 --> 00:08:21.660 the Perilo Quest series Alpha in cats,

NOTE Confidence: 0.8600588

00:08:21.660 --> 00:08:24.726 and it's equivalent to the sub Latino

NOTE Confidence: 0.8600588

00:08:24.726 --> 00:08:28.147 dorsalis in in rats in isolated air BD,

NOTE Confidence: 0.8600588

00:08:28.150 --> 00:08:30.320 you have a control here.

NOTE Confidence: 0.8600588

00:08:30.320 --> 00:08:33.351 With complete nucleus you can see a

NOTE Confidence: 0.8600588

00:08:33.351 --> 00:08:37.009 loss of the signal in the same area

NOTE Confidence: 0.8600588

00:08:37.009 --> 00:08:40.469 in patient having just be in addition.

NOTE Confidence: 0.8600588

00:08:40.470 --> 00:08:43.068 The hyest loss of the intensity

NOTE Confidence: 0.8600588

00:08:43.068 --> 00:08:45.260 in the signal on MRI.

NOTE Confidence: 0.8600588

00:08:45.260 --> 00:08:48.298 The higher the REM sleep without atonia,

NOTE Confidence: 0.8600588

00:08:48.300 --> 00:08:50.420 both in parking patient with

NOTE Confidence: 0.8600588

00:08:50.420 --> 00:08:53.055 Parkinson's disease a nobody and easy

NOTE Confidence: 0.8600588

00:08:53.055 --> 00:08:55.255 impatient with isolated air busy.

NOTE Confidence: 0.8600588

00:08:55.260 --> 00:08:58.388 So it seems that it's the same cause

NOTE Confidence: 0.8600588

00:08:58.388 --> 00:09:01.608 in human damage in this in this area

NOTE Confidence: 0.8600588

00:09:01.608 --> 00:09:04.776 in the brain stem that usually should

NOTE Confidence: 0.8600588

00:09:04.776 --> 00:09:07.800 blocked us during ahem sleep and

NOTE Confidence: 0.8600588

00:09:07.800 --> 00:09:11.078 which is partially partially damaged.

NOTE Confidence: 0.8600588

00:09:11.080 --> 00:09:14.755 Then one may ask what drives

NOTE Confidence: 0.8600588

00:09:14.755 --> 00:09:16.400 the movement in the behavior.

NOTE Confidence: 0.8600588

00:09:16.400 --> 00:09:19.024 We can see what unblock the muscle tone,

NOTE Confidence: 0.8600588

00:09:19.030 --> 00:09:21.710 but now we have to determine where do

NOTE Confidence: 0.8600588

00:09:21.710 --> 00:09:23.970 this movement come from in the brain.

NOTE Confidence: 0.7388047

00:09:26.000 --> 00:09:30.008 There is an old debate about what happens

NOTE Confidence: 0.7388047

00:09:30.008 --> 00:09:34.300 during REM sleep movement with two theories.

NOTE Confidence: 0.7388047

00:09:34.300 --> 00:09:37.676 One is that during her body we have

NOTE Confidence: 0.7388047

00:09:37.676 --> 00:09:40.560 some central pattern generators that

NOTE Confidence: 0.7388047

00:09:40.560 --> 00:09:43.810 activate some automatic archaic behaviors

NOTE Confidence: 0.7388047

00:09:43.810 --> 00:09:47.490 that are unmasked during abt like

NOTE Confidence: 0.7388047

00:09:47.490 --> 00:09:51.960 twitches or super twitches. The over.

NOTE Confidence: 0.7388047

00:09:51.960 --> 00:09:54.732 Theory is that we are activating our

NOTE Confidence: 0.7388047

00:09:54.732 --> 00:09:57.888 motor cortex or premotor cortex as we

NOTE Confidence: 0.7388047

00:09:57.888 --> 00:10:00.253 will do during wakefulness during.

NOTE Confidence: 0.7388047

00:10:00.260 --> 00:10:04.148 Air B and for the first theory there are

NOTE Confidence: 0.7388047

00:10:04.148 --> 00:10:08.070 evidence a lot of evidence that REM sleep

NOTE Confidence: 0.7388047

00:10:08.070 --> 00:10:11.119 twitches are generated by the brainstem,

NOTE Confidence: 0.7388047

00:10:11.120 --> 00:10:13.480 not by the motor cortex.

NOTE Confidence: 0.7388047

00:10:13.480 --> 00:10:16.130 For example, cats without neocortex

NOTE Confidence: 0.7388047

00:10:16.130 --> 00:10:19.719 till after which is during REM sleep.

NOTE Confidence: 0.7388047

00:10:19.720 --> 00:10:23.045 Plus, and this was shown by Michel

NOTE Confidence: 0.7388047

00:10:23.045 --> 00:10:26.360 Jouvet plus Twitchers in rats in young

NOTE Confidence: 0.7388047

00:10:26.360 --> 00:10:29.060 rats occurs before the motor cortex.

NOTE Confidence: 0.7388047

00:10:29.060 --> 00:10:30.440 Here is stimulated,

NOTE Confidence: 0.7388047

00:10:30.440 --> 00:10:32.740 suggesting that they are generated

NOTE Confidence: 0.7388047

00:10:32.740 --> 00:10:35.598 by some nucleus in the brainstem,

NOTE Confidence: 0.7388047

00:10:35.600 --> 00:10:37.468 possibly the red nucleus.

NOTE Confidence: 0.8146741

00:10:41.860 --> 00:10:45.523 In in the same ID came from the scenery.

NOTE Confidence: 0.8146741

00:10:45.530 --> 00:10:48.239 The idea that we have some central

NOTE Confidence: 0.8146741

00:10:48.239 --> 00:10:50.429 pattern generators for many behavior,

NOTE Confidence: 0.8146741

00:10:50.430 --> 00:10:53.462 like here the calling that you can see

NOTE Confidence: 0.8146741

00:10:53.462 --> 00:10:56.301 in animals that you can see here in

NOTE Confidence: 0.8146741

00:10:56.301 --> 00:10:59.197 new needs and that can happens exactly

NOTE Confidence: 0.8146741

00:10:59.197 --> 00:11:02.167 with the same sequence water sequence

NOTE Confidence: 0.8146741

00:11:02.167 --> 00:11:04.242 during an epileptic seizure here.

NOTE Confidence: 0.8146741

00:11:04.242 --> 00:11:07.093 So the scenery guy from Italy said

NOTE Confidence: 0.8146741

00:11:07.093 --> 00:11:09.198 we might activate during ebbed,

NOTE Confidence: 0.8146741

00:11:09.200 --> 00:11:11.948 some very archaic area providing some.

NOTE Confidence: 0.8146741

00:11:11.950 --> 00:11:14.402 Fighting behaviors during REM

NOTE Confidence: 0.8146741

00:11:14.402 --> 00:11:17.883 sleep in patient with RBT. Indeed,

NOTE Confidence: 0.8146741

00:11:17.883 --> 00:11:21.187 if you ask to patient with their body,

NOTE Confidence: 0.8146741

00:11:21.190 --> 00:11:24.054 what is the last dream you had in

NOTE Confidence: 0.8146741

00:11:24.054 --> 00:11:27.378 in the month in the previous month?

NOTE Confidence: 0.8146741

00:11:27.380 --> 00:11:30.248 Many of them remember 66% of them

NOTE Confidence: 0.8146741

00:11:30.248 --> 00:11:32.642 remember a dream of aggression in

NOTE Confidence: 0.8146741

00:11:32.642 --> 00:11:34.749 comparison with controls who less

NOTE Confidence: 0.8146741

00:11:34.749 --> 00:11:37.227 often remember a dream of aggression

NOTE Confidence: 0.8146741

00:11:37.227 --> 00:11:39.775 plus animals in their dreams are

NOTE Confidence: 0.8146741

00:11:39.775 --> 00:11:41.840 more frequent than in controls,

NOTE Confidence: 0.8146741

00:11:41.840 --> 00:11:44.390 and this these behaviors of fighting

NOTE Confidence: 0.8146741

00:11:44.390 --> 00:11:46.952 during sleep contrast with the very

NOTE Confidence: 0.8146741

00:11:46.952 --> 00:11:48.927 place it personality when awake.

NOTE Confidence: 0.8146741

00:11:48.930 --> 00:11:52.068 Suggesting it's not their usual brand

NOTE Confidence: 0.8146741

00:11:52.068 --> 00:11:56.679 which is at at at stake at budget time.

NOTE Confidence: 0.8146741

00:11:56.680 --> 00:12:00.271 Our weather and in you can see of course

NOTE Confidence: 0.8146741

00:12:00.271 --> 00:12:03.249 this patient is dreaming in MCPS,

NOTE Confidence: 0.8146741

00:12:03.250 --> 00:12:07.928 bringing the tag by Sarah's in here.

NOTE Confidence: 0.8146741

00:12:07.930 --> 00:12:10.669 The devil dreams.

NOTE Confidence: 0.8146741

00:12:10.670 --> 00:12:15.720 And you can see me using his see Pap with a.

NOTE Confidence: 0.8146741

00:12:15.720 --> 00:12:18.317 Very good ventilation at the same time.

NOTE Confidence: 0.6495693

00:12:20.750 --> 00:12:22.840 Parkinson's disease on a busy.

NOTE Confidence: 0.8479143

00:12:25.740 --> 00:12:28.050 It's a new thing and.

NOTE Confidence: 0.8479143

00:12:28.050 --> 00:12:30.306 Of course, this guy has never,

NOTE Confidence: 0.8479143

00:12:30.310 --> 00:12:32.330 never be interested by medieval

NOTE Confidence: 0.8479143

00:12:32.330 --> 00:12:34.350 times and is very surprised

NOTE Confidence: 0.8479143

00:12:34.421 --> 00:12:36.335 to have this sort of dreams.

NOTE Confidence: 0.8479143

00:12:36.340 --> 00:12:38.605 So where dreams changed without

NOTE Confidence: 0.8479143

00:12:38.605 --> 00:12:40.870 dreams really different in subject

NOTE Confidence: 0.8479143

00:12:40.946 --> 00:12:42.936 with and without their beady.

NOTE Confidence: 0.8479143

00:12:42.940 --> 00:12:44.672 To answer this question,

NOTE Confidence: 0.8479143

00:12:44.672 --> 00:12:46.404 there were two way.

NOTE Confidence: 0.8479143

00:12:46.410 --> 00:12:49.098 One was to wake up the the patient

NOTE Confidence: 0.8479143

00:12:49.098 --> 00:12:51.375 with and without RBD patient

NOTE Confidence: 0.8479143

00:12:51.375 --> 00:12:53.915 with Parkinson's disease and wake

NOTE Confidence: 0.8479143

00:12:53.915 --> 00:12:56.784 them during the behaviors and ask

NOTE Confidence: 0.8479143

18

00:12:56.784 --> 00:12:58.999 them about the dream content.

NOTE Confidence: 0.8479143

00:12:59.000 --> 00:13:01.835 And this was done by the Australian

NOTE Confidence: 0.8479143

00:13:01.835 --> 00:13:04.034 Group and surprisingly when collecting

NOTE Confidence: 0.8479143

00:13:04.034 --> 00:13:07.233 Dream report just from him sleep awakening,

NOTE Confidence: 0.8479143

00:13:07.240 --> 00:13:10.720 they found exactly the same rate of action,

NOTE Confidence: 0.8479143

00:13:10.720 --> 00:13:13.280 emotion and freight in patient

NOTE Confidence: 0.8479143

00:13:13.280 --> 00:13:15.328 with and without herbed.

NOTE Confidence: 0.8479143

00:13:15.330 --> 00:13:17.860 So possibly what was what?

NOTE Confidence: 0.8479143

00:13:17.860 --> 00:13:21.444 What is frequently reported by the patient

NOTE Confidence: 0.8479143

00:13:21.444 --> 00:13:25.449 has to do with the bias of recall.

NOTE Confidence: 0.8479143

00:13:25.450 --> 00:13:28.985 Possibly the violent behavior would be more.

NOTE Confidence: 0.8479143

00:13:28.990 --> 00:13:31.398 Remember more recalled than

NOTE Confidence: 0.8479143

00:13:31.398 --> 00:13:34.408 the normal behavior during Abt.

NOTE Confidence: 0.8479143

00:13:34.410 --> 00:13:36.510 To go in this direction,

NOTE Confidence: 0.8479143

00:13:36.510 --> 00:13:38.445 we decided to constitute video

NOTE Confidence: 0.8479143

00:13:38.445 --> 00:13:40.926 Bank of all the behaviors observed

NOTE Confidence: 0.8479143

00:13:40.926 --> 00:13:42.806 during our bid inpatient.

NOTE Confidence: 0.8479143

00:13:42.810 --> 00:13:45.155 We put camera in the lab into

NOTE Confidence: 0.8479143

00:13:45.155 --> 00:13:47.829 20 bed and each time they were

NOTE Confidence: 0.8479143

00:13:47.829 --> 00:13:50.888 behaviors we we kept it and we

NOTE Confidence: 0.8479143

00:13:50.888 --> 00:13:53.304 evaluated whether this behavior

NOTE Confidence: 0.8479143

00:13:53.304 --> 00:13:56.324 where always aggressive or primitive.

NOTE Confidence: 0.8479143

00:13:56.330 --> 00:13:58.330 That was the case indeed.

NOTE Confidence: 0.8479143

00:13:58.330 --> 00:14:01.116 In more than 80% of the cases,

NOTE Confidence: 0.8479143

00:14:01.120 --> 00:14:04.376 but in 18% of the patient we saw

NOTE Confidence: 0.8479143

00:14:04.376 --> 00:14:06.973 different things that were not reported

NOTE Confidence: 0.8479143

00:14:06.973 --> 00:14:10.100 or not often reported by the spooz.

NOTE Confidence: 0.8479143

00:14:10.100 --> 00:14:11.024 For example,

NOTE Confidence: 0.8479143

00:14:11.024 --> 00:14:14.720 this patient is in REM sleep and is.

NOTE Confidence: 0.8479143

00:14:14.720 --> 00:14:16.870 Could you just imagine what

NOTE Confidence: 0.8479143

00:14:16.870 --> 00:14:18.590 he is dreaming about?

NOTE Confidence: 0.8493436

00:14:24.090 --> 00:14:26.930 So just from his gesture.

NOTE Confidence: 0.8493436

00:14:26.930 --> 00:14:28.832 He seems to under a fork

NOTE Confidence: 0.8493436

00:14:28.832 --> 00:14:30.865 in his right hand and then

NOTE Confidence: 0.8493436

00:14:30.865 --> 00:14:32.905 the bread in the left hand.

NOTE Confidence: 0.8493436

00:14:32.910 --> 00:14:35.400 I think it will come yes, OK?

NOTE Confidence: 0.8493436

00:14:35.400 --> 00:14:37.900 So this might be archaic,

NOTE Confidence: 0.8493436

00:14:37.900 --> 00:14:40.539 but using a fork and an bread

NOTE Confidence: 0.8493436

00:14:40.539 --> 00:14:43.187 doesn't seem to be very hot cake.

NOTE Confidence: 0.8493436

00:14:43.190 --> 00:14:45.434 Then this patient is in him

NOTE Confidence: 0.8493436

00:14:45.434 --> 00:14:47.730 sleep and you can hear him.

NOTE Confidence: 0.9298193

00:14:55.690 --> 00:14:56.940 Is very happy.

NOTE Confidence: 0.7232791

00:14:59.050 --> 00:15:03.270 Singing. Speaking.

NOTE Confidence: 0.7916202

00:15:06.030 --> 00:15:07.368 OK, that's quite

NOTE Confidence: 0.7916202

00:15:07.370 --> 00:15:10.485 long. We found a lot of speeches,

NOTE Confidence: 0.7916202

00:15:10.490 --> 00:15:13.605 even some people giving lectures during VD,

NOTE Confidence: 0.7916202

00:15:13.610 --> 00:15:15.840 people singing some long behavior

NOTE Confidence: 0.7916202

00:15:15.840 --> 00:15:17.624 like selling things King,

NOTE Confidence: 0.7916202

00:15:17.630 --> 00:15:18.965 playing football, smoking,

NOTE Confidence: 0.7916202

00:15:18.965 --> 00:15:22.088 so smoking baby arcade, by the way,

NOTE Confidence: 0.7916202

00:15:22.088 --> 00:15:24.318 but not the over behavior.

NOTE Confidence: 0.7916202

00:15:24.320 --> 00:15:27.435 So Abby would not display some difference,

NOTE Confidence: 0.7916202

00:15:27.440 --> 00:15:28.332 arcane behavior.

NOTE Confidence: 0.7916202

00:15:28.332 --> 00:15:31.900 So all the behavior we have seen before,

NOTE Confidence: 0.7916202

00:15:31.900 --> 00:15:34.175 like eating or singing should

NOTE Confidence: 0.7916202

00:15:34.175 --> 00:15:36.450 be driven by the cortex.

NOTE Confidence: 0.7916202

00:15:36.450 --> 00:15:38.298 Exactly as awake behavior.

NOTE Confidence: 0.7916202

00:15:38.298 --> 00:15:41.695 Otherwise, I don't know which part

NOTE Confidence: 0.7916202

00:15:41.695 --> 00:15:45.370 of the brain would drive them.

NOTE Confidence: 0.7916202

00:15:45.370 --> 00:15:48.862 Then all the patient that I I show you

NOTE Confidence: 0.7916202

00:15:48.862 --> 00:15:51.926 before we are at Parkinson's disease,

NOTE Confidence: 0.7916202

00:15:51.930 --> 00:15:54.110 but you cannot see it.

NOTE Confidence: 0.7916202

00:15:54.110 --> 00:15:55.854 We discovered that Parkinsonism

NOTE Confidence: 0.7916202

00:15:55.854 --> 00:15:58.034 disappears during a body movement.

NOTE Confidence: 0.7916202

00:15:58.040 --> 00:16:00.644 The first cases was this patient

NOTE Confidence: 0.7916202

00:16:00.644 --> 00:16:02.948 dreaming that he was attacked

NOTE Confidence: 0.7916202

00:16:02.948 --> 00:16:05.363 by Caymans and defending itself

NOTE Confidence: 0.7916202

00:16:05.363 --> 00:16:08.509 with paddle at the same time in

NOTE Confidence: 0.7916202

00:16:08.509 --> 00:16:11.141 the bed he was handling the heavy

NOTE Confidence: 0.7916202

00:16:11.150 --> 00:16:13.838 bed table over over his head

NOTE Confidence: 0.7916202

00:16:13.838 --> 00:16:16.040 shouting there caimans came and.

NOTE Confidence: 0.7916202

00:16:16.040 --> 00:16:17.800 Like in his dreams,

NOTE Confidence: 0.7916202

00:16:17.800 --> 00:16:20.440 which which is typical of RBD.

NOTE Confidence: 0.7916202

00:16:20.440 --> 00:16:22.132 It's dream enacted behavior.

NOTE Confidence: 0.7916202

00:16:22.132 --> 00:16:24.670 But what was surprising in this

NOTE Confidence: 0.7916202

00:16:24.743 --> 00:16:27.508 case was that the guy had during

NOTE Confidence: 0.7916202

00:16:27.508 --> 00:16:29.680 wakefulness very strong parkinsonism.

NOTE Confidence: 0.7916202

00:16:29.680 --> 00:16:31.440 He was Braddock kinetic.

NOTE Confidence: 0.7916202

00:16:31.440 --> 00:16:34.080 He could not speak very loud,

NOTE Confidence: 0.7916202

00:16:34.080 --> 00:16:36.280 yet he was hyper phonic.

NOTE Confidence: 0.7916202

00:16:36.280 --> 00:16:39.424 In sharp contrast with the behavior

NOTE Confidence: 0.7916202

00:16:39.424 --> 00:16:42.856 during REM sleep where he was very

NOTE Confidence: 0.7916202

00:16:42.856 --> 00:16:45.328 rapid and had a strong voice.

NOTE Confidence: 0.7916202

00:16:45.330 --> 00:16:47.710 We were surprised by that,

NOTE Confidence: 0.7916202

00:16:47.710 --> 00:16:51.301 so we decided to launch a study on 100

NOTE Confidence: 0.7916202

00:16:51.301 --> 00:16:54.826 patient with Parkinson's disease and verse.

NOTE Confidence: 0.7916202

00:16:54.830 --> 00:16:57.784 Close Alpha of them add Air B

NOTE Confidence: 0.7916202

00:16:57.784 --> 00:17:01.478 and we ask to dispose during RBD.

NOTE Confidence: 0.7916202

00:17:01.480 --> 00:17:04.330 Is your husband having a normal

NOTE Confidence: 0.7916202

00:17:04.330 --> 00:17:06.230 speech compared to wakefulness?

NOTE Confidence: 0.7916202

00:17:06.230 --> 00:17:09.870 Even without and with levodopa?

NOTE Confidence: 0.7916202

00:17:09.870 --> 00:17:13.353 And what is in red here is when it's

NOTE Confidence: 0.7916202

00:17:13.353 --> 00:17:15.990 better than during wakefulness,

NOTE Confidence: 0.7916202

00:17:15.990 --> 00:17:18.811 and you can see that the speech

NOTE Confidence: 0.7916202

00:17:18.811 --> 00:17:21.650 they speak with more intelligible,

NOTE Confidence: 0.7916202

00:17:21.650 --> 00:17:22.498 more articulated.

NOTE Confidence: 0.7916202

00:17:22.498 --> 00:17:25.466 I or volume voices and their movement

NOTE Confidence: 0.7916202

00:17:25.466 --> 00:17:27.770 are more frequently smoothed,

NOTE Confidence: 0.7916202

00:17:27.770 --> 00:17:30.596 more rapid and with higher strength

NOTE Confidence: 0.7916202

00:17:30.596 --> 00:17:32.009 than during wakefulness,

NOTE Confidence: 0.7916202

00:17:32.010 --> 00:17:33.486 and the facial expression,

NOTE Confidence: 0.7916202

00:17:33.486 --> 00:17:36.482 which is very a mimic in Parkinson's

NOTE Confidence: 0.7916202

00:17:36.482 --> 00:17:38.600 disease during wakefulness,

NOTE Confidence: 0.7916202

00:17:38.600 --> 00:17:40.082 is restored during.

NOTE Confidence: 0.7916202

00:17:40.082 --> 00:17:43.540 I'm sleep so all patient had an

NOTE Confidence: 0.7916202

00:17:43.642 --> 00:17:46.742 improvement in gesture in speech

NOTE Confidence: 0.7916202

00:17:46.742 --> 00:17:49.842 and in facial expression during

NOTE Confidence: 0.7916202

00:17:49.944 --> 00:17:53.430 air BD as if parkinsonism was

NOTE Confidence: 0.7916202

00:17:53.430 --> 00:17:55.173 disappearing during ABT.

NOTE Confidence: 0.7916202

00:17:55.180 --> 00:17:57.838 You can see an example here.

NOTE Confidence: 0.7916202

00:17:57.840 --> 00:18:01.096 This patient is awake and you can see

NOTE Confidence: 0.7916202

00:18:01.096 --> 00:18:04.927 our slow movement is when they move awake.

NOTE Confidence: 0.7916202

00:18:04.930 --> 00:18:07.576 This is typical of Parkinson's disease,

NOTE Confidence: 0.7916202

00:18:07.580 --> 00:18:08.470 slow movements.

NOTE Confidence: 0.8454862

00:18:10.910 --> 00:18:13.238 This is wakefulness and during REM

NOTE Confidence: 0.8454862

00:18:13.238 --> 00:18:15.539 sleep is just slapping like that.

NOTE Confidence: 0.8454862

00:18:15.540 --> 00:18:18.260 But you can see just how fast the

NOTE Confidence: 0.8454862

00:18:18.260 --> 00:18:20.317 hand movements are compared to

NOTE Confidence: 0.8454862

00:18:20.317 --> 00:18:22.487 what they are during wakefulness.

NOTE Confidence: 0.81307

00:18:26.420 --> 00:18:29.048 So what is the source of

NOTE Confidence: 0.81307

00:18:29.048 --> 00:18:30.362 this rapid movements?

NOTE Confidence: 0.81307

00:18:30.370 --> 00:18:32.778 We just know from before that there

NOTE Confidence: 0.81307

00:18:32.778 --> 00:18:35.055 are not some primitive behavior

NOTE Confidence: 0.81307

00:18:35.055 --> 00:18:37.395 by central pattern generators,

NOTE Confidence: 0.81307

00:18:37.400 --> 00:18:39.482 so we ask whether during REM

NOTE Confidence: 0.81307

00:18:39.482 --> 00:18:42.103 sleep there could be a transient

NOTE Confidence: 0.81307

00:18:42.103 --> 00:18:44.419 restoration of dopamine transmission,

NOTE Confidence: 0.81307

00:18:44.420 --> 00:18:48.396 as it can sometimes occur during wakefulness.

NOTE Confidence: 0.81307

00:18:48.400 --> 00:18:50.372 To determine this point,

NOTE Confidence: 0.81307

00:18:50.372 --> 00:18:52.344 we turned toward another

NOTE Confidence: 0.81307

00:18:52.344 --> 00:18:54.520 model of parkinsonism.

NOTE Confidence: 0.81307

00:18:54.520 --> 00:18:58.558 Rare cuisines causing of Parkinson's disease.

NOTE Confidence: 0.81307

00:18:58.560 --> 00:19:00.850 Disorder called multiple system atrophy.

NOTE Confidence: 0.81307

00:19:00.850 --> 00:19:03.592 Invis disorders patient have lots of

NOTE Confidence: 0.81307

00:19:03.592 --> 00:19:06.403 dopamine neurons and in addition which

NOTE Confidence: 0.81307

00:19:06.403 --> 00:19:09.546 is the same as in Parkinson's disease.

NOTE Confidence: 0.81307

00:19:09.550 --> 00:19:12.756 But in addition they have loss of

NOTE Confidence: 0.81307

00:19:12.756 --> 00:19:14.130 postsynaptic dopamine receptors.

NOTE Confidence: 0.81307

00:19:14.130 --> 00:19:14.693 Consequently,

NOTE Confidence: 0.81307

00:19:14.693 --> 00:19:18.634 this patient are unresponsive to leva DOPA.

NOTE Confidence: 0.81307

00:19:18.640 --> 00:19:21.376 We interviewed them and there's booze

NOTE Confidence: 0.81307

00:19:21.376 --> 00:19:25.150 and some of them went to the sleep lab.

NOTE Confidence: 0.81307

00:19:25.150 --> 00:19:27.796 Almost 88% of them had air BDL

NOTE Confidence: 0.81307

00:19:27.796 --> 00:19:30.038 be this extremely frequent in

NOTE Confidence: 0.81307

00:19:30.038 --> 00:19:32.086 in multiple system atrophy,

NOTE Confidence: 0.81307

00:19:32.090 --> 00:19:34.757 and we found exactly the same aspect

NOTE Confidence: 0.81307

00:19:34.757 --> 00:19:37.739 during RBD as in Parkinson's disease.

NOTE Confidence: 0.81307

00:19:37.740 --> 00:19:39.910 You've got an example here.

NOTE Confidence: 0.81307

00:19:39.910 --> 00:19:42.780 This patient is awake and you can

NOTE Confidence: 0.81307

00:19:42.780 --> 00:19:46.850 see how I mimic. She is an hour slow.

NOTE Confidence: 0.81307

00:19:46.850 --> 00:19:48.590 She is to move.

NOTE Confidence: 0.7749426

00:19:51.980 --> 00:19:54.165 Mrs. Parkinson is typical and

NOTE Confidence: 0.7749426

00:19:54.165 --> 00:19:56.350 the same during REM sleep.

NOTE Confidence: 0.85300016

00:20:04.130 --> 00:20:07.766 She showed that we can see our faces with.

NOTE Confidence: 0.85300016

00:20:07.770 --> 00:20:10.218 A clear expression of pain which

NOTE Confidence: 0.85300016

00:20:10.218 --> 00:20:12.437 is typical of something normal

NOTE Confidence: 0.85300016

00:20:12.437 --> 00:20:14.477 not because of parkinsonism.

NOTE Confidence: 0.85300016

00:20:14.480 --> 00:20:17.658 So if a leveled up a insensitive

NOTE Confidence: 0.85300016

00:20:17.658 --> 00:20:19.840 parkinsonism improves during REM sleep,

NOTE Confidence: 0.85300016

00:20:19.840 --> 00:20:22.486 it means that the motor improvement

NOTE Confidence: 0.85300016

00:20:22.486 --> 00:20:25.664 that we see cannot be due to

NOTE Confidence: 0.85300016

00:20:25.664 --> 00:20:27.436 parking to dopamine release.

NOTE Confidence: 0.8139628

00:20:29.590 --> 00:20:32.411 Then we we found that these movements

NOTE Confidence: 0.8139628

00:20:32.411 --> 00:20:35.759 during LB had not remove nobody kinesia,

NOTE Confidence: 0.8139628

00:20:35.760 --> 00:20:37.970 but at the same time,

NOTE Confidence: 0.8139628

00:20:37.970 --> 00:20:41.057 if you look very well at that,

NOTE Confidence: 0.8139628

00:20:41.060 --> 00:20:43.260 they are not totally normal.

NOTE Confidence: 0.8139628

00:20:43.260 --> 00:20:45.948 So we decided to make some some

NOTE Confidence: 0.8139628

00:20:45.948 --> 00:20:48.262 strong analysis of movements awake

NOTE Confidence: 0.8139628

00:20:48.262 --> 00:20:50.760 during our results, for example.

NOTE Confidence: 0.8139628

00:20:50.760 --> 00:20:53.400 And during REM sleep in total,

NOTE Confidence: 0.8139628

00:20:53.400 --> 00:20:55.300 in a totally blind,

NOTE Confidence: 0.8139628

00:20:55.300 --> 00:20:59.020 without knowing if they were asleep or awake.

NOTE Confidence: 0.8139628

00:20:59.020 --> 00:21:00.588 And we compare them.

NOTE Confidence: 0.8139628

00:21:00.588 --> 00:21:02.940 So Trimmer was present during a

NOTE Confidence: 0.8139628

00:21:03.024 --> 00:21:05.288 hooser in Parkinson's disease,

NOTE Confidence: 0.8139628

00:21:05.290 --> 00:21:07.834 but not during our body movement

NOTE Confidence: 0.8139628

00:21:07.834 --> 00:21:10.669 during hours are mostly self oriented.

NOTE Confidence: 0.8139628

00:21:10.670 --> 00:21:13.652 I'm sure you look at your patient

NOTE Confidence: 0.8139628

00:21:13.652 --> 00:21:16.475 often when they have someone who's

NOTE Confidence: 0.8139628

00:21:16.475 --> 00:21:19.391 always scratch their nose or the

NOTE Confidence: 0.8139628

00:21:19.391 --> 00:21:22.319 turn in the bed or the position.

NOTE Confidence: 0.8139628

00:21:22.320 --> 00:21:23.224 The pillow.

NOTE Confidence: 0.8139628

00:21:23.224 --> 00:21:25.936 It's mostly self oriented compared to

NOTE Confidence: 0.8139628

00:21:25.936 --> 00:21:29.307 LPD and the in contrast the movements.

NOTE Confidence: 0.8139628

00:21:29.310 --> 00:21:31.830 During everywhere much more violent,

NOTE Confidence: 0.8139628

00:21:31.830 --> 00:21:34.848 much more rapid than during awake,

NOTE Confidence: 0.8139628

00:21:34.850 --> 00:21:37.880 and in addition there were jerky,

NOTE Confidence: 0.8139628

00:21:37.880 --> 00:21:41.120 like if there were repeated twice

NOTE Confidence: 0.8139628

00:21:41.120 --> 00:21:44.606 like that and looking like Charlie

NOTE Confidence: 0.8139628

00:21:44.606 --> 00:21:48.284 Chaplin movement more than than like.

NOTE Confidence: 0.8139628

00:21:48.290 --> 00:21:50.970 Wakefulness movements so we imagine

NOTE Confidence: 0.8139628

00:21:50.970 --> 00:21:54.188 that the motor system that drives

NOTE Confidence: 0.8139628

00:21:54.188 --> 00:21:57.780 the movements that we see in RBD in

NOTE Confidence: 0.8139628

00:21:57.780 --> 00:22:01.017 movements in RAM sleep may bypass the

NOTE Confidence: 0.8139628

00:22:01.017 --> 00:22:04.116 basil ganglia because if they use the

NOTE Confidence: 0.8139628

00:22:04.116 --> 00:22:07.140 bus fare had used the basil ganglia,

NOTE Confidence: 0.8139628

00:22:07.140 --> 00:22:09.140 there should be slow.

NOTE Confidence: 0.8139628

00:22:09.140 --> 00:22:11.640 There should not be rapid.

NOTE Confidence: 0.8139628

00:22:11.640 --> 00:22:15.072 So we might unmask during RBD

NOTE Confidence: 0.8139628

00:22:15.072 --> 00:22:17.992 the rough unfilter expression of

NOTE Confidence: 0.8139628

00:22:17.992 --> 00:22:20.657 motor cortex during REM sleep.

NOTE Confidence: 0.8337164

00:22:22.900 --> 00:22:25.770 To support this hypothesis that we based

NOTE Confidence: 0.8337164

00:22:25.770 --> 00:22:29.500 only on an analysis of videos during IBD,

NOTE Confidence: 0.8337164

00:22:29.500 --> 00:22:32.916 there were two recent studies by the

NOTE Confidence: 0.8337164

00:22:32.916 --> 00:22:36.287 German group here and the Swiss group.

NOTE Confidence: 0.8337164

00:22:36.290 --> 00:22:38.430 In this study, the gappmayer

NOTE Confidence: 0.8337164

00:22:38.430 --> 00:22:40.142 injected tracer using SPECT

NOTE Confidence: 0.8337164

00:22:40.142 --> 00:22:42.380 imaging during our body movements.

NOTE Confidence: 0.8337164

00:22:42.380 --> 00:22:44.560 You cannot sleep in America.

NOTE Confidence: 0.8337164

00:22:44.560 --> 00:22:47.801 You have to inject marker during the

NOTE Confidence: 0.8337164

00:22:47.801 --> 00:22:51.382 movement that you do in seizure and then

NOTE Confidence: 0.8337164

00:22:51.382 --> 00:22:54.381 bring the patient to gamma camera and

NOTE Confidence: 0.8337164

00:22:54.381 --> 00:22:57.605 what we found was that during a body

NOTE Confidence: 0.8337164

00:22:57.610 --> 00:22:59.920 movement there were strong activation

NOTE Confidence: 0.8337164

00:22:59.920 --> 00:23:02.830 here of the motor cortex of the.

NOTE Confidence: 0.8337164

00:23:02.830 --> 00:23:07.024 At the same time of the pons like in.

NOTE Confidence: 0.8337164

00:23:07.030 --> 00:23:09.346 This is expected in home sleep,

NOTE Confidence: 0.8337164

00:23:09.350 --> 00:23:12.008 but no activation of the basil

NOTE Confidence: 0.8337164

00:23:12.008 --> 00:23:14.759 ganglia here at the same time.

NOTE Confidence: 0.8337164

00:23:14.760 --> 00:23:17.080 Exactly as we had suggested

NOTE Confidence: 0.8337164

00:23:17.080 --> 00:23:18.936 in the same direction,

NOTE Confidence: 0.8337164

00:23:18.940 --> 00:23:21.520 the Swiss group used the electrodes

NOTE Confidence: 0.8337164

00:23:21.520 --> 00:23:24.332 that are placed inside the basil

NOTE Confidence: 0.8337164

00:23:24.332 --> 00:23:26.360 ganglia in Parkinson's disease.

NOTE Confidence: 0.8337164

00:23:26.360 --> 00:23:29.293 Usually this electrode as you as you

NOTE Confidence: 0.8337164

00:23:29.293 --> 00:23:32.388 are used to stimulate this area,

NOTE Confidence: 0.8337164

00:23:32.390 --> 00:23:35.366 but they can also be used to monitor

NOTE Confidence: 0.8337164

00:23:35.366 --> 00:23:38.793 in the other direction what happens in

NOTE Confidence: 0.8337164

00:23:38.793 --> 00:23:42.514 the basil ganglia during REM sleep and

NOTE Confidence: 0.8337164

00:23:42.514 --> 00:23:45.628 when we are moving during wakefulness.

NOTE Confidence: 0.8337164

00:23:45.630 --> 00:23:48.514 There is a dialogue between the sub

NOTE Confidence: 0.8337164

00:23:48.514 --> 00:23:51.159 dynamic nucleus from the basil ganglia.

NOTE Confidence: 0.8337164

00:23:51.160 --> 00:23:53.280 It's an output nuclear nucleus

NOTE Confidence: 0.8337164

00:23:53.280 --> 00:23:54.976 of the basil ganglia.

NOTE Confidence: 0.8337164

00:23:54.980 --> 00:23:57.140 There is during wakefulness a

NOTE Confidence: 0.8337164

00:23:57.140 --> 00:23:59.300 dialogue between the cortex motor

NOTE Confidence: 0.8337164

00:23:59.371 --> 00:24:01.356 cortex and the basil ganglia,

NOTE Confidence: 0.8337164

00:24:01.360 --> 00:24:03.505 and during Hensley movements this

NOTE Confidence: 0.8337164

00:24:03.505 --> 00:24:06.127 dialogue is lossed exactly as predicted

NOTE Confidence: 0.8337164

00:24:06.127 --> 00:24:08.575 by the analysis of the movement.

NOTE Confidence: 0.8337164

00:24:08.580 --> 00:24:10.710 So the extra pyramidal pathway,

NOTE Confidence: 0.8337164

00:24:10.710 --> 00:24:13.790 which is driven by the basil ganglia is

NOTE Confidence: 0.8337164

00:24:13.790 --> 00:24:17.168 not at work during our body movement.

NOTE Confidence: 0.8337164

00:24:17.170 --> 00:24:19.844 So they are probably the pure expression

NOTE Confidence: 0.8337164

00:24:19.844 --> 00:24:22.428 of the promoter of the motor cortex,

NOTE Confidence: 0.8337164

00:24:22.430 --> 00:24:24.686 and they're probably not at work

NOTE Confidence: 0.8337164

00:24:24.686 --> 00:24:26.568 during Britain. Friend movement too.

NOTE Confidence: 0.83958584

00:24:28.600 --> 00:24:31.216 This is what will be taught us about

00:24:31.216 --> 00:24:33.718 the motor control during REM sleep,

00:24:33.720 --> 00:24:36.816 but everybody can teach us a lot of

00:24:36.816 --> 00:24:39.370 things about the dreaming process.

00:24:39.370 --> 00:24:42.196 Just think a minute on what.

00:24:42.200 --> 00:24:45.504 What are usually just study on dreams.

00:24:45.510 --> 00:24:47.310 Dreams occur during sleep.

00:24:47.310 --> 00:24:51.117 Then we wake up and in some cases

00:24:51.117 --> 00:24:54.652 rare cases we would recall the dreams

00:24:54.652 --> 00:24:57.461 during Awakenings and then if we

00:24:57.461 --> 00:25:01.083 choose to tell them or to write them,

00:25:01.083 --> 00:25:03.909 we will report them during wakefulness,

00:25:03.910 --> 00:25:07.591 at each step of this process there is here

00:25:07.591 --> 00:25:10.420 encoding and irreversible verbalizing.

00:25:10.420 --> 00:25:12.400 You can lose the information.

00:25:12.400 --> 00:25:13.904 Amnesia is extremely frequent.

NOTE Confidence: 0.83958584

00:25:13.904 --> 00:25:16.740 They can be a bias of recall,

NOTE Confidence: 0.83958584

00:25:16.740 --> 00:25:19.505 whereas when you think about their body,

NOTE Confidence: 0.83958584

00:25:19.510 --> 00:25:21.880 their body is what is enacted.

NOTE Confidence: 0.83958584

00:25:21.880 --> 00:25:24.645 Dream. So you you can see directly

NOTE Confidence: 0.83958584

00:25:24.645 --> 00:25:26.220 from an external POV.

NOTE Confidence: 0.83958584

00:25:26.220 --> 00:25:28.200 So live, dream the dream.

NOTE Confidence: 0.83958584

00:25:28.200 --> 00:25:32.889 At the moment it is produced by the brain.

NOTE Confidence: 0.83958584

00:25:32.890 --> 00:25:35.932 And if you think about this

NOTE Confidence: 0.83958584

00:25:35.932 --> 00:25:38.920 guy who was fighting Sarazin.

NOTE Confidence: 0.83958584

00:25:38.920 --> 00:25:41.972 In some manner you can see some

NOTE Confidence: 0.83958584

00:25:41.972 --> 00:25:44.934 of his mental images that are

NOTE Confidence: 0.83958584

00:25:44.934 --> 00:25:48.036 make like solid during her pity.

NOTE Confidence: 0.83958584

00:25:48.040 --> 00:25:51.448 So this could help us to provide insight

NOTE Confidence: 0.83958584

00:25:51.448 --> 00:25:55.238 in a lot of questions about dreams.

NOTE Confidence: 0.83958584

00:25:55.240 --> 00:25:58.600 The first one is about non dreamers,

NOTE Confidence: 0.83958584

00:25:58.600 --> 00:26:03.452 we know for a long time that 20% of the

NOTE Confidence: 0.83958584

00:26:03.452 --> 00:26:05.982 general population rarely remember a

NOTE Confidence: 0.83958584

00:26:05.982 --> 00:26:09.742 dream and less than 1% of the population.

NOTE Confidence: 0.83958584

00:26:09.742 --> 00:26:10.770 Add never,

NOTE Confidence: 0.83958584

00:26:10.770 --> 00:26:13.556 ever remember any dreams we don't know

NOTE Confidence: 0.83958584

00:26:13.556 --> 00:26:17.079 if the non dreamers do dream but do not

NOTE Confidence: 0.83958584

00:26:17.079 --> 00:26:20.766 recall them or if they do not produce dream.

NOTE Confidence: 0.83958584

00:26:20.770 --> 00:26:22.770 This is an inner experience.

NOTE Confidence: 0.83958584

00:26:22.770 --> 00:26:25.170 So how to access to it?

NOTE Confidence: 0.83958584

00:26:25.170 --> 00:26:27.185 They have the same amount

NOTE Confidence: 0.83958584

00:26:27.185 --> 00:26:29.570 of REM sleep as we do.

NOTE Confidence: 0.83958584

00:26:29.570 --> 00:26:32.986 They have the same amount of memory.

NOTE Confidence: 0.83958584

00:26:32.990 --> 00:26:35.960 So we can answer this question

NOTE Confidence: 0.83958584

00:26:35.960 --> 00:26:37.940 using the Airbnb model.

NOTE Confidence: 0.83958584

00:26:37.940 --> 00:26:40.130 Because when we looked at our

NOTE Confidence: 0.83958584

00:26:40.130 --> 00:26:41.978 first theory of patient with

NOTE Confidence: 0.83958584

00:26:41.978 --> 00:26:43.868 their bid in the sleep lab,

NOTE Confidence: 0.83958584

00:26:43.870 --> 00:26:46.950 there were more than 289 patient monitored.

NOTE Confidence: 0.83958584

00:26:46.950 --> 00:26:49.764 We found eight of them being non

NOTE Confidence: 0.83958584

00:26:49.764 --> 00:26:52.100 dreamers forward and no more dreams

NOTE Confidence: 0.83958584

00:26:52.100 --> 00:26:54.971 for more than 20 years and four of

NOTE Confidence: 0.83958584

00:26:54.971 --> 00:26:57.739 them and we never ever had any dreams.

NOTE Confidence: 0.83958584

00:26:57.740 --> 00:27:00.330 They don't know what we.

NOTE Confidence: 0.83958584

00:27:00.330 --> 00:27:03.234 Speak about when we speak about

NOTE Confidence: 0.83958584

00:27:03.234 --> 00:27:05.170 dreams despite there's assembly.

NOTE Confidence: 0.83958584

00:27:05.170 --> 00:27:07.465 Pathetic memory as Abd dreamers

NOTE Confidence: 0.83958584

00:27:07.465 --> 00:27:10.864 and this non dreamers and act of

NOTE Confidence: 0.83958584

00:27:10.864 --> 00:27:13.399 dreaming acted behavior during sleep.

NOTE Confidence: 0.83958584

00:27:13.400 --> 00:27:16.598 Just an example here these patients

NOTE Confidence: 0.83958584

00:27:16.598 --> 00:27:20.408 they told me I never dreamed you

NOTE Confidence: 0.83958584

00:27:20.408 --> 00:27:24.062 can see him in REM sleep there.

NOTE Confidence: 0.83958584

00:27:24.070 --> 00:27:26.000 Quite a very longer behavior

NOTE Confidence: 0.83958584

00:27:26.000 --> 00:27:28.710 and this is really no big deal.

NOTE Confidence: 0.83958584

00:27:28.710 --> 00:27:31.032 He opened the eyes and even

NOTE Confidence: 0.83958584

00:27:31.032 --> 00:27:32.580 managed to stand up,

NOTE Confidence: 0.83958584

00:27:32.580 --> 00:27:34.908 which is exceptional during every day,

NOTE Confidence: 0.83958584

00:27:34.910 --> 00:27:36.068 but no cure.

NOTE Confidence: 0.9000545

00:27:40.210 --> 00:27:42.205 I will not translate what you saying

NOTE Confidence: 0.9000545

00:27:42.205 --> 00:27:44.130 because it's a lot of slang word.

NOTE Confidence: 0.8935402

00:27:47.620 --> 00:27:50.908 But it seems to fight with the neighbor

NOTE Confidence: 0.8935402

00:27:50.908 --> 00:27:54.409 so far as I understand. What she says.

NOTE Confidence: 0.82045776

00:28:02.030 --> 00:28:02.400 Yeah.

NOTE Confidence: 0.70493084

00:28:05.150 --> 00:28:07.960 Some of his movements are quite clumsy.

NOTE Confidence: 0.87339854

00:28:24.550 --> 00:28:28.458 OK, this is finished.

NOTE Confidence: 0.87339854

00:28:28.460 --> 00:28:30.296 And then the nurses enter the

NOTE Confidence: 0.87339854

00:28:30.296 --> 00:28:32.440 room and told him what happens,

NOTE Confidence: 0.87339854

00:28:32.440 --> 00:28:35.550 and he said no, there is a mess in this

NOTE Confidence: 0.87339854

00:28:35.629 --> 00:28:38.413 room and I wonder who did the Mace.

NOTE Confidence: 0.87339854

00:28:38.420 --> 00:28:41.620 He did not realize that he made this

NOTE Confidence: 0.87339854

00:28:41.620 --> 00:28:44.869 dream and he made the mess is a mess.

NOTE Confidence: 0.87339854

00:28:44.870 --> 00:28:48.014 So non dreamer do dream or At's here

NOTE Confidence: 0.87339854

00:28:48.014 --> 00:28:51.022 at least I've dreaming acting behavior

NOTE Confidence: 0.87339854

00:28:51.022 --> 00:28:54.220 but do not recall their dreams.

NOTE Confidence: 0.87339854

00:28:54.220 --> 00:28:57.332 Then we tried to use the air body

NOTE Confidence: 0.87339854

00:28:57.332 --> 00:29:00.353 model to solve an old question

NOTE Confidence: 0.87339854

00:29:00.353 --> 00:29:03.575 about eye scanning during REM sleep.

NOTE Confidence: 0.87339854

00:29:03.580 --> 00:29:06.260 You know, I movements in I'm sleep as

NOTE Confidence: 0.87339854

00:29:06.260 --> 00:29:09.200 soon as they were discovered in the 54

NOTE Confidence: 0.87339854

00:29:09.200 --> 00:29:12.303 where suppose or I put it eyes to be

NOTE Confidence: 0.87339854

00:29:12.303 --> 00:29:15.268 a link with the scanning of dream images.

NOTE Confidence: 0.87339854

00:29:15.268 --> 00:29:19.140 As you can see in this little baby.

NOTE Confidence: 0.87339854

00:29:19.140 --> 00:29:22.044 Building meant was the first one to try

NOTE Confidence: 0.87339854

00:29:22.044 --> 00:29:24.869 to show some correlation between the

NOTE Confidence: 0.87339854

00:29:24.869 --> 00:29:27.887 direction of the rapid eye movements

NOTE Confidence: 0.87339854

00:29:27.967 --> 00:29:30.985 collected before awakening and the dream

NOTE Confidence: 0.87339854

00:29:30.985 --> 00:29:33.860 content that is remember just after

NOTE Confidence: 0.87339854

00:29:33.860 --> 00:29:36.870 you may remember he studied some dreams

NOTE Confidence: 0.87339854

00:29:36.870 --> 00:29:40.385 of tennis player looking right and left,

NOTE Confidence: 0.87339854

00:29:40.390 --> 00:29:43.624 and that was in the good direction.

NOTE Confidence: 0.87339854

00:29:43.630 --> 00:29:46.969 So there was a lot of enthusiasm

NOTE Confidence: 0.87339854

00:29:46.969 --> 00:29:49.569 in the early 60s about.

NOTE Confidence: 0.87339854

00:29:49.570 --> 00:29:51.498 This scanning epatha SIS,

NOTE Confidence: 0.87339854

00:29:51.498 --> 00:29:53.908 but happily some other groups,

NOTE Confidence: 0.87339854

00:29:53.910 --> 00:29:57.263 showed that there was some weak correlation

NOTE Confidence: 0.87339854

00:29:57.263 --> 00:30:00.248 between the eye movements you had.

NOTE Confidence: 0.87339854

00:30:00.250 --> 00:30:03.666 Before awakening and the Dream report and

NOTE Confidence: 0.87339854

00:30:03.666 --> 00:30:06.897 the correlation was less than 30 percent,

NOTE Confidence: 0.87339854

00:30:06.900 --> 00:30:09.280 30%, which is quite low.

NOTE Confidence: 0.87339854

00:30:09.280 --> 00:30:11.650 Later, another group in Prime,

NOTE Confidence: 0.87339854

00:30:11.650 --> 00:30:14.680 it shows that.

NOTE Confidence: 0.87339854

00:30:14.680 --> 00:30:18.180 Did I movements are not always conjugated,

NOTE Confidence: 0.87339854

00:30:18.180 --> 00:30:21.638 which may suppose that we are not

NOTE Confidence: 0.87339854

00:30:21.638 --> 00:30:24.905 focusing on a dream images unless

NOTE Confidence: 0.87339854

00:30:24.905 --> 00:30:28.265 we have one dream pair eyes.

NOTE Confidence: 0.87339854

00:30:28.270 --> 00:30:29.350 And uh,

NOTE Confidence: 0.87339854

00:30:29.350 --> 00:30:33.130 over groups say that features and blind

NOTE Confidence: 0.87339854

00:30:33.130 --> 00:30:36.474 people have rapid eye movements despite

NOTE Confidence: 0.87339854

00:30:36.474 --> 00:30:40.980 their no image to see during REM sleep.

NOTE Confidence: 0.87339854

00:30:40.980 --> 00:30:43.518 So there was a debate and

NOTE Confidence: 0.87339854

00:30:43.518 --> 00:30:46.730 how fog in in the 80s said,

NOTE Confidence: 0.87339854

00:30:46.730 --> 00:30:47.166 OK,

NOTE Confidence: 0.87339854

00:30:47.166 --> 00:30:49.782 we cannot solve this debate because

NOTE Confidence: 0.87339854

00:30:49.782 --> 00:30:53.357 I movement we see in him sleep are

NOTE Confidence: 0.87339854

00:30:53.357 --> 00:30:55.537 not exactly translating the gaze

NOTE Confidence: 0.87339854

00:30:55.625 --> 00:30:58.677 of the dreamer because the guest is

NOTE Confidence: 0.87339854

00:30:58.677 --> 00:31:01.274 determined by the combination of the

NOTE Confidence: 0.87339854

00:31:01.274 --> 00:31:03.842 neck movements and rapid eyes movements

NOTE Confidence: 0.87339854

00:31:03.842 --> 00:31:06.616 and the neck movements are paralyzed,

NOTE Confidence: 0.87339854

00:31:06.620 --> 00:31:10.710 paralyzed, atonic during REM sleep.

NOTE Confidence: 0.87339854

00:31:10.710 --> 00:31:14.063 But but but we saw this cases

NOTE Confidence: 0.87339854

00:31:14.063 --> 00:31:16.758 and I showed him a lot.

NOTE Confidence: 0.87339854

00:31:16.760 --> 00:31:18.772 It's the next smoker,

NOTE Confidence: 0.87339854

00:31:18.772 --> 00:31:23.531 with narcolepsy was Air BG and you can see

NOTE Confidence: 0.87339854

00:31:23.531 --> 00:31:26.819 him smoking the saturation sensor here.

NOTE Confidence: 0.87339854

00:31:26.820 --> 00:31:29.256 What surprises during his behavior was

NOTE Confidence: 0.87339854

00:31:29.256 --> 00:31:32.798 that he seems to look at these cigarettes.

NOTE Confidence: 0.87339854

00:31:32.800 --> 00:31:33.922 Fictive cigarettes,

NOTE Confidence: 0.87339854

00:31:33.922 --> 00:31:37.849 when he scratched it in the ashtray.

NOTE Confidence: 0.87339854

00:31:37.850 --> 00:31:41.730 As if it had an ice where in

NOTE Confidence: 0.87339854

00:31:41.730 --> 00:31:44.779 the direction of the cigarette.

NOTE Confidence: 0.87339854

00:31:44.780 --> 00:31:48.140 Detroit away. As you can see.

NOTE Confidence: 0.87339854

00:31:48.140 --> 00:31:51.564 So we decided to monitor the eye movement,

NOTE Confidence: 0.87339854

00:31:51.570 --> 00:31:53.784 the eye direction with the way

NOTE Confidence: 0.87339854

00:31:53.784 --> 00:31:56.403 that is more complex than during

NOTE Confidence: 0.87339854

00:31:56.403 --> 00:31:58.008 normal police sonography.

NOTE Confidence: 0.87339854

00:31:58.010 --> 00:32:00.712 We use some yuge to monitor the

NOTE Confidence: 0.87339854

00:32:00.712 --> 00:32:02.883 vertical and the horizontal movement

NOTE Confidence: 0.87339854

00:32:02.883 --> 00:32:06.611 that you can you know separate here on

NOTE Confidence: 0.87339854

00:32:06.697 --> 00:32:10.041 the policy of nogra FI and we monitor

NOTE Confidence: 0.87339854

00:32:10.041 --> 00:32:12.161 all subsequent patient with herbed

NOTE Confidence: 0.87339854

00:32:12.161 --> 00:32:14.296 lookin 76 where necessary looking

NOTE Confidence: 0.87339854

00:32:14.296 --> 00:32:16.956 to find some goal directed behavior

NOTE Confidence: 0.87339854

00:32:16.956 --> 00:32:19.560 which has which are behavior that.

NOTE Confidence: 0.84242207

00:32:19.560 --> 00:32:22.146 If you are done, then during

NOTE Confidence: 0.84242207

00:32:22.146 --> 00:32:25.057 wakefulness you would need to use your

NOTE Confidence: 0.84242207

00:32:25.057 --> 00:32:27.633 eyes to follow what you were doing.

NOTE Confidence: 0.84242207

00:32:27.640 --> 00:32:30.293 For example, when you are sending a

NOTE Confidence: 0.84242207

00:32:30.293 --> 00:32:33.297 kiss like I'm doing here to somebody,

NOTE Confidence: 0.84242207

00:32:33.300 --> 00:32:36.396 usually you look at the face of the

NOTE Confidence: 0.84242207

00:32:36.396 --> 00:32:39.356 people you are sending the kiss too.

NOTE Confidence: 0.84242207

00:32:39.360 --> 00:32:41.664 So we found some goal directed

NOTE Confidence: 0.84242207

00:32:41.664 --> 00:32:44.123 behavior like for example in this

NOTE Confidence: 0.84242207

00:32:44.123 --> 00:32:45.815 narcolepsy patient with LVAD,

NOTE Confidence: 0.84242207

00:32:45.820 --> 00:32:50.404 the patient is taking a pictures with is.

NOTE Confidence: 0.84242207

00:32:50.410 --> 00:32:54.673 IPad and we looked whether the eye

NOTE Confidence: 0.84242207

00:32:54.673 --> 00:32:58.150 movement were within the frame for

NOTE Confidence: 0.84242207

00:32:58.150 --> 00:33:01.720 frame of the of the fictive iPad

NOTE Confidence: 0.84242207

00:33:01.832 --> 00:33:05.270 because it's a dream of course.

NOTE Confidence: 0.84242207

00:33:05.270 --> 00:33:10.177 And what we found is that first.

NOTE Confidence: 0.84242207

00:33:10.180 --> 00:33:12.620 During a goal, directed behavior,

NOTE Confidence: 0.84242207

00:33:12.620 --> 00:33:15.060 only 1756% of behavior are

NOTE Confidence: 0.84242207

00:33:15.060 --> 00:33:17.500 associated with rapid eye movements.

NOTE Confidence: 0.84242207

00:33:17.500 --> 00:33:19.940 The over goal directed behavior

NOTE Confidence: 0.84242207

00:33:19.940 --> 00:33:22.380 have no rapid eye movement,

NOTE Confidence: 0.84242207

00:33:22.380 --> 00:33:25.308 so it's not normal to re.

NOTE Confidence: 0.84242207

00:33:25.310 --> 00:33:28.719 But when there are some eye movements,

NOTE Confidence: 0.84242207

00:33:28.720 --> 00:33:31.648 they are in the same direction

NOTE Confidence: 0.84242207

00:33:31.648 --> 00:33:33.600 as the limb action.

NOTE Confidence: 0.84242207

00:33:33.600 --> 00:33:36.588 An example here is this guy

NOTE Confidence: 0.84242207

00:33:36.588 --> 00:33:38.970 who clients level ladder in.

NOTE Confidence: 0.84242207

00:33:38.970 --> 00:33:42.108 This is dreaming in this behavior.

NOTE Confidence: 0.84242207

00:33:42.110 --> 00:33:45.078 And he first started by looking up

NOTE Confidence: 0.84242207

00:33:45.078 --> 00:33:48.188 here to the ladder run before he

NOTE Confidence: 0.84242207

00:33:48.188 --> 00:33:51.440 put his and erase this end on it.

NOTE Confidence: 0.84242207

00:33:51.440 --> 00:33:53.984 And then he looked down here

NOTE Confidence: 0.84242207

00:33:53.984 --> 00:33:55.680 with the eyes closed.

NOTE Confidence: 0.84242207

00:33:55.680 --> 00:33:56.780 Of course,

NOTE Confidence: 0.84242207

00:33:56.780 --> 00:34:00.080 that's why we need a TV

NOTE Confidence: 0.84242207

00:34:00.080 --> 00:34:02.487 electrocardiography before he put his

NOTE Confidence: 0.84242207

00:34:02.487 --> 00:34:05.322 his feet on the lower ladder rank.

NOTE Confidence: 0.84242207

00:34:05.330 --> 00:34:07.740 So from all this study,

NOTE Confidence: 0.84242207

00:34:07.740 --> 00:34:11.596 we and what we know in animals too,

NOTE Confidence: 0.84242207

00:34:11.600 --> 00:34:15.974 we can imagine that we are like a puppet

NOTE Confidence: 0.84242207

00:34:15.974 --> 00:34:19.568 puppet model during REM sleep apart.

NOTE Confidence: 0.84242207

00:34:19.570 --> 00:34:24.078 Nucleus in our poster generators is both

NOTE Confidence: 0.84242207

00:34:24.078 --> 00:34:27.708 activating our motor cortex to move.

NOTE Confidence: 0.84242207

00:34:27.710 --> 00:34:29.198 These movements are translated

NOTE Confidence: 0.84242207

00:34:29.198 --> 00:34:31.058 to the spinal motor neuron,

NOTE Confidence: 0.84242207

00:34:31.060 --> 00:34:33.573 but at this place they are blocked

NOTE Confidence: 0.84242207

00:34:33.573 --> 00:34:36.286 by the otoniel system and at the

NOTE Confidence: 0.84242207

00:34:36.286 --> 00:34:38.620 same times are as opposed generator

NOTE Confidence: 0.84242207

00:34:38.694 --> 00:34:40.969 is generating the motor cortex.

NOTE Confidence: 0.84242207

00:34:40.970 --> 00:34:43.095 So the movements it's generating

NOTE Confidence: 0.84242207

00:34:43.095 --> 00:34:46.296 also the rents and the rapid eye

NOTE Confidence: 0.84242207

00:34:46.296 --> 00:34:48.276 movements and possibly stimulated

NOTE Confidence: 0.84242207

00:34:48.276 --> 00:34:51.500 the visual cortex at the same times.

NOTE Confidence: 0.84242207

00:34:51.500 --> 00:34:54.335 This seems to be a colorie similton.

NOTE Confidence: 0.84242207

00:34:54.340 --> 00:34:56.360 He was discharged in parallel,

NOTE Confidence: 0.84242207

00:34:56.360 --> 00:34:58.790 not in series like during wakefulness.

NOTE Confidence: 0.78708524

00:35:01.290 --> 00:35:05.082 Then this is what we learn from the

NOTE Confidence: 0.78708524

00:35:05.082 --> 00:35:08.145 high scanning during her body we

NOTE Confidence: 0.78708524

00:35:08.145 --> 00:35:11.163 we thought about using the herbed

NOTE Confidence: 0.78708524

00:35:11.266 --> 00:35:14.488 as a model to see if we're if we

NOTE Confidence: 0.78708524

00:35:14.488 --> 00:35:17.795 were replaying the task during the

NOTE Confidence: 0.78708524

00:35:17.795 --> 00:35:20.740 night for equalling them better.

NOTE Confidence: 0.78708524

00:35:20.740 --> 00:35:23.404 And we used it to test the replay

NOTE Confidence: 0.78708524

00:35:23.404 --> 00:35:26.924 I put this is we all know that

NOTE Confidence: 0.78708524

00:35:26.924 --> 00:35:29.370 memory is consolidated during sleep.

NOTE Confidence: 0.78708524

00:35:29.370 --> 00:35:31.470 It's about 20% more.

NOTE Confidence: 0.78708524

00:35:31.470 --> 00:35:35.279 That is remember after having slept on it.

NOTE Confidence: 0.78708524

00:35:35.280 --> 00:35:38.888 But we don't know unless using animal models,

NOTE Confidence: 0.78708524

00:35:38.890 --> 00:35:41.464 whether we are producing what we

NOTE Confidence: 0.78708524

00:35:41.464 --> 00:35:44.300 have learned the task during sleep.

NOTE Confidence: 0.78708524

00:35:44.300 --> 00:35:46.874 Or is it something totally different

NOTE Confidence: 0.78708524

00:35:46.874 --> 00:35:49.710 that we are doing during sleep?

NOTE Confidence: 0.78708524

00:35:49.710 --> 00:35:52.643 So we try to teach something and

NOTE Confidence: 0.78708524

00:35:52.643 --> 00:35:55.267 choreography or a text in the

NOTE Confidence: 0.78708524

00:35:55.267 --> 00:35:57.829 evening to Airbnb patient 20 each

NOTE Confidence: 0.78708524

00:35:57.829 --> 00:36:01.304 types and we look whether it was

NOTE Confidence: 0.78708524

00:36:01.304 --> 00:36:02.783 consolidated during sleep,

NOTE Confidence: 0.78708524

00:36:02.790 --> 00:36:06.045 which was the case in the consolidated.

NOTE Confidence: 0.78708524

00:36:06.050 --> 00:36:06.884 Very well,

49

NOTE Confidence: 0.78708524

00:36:06.884 --> 00:36:09.803 the memory and we looked at the

NOTE Confidence: 0.78708524

00:36:09.803 --> 00:36:12.704 video whether the other he played

NOTE Confidence: 0.78708524

00:36:12.704 --> 00:36:15.710 the uncover graffiti or the other.

NOTE Confidence: 0.78708524

00:36:15.710 --> 00:36:18.470 If they're learning text by heart,

NOTE Confidence: 0.78708524

00:36:18.470 --> 00:36:20.666 would they speak it?

NOTE Confidence: 0.78708524

00:36:20.666 --> 00:36:25.278 And would they tell it during RBD or not?

NOTE Confidence: 0.78708524

00:36:25.280 --> 00:36:28.510 So it took us a few years to do with

NOTE Confidence: 0.78708524

00:36:28.599 --> 00:36:32.050 studies and to make the Long story

NOTE Confidence: 0.78708524

00:36:32.050 --> 00:36:34.699 short for procedural memory page,

NOTE Confidence: 0.78708524

00:36:34.700 --> 00:36:37.262 our patient at two learned and

NOTE Confidence: 0.78708524

00:36:37.262 --> 00:36:38.543 choreography before sleeping.

NOTE Confidence: 0.78708524

00:36:38.550 --> 00:36:41.094 No patient with video replayed recently

NOTE Confidence: 0.78708524

00:36:41.094 --> 00:36:43.686 learn motor sequence the control group

NOTE Confidence: 0.78708524

00:36:43.686 --> 00:36:45.330 were sleepwalkers 20 sleepwalkers

NOTE Confidence: 0.78708524

00:36:45.330 --> 00:36:48.350 and one of the three polka reproduce

NOTE Confidence: 0.78708524

00:36:48.350 --> 00:36:50.960 what she had learned before sleeping.

NOTE Confidence: 0.78708524

00:36:50.960 --> 00:36:53.100 As for available episodic memory,

NOTE Confidence: 0.78708524

00:36:53.100 --> 00:36:55.908 patient had to learn by heart.

NOTE Confidence: 0.78708524

00:36:55.910 --> 00:36:58.580 A quite long and emotional text.

NOTE Confidence: 0.78708524

00:36:58.580 --> 00:37:01.250 Nobody repeat repeated during the night.

NOTE Confidence: 0.78708524

00:37:01.250 --> 00:37:03.920 The text affair learn before sleeping,

NOTE Confidence: 0.78708524

00:37:03.920 --> 00:37:06.538 but one one of the patient during

NOTE Confidence: 0.78708524

00:37:06.538 --> 00:37:08.309 RBD authored some sentences

NOTE Confidence: 0.78708524

00:37:08.309 --> 00:37:10.597 that are semantically linked,

NOTE Confidence: 0.78708524

00:37:10.600 --> 00:37:12.820 not a copy and past,

NOTE Confidence: 0.78708524

00:37:12.820 --> 00:37:15.610 but the semantic link with the

NOTE Confidence: 0.78708524

00:37:15.610 --> 00:37:18.377 text learn before sleeping as if

NOTE Confidence: 0.78708524

00:37:18.377 --> 00:37:20.825 he had incorporated in his dreams.

NOTE Confidence: 0.78708524

00:37:20.830 --> 00:37:23.945 Part of what we are learn before,

NOTE Confidence: 0.78708524

00:37:23.950 --> 00:37:26.280 but would not produce it.

NOTE Confidence: 0.78708524

00:37:26.280 --> 00:37:29.160 Osoo by chance.

NOTE Confidence: 0.78708524

00:37:29.160 --> 00:37:31.560 Last year we had this patient

NOTE Confidence: 0.78708524

00:37:31.560 --> 00:37:33.939 were doing during wakefulness.

NOTE Confidence: 0.7514866

00:37:36.240 --> 00:37:39.680 It's a test we do for testing for

NOTE Confidence: 0.7514866

00:37:39.680 --> 00:37:42.219 bradykinesia in isolated everybody

NOTE Confidence: 0.7514866

00:37:42.220 --> 00:37:45.802 score and during the next night.

NOTE Confidence: 0.7514866

00:37:45.802 --> 00:37:49.020 During Abd his patient.

NOTE Confidence: 0.7514866

00:37:49.020 --> 00:37:51.378 Seems to have reproduced his gesture,

NOTE Confidence: 0.7514866

00:37:51.380 --> 00:37:54.124 which is not something complex to learn.

NOTE Confidence: 0.7514866

00:37:54.130 --> 00:37:56.090 As you know, it's simple,

NOTE Confidence: 0.7514866

00:37:56.090 --> 00:37:59.234 maybe because he laughed at the same time.

NOTE Confidence: 0.7514866

00:37:59.240 --> 00:38:02.180 Maybe he found it funny.

NOTE Confidence: 0.7514866

00:38:02.180 --> 00:38:05.060 What we have done to him, we can't.

NOTE Confidence: 0.7514866

00:38:05.060 --> 00:38:06.860 It's it's called finger tapping.

NOTE Confidence: 0.797711

00:38:10.820 --> 00:38:15.145 You got it here. Single

NOTE Confidence: 0.797711

00:38:15.145 --> 00:38:17.290 setting. Then he laughs.

NOTE Confidence: 0.8258016

00:38:25.520 --> 00:38:28.012 It's not a usual gesture on it,

NOTE Confidence: 0.8258016

00:38:28.012 --> 00:38:31.532 so just you're just for the United

NOTE Confidence: 0.8258016

00:38:31.532 --> 00:38:33.640 Parkinson's disease Rating Scale.

NOTE Confidence: 0.8258016

00:38:33.640 --> 00:38:36.196 So every day, not every yes,

NOTE Confidence: 0.8258016

00:38:36.200 --> 00:38:38.756 every day is very narrow window.

NOTE Confidence: 0.8258016

00:38:38.760 --> 00:38:40.900 It's fascinating. Window on dreams,

NOTE Confidence: 0.8258016

00:38:40.900 --> 00:38:44.316 but only 9% of REM sleep contains movement.

NOTE Confidence: 0.8258016

00:38:44.320 --> 00:38:47.170 And the thing scanning behaviors as

NOTE Confidence: 0.8258016

00:38:47.170 --> 00:38:50.459 we have seen before are quite rare.

NOTE Confidence: 0.8258016

00:38:50.460 --> 00:38:53.316 But a few that direct evidence suggests

NOTE Confidence: 0.8258016

00:38:53.316 --> 00:38:55.768 that we incorporate in our dreams

NOTE Confidence: 0.8258016

00:38:55.768 --> 00:38:58.072 what in our behaviors during dreams,

NOTE Confidence: 0.8258016

00:38:58.080 --> 00:39:02.176 what we have done, or long before sleeping.

NOTE Confidence: 0.8258016

00:39:02.180 --> 00:39:06.016 As it is known from the study

NOTE Confidence: 0.8258016

00:39:06.016 --> 00:39:07.660 of dream themselves.

NOTE Confidence: 0.8258016

00:39:07.660 --> 00:39:09.432 Last but not least,

NOTE Confidence: 0.8258016

00:39:09.432 --> 00:39:14.160 we use the air BD model to work on emotion.

NOTE Confidence: 0.8258016

00:39:14.160 --> 00:39:17.652 I'm sure you are familiar with

NOTE Confidence: 0.8258016

00:39:17.652 --> 00:39:21.800 the role of sleep and REM sleep,

NOTE Confidence: 0.8258016

00:39:21.800 --> 00:39:26.270 especially in regulating emotion too.

NOTE Confidence: 0.8258016

00:39:26.270 --> 00:39:31.294 I guess you guys have already received a

NOTE Confidence: 0.8258016

00:39:31.294 --> 00:39:35.367 very disagreeable email in the evening and.

NOTE Confidence: 0.8258016

00:39:35.370 --> 00:39:40.086 Wanted to answer it quite emotionally.

NOTE Confidence: 0.8258016

00:39:40.090 --> 00:39:42.556 As you know, you should not.

NOTE Confidence: 0.8258016

00:39:42.560 --> 00:39:45.848 You should sleep on it and the next

NOTE Confidence: 0.8258016

00:39:45.848 --> 00:39:49.164 morning answer to the Mail on a more

NOTE Confidence: 0.8258016

00:39:49.164 --> 00:39:51.190 rational and less emotional way.

NOTE Confidence: 0.8258016

00:39:51.190 --> 00:39:53.790 This is one of the major role of

NOTE Confidence: 0.8258016

00:39:53.790 --> 00:39:56.084 sleep to desensitize our negative

NOTE Confidence: 0.8258016

00:39:56.084 --> 00:39:58.168 emotion to the model.

NOTE Confidence: 0.8258016

00:39:58.170 --> 00:40:00.330 To sleep to remember and.

NOTE Confidence: 0.8258016

00:40:00.330 --> 00:40:02.892 Need to forget that has been

00:40:02.892 --> 00:40:04.600 developed by mature worker.

00:40:04.600 --> 00:40:06.735 Remember better and not being

00:40:06.735 --> 00:40:08.870 exposed again to the emotion.

00:40:08.870 --> 00:40:11.670 So now we know that sleep is

00:40:11.670 --> 00:40:13.570 important in regulating emotion,

00:40:13.570 --> 00:40:16.132 but how to access to the

00:40:16.132 --> 00:40:17.840 emotion during REM sleep?

00:40:17.840 --> 00:40:20.396 Using MRI focused on the amygdala,

00:40:20.400 --> 00:40:23.520 is aware that it will tell us whether

00:40:23.520 --> 00:40:26.379 the emotion are positive or negative.

00:40:26.380 --> 00:40:28.936 Waking up people is quite complex.

00:40:28.940 --> 00:40:30.350 It will interrupt.

00:40:30.350 --> 00:40:31.760 The dreaming process.

00:40:31.760 --> 00:40:34.896 But now if you think about it,

00:40:34.900 --> 00:40:38.652 emotion is something very visible on the

NOTE Confidence: 0.8258016

00:40:38.652 --> 00:40:42.337 face of somebody and you can see here.

NOTE Confidence: 0.8258016

00:40:42.340 --> 00:40:46.260 So values emotion developed by by Trump.

NOTE Confidence: 0.8258016

00:40:46.260 --> 00:40:50.152 We are wired since birth to recognize

NOTE Confidence: 0.8258016

00:40:50.152 --> 00:40:53.539 the emotion on on human faces,

NOTE Confidence: 0.8258016

00:40:53.540 --> 00:40:55.550 disgust, happiness, sadness,

NOTE Confidence: 0.8258016

00:40:55.550 --> 00:40:58.230 angriness, afraid and surprise.

NOTE Confidence: 0.8258016

00:40:58.230 --> 00:40:59.110 No think.

NOTE Confidence: 0.8258016

00:40:59.110 --> 00:41:02.190 That you can recognize them very well

NOTE Confidence: 0.8258016

00:41:02.190 --> 00:41:05.450 in an awake person like Trump ear,

NOTE Confidence: 0.8258016

00:41:05.450 --> 00:41:07.634 but maybe it could be interesting

NOTE Confidence: 0.8258016

00:41:07.634 --> 00:41:09.985 to look at people sleeping at

NOTE Confidence: 0.8258016

00:41:09.985 --> 00:41:12.025 their emotion on their face,

NOTE Confidence: 0.8258016

00:41:12.030 --> 00:41:15.522 and it's what we did here in the first

NOTE Confidence: 0.8258016

00:41:15.522 --> 00:41:18.276 theory of patient we focus 1 camera

NOTE Confidence: 0.8258016

00:41:18.276 --> 00:41:21.697 on the face and one on the full body.

NOTE Confidence: 0.8258016

00:41:21.700 --> 00:41:24.796 We put electrodes on the chin of course,

NOTE Confidence: 0.8258016

00:41:24.800 --> 00:41:27.504 but also on the measure of the faces

NOTE Confidence: 0.8258016

00:41:27.504 --> 00:41:30.696 of the expression like the Giga Matic.

NOTE Confidence: 0.8258016

00:41:30.700 --> 00:41:33.106 For smiling and on the corrugator

NOTE Confidence: 0.8258016

00:41:33.106 --> 00:41:36.274 here for you know being happy and it

NOTE Confidence: 0.8258016

00:41:36.274 --> 00:41:38.957 allowed to look at the place where

NOTE Confidence: 0.8258016

00:41:38.957 --> 00:41:41.652 you have the EMG signal and signal

NOTE Confidence: 0.8258016

00:41:41.652 --> 00:41:44.890 and look at at the video at the

NOTE Confidence: 0.8258016

00:41:44.890 --> 00:41:47.690 same time she's smiling here asleep.

NOTE Confidence: 0.8258016

00:41:47.690 --> 00:41:50.684 And every patient I've lost of

NOTE Confidence: 0.8258016

00:41:50.684 --> 00:41:53.770 Atonia that concern also their face.

NOTE Confidence: 0.8258016

00:41:53.770 --> 00:41:57.970 So we we found a lot of emotion

NOTE Confidence: 0.8258016

00:41:57.970 --> 00:42:02.095 during REM sleep on the face of

NOTE Confidence: 0.8258016

00:42:02.095 --> 00:42:05.035 our patients and to avoid.

NOTE Confidence: 0.8258016

00:42:05.040 --> 00:42:07.158 To to leave them anonymous because

NOTE Confidence: 0.8258016

00:42:07.158 --> 00:42:09.540 the face is easy to recognize.

NOTE Confidence: 0.8258016

00:42:09.540 --> 00:42:12.820 We asked to an artist to change slightly

NOTE Confidence: 0.8258016

00:42:12.820 --> 00:42:15.092 the general face without changing

NOTE Confidence: 0.8258016

00:42:15.092 --> 00:42:18.291 the expression or in our slippers so

NOTE Confidence: 0.86345243

00:42:18.376 --> 00:42:21.688 you can see what they do during REM sleep.

NOTE Confidence: 0.86345243

00:42:21.690 --> 00:42:24.805 'cause they have the eye closed during

NOTE Confidence: 0.86345243

00:42:24.805 --> 00:42:28.466 REM sleep, but we found some expression of

NOTE Confidence: 0.86345243

00:42:28.466 --> 00:42:31.298 happiness and less angriness discussed fear

NOTE Confidence: 0.86345243

00:42:31.298 --> 00:42:34.922 and surprise quite easily in RBD patient but

NOTE Confidence: 0.86345243

00:42:35.007 --> 00:42:38.159 also to a lesser degree in normal people.

NOTE Confidence: 0.86345243

00:42:38.160 --> 00:42:40.385 We started by working on

NOTE Confidence: 0.86345243

00:42:40.385 --> 00:42:41.720 smiling during sleep.

NOTE Confidence: 0.86345243

00:42:41.720 --> 00:42:45.384 You need to put a cinematic and you

NOTE Confidence: 0.86345243

00:42:45.384 --> 00:42:48.857 can see the smiling faces here.

NOTE Confidence: 0.86345243

00:42:48.860 --> 00:42:51.780 And we started to work on 180 person

NOTE Confidence: 0.86345243

00:42:51.780 --> 00:42:55.237 and an 100 of them were normal adults.

NOTE Confidence: 0.86345243

00:42:55.240 --> 00:42:57.640 We found smile on adult faces

NOTE Confidence: 0.86345243

00:42:57.640 --> 00:42:59.637 in 8% of normal adults.

NOTE Confidence: 0.86345243

00:42:59.637 --> 00:43:02.430 We know it's extremely frequent in babies,

NOTE Confidence: 0.86345243

00:43:02.430 --> 00:43:04.824 but so far nobody news whether

NOTE Confidence: 0.86345243

00:43:04.824 --> 00:43:06.420 it exists in adults.

NOTE Confidence: 0.86345243

00:43:06.420 --> 00:43:07.216 It does.

NOTE Confidence: 0.86345243

00:43:07.216 --> 00:43:10.002 It's rare, it's more frequent in Ram,

NOTE Confidence: 0.86345243

00:43:10.010 --> 00:43:12.680 sleep that in non REM sleep

NOTE Confidence: 0.86345243

00:43:12.680 --> 00:43:15.415 it can occasionally be seen in

NOTE Confidence: 0.86345243

00:43:15.415 --> 00:43:18.013 non REM sleep in normal adults.

NOTE Confidence: 0.86345243

00:43:18.020 --> 00:43:21.185 In contrast to this rare smile, smile.

NOTE Confidence: 0.86345243

00:43:21.185 --> 00:43:24.745 See normal subject Alf of our Air B

NOTE Confidence: 0.86345243

00:43:24.745 --> 00:43:28.216 patient smiled or laughed during ability.

NOTE Confidence: 0.86345243

00:43:28.220 --> 00:43:30.686 An Alpha of the smiles worsen

NOTE Confidence: 0.86345243

00:43:30.686 --> 00:43:33.240 konus with rapid eye movements.

NOTE Confidence: 0.86345243

00:43:33.240 --> 00:43:35.746 We later looked weather of his work,

NOTE Confidence: 0.86345243

00:43:35.750 --> 00:43:37.338 true or untrue, smiles.

NOTE Confidence: 0.86345243

00:43:37.338 --> 00:43:40.089 You know that we can determine if

NOTE Confidence: 0.86345243

00:43:40.089 --> 00:43:42.441 a smile is true if people have at

NOTE Confidence: 0.86345243

00:43:42.441 --> 00:43:44.984 the same times, not only the lip,

NOTE Confidence: 0.86345243

00:43:44.984 --> 00:43:48.279 the corner of the lip that goes like that,

NOTE Confidence: 0.86345243

00:43:48.280 --> 00:43:50.779 but also the eyes, that closer little.

NOTE Confidence: 0.86345243

00:43:50.780 --> 00:43:53.286 Which means that you are more happy.

NOTE Confidence: 0.86345243

00:43:53.290 --> 00:43:56.146 Whereas when you just do like that small,

NOTE Confidence: 0.86345243

00:43:56.150 --> 00:43:56.806 polite smile.

NOTE Confidence: 0.86345243

00:43:56.806 --> 00:43:59.430 So there were a lot of true smiles

NOTE Confidence: 0.86345243

00:43:59.508 --> 00:44:00.810 with his condition.

NOTE Confidence: 0.86345243

00:44:00.810 --> 00:44:02.950 Smiles during ahem slipper ability

NOTE Confidence: 0.86345243

00:44:02.950 --> 00:44:03.806 and laughs.

NOTE Confidence: 0.86345243

00:44:03.810 --> 00:44:06.315 Big laughs were quite frequent

NOTE Confidence: 0.86345243

00:44:06.315 --> 00:44:08.319 in Air B patients.

NOTE Confidence: 0.86345243

00:44:08.320 --> 00:44:09.984 In a few cases,

NOTE Confidence: 0.86345243

00:44:09.984 --> 00:44:12.480 very few case because we try

NOTE Confidence: 0.86345243

00:44:12.582 --> 00:44:15.138 not to wake up our patient.

NOTE Confidence: 0.86345243

00:44:15.140 --> 00:44:16.840 We collected some happy

NOTE Confidence: 0.86345243

00:44:16.840 --> 00:44:18.540 dreaming scenario after them.

NOTE Confidence: 0.86345243

00:44:18.540 --> 00:44:21.048 So it seems that sleep smiling

NOTE Confidence: 0.86345243

00:44:21.048 --> 00:44:23.228 seem to reflect through inner

NOTE Confidence: 0.86345243

00:44:23.228 --> 00:44:25.358 smeared in in our patients.

NOTE Confidence: 0.86345243

00:44:25.360 --> 00:44:27.490 So if this is true,

NOTE Confidence: 0.86345243

00:44:27.490 --> 00:44:29.615 it means that using the

NOTE Confidence: 0.86345243

00:44:29.615 --> 00:44:31.315 fashion emotion during Airbnb,

NOTE Confidence: 0.86345243

00:44:31.320 --> 00:44:34.260 open the windows on what emotion are

NOTE Confidence: 0.86345243

00:44:34.260 --> 00:44:36.904 treated are expressed during REM sleep

NOTE Confidence: 0.86345243

00:44:36.904 --> 00:44:39.949 directly without needing the memory of our.

NOTE Confidence: 0.86345243

00:44:39.950 --> 00:44:44.510 Patience we continue on negative

NOTE Confidence: 0.86345243

00:44:44.510 --> 00:44:48.158 and positive emotion and.

NOTE Confidence: 0.86345243

00:44:48.160 --> 00:44:51.646 We looked whether they were always or

NOTE Confidence: 0.86345243

00:44:51.646 --> 00:44:54.459 not associated with over channels,

NOTE Confidence: 0.86345243

00:44:54.460 --> 00:44:57.090 especially with the eye movements.

NOTE Confidence: 0.86345243

00:44:57.090 --> 00:45:01.014 The PhD in charge at to look at video

NOTE Confidence: 0.86345243

00:45:01.014 --> 00:45:05.487 by very small screens of three seconds,

NOTE Confidence: 0.86345243

00:45:05.490 --> 00:45:08.110 Mini Airport and saying OK,

NOTE Confidence: 0.86345243

00:45:08.110 --> 00:45:10.286 no smile, no smile.

NOTE Confidence: 0.86345243

00:45:10.286 --> 00:45:12.462 Positive negative neutral emotion

NOTE Confidence: 0.86345243

00:45:12.462 --> 00:45:16.332 here and then to look at the

NOTE Confidence: 0.86345243

00:45:16.332 --> 00:45:18.480 concomitant eye movement recording.

NOTE Confidence: 0.86345243

00:45:18.480 --> 00:45:19.960 Whether they were slow,

NOTE Confidence: 0.86345243

00:45:19.960 --> 00:45:22.180 I movements which ocurred so during

NOTE Confidence: 0.86345243

00:45:22.251 --> 00:45:24.196 him sleep isolated I movements.

NOTE Confidence: 0.86345243

00:45:24.200 --> 00:45:26.465 Happy Day movement or burst

NOTE Confidence: 0.86345243

00:45:26.465 --> 00:45:29.370 as it occur during him sleep.

NOTE Confidence: 0.86345243

00:45:29.370 --> 00:45:32.628 So it looks in a lot of time because

NOTE Confidence: 0.86345243

00:45:32.628 --> 00:45:35.871 he had to score more than 24,000

NOTE Confidence: 0.86345243

00:45:35.871 --> 00:45:38.793 mini book of triskel seconds or

NOTE Confidence: 0.86345243

00:45:38.793 --> 00:45:42.174 from sleep and what we found is

NOTE Confidence: 0.86345243

00:45:42.174 --> 00:45:43.090 extremely interesting.

NOTE Confidence: 0.86345243

00:45:43.090 --> 00:45:45.240 The positive emotion are mostly

NOTE Confidence: 0.86345243

00:45:45.240 --> 00:45:47.530 associated with slow and isolate.

NOTE Confidence: 0.86345243

00:45:47.530 --> 00:45:48.841 I movements were.

NOTE Confidence: 0.86345243

00:45:48.841 --> 00:45:51.026 In contrast the negative emotion

NOTE Confidence: 0.86345243

00:45:51.026 --> 00:45:53.299 are strongly associated with burst

NOTE Confidence: 0.86345243

00:45:53.299 --> 00:45:55.804 of eye movement, as if.

NOTE Confidence: 0.86345243

00:45:55.804 --> 00:45:58.764 To desensitize our negative emotion,

NOTE Confidence: 0.86345243

00:45:58.770 --> 00:46:01.150 we may need to concomitantly

NOTE Confidence: 0.86345243

00:46:01.150 --> 00:46:03.530 have this burst of movement

NOTE Confidence: 0.8278249

00:46:03.619 --> 00:46:04.978 for any reasons.

NOTE Confidence: 0.8278249

00:46:04.980 --> 00:46:07.370 During REM sleep we don't

NOTE Confidence: 0.8278249

00:46:07.370 --> 00:46:09.760 know the reason for that,

NOTE Confidence: 0.8278249

00:46:09.760 --> 00:46:11.504 but it remembers us.

NOTE Confidence: 0.8278249

00:46:11.504 --> 00:46:14.120 It makes us remember about the

NOTE Confidence: 0.8278249

00:46:14.207 --> 00:46:17.183 technique that is used to decrease

NOTE Confidence: 0.8278249

00:46:17.183 --> 00:46:20.280 the emotion in patients with trauma.

NOTE Confidence: 0.8278249

00:46:20.280 --> 00:46:22.630 The high movement desensitisation reaction

NOTE Confidence: 0.8278249

00:46:22.630 --> 00:46:26.300 where you ask the patient with psychotrauma.

NOTE Confidence: 0.8278249

00:46:26.300 --> 00:46:30.633 To remember and to remember the trauma

NOTE Confidence: 0.8278249

00:46:30.633 --> 00:46:35.469 by looking at the same times at the

NOTE Confidence: 0.8278249

00:46:35.469 --> 00:46:39.849 I'm at the movements which help her

NOTE Confidence: 0.8278249

00:46:39.849 --> 00:46:44.043 to desensitize herself to the emotion.

NOTE Confidence: 0.8278249

00:46:44.050 --> 00:46:47.050 So as a conclusion, I speak too much.

NOTE Confidence: 0.8278249

00:46:47.050 --> 00:46:49.282 Of course, Airb drivel reveals specific

NOTE Confidence: 0.8278249

00:46:49.282 --> 00:46:51.180 motor control during REM sleep.

NOTE Confidence: 0.8278249

00:46:51.180 --> 00:46:53.346 There is an activation of the

NOTE Confidence: 0.8278249

00:46:53.346 --> 00:46:55.679 motor cortex of the brain stem,

NOTE Confidence: 0.8278249

00:46:55.680 --> 00:46:57.930 but not of the basil ganglia.

NOTE Confidence: 0.8278249

00:46:57.930 --> 00:47:01.658 And there should be a reason for that.

NOTE Confidence: 0.8278249

00:47:01.660 --> 00:47:04.594 Plus the improvement of movement in

NOTE Confidence: 0.8278249

00:47:04.594 --> 00:47:06.550 Parkinson's disease during Airbnb

NOTE Confidence: 0.8278249

00:47:06.622 --> 00:47:08.957 without any treatment suggests that

NOTE Confidence: 0.8278249

00:47:08.957 --> 00:47:11.292 there there is an alternative,

NOTE Confidence: 0.8278249

00:47:11.300 --> 00:47:13.856 not impaired motor system in this

NOTE Confidence: 0.8278249

00:47:13.856 --> 00:47:17.808 patient that could be maybe in our best

NOTE Confidence: 0.8278249

00:47:17.808 --> 00:47:19.976 dreams reactivated during wakefulness.

NOTE Confidence: 0.8278249

00:47:19.980 --> 00:47:22.390 Plus the scanning input report.

NOTE Confidence: 0.8278249

00:47:22.390 --> 00:47:25.276 This show is partly verified here,

NOTE Confidence: 0.8278249

00:47:25.280 --> 00:47:29.128 at least when they are moved by movement.

NOTE Confidence: 0.8278249

00:47:29.130 --> 00:47:32.455 We can see a coordinated coactivation of

NOTE Confidence: 0.8278249

00:47:32.455 --> 00:47:35.470 rapid eye movements and limb movements.

NOTE Confidence: 0.8278249

00:47:35.470 --> 00:47:37.998 At the same times.

NOTE Confidence: 0.8278249

00:47:38.000 --> 00:47:40.420 And gesture vocalization and facial

NOTE Confidence: 0.8278249

00:47:40.420 --> 00:47:43.290 expression during her body and mask.

NOTE Confidence: 0.8278249

00:47:43.290 --> 00:47:45.474 Some cognitive and emotional

NOTE Confidence: 0.8278249

00:47:45.474 --> 00:47:48.204 processes at play during dreaming.

NOTE Confidence: 0.8278249

00:47:48.210 --> 00:47:49.116 Before ending,

NOTE Confidence: 0.8278249

00:47:49.116 --> 00:47:52.287 I'd like to think the PhD neurologist

NOTE Confidence: 0.8278249

00:47:52.287 --> 00:47:54.810 of my team and our sponsor.

NOTE Confidence: 0.8278249

00:47:54.810 --> 00:47:56.970 You can see very questionable

NOTE Confidence: 0.8278249

00:47:56.970 --> 00:47:59.650 Delphine with yet Lauren look layer,

NOTE Confidence: 0.8278249

00:47:59.650 --> 00:48:01.850 Miquel J and Roberts Muncie,

NOTE Confidence: 0.8278249

00:48:01.850 --> 00:48:03.610 working on facial expression.

NOTE Confidence: 0.8278249

00:48:03.610 --> 00:48:05.810 Thank you for your attention.

NOTE Confidence: 0.8839206

00:48:08.070 --> 00:48:10.656 Thank you very much doctor enough.

NOTE Confidence: 0.8839206

00:48:10.660 --> 00:48:13.276 That was a phenomenal talk and

NOTE Confidence: 0.8839206

00:48:13.276 --> 00:48:16.361 doctor Tobias had to step away but

NOTE Confidence: 0.8839206

00:48:16.361 --> 00:48:18.869 we have a number of questions.

NOTE Confidence: 0.8839206

00:48:18.870 --> 00:48:22.350 If you have a few minutes that came

NOTE Confidence: 0.8839206

00:48:22.350 --> 00:48:25.780 up on on the chat and hopefully have

NOTE Confidence: 0.8839206

00:48:25.780 --> 00:48:27.858 an opportunity for other questions.

NOTE Confidence: 0.8839206

00:48:27.858 --> 00:48:30.970 One question was a more clinical question,

NOTE Confidence: 0.8839206

00:48:30.970 --> 00:48:33.938 which is how do you counsel patients

NOTE Confidence: 0.8839206

00:48:33.938 --> 00:48:36.167 and families about REM behavior

NOTE Confidence: 0.8839206

00:48:36.167 --> 00:48:38.367 disorder as a predictor of.

NOTE Confidence: 0.8839206

00:48:38.370 --> 00:48:41.070 Dementia or are Parkinsonian ISM.

NOTE Confidence: 0.8571422

00:48:43.960 --> 00:48:47.404 We always cancel them because we don't

NOTE Confidence: 0.8571422

00:48:47.404 --> 00:48:51.488 want them to discover them on Internet.

NOTE Confidence: 0.8571422

00:48:51.490 --> 00:48:55.630 We want to have quite.

NOTE Confidence: 0.8571422

00:48:55.630 --> 00:48:57.733 Asked if relationship,

NOTE Confidence: 0.8571422

00:48:57.733 --> 00:49:02.640 but what I usually used to say

NOTE Confidence: 0.8571422

00:49:02.774 --> 00:49:06.606 is to say there is a risk of.

NOTE Confidence: 0.8571422

00:49:06.610 --> 00:49:08.746 Developing without telling them it's 8085%.

67

NOTE Confidence: 0.8571422

00:49:08.750 --> 00:49:11.550 If they want to know I I try to be

NOTE Confidence: 0.8571422

00:49:11.640 --> 00:49:14.214 more Vegas because you don't know

NOTE Confidence: 0.8571422

00:49:14.214 --> 00:49:17.371 for a given person and as you can

NOTE Confidence: 0.8571422

00:49:17.371 --> 00:49:19.758 see there is still 10% of patients

NOTE Confidence: 0.8571422

00:49:19.758 --> 00:49:21.822 who have not converted and they

NOTE Confidence: 0.8571422

00:49:21.822 --> 00:49:24.410 can die off of their things before.

NOTE Confidence: 0.8571422

00:49:24.410 --> 00:49:27.455 But we discuss that with our colleagues

NOTE Confidence: 0.8571422

00:49:27.455 --> 00:49:30.907 from the Mayo Clinic and they say that

NOTE Confidence: 0.8571422

00:49:30.907 --> 00:49:33.802 in other cases you should ask first

NOTE Confidence: 0.8571422

00:49:33.802 --> 00:49:36.826 if the patient wants to know or not.

NOTE Confidence: 0.8571422

00:49:36.830 --> 00:49:39.898 I always try to to say, you know,

NOTE Confidence: 0.8571422

00:49:39.898 --> 00:49:42.586 we know that it can evolve too,

NOTE Confidence: 0.8571422

00:49:42.590 --> 00:49:45.542 and then we can start to say what

NOTE Confidence: 0.8571422

00:49:45.542 --> 00:49:48.350 you can do to avoid this fate.

NOTE Confidence: 0.8571422

00:49:48.350 --> 00:49:50.270 Change your way of life.

NOTE Confidence: 0.8571422

00:49:50.270 --> 00:49:53.334 Have more sport, change your way of eating.

NOTE Confidence: 0.8571422

00:49:53.340 --> 00:49:55.644 Make your brain working or what

NOTE Confidence: 0.8571422

00:49:55.644 --> 00:49:56.796 we know about.

NOTE Confidence: 0.8571422

00:49:56.800 --> 00:49:59.098 No prevention can be applied to.

NOTE Confidence: 0.9247023

00:50:00.390 --> 00:50:03.278 Very good, very helpful.

NOTE Confidence: 0.9247023

00:50:03.280 --> 00:50:05.890 Another question somewhat related question,

NOTE Confidence: 0.9247023

00:50:05.890 --> 00:50:09.258 is a patient who may start up as

NOTE Confidence: 0.9247023

00:50:09.258 --> 00:50:11.412 having idiopathic REM behavior

NOTE Confidence: 0.9247023

00:50:11.412 --> 00:50:13.868 disorder then ultimately progress

NOTE Confidence: 0.9247023

00:50:13.868 --> 00:50:16.324 is to Parkinson's disease.

NOTE Confidence: 0.9247023

00:50:16.330 --> 00:50:17.488 Does the does?

NOTE Confidence: 0.9247023

00:50:17.488 --> 00:50:19.804 Are you aware of whether the

NOTE Confidence: 0.9247023

00:50:19.804 --> 00:50:21.955 dream enactment behavior changes

NOTE Confidence: 0.9247023

00:50:21.955 --> 00:50:24.755 and are there differences in

NOTE Confidence: 0.9247023

00:50:24.755 --> 00:50:27.269 dream enactment behavior between

NOTE Confidence: 0.9247023

00:50:27.269 --> 00:50:29.897 Parkinson's multi system atrophy?

NOTE Confidence: 0.9247023

00:50:29.900 --> 00:50:31.466 Lewy body dementia?

NOTE Confidence: 0.9247023

00:50:31.466 --> 00:50:34.076 Are we not that granular?

NOTE Confidence: 0.8216548

00:50:36.480 --> 00:50:40.512 For the dream content, so far as I know,

NOTE Confidence: 0.8216548

00:50:40.520 --> 00:50:44.102 it has not been compared, at least not

NOTE Confidence: 0.8216548

00:50:44.102 --> 00:50:47.710 in a longitudinal in a follow up way.

NOTE Confidence: 0.8216548

00:50:47.710 --> 00:50:50.518 Too many patients say that their

NOTE Confidence: 0.8216548

00:50:50.518 --> 00:50:53.089 dream are changing at a time.

NOTE Confidence: 0.8216548

00:50:53.090 --> 00:50:54.179 The develop PD.

NOTE Confidence: 0.8216548

00:50:54.179 --> 00:50:57.214 What we have looked it about the the

NOTE Confidence: 0.8216548

00:50:57.214 --> 00:50:59.710 motor motor aspect and motor signature

NOTE Confidence: 0.8216548

00:50:59.710 --> 00:51:02.748 that we have described in Parkinson's

NOTE Confidence: 0.8216548

00:51:02.748 --> 00:51:06.174 disease with jerky repeated twice movement.

NOTE Confidence: 0.8216548

00:51:06.180 --> 00:51:08.376 Is exactly the same in narcolepsy,

NOTE Confidence: 0.8216548

00:51:08.380 --> 00:51:11.395 which is not a movement disorders and in MSA

NOTE Confidence: 0.8216548

00:51:11.395 --> 00:51:14.597 and in the liberties and in isolated habite,

NOTE Confidence: 0.8216548

00:51:14.600 --> 00:51:16.430 which suggests it's the same

NOTE Confidence: 0.8216548

00:51:16.430 --> 00:51:18.260 way of doing the movements.

NOTE Confidence: 0.8216548

00:51:18.260 --> 00:51:20.822 But it does not answer to the

NOTE Confidence: 0.8216548

00:51:20.822 --> 00:51:22.650 question about dreams, of course.

NOTE Confidence: 0.78322035

00:51:24.540 --> 00:51:25.612 Very good.

NOTE Confidence: 0.78322035

00:51:25.612 --> 00:51:28.828 There are a couple of questions.

NOTE Confidence: 0.78322035

00:51:28.830 --> 00:51:30.974 Follow up questions related

NOTE Confidence: 0.78322035

00:51:30.974 --> 00:51:33.118 to medications and arbeed.

NOTE Confidence: 0.78322035

00:51:33.120 --> 00:51:35.720 Are there classes of medications

NOTE Confidence: 0.78322035

00:51:35.720 --> 00:51:38.320 that may increase the risk

NOTE Confidence: 0.78322035

00:51:38.414 --> 00:51:40.618 of run behavior disorder?

NOTE Confidence: 0.8664456

00:51:41.380 --> 00:51:44.080 Yes, mostly the antidepressant and

NOTE Confidence: 0.8664456

00:51:44.080 --> 00:51:48.190 to some degree is a beta blocker.

NOTE Confidence: 0.8664456

00:51:48.190 --> 00:51:50.460 But the antidepressant, our father,

NOTE Confidence: 0.8664456

00:51:50.460 --> 00:51:53.112 the Hyest way to increase their

NOTE Confidence: 0.8664456

00:51:53.112 --> 00:51:55.909 body and to decrease their busy,

NOTE Confidence: 0.8664456

00:51:55.910 --> 00:51:58.300 we commonly use some clonazepam

NOTE Confidence: 0.8664456

00:51:58.300 --> 00:52:01.591 and even melatonin can do a lot

NOTE Confidence: 0.8664456

00:52:01.591 --> 00:52:03.626 of coding in this direction.

NOTE Confidence: 0.8664456

00:52:03.630 --> 00:52:06.348 And there have been a few

NOTE Confidence: 0.8664456

00:52:06.348 --> 00:52:07.707 evidence for Rivastigmine,

NOTE Confidence: 0.8664456

00:52:07.710 --> 00:52:10.440 which is a nautical, not work.

NOTE Confidence: 0.8664456

00:52:10.440 --> 00:52:12.710 Increasing acetylcholine to improve beady,

NOTE Confidence: 0.8664456

00:52:12.710 --> 00:52:15.428 especially in patients with cognitive defect.

NOTE Confidence: 0.8194593

00:52:17.420 --> 00:52:21.200 And are there newer therapies besides

NOTE Confidence: 0.8194593

00:52:21.200 --> 00:52:24.961 melatonin or clonazepam that are in

NOTE Confidence: 0.8194593

00:52:24.961 --> 00:52:28.393 the pipeline for REM behavior disorder

NOTE Confidence: 0.8194593

00:52:28.393 --> 00:52:31.360 or alternative therapies right at

NOTE Confidence: 0.8194593

00:52:31.360 --> 00:52:35.212 least the idea of preventing Parkinson's

NOTE Confidence: 0.8194593

00:52:35.212 --> 00:52:39.239 disease is quite high in the field.

NOTE Confidence: 0.8194593

00:52:39.240 --> 00:52:43.321 So far the preventive therapy has been

NOTE Confidence: 0.8194593

00:52:43.321 --> 00:52:47.199 tested in Dinovo PD patient because.

NOTE Confidence: 0.8194593

00:52:47.200 --> 00:52:49.810 We are sure that they're Parkinson's

NOTE Confidence: 0.8194593

00:52:49.810 --> 00:52:53.432 disease and the drugs were aimed at at

NOTE Confidence: 0.8194593

00:52:53.432 --> 00:52:56.132 decreasing the progression of the disorder,

NOTE Confidence: 0.8194593

00:52:56.140 --> 00:52:58.876 but the same drugs that are

NOTE Confidence: 0.8194593

00:52:58.876 --> 00:53:01.060 in the pipelines should be,

NOTE Confidence: 0.8194593

00:53:01.060 --> 00:53:04.452 we hope at least it's hard to convince

NOTE Confidence: 0.8194593

00:53:04.452 --> 00:53:06.305 the pharmaceutical company because

NOTE Confidence: 0.8194593

00:53:06.305 --> 00:53:09.546 seven years of conversion is quite high.

NOTE Confidence: 0.8194593

00:53:09.550 --> 00:53:11.038 Quite long for company,

NOTE Confidence: 0.8194593

00:53:11.038 --> 00:53:15.009 but most of the ideas are around using some

NOTE Confidence: 0.8194593

00:53:15.009 --> 00:53:17.764 monoclonal antibodies against the Alpha.

NOTE Confidence: 0.8194593

00:53:17.770 --> 00:53:21.396 Any clean which accumulate within the brain

NOTE Confidence: 0.8194593

00:53:21.396 --> 00:53:25.678 stem and then within the system semi graph.

NOTE Confidence: 0.8194593

00:53:25.680 --> 00:53:29.418 There also some patient you know develop

NOTE Confidence: 0.8194593

00:53:29.418 --> 00:53:32.636 Parkinson's disease in link with GBA

NOTE Confidence: 0.8194593

00:53:32.636 --> 00:53:35.690 mutation which is an automatic mutation.

NOTE Confidence: 0.8194593

00:53:35.690 --> 00:53:38.882 There are now some enzymatics implementation

NOTE Confidence: 0.8194593

00:53:38.882 --> 00:53:42.668 that can be used in GP mutation and

NOTE Confidence: 0.8194593

00:53:42.668 --> 00:53:46.538 it should be tested in RPD to prevent

NOTE Confidence: 0.8194593

00:53:46.538 --> 00:53:49.386 conversion toward Parkinson's disease.

NOTE Confidence: 0.8633399

00:53:49.830 --> 00:53:52.658 Very good, very good.

NOTE Confidence: 0.8633399

00:53:52.660 --> 00:53:56.316 We have a couple more minutes and there

NOTE Confidence: 0.8633399

00:53:56.316 --> 00:54:00.099 are more questions that are coming up.

NOTE Confidence: 0.8633399

00:54:00.100 --> 00:54:03.708 One of the many of many of the

NOTE Confidence: 0.8633399

00:54:03.708 --> 00:54:06.606 clinicians on the call care for

NOTE Confidence: 0.8633399

00:54:06.606 --> 00:54:10.627 patients in our VA system as well as

NOTE Confidence: 0.8633399

00:54:10.627 --> 00:54:14.428 veterans which tend to be an older

NOTE Confidence: 0.8633399

00:54:14.428 --> 00:54:17.105 population of patients with a high

NOTE Confidence: 0.8633399

00:54:17.105 --> 00:54:19.230 prevalence of post traumatic stress

NOTE Confidence: 0.8633399

00:54:19.303 --> 00:54:21.607 disorder and oftentimes clinically

NOTE Confidence: 0.8633399

00:54:21.607 --> 00:54:24.487 it's very challenging to distinguish.

NOTE Confidence: 0.8633399

00:54:24.490 --> 00:54:27.129 Some of the nocturnal behaviors that occur

NOTE Confidence: 0.8633399

00:54:27.129 --> 00:54:30.118 in the context of post traumatic stress

NOTE Confidence: 0.8633399

00:54:30.118 --> 00:54:32.358 disorder from REM behavior disorder.

NOTE Confidence: 0.8633399

00:54:32.360 --> 00:54:35.139 Some of the nightmare content and so

NOTE Confidence: 0.8633399

00:54:35.139 --> 00:54:37.932 wondering if there are ways that clinical

NOTE Confidence: 0.8633399

00:54:37.932 --> 00:54:40.750 ways that you're aware of that might

NOTE Confidence: 0.8633399

00:54:40.750 --> 00:54:43.432 help besides doing Poly sonography and

NOTE Confidence: 0.8633399

00:54:43.432 --> 00:54:46.019 looking for sleep onset REM periods.

NOTE Confidence: 0.7515402

00:54:48.150 --> 00:54:49.410 That's classic, all.

NOTE Confidence: 0.7515402

00:54:49.410 --> 00:54:53.309 I mean PTSD in the acute phase of the

NOTE Confidence: 0.7515402

00:54:53.309 --> 00:54:56.361 best ETS D There are frequent nightmares

NOTE Confidence: 0.7515402

00:54:56.361 --> 00:54:58.949 which are replaying the trauma,

NOTE Confidence: 0.7515402

00:54:58.950 --> 00:55:02.282 and they might be enacted in some

NOTE Confidence: 0.7515402

00:55:02.282 --> 00:55:05.913 patient like going out of the bed and

NOTE Confidence: 0.7515402

00:55:05.913 --> 00:55:08.849 fighting as they did during the war.

NOTE Confidence: 0.8198363

00:55:11.270 --> 00:55:15.266 It's in the acute phase in the chronic phase,

NOTE Confidence: 0.8198363

00:55:15.270 --> 00:55:17.520 the patient with the trauma

NOTE Confidence: 0.8198363

00:55:17.520 --> 00:55:20.589 usually at best sit on the bed,

NOTE Confidence: 0.8198363

00:55:20.590 --> 00:55:24.136 but they might not do a lot of behavior

NOTE Confidence: 0.8198363

00:55:24.136 --> 00:55:27.595 compared to a body where they have really

NOTE Confidence: 0.8198363

00:55:27.595 --> 00:55:30.360 repetitive and more values behaviors,

NOTE Confidence: 0.8198363

00:55:30.360 --> 00:55:33.672 even if it's African they can laugh so

NOTE Confidence: 0.8198363

00:55:33.672 --> 00:55:37.522 you can ask your patient, or the spokes.

NOTE Confidence: 0.8198363

00:55:37.522 --> 00:55:39.842 Is he laughing during 3

NOTE Confidence: 0.8198363

00:55:39.842 --> 00:55:41.890 pieces speaking with normal?

NOTE Confidence: 0.8198363

00:55:41.890 --> 00:55:44.360 Nontraumatic aspect that could help,

NOTE Confidence: 0.8198363

00:55:44.360 --> 00:55:47.174 of course with the police and nogra

NOTE Confidence: 0.8198363

00:55:47.174 --> 00:55:50.288 fi you will answer the question

NOTE Confidence: 0.8198363

00:55:50.288 --> 00:55:53.323 easy easily because post traumatic

NOTE Confidence: 0.8198363

00:55:53.323 --> 00:55:55.966 stress disorders occur during all

NOTE Confidence: 0.8198363

00:55:55.966 --> 00:55:58.642 sleep stages in two and three,

NOTE Confidence: 0.8198363

00:55:58.650 --> 00:56:02.742 an air B&B are is quite

NOTE Confidence: 0.8198363

00:56:02.742 --> 00:56:04.788 quite repetitive whereas.

NOTE Confidence: 0.8198363

00:56:04.790 --> 00:56:06.320 During time sleep.

NOTE Confidence: 0.8198363

00:56:06.320 --> 00:56:09.380 So maybe user laughing and speaking

NOTE Confidence: 0.8198363

00:56:09.380 --> 00:56:12.980 and singing as a way to differentiate.

NOTE Confidence: 0.8143988

00:56:15.460 --> 00:56:18.004 Another question Doctor Krieger.

NOTE Confidence: 0.8143988

00:56:18.004 --> 00:56:21.107 Just please. Do patients with

NOTE Confidence: 0.8143988

00:56:21.107 --> 00:56:24.152 narcolepsy and arbeed also progressed

NOTE Confidence: 0.8143988

00:56:24.152 --> 00:56:26.270 to neurodegenerative disorders?

NOTE Confidence: 0.80187744

00:56:27.100 --> 00:56:29.500 So good question so far.

NOTE Confidence: 0.80187744

00:56:29.500 --> 00:56:32.846 What we know is that do not,

NOTE Confidence: 0.80187744

00:56:32.850 --> 00:56:35.718 they do not evolve towards that.

NOTE Confidence: 0.80187744

00:56:35.720 --> 00:56:39.044 Abd in narcolepsy is less severe

NOTE Confidence: 0.80187744

00:56:39.044 --> 00:56:42.550 than isolated on PD associated.

NOTE Confidence: 0.80187744

00:56:42.550 --> 00:56:43.594 Some patients.

NOTE Confidence: 0.80187744

00:56:43.594 --> 00:56:45.682 Sometimes some some strong

NOTE Confidence: 0.80187744

00:56:45.682 --> 00:56:47.770 behaviors very own behavior,

NOTE Confidence: 0.80187744

00:56:47.770 --> 00:56:51.434 but most of them are not very severe.

NOTE Confidence: 0.80187744

00:56:51.440 --> 00:56:53.730 If you compare, for example,

NOTE Confidence: 0.80187744

00:56:53.730 --> 00:56:56.346 the rate of friends sleep without

NOTE Confidence: 0.80187744

00:56:56.346 --> 00:56:59.220 atonia or the number of behaviors,

NOTE Confidence: 0.80187744

00:56:59.220 --> 00:57:01.649 but no, they do not progress and

NOTE Confidence: 0.80187744

00:57:01.649 --> 00:57:04.460 even there I saw hypothesis whether

NOTE Confidence: 0.80187744

00:57:04.460 --> 00:57:07.275 narcolepsy or at least hypocretin

NOTE Confidence: 0.80187744

00:57:07.275 --> 00:57:09.377 deficiency would expose less

NOTE Confidence: 0.80187744

00:57:09.377 --> 00:57:12.059 patient to not dementia with little

NOTE Confidence: 0.80187744

00:57:12.059 --> 00:57:13.960 bodies but alsheimer dimension.

NOTE Confidence: 0.80187744

00:57:13.960 --> 00:57:16.460 Because there is an interaction

NOTE Confidence: 0.80187744

00:57:16.460 --> 00:57:18.440 between hypocretin and amyloid

NOTE Confidence: 0.80187744

00:57:18.440 --> 00:57:20.918 which accumulate in the brain of

NOTE Confidence: 0.80187744

00:57:20.918 --> 00:57:22.760 patient with unsigned notices.

NOTE Confidence: 0.80187744

00:57:22.760 --> 00:57:26.450 So narcolepsy might be protective.

NOTE Confidence: 0.80187744

00:57:26.450 --> 00:57:29.200 As I know disorder this

NOTE Confidence: 0.7924653

00:57:29.200 --> 00:57:32.952 is and finally Doctor Rue is asking

NOTE Confidence: 0.7924653

00:57:32.952 --> 00:57:37.332 how do you follow patients who have

NOTE Confidence: 0.7924653

00:57:37.332 --> 00:57:42.042 sub clinical arved so assume may have

NOTE Confidence: 0.7924653

00:57:42.042 --> 00:57:46.906 evidence of REM sleep without a tonia but?

NOTE Confidence: 0.7924653

00:57:46.910 --> 00:57:48.788 Not manifesting a whole lot of

NOTE Confidence: 0.7924653

00:57:48.788 --> 00:57:50.668 dreaming at something you picked up

NOTE Confidence: 0.7924653

00:57:50.668 --> 00:57:52.663 incidentally on us on a sleep study.

NOTE Confidence: 0.90762657

00:57:54.100 --> 00:57:57.660 I would follow them every year and the

NOTE Confidence: 0.90762657

00:57:57.660 --> 00:58:01.457 first time I would apply exactly the same.

NOTE Confidence: 0.90762657

00:58:01.460 --> 00:58:05.780 Same test as we do in isolated orbite

NOTE Confidence: 0.90762657

00:58:05.780 --> 00:58:09.620 looking whether they have a loss of smell.

NOTE Confidence: 0.90762657

00:58:09.620 --> 00:58:12.638 If they have auto static hypotension

NOTE Confidence: 0.90762657

00:58:12.638 --> 00:58:15.740 is examining them about having some.

NOTE Confidence: 0.90762657

00:58:15.740 --> 00:58:19.526 Some code will movements and doing

NOTE Confidence: 0.90762657

00:58:19.526 --> 00:58:22.050 Montreal cognitive assessment as

NOTE Confidence: 0.90762657

00:58:22.149 --> 00:58:25.446 we do every year with any isolated

NOTE Confidence: 0.90762657

00:58:25.446 --> 00:58:28.312 LPD patients we know from two

NOTE Confidence: 0.90762657

00:58:28.312 --> 00:58:31.476 teams so they know Pat teams from.

NOTE Confidence: 0.90762657

00:58:31.480 --> 00:58:34.100 Germany and also the Austrian

NOTE Confidence: 0.90762657

00:58:34.100 --> 00:58:36.196 teams that patient with.

NOTE Confidence: 0.90762657

00:58:36.200 --> 00:58:39.962 I just isolated there WA progress

NOTE Confidence: 0.90762657

00:58:39.962 --> 00:58:43.189 to our towards their billing

NOTE Confidence: 0.90762657

00:58:43.189 --> 00:58:46.580 and so follow them and. Very

NOTE Confidence: 0.86064714

00:58:46.580 --> 00:58:48.590 good, very excellent. Thank you very

NOTE Confidence: 0.86064714

00:58:48.590 --> 00:58:50.917 much for a wonderful presentation and

NOTE Confidence: 0.86064714

00:58:50.917 --> 00:58:53.227 thoughtful answers to these questions.

NOTE Confidence: 0.86064714

00:58:53.230 --> 00:58:56.830 This was very well received and just as a

NOTE Confidence: 0.86064714

00:58:56.830 --> 00:58:59.878 reminder for folks on the call next week.

NOTE Confidence: 0.86064714

00:58:59.880 --> 00:59:02.484 There will not be asleep seminar but

NOTE Confidence: 0.86064714

00:59:02.484 --> 00:59:04.960 will resume resume the following week.

NOTE Confidence: 0.86064714

00:59:04.960 --> 00:59:06.524 Thank you again Doctor.

NOTE Confidence: 0.86064714

00:59:06.524 --> 00:59:08.480 An offer for wonderful talk.

NOTE Confidence: 0.86064714

00:59:08.480 --> 00:59:09.650 Thank you. Goodbye.

NOTE Confidence: 0.86064714

00:59:09.650 --> 00:59:11.210 Bye bye bye bye.