

WEBVTT

NOTE duration:"00:40:20"

NOTE recognizability:0.929

NOTE language:en-us

NOTE Confidence: 0.9271424

00:00:00.000 --> 00:00:02.118 So my name is Julio Silva,

NOTE Confidence: 0.9271424

00:00:02.120 --> 00:00:06.668 I'm a an MDPHD student in Akikawasaki's lab.

NOTE Confidence: 0.9271424

00:00:06.668 --> 00:00:10.000 And today I actually have the pleasure

NOTE Confidence: 0.9271424

00:00:10.087 --> 00:00:14.320 of introducing our next two speakers

NOTE Confidence: 0.9271424

00:00:14.320 --> 00:00:17.716 which in as a group I think our

NOTE Confidence: 0.9271424

00:00:17.720 --> 00:00:22.272 these two people in addition to being

NOTE Confidence: 0.9271424

00:00:22.272 --> 00:00:24.144 extraordinary clinicians really help

NOTE Confidence: 0.9271424

00:00:24.144 --> 00:00:26.597 bridge the gap between you know,

NOTE Confidence: 0.9271424

00:00:26.600 --> 00:00:29.994 medicine and science and helping

NOTE Confidence: 0.9271424

00:00:29.994 --> 00:00:32.354 the public understand it and

NOTE Confidence: 0.9271424

00:00:32.354 --> 00:00:34.370 communicating with the public.

NOTE Confidence: 0.9271424

00:00:34.370 --> 00:00:37.583 And I think that that you know often is

NOTE Confidence: 0.9271424

00:00:37.583 --> 00:00:40.522 something neglected but so crucial as

NOTE Confidence: 0.9271424

00:00:40.522 --> 00:00:44.232 it builds trust between the clinicians
NOTE Confidence: 0.9271424

00:00:44.232 --> 00:00:46.689 and people who who really you know,
NOTE Confidence: 0.9271424

00:00:46.690 --> 00:00:49.810 do this as as well as like the public who
NOTE Confidence: 0.9271424

00:00:49.893 --> 00:00:53.090 we you know ultimately our goal is to serve.
NOTE Confidence: 0.9271424

00:00:53.090 --> 00:00:55.974 So with that, I first want to
NOTE Confidence: 0.9271424

00:00:55.974 --> 00:00:59.030 introduce Doctor Lisa Sanders.
NOTE Confidence: 0.9271424

00:00:59.030 --> 00:01:01.430 She is perhaps she's a,
NOTE Confidence: 0.9271424

00:01:01.430 --> 00:01:02.496 she's an associate professor
NOTE Confidence: 0.9271424

00:01:02.496 --> 00:01:04.966 here at Yale School of Medicine.
NOTE Confidence: 0.9271424

00:01:04.966 --> 00:01:07.186 But she's perhaps best known,
NOTE Confidence: 0.9271424

00:01:07.190 --> 00:01:10.910 especially from a public perspective,
NOTE Confidence: 0.9271424

00:01:10.910 --> 00:01:13.664 for her biweekly column that she
NOTE Confidence: 0.9271424

00:01:13.664 --> 00:01:17.431 writes for in the New York Times
NOTE Confidence: 0.9271424

00:01:17.431 --> 00:01:20.102 Magazine called Diagnosis and this.
NOTE Confidence: 0.9271424

00:01:20.102 --> 00:01:21.350 This, of course,
NOTE Confidence: 0.9271424

00:01:21.350 --> 00:01:23.150 has served as an inspiration

NOTE Confidence: 0.9271424
00:01:23.150 --> 00:01:26.120 for TV shows like House,
NOTE Confidence: 0.9271424
00:01:26.120 --> 00:01:28.234 which she served as a consultant for,
NOTE Confidence: 0.9271424
00:01:28.240 --> 00:01:32.100 as well as the Netflix docu
NOTE Confidence: 0.9271424
00:01:32.100 --> 00:01:35.000 series called Diagnosis as well.
NOTE Confidence: 0.9271424
00:01:35.000 --> 00:01:37.368 So I I want to take this time
NOTE Confidence: 0.9271424
00:01:37.368 --> 00:01:39.920 just to invite her up and have her
NOTE Confidence: 0.9169033
00:01:40.280 --> 00:01:41.240 present. So thank
NOTE Confidence: 0.9169033
00:01:49.200 --> 00:01:50.514 you. Well, I don't know what I'm doing here,
NOTE Confidence: 0.9169033
00:01:50.520 --> 00:01:52.236 talking to a bunch of people,
NOTE Confidence: 0.9169033
00:01:52.240 --> 00:01:54.264 a bunch of scientists,
NOTE Confidence: 0.9169033
00:01:54.264 --> 00:01:56.794 but I'll do my best.
NOTE Confidence: 0.9169033
00:01:56.800 --> 00:01:58.624 So I'm interested, obviously,
NOTE Confidence: 0.9169033
00:01:58.624 --> 00:02:01.360 I'm very interested in long COVID,
NOTE Confidence: 0.9169033
00:02:01.360 --> 00:02:03.358 but I'm very interested in long
NOTE Confidence: 0.9169033
00:02:03.358 --> 00:02:05.367 COVID because it's part of a
NOTE Confidence: 0.9169033

00:02:05.367 --> 00:02:06.907 much bigger story about what
NOTE Confidence: 0.9169033

00:02:06.907 --> 00:02:08.700 happens to people when they
NOTE Confidence: 0.9169033

00:02:08.700 --> 00:02:11.280 get better but don't get well.
NOTE Confidence: 0.94281906

00:02:13.360 --> 00:02:19.240 So if you look at just long COVID, it was
NOTE Confidence: 0.94281906

00:02:22.240 --> 00:02:24.840 interestingly. Thank you.
NOTE Confidence: 0.9214449

00:02:26.870 --> 00:02:29.990 Okay, Okay, great. Thank you
NOTE Confidence: 0.9214449

00:02:32.550 --> 00:02:36.660 long COVID was first identified by
NOTE Confidence: 0.9214449

00:02:36.660 --> 00:02:40.350 patients Fiona Lowenstein at the top.
NOTE Confidence: 0.9214449

00:02:40.350 --> 00:02:43.430 She wrote an oped piece in the New York Times
NOTE Confidence: 0.9214449

00:02:43.504 --> 00:02:46.584 about her extremely slow recovery from COVID.
NOTE Confidence: 0.9214449

00:02:46.590 --> 00:02:49.713 The Oped was titled We Need to Talk about
NOTE Confidence: 0.9214449

00:02:49.713 --> 00:02:52.640 what coronavirus recoveries look like.
NOTE Confidence: 0.9214449

00:02:52.640 --> 00:02:54.296 There are a lot more complicated
NOTE Confidence: 0.9214449

00:02:54.296 --> 00:02:55.400 than most people realize,
NOTE Confidence: 0.9214449

00:02:55.400 --> 00:02:58.235 so that was the first sort of
NOTE Confidence: 0.9214449

00:02:58.235 --> 00:02:59.880 hint that something was going on.

NOTE Confidence: 0.9214449

00:02:59.880 --> 00:03:02.598 And that was published in April 13th of 2020,

NOTE Confidence: 0.9214449

00:03:02.600 --> 00:03:05.480 so very early in the pandemic.

NOTE Confidence: 0.9214449

00:03:05.480 --> 00:03:08.234 She felt lonely and so isolated

NOTE Confidence: 0.9214449

00:03:08.234 --> 00:03:10.920 because of her lengthy recovery.

NOTE Confidence: 0.9214449

00:03:10.920 --> 00:03:13.153 So she started an online chat group

NOTE Confidence: 0.9214449

00:03:13.153 --> 00:03:15.962 to talk to others who are trying

NOTE Confidence: 0.9214449

00:03:15.962 --> 00:03:18.686 to recover from this new virus.

NOTE Confidence: 0.9214449

00:03:18.690 --> 00:03:20.250 The woman on the bottom,

NOTE Confidence: 0.9214449

00:03:20.250 --> 00:03:21.222 Elise Perrego.

NOTE Confidence: 0.9214449

00:03:21.222 --> 00:03:23.166 She's a research scientist,

NOTE Confidence: 0.9214449

00:03:23.170 --> 00:03:26.404 and she introduced the term long COVID.

NOTE Confidence: 0.9214449

00:03:26.410 --> 00:03:29.320 She she created this hashtag

NOTE Confidence: 0.9214449

00:03:29.320 --> 00:03:32.302 long COVID in May of 2020.

NOTE Confidence: 0.9214449

00:03:32.302 --> 00:03:35.020 And of course that term was

NOTE Confidence: 0.9214449

00:03:35.126 --> 00:03:39.126 immediately embraced by the community.

NOTE Confidence: 0.9214449

00:03:39.130 --> 00:03:44.250 So it's made quite a splash since then.
NOTE Confidence: 0.9214449

00:03:44.250 --> 00:03:47.980 At there was a recent CDC study published
NOTE Confidence: 0.9214449

00:03:47.980 --> 00:03:51.365 I think 2 weeks ago that estimated that
NOTE Confidence: 0.9214449

00:03:51.365 --> 00:03:54.756 up to 23 million people in the United
NOTE Confidence: 0.9214449

00:03:54.756 --> 00:03:57.456 States have developed along COVID.
NOTE Confidence: 0.9214449

00:03:57.460 --> 00:03:59.071 That's a lot.
NOTE Confidence: 0.9214449

00:03:59.071 --> 00:04:01.219 That's a whole lot.
NOTE Confidence: 0.9214449

00:04:01.220 --> 00:04:07.736 So what exactly how do we define long COVID?
NOTE Confidence: 0.9214449

00:04:07.740 --> 00:04:09.312 Actually really badly,
NOTE Confidence: 0.9214449

00:04:09.312 --> 00:04:12.980 in my opinion and in everybody's opinion.
NOTE Confidence: 0.9214449

00:04:12.980 --> 00:04:15.752 I went to a conference a few weeks ago
NOTE Confidence: 0.9214449

00:04:15.752 --> 00:04:18.536 at the National Academy of Sciences
NOTE Confidence: 0.9214449

00:04:18.540 --> 00:04:22.306 or Medicine rather to consider whether
NOTE Confidence: 0.9214449

00:04:22.306 --> 00:04:25.198 the definition of long COVID should
NOTE Confidence: 0.9214449

00:04:25.198 --> 00:04:28.338 be changed to make it more narrow.
NOTE Confidence: 0.9214449

00:04:28.340 --> 00:04:34.200 Right now it's defined as the signs

NOTE Confidence: 0.9214449

00:04:34.200 --> 00:04:36.250 and symptoms and conditions that

NOTE Confidence: 0.9214449

00:04:36.250 --> 00:04:38.610 continue or develop after an initial

NOTE Confidence: 0.9214449

00:04:38.610 --> 00:04:40.968 COVID-19 or SARS COVID 2 infection.

NOTE Confidence: 0.9214449

00:04:40.970 --> 00:04:44.700 So basically what they're saying you had

NOTE Confidence: 0.9214449

00:04:44.700 --> 00:04:47.370 COVID and then something bad happened.

NOTE Confidence: 0.9214449

00:04:47.370 --> 00:04:50.282 So you can see that that's a that's

NOTE Confidence: 0.9214449

00:04:50.282 --> 00:04:54.816 a a ridiculously broad definition.

NOTE Confidence: 0.9214449

00:04:54.816 --> 00:04:57.744 So it has the symptoms have to be

NOTE Confidence: 0.9214449

00:04:57.744 --> 00:05:00.548 present for four weeks or more after the

NOTE Confidence: 0.9214449

00:05:00.548 --> 00:05:03.090 initial phase of the of the infection.

NOTE Confidence: 0.9214449

00:05:03.090 --> 00:05:05.925 And actually The Who uses 3 months

NOTE Confidence: 0.9214449

00:05:05.925 --> 00:05:08.020 because it's not uncommon for

NOTE Confidence: 0.9214449

00:05:08.020 --> 00:05:10.799 people to be to still feel terrible

NOTE Confidence: 0.9214449

00:05:10.799 --> 00:05:13.507 a month after their infection.

NOTE Confidence: 0.9214449

00:05:13.510 --> 00:05:18.550 But the National Academy said four weeks.

NOTE Confidence: 0.9214449

00:05:18.550 --> 00:05:22.909 It's multisystemic, often.
NOTE Confidence: 0.9214449

00:05:22.910 --> 00:05:25.935 It often presents with relapsing
NOTE Confidence: 0.9214449

00:05:25.935 --> 00:05:28.162 and remitting, A relapsing,
NOTE Confidence: 0.9214449

00:05:28.162 --> 00:05:31.198 remitting kind of pattern and it
NOTE Confidence: 0.9214449

00:05:31.198 --> 00:05:33.989 might progress or worsen over time.
NOTE Confidence: 0.9214449

00:05:33.990 --> 00:05:36.182 It can even get to be very severe
NOTE Confidence: 0.9214449

00:05:36.182 --> 00:05:38.300 and life threatening, months,
NOTE Confidence: 0.9214449

00:05:38.300 --> 00:05:41.900 even years after the infection.
NOTE Confidence: 0.9214449

00:05:41.900 --> 00:05:44.511 And finally what they say is that
NOTE Confidence: 0.9214449

00:05:44.511 --> 00:05:46.892 long COVID is not one disease.
NOTE Confidence: 0.9214449

00:05:46.892 --> 00:05:48.932 It's lots of different things.
NOTE Confidence: 0.9214449

00:05:48.940 --> 00:05:52.348 It's like, I don't know, cancer, you know?
NOTE Confidence: 0.9214449

00:05:52.348 --> 00:05:53.842 I mean, it contains multitudes.
NOTE Confidence: 0.9214449

00:05:53.842 --> 00:05:57.096 It's not like cancer, but in that way it is.
NOTE Confidence: 0.93879175

00:06:00.020 --> 00:06:01.980 How does it manifest itself?
NOTE Confidence: 0.93879175

00:06:01.980 --> 00:06:04.452 Everywhere, I mean everywhere.

NOTE Confidence: 0.93879175

00:06:04.452 --> 00:06:07.650 You know, it's it's in the brain,

NOTE Confidence: 0.93879175

00:06:07.650 --> 00:06:09.370 it's in the heart,

NOTE Confidence: 0.93879175

00:06:09.370 --> 00:06:12.186 it's in the stomach, insomnia,

NOTE Confidence: 0.93879175

00:06:12.186 --> 00:06:16.570 anxiety, cough, pulmonary fibrosis.

NOTE Confidence: 0.93879175

00:06:16.570 --> 00:06:20.490 I mean it's just insane the range of

NOTE Confidence: 0.93879175

00:06:20.490 --> 00:06:24.370 the symptoms that it includes in.

NOTE Confidence: 0.93879175

00:06:24.370 --> 00:06:28.765 In May, there was a study published

NOTE Confidence: 0.93879175

00:06:28.765 --> 00:06:31.507 in JAMA that looked at at a lot

NOTE Confidence: 0.93879175

00:06:31.507 --> 00:06:33.689 of did a meta analysis of a lot

NOTE Confidence: 0.93879175

00:06:33.689 --> 00:06:35.494 of studies that were reporting

NOTE Confidence: 0.93879175

00:06:35.494 --> 00:06:38.069 on long COVID and came up with

NOTE Confidence: 0.93879175

00:06:38.069 --> 00:06:40.193 12 symptoms linked to long COVID.

NOTE Confidence: 0.93879175

00:06:40.200 --> 00:06:42.552 This has been a source of great

NOTE Confidence: 0.93879175

00:06:42.552 --> 00:06:45.527 irritation to a lot of the people I see

NOTE Confidence: 0.93879175

00:06:45.527 --> 00:06:48.596 who don't find their symptom up on that list,

NOTE Confidence: 0.93879175

00:06:48.596 --> 00:06:50.450 but they were trying to figure
NOTE Confidence: 0.93879175

00:06:50.515 --> 00:06:52.619 out a way to narrow it down so
NOTE Confidence: 0.93879175

00:06:52.619 --> 00:06:54.630 that it's not just anything bad
NOTE Confidence: 0.93879175

00:06:54.630 --> 00:06:56.760 that happens to you after COVID.
NOTE Confidence: 0.93879175

00:06:56.760 --> 00:06:58.360 So that was their effort.
NOTE Confidence: 0.9226994

00:07:02.440 --> 00:07:06.815 I'm a clinician, so the answer to
NOTE Confidence: 0.9226994

00:07:06.815 --> 00:07:10.920 why is not something that I embrace.
NOTE Confidence: 0.9226994

00:07:10.920 --> 00:07:13.998 My question is what can I do to help?
NOTE Confidence: 0.9226994

00:07:14.000 --> 00:07:15.400 Why is not so good?
NOTE Confidence: 0.9226994

00:07:15.400 --> 00:07:17.926 So I depend on other people
NOTE Confidence: 0.9226994

00:07:17.926 --> 00:07:20.040 to help me understand why.
NOTE Confidence: 0.9226994

00:07:20.040 --> 00:07:22.992 And so you can see that there are many
NOTE Confidence: 0.9226994

00:07:22.992 --> 00:07:25.704 different possible causes and probably
NOTE Confidence: 0.9226994

00:07:25.704 --> 00:07:29.710 even more than this that lead to
NOTE Confidence: 0.9226994

00:07:29.710 --> 00:07:32.410 different pathophysiologies that can end,
NOTE Confidence: 0.9226994

00:07:32.410 --> 00:07:35.662 that can bring a patient to having

NOTE Confidence: 0.9226994

00:07:35.662 --> 00:07:39.098 task or long COVID endothelial

NOTE Confidence: 0.9226994

00:07:39.098 --> 00:07:41.210 dysfunction and these microclots

NOTE Confidence: 0.9226994

00:07:41.210 --> 00:07:44.947 that get talked about a lot or

NOTE Confidence: 0.9226994

00:07:44.947 --> 00:07:46.967 persistent viral reservoir which

NOTE Confidence: 0.9226994

00:07:46.970 --> 00:07:51.105 Harlan Krumholtz is trying to possibly

NOTE Confidence: 0.9226994

00:07:51.105 --> 00:07:54.580 identify through his Paxlovid study.

NOTE Confidence: 0.9226994

00:07:54.580 --> 00:07:56.148 So there are a lot of different

NOTE Confidence: 0.9226994

00:07:56.148 --> 00:07:56.820 ways auto antibodies.

NOTE Confidence: 0.9226994

00:07:56.820 --> 00:07:58.900 So there are a lot of different ways

NOTE Confidence: 0.9226994

00:07:58.900 --> 00:08:02.338 that this disease impacts our patients

NOTE Confidence: 0.9226994

00:08:02.340 --> 00:08:05.130 and because it's got because it's

NOTE Confidence: 0.9226994

00:08:05.130 --> 00:08:08.004 such a a huge disease where which can

NOTE Confidence: 0.9226994

00:08:08.004 --> 00:08:10.339 manifest in so many different ways,

NOTE Confidence: 0.9226994

00:08:10.340 --> 00:08:11.765 there's a there's a fair

NOTE Confidence: 0.9226994

00:08:11.765 --> 00:08:12.620 amount of skepticism.

NOTE Confidence: 0.9226994

00:08:12.620 --> 00:08:15.311 So you know I have a a very well
NOTE Confidence: 0.9226994

00:08:15.311 --> 00:08:18.411 used box of Kleenex that is replaced
NOTE Confidence: 0.9226994

00:08:18.411 --> 00:08:20.779 daily because people are quite
NOTE Confidence: 0.9226994

00:08:20.779 --> 00:08:23.635 frustrated and sad and wonder if
NOTE Confidence: 0.9226994

00:08:23.635 --> 00:08:25.710 they're insane when they come in with
NOTE Confidence: 0.9226994

00:08:25.710 --> 00:08:27.350 some of the symptoms that they have.
NOTE Confidence: 0.9297387

00:08:29.830 --> 00:08:33.830 So there is some good news. Last week's
NOTE Confidence: 0.9297387

00:08:36.590 --> 00:08:39.054 Morbidity and Mortality Weekly
NOTE Confidence: 0.9297387

00:08:39.054 --> 00:08:41.170 Report from August 11th reported
NOTE Confidence: 0.9297387

00:08:41.170 --> 00:08:43.420 that the prevalence of long COVID
NOTE Confidence: 0.9297387

00:08:43.488 --> 00:08:45.456 had declined over the past year
NOTE Confidence: 0.9352594

00:08:51.580 --> 00:08:56.500 from like. So if you look at all Americans,
NOTE Confidence: 0.9352594

00:08:56.500 --> 00:08:59.590 the number of patients with long
NOTE Confidence: 0.9352594

00:08:59.590 --> 00:09:02.400 COVID decreased from 7.5% to 6%.
NOTE Confidence: 0.9352594

00:09:02.400 --> 00:09:03.660 So that's good.
NOTE Confidence: 0.9352594

00:09:03.660 --> 00:09:08.226 And if you just look at adults who

NOTE Confidence: 0.9352594

00:09:08.226 --> 00:09:11.705 who actually had known COVID-19,

NOTE Confidence: 0.9352594

00:09:11.705 --> 00:09:13.000 if you just limit it to that,

NOTE Confidence: 0.9352594

00:09:13.000 --> 00:09:17.042 it decreased from basically 19% to 11%.

NOTE Confidence: 0.9352594

00:09:17.042 --> 00:09:20.701 But still, if you knew that you had a

NOTE Confidence: 0.9352594

00:09:20.701 --> 00:09:25.064 one in ten chance of having this bad

NOTE Confidence: 0.9352594

00:09:25.064 --> 00:09:30.714 cold last for weeks or months or years,

NOTE Confidence: 0.9352594

00:09:30.720 --> 00:09:33.040 I mean it's I think that's pretty it's

NOTE Confidence: 0.9352594

00:09:33.040 --> 00:09:35.638 still a pretty frightening possibility.

NOTE Confidence: 0.927177897142857

00:09:38.720 --> 00:09:43.025 Approximately 1/4 of adults with long COVID,

NOTE Confidence: 0.927177897142857

00:09:43.030 --> 00:09:45.562 it's a lot of people report significant

NOTE Confidence: 0.927177897142857

00:09:45.562 --> 00:09:47.586 limitations on their activities.

NOTE Confidence: 0.9276116

00:09:50.150 --> 00:09:53.344 That same report from the MM from

NOTE Confidence: 0.9276116

00:09:53.344 --> 00:09:56.382 the CDC said that long COVID is

NOTE Confidence: 0.9276116

00:09:56.382 --> 00:09:58.729 associated with a lower likelihood

NOTE Confidence: 0.9276116

00:09:58.729 --> 00:10:01.841 of working full time and a higher

NOTE Confidence: 0.9276116

00:10:01.841 --> 00:10:03.509 likelihood of being unemployed.
NOTE Confidence: 0.9276116

00:10:03.510 --> 00:10:06.359 The report cites data from the New
NOTE Confidence: 0.9276116

00:10:06.359 --> 00:10:09.194 York State Insurance funds that 18%
NOTE Confidence: 0.9276116

00:10:09.194 --> 00:10:12.958 of claimants with long COVID could not
NOTE Confidence: 0.9276116

00:10:12.958 --> 00:10:15.950 return to work for more than a year.
NOTE Confidence: 0.9276116

00:10:15.950 --> 00:10:18.668 So that's devastating for most people.
NOTE Confidence: 0.93205816

00:10:21.030 --> 00:10:23.508 Just to let you look at the,
NOTE Confidence: 0.93205816

00:10:23.510 --> 00:10:26.470 the change in prevalence,
NOTE Confidence: 0.93205816

00:10:28.550 --> 00:10:31.628 sorry for it being so busy,
NOTE Confidence: 0.93205816

00:10:31.630 --> 00:10:34.510 but that big fat black line is the
NOTE Confidence: 0.93205816

00:10:34.510 --> 00:10:37.147 average and you can see that it drops
NOTE Confidence: 0.93205816

00:10:37.147 --> 00:10:40.235 at the at the end of last year and
NOTE Confidence: 0.93205816

00:10:40.235 --> 00:10:43.385 then around January sort of stabilizes.
NOTE Confidence: 0.93205816

00:10:43.390 --> 00:10:46.816 But if you look at the different age groups,
NOTE Confidence: 0.93205816

00:10:46.816 --> 00:10:48.308 the bottom age group,
NOTE Confidence: 0.93205816

00:10:48.310 --> 00:10:50.150 those are people over 80.

NOTE Confidence: 0.93205816

00:10:50.150 --> 00:10:52.770 Obviously they have the lowest

NOTE Confidence: 0.93205816

00:10:52.770 --> 00:10:54.866 prevalence of long COVID,

NOTE Confidence: 0.93205816

00:10:54.870 --> 00:10:57.786 but it is creeping upwards and the

NOTE Confidence: 0.93205816

00:10:57.786 --> 00:11:00.054 other group where there's an inflection

NOTE Confidence: 0.93205816

00:11:00.054 --> 00:11:02.266 point and it started to creep up

NOTE Confidence: 0.93205816

00:11:02.266 --> 00:11:04.589 by the people 50 to 55 years old.

NOTE Confidence: 0.93205816

00:11:04.590 --> 00:11:08.498 So people still in,

NOTE Confidence: 0.93205816

00:11:08.500 --> 00:11:10.740 I like to thank the prime of their

NOTE Confidence: 0.93205816

00:11:10.740 --> 00:11:12.736 life or at least part of it.

NOTE Confidence: 0.93205816

00:11:12.740 --> 00:11:14.444 So it's distributed differently.

NOTE Confidence: 0.93205816

00:11:14.444 --> 00:11:17.700 I mean it is good news overall,

NOTE Confidence: 0.93205816

00:11:17.700 --> 00:11:20.580 but people are still quite debilitated.

NOTE Confidence: 0.9343315

00:11:25.700 --> 00:11:30.247 So this comes from the INSPIRE study

NOTE Confidence: 0.9343315

00:11:30.247 --> 00:11:33.529 that's the innovative support for patients

NOTE Confidence: 0.9343315

00:11:33.529 --> 00:11:37.049 with SARS COVID 2 infection registry.

NOTE Confidence: 0.9343315

00:11:37.050 --> 00:11:38.436 This looked at, I thought this
NOTE Confidence: 0.9343315

00:11:38.436 --> 00:11:40.810 was such a an interesting idea.
NOTE Confidence: 0.9343315

00:11:40.810 --> 00:11:44.445 So this looked at 3800 patients who
NOTE Confidence: 0.9343315

00:11:44.445 --> 00:11:47.117 are getting tested for COVID and
NOTE Confidence: 0.9343315

00:11:47.117 --> 00:11:48.852 were recruited before the results
NOTE Confidence: 0.9343315

00:11:48.852 --> 00:11:51.070 of their tests were known and
NOTE Confidence: 0.9343315

00:11:51.070 --> 00:11:53.370 surveyed then about their symptoms.
NOTE Confidence: 0.9343315

00:11:53.370 --> 00:11:56.226 And then at three months, six months,
NOTE Confidence: 0.9343315

00:11:56.226 --> 00:11:59.810 nine months and a year after that test,
NOTE Confidence: 0.9343315

00:11:59.810 --> 00:12:02.365 the dark blue lines at the top.
NOTE Confidence: 0.9343315

00:12:02.370 --> 00:12:06.758 The dark blue bars represent the 12188
NOTE Confidence: 0.9343315

00:12:06.758 --> 00:12:09.086 patients who tested positive for COVID,
NOTE Confidence: 0.9343315

00:12:09.090 --> 00:12:11.407 who filled out all of the surveys.
NOTE Confidence: 0.9343315

00:12:11.410 --> 00:12:15.246 The lighter blue below are the survey
NOTE Confidence: 0.9343315

00:12:15.246 --> 00:12:19.342 results of the 453 patients who were
NOTE Confidence: 0.9343315

00:12:19.342 --> 00:12:21.995 presumably sick when they take took the

NOTE Confidence: 0.9343315

00:12:21.995 --> 00:12:23.930 test but tested ultimately tested negative.

NOTE Confidence: 0.9343315

00:12:23.930 --> 00:12:27.254 For COVID, the dark bars represent

NOTE Confidence: 0.9343315

00:12:27.254 --> 00:12:30.190 persistent symptoms in both groups.

NOTE Confidence: 0.9343315

00:12:30.190 --> 00:12:32.165 The lighter tinges at the

NOTE Confidence: 0.9343315

00:12:32.165 --> 00:12:33.745 end are new symptoms,

NOTE Confidence: 0.9343315

00:12:33.750 --> 00:12:35.375 symptoms that they didn't have

NOTE Confidence: 0.9343315

00:12:35.375 --> 00:12:36.350 when they took.

NOTE Confidence: 0.9343315

00:12:36.350 --> 00:12:39.990 For this one, this is 3 months out.

NOTE Confidence: 0.9343315

00:12:39.990 --> 00:12:42.335 So the light blue is symptoms that

NOTE Confidence: 0.9343315

00:12:42.335 --> 00:12:44.778 didn't exist when they took the first

NOTE Confidence: 0.9343315

00:12:44.778 --> 00:12:46.830 survey when they were first sick,

NOTE Confidence: 0.9343315

00:12:46.830 --> 00:12:48.204 but exists now.

NOTE Confidence: 0.9343315

00:12:48.204 --> 00:12:52.012 And so you see that the people who

NOTE Confidence: 0.9343315

00:12:52.012 --> 00:12:57.303 didn't have COVID had something and with

NOTE Confidence: 0.9343315

00:12:57.303 --> 00:12:59.468 persistent symptoms at three months,

NOTE Confidence: 0.9174679

00:13:01.500 --> 00:13:03.940 then again at six months
NOTE Confidence: 0.9174679

00:13:07.540 --> 00:13:11.659 and again at a year. So these are,
NOTE Confidence: 0.9174679

00:13:11.659 --> 00:13:13.710 this is the same group of people
NOTE Confidence: 0.9174679

00:13:13.778 --> 00:13:15.498 just tracked over the year.
NOTE Confidence: 0.9174679

00:13:19.420 --> 00:13:23.892 So I was surprised by this when I when
NOTE Confidence: 0.9174679

00:13:23.892 --> 00:13:26.380 Erica Spatz first told me about it.
NOTE Confidence: 0.9174679

00:13:26.380 --> 00:13:28.958 But I shouldn't have been because
NOTE Confidence: 0.9174679

00:13:28.958 --> 00:13:32.900 this idea of a post viral or a post
NOTE Confidence: 0.9174679

00:13:33.008 --> 00:13:36.680 infectious syndrome is far from new.
NOTE Confidence: 0.9174679

00:13:36.680 --> 00:13:39.160 You know, if you look back in history,
NOTE Confidence: 0.90914035

00:13:41.880 --> 00:13:45.502 the Russian flu in 1892,
NOTE Confidence: 0.90914035

00:13:45.502 --> 00:13:48.034 it's called the Russian Flu because
NOTE Confidence: 0.90914035

00:13:48.034 --> 00:13:50.636 the first reported cases were in
NOTE Confidence: 0.90914035

00:13:50.636 --> 00:13:53.118 Saint Petersburg was a devastating
NOTE Confidence: 0.90914035

00:13:55.240 --> 00:13:59.650 pandemic. This is the cover of
NOTE Confidence: 0.90914035

00:13:59.650 --> 00:14:01.762 London's Illustrated Police News.

NOTE Confidence: 0.90914035

00:14:01.770 --> 00:14:05.705 It reported on the 1st and most deadly

NOTE Confidence: 0.90914035

00:14:05.705 --> 00:14:08.330 pandemic of the industrial era.

NOTE Confidence: 0.90914035

00:14:08.330 --> 00:14:10.910 It killed one out of every 1400

NOTE Confidence: 0.90914035

00:14:10.910 --> 00:14:13.010 people alive on the planet.

NOTE Confidence: 0.90914035

00:14:13.010 --> 00:14:15.570 So a really terrible flu.

NOTE Confidence: 0.9345508

00:14:17.610 --> 00:14:19.860 But even then, there were many

NOTE Confidence: 0.9345508

00:14:19.860 --> 00:14:21.860 cases where the symptoms persisted

NOTE Confidence: 0.9345508

00:14:21.860 --> 00:14:24.015 well after the flu resolved.

NOTE Confidence: 0.9345508

00:14:24.020 --> 00:14:25.900 The neurologic conditions observed

NOTE Confidence: 0.9345508

00:14:25.900 --> 00:14:28.250 after the Russian influenza were

NOTE Confidence: 0.9345508

00:14:28.250 --> 00:14:30.495 given many different names. Neuralgia.

NOTE Confidence: 0.9345508

00:14:30.495 --> 00:14:32.980 Do you know them from old novels,

NOTE Confidence: 0.9345508

00:14:32.980 --> 00:14:34.540 if you read old novels or

NOTE Confidence: 0.9345508

00:14:34.540 --> 00:14:35.580 from your history books?

NOTE Confidence: 0.9345508

00:14:35.580 --> 00:14:37.580 Neuralgia, Neurasthenia,

NOTE Confidence: 0.9345508

00:14:37.580 --> 00:14:41.580 neuritis, nerve exhaustion grip,
NOTE Confidence: 0.9345508

00:14:41.580 --> 00:14:44.076 cataplexy, postgrippleness, numbness.
NOTE Confidence: 0.9345508

00:14:44.076 --> 00:14:47.045 I mean, you can recognize
NOTE Confidence: 0.9345508

00:14:47.045 --> 00:14:49.655 aspects of long COVID in this.
NOTE Confidence: 0.9345508

00:14:49.660 --> 00:14:51.580 You know, the peripheral neuropathy,
NOTE Confidence: 0.9345508

00:14:51.580 --> 00:14:56.068 the post exertional malaise,
NOTE Confidence: 0.9345508

00:14:56.070 --> 00:14:57.798 prostration, psychosis,
NOTE Confidence: 0.9345508

00:14:57.798 --> 00:15:00.390 inertia, anxiety, paranoia.
NOTE Confidence: 0.9345508

00:15:00.390 --> 00:15:03.165 These are what how these
NOTE Confidence: 0.9345508

00:15:03.165 --> 00:15:05.385 people's symptoms were described.
NOTE Confidence: 0.9345508

00:15:05.390 --> 00:15:07.628 There was a a Victorian Dr.
NOTE Confidence: 0.9345508

00:15:07.630 --> 00:15:09.486 throat specialist who described
NOTE Confidence: 0.9345508

00:15:09.486 --> 00:15:12.270 how influenza appeared to quote run
NOTE Confidence: 0.9345508

00:15:12.343 --> 00:15:14.629 up and down the nervous keyboard,
NOTE Confidence: 0.9345508

00:15:14.630 --> 00:15:17.270 stirring up disorder and pain in
NOTE Confidence: 0.9345508

00:15:17.270 --> 00:15:20.726 different parts of the body with what

NOTE Confidence: 0.9345508

00:15:20.726 --> 00:15:22.874 almost seemed malicious Caprice.

NOTE Confidence: 0.9345508

00:15:22.880 --> 00:15:24.880 That's how that was described.

NOTE Confidence: 0.9345508

00:15:24.880 --> 00:15:28.040 And that was 1892.

NOTE Confidence: 0.9345508

00:15:28.040 --> 00:15:30.152 And then of course there was

NOTE Confidence: 0.9345508

00:15:30.152 --> 00:15:31.742 the Spanish flu in 1918.

NOTE Confidence: 0.9345508

00:15:31.742 --> 00:15:33.016 And let me just put in a

NOTE Confidence: 0.9345508

00:15:33.016 --> 00:15:34.159 good word for the Spanish.

NOTE Confidence: 0.9345508

00:15:34.160 --> 00:15:36.236 The reason it's called the Spanish

NOTE Confidence: 0.9345508

00:15:36.236 --> 00:15:38.144 flu is because during World War

NOTE Confidence: 0.9345508

00:15:38.144 --> 00:15:39.872 One they weren't involved in the

NOTE Confidence: 0.9345508

00:15:39.872 --> 00:15:41.796 war and so they had a Free Press.

NOTE Confidence: 0.9345508

00:15:41.800 --> 00:15:44.565 And so they were the first people

NOTE Confidence: 0.9345508

00:15:44.565 --> 00:15:46.466 to report this epidemic,

NOTE Confidence: 0.9345508

00:15:46.466 --> 00:15:48.678 which was absolutely devastating.

NOTE Confidence: 0.9345508

00:15:48.680 --> 00:15:52.509 It's estimated that about 500 million people,

NOTE Confidence: 0.9345508

00:15:52.510 --> 00:15:55.228 or 1/3 of the world's population,
NOTE Confidence: 0.9345508

00:15:55.230 --> 00:15:57.590 became infected with this virus.
NOTE Confidence: 0.9345508

00:15:57.590 --> 00:15:59.676 The number of deaths was estimated to
NOTE Confidence: 0.9345508

00:15:59.676 --> 00:16:02.104 be at least 50 million worldwide and
NOTE Confidence: 0.9345508

00:16:02.104 --> 00:16:06.148 about 675,000 occurring in the United States.
NOTE Confidence: 0.9345508

00:16:06.150 --> 00:16:08.590 Mortality was mortality was high
NOTE Confidence: 0.9345508

00:16:08.590 --> 00:16:11.030 in people younger than five,
NOTE Confidence: 0.9345508

00:16:11.030 --> 00:16:13.870 those between 20 and 40,
NOTE Confidence: 0.9345508

00:16:13.870 --> 00:16:16.586 and those who were 65 and oldest,
NOTE Confidence: 0.9345508

00:16:16.590 --> 00:16:17.816 the highest.
NOTE Confidence: 0.9345508

00:16:17.816 --> 00:16:21.340 Mortality in healthy people was a
NOTE Confidence: 0.9345508

00:16:21.340 --> 00:16:24.550 unique feature of this particular pandemic,
NOTE Confidence: 0.9345508

00:16:24.550 --> 00:16:27.028 but for those who are who survived,
NOTE Confidence: 0.9345508

00:16:27.030 --> 00:16:28.910 at least some of them,
NOTE Confidence: 0.9345508

00:16:28.910 --> 00:16:32.620 the suffering was not over the the
NOTE Confidence: 0.9345508

00:16:32.620 --> 00:16:35.232 long term neurologic effects of

NOTE Confidence: 0.9345508
00:16:35.232 --> 00:16:38.096 this flu included Parkinsonianism,
NOTE Confidence: 0.9345508
00:16:38.096 --> 00:16:39.069 catatonia,
NOTE Confidence: 0.9345508
00:16:39.069 --> 00:16:45.790 and something called Encephalitis lethargica.
NOTE Confidence: 0.9345508
00:16:45.790 --> 00:16:50.046 That term was first used by an
NOTE Confidence: 0.9345508
00:16:50.046 --> 00:16:52.180 Austrian neurologist after he
NOTE Confidence: 0.9345508
00:16:52.180 --> 00:16:54.455 identified an increased number of
NOTE Confidence: 0.9345508
00:16:54.455 --> 00:16:57.218 patients in Vienna with meningitis and
NOTE Confidence: 0.9345508
00:16:57.218 --> 00:17:00.750 delirium during the winters of 1916 and 1917,
NOTE Confidence: 0.9345508
00:17:00.750 --> 00:17:01.968 and in 1980.
NOTE Confidence: 0.9345508
00:17:01.968 --> 00:17:04.404 Eighteen disorders that were similar to
NOTE Confidence: 0.9345508
00:17:04.404 --> 00:17:06.136 encephalitis lethargica were reported
NOTE Confidence: 0.9345508
00:17:06.136 --> 00:17:09.069 elsewhere in Europe and the United States,
NOTE Confidence: 0.9345508
00:17:09.070 --> 00:17:11.981 with a peak of cases in 1923,
NOTE Confidence: 0.9345508
00:17:11.981 --> 00:17:15.109 and declined over the course of the decade.
NOTE Confidence: 0.9345508
00:17:15.110 --> 00:17:21.144 So as with the the post Russian flu epidemic,
NOTE Confidence: 0.9345508

00:17:21.144 --> 00:17:24.274 it spiked and then disappeared
NOTE Confidence: 0.9345508

00:17:24.280 --> 00:17:27.920 and nobody talked about it.
NOTE Confidence: 0.9345508

00:17:27.920 --> 00:17:32.040 So it's not just COVID.
NOTE Confidence: 0.9345508

00:17:32.040 --> 00:17:36.030 This is from Akiko's fantastic
NOTE Confidence: 0.9345508

00:17:36.030 --> 00:17:39.360 article in Nature magazine last year.
NOTE Confidence: 0.9345508

00:17:39.360 --> 00:17:41.976 Fatigue has been the most widely
NOTE Confidence: 0.9345508

00:17:41.976 --> 00:17:43.720 measured and followed symptom,
NOTE Confidence: 0.9345508

00:17:43.720 --> 00:17:46.275 but of course not the only symptom.
NOTE Confidence: 0.9345508

00:17:46.280 --> 00:17:47.264 And you can look.
NOTE Confidence: 0.9345508

00:17:47.264 --> 00:17:49.332 I mean, what a, what,
NOTE Confidence: 0.9345508

00:17:49.332 --> 00:17:52.476 a what a range of illnesses,
NOTE Confidence: 0.9345508

00:17:52.480 --> 00:17:57.680 many of which are studied by this group.
NOTE Confidence: 0.9345508

00:17:57.680 --> 00:18:02.240 So it ain't just COVID.
NOTE Confidence: 0.9345508

00:18:02.240 --> 00:18:07.200 So I run the newly started the
NOTE Confidence: 0.9345508

00:18:07.200 --> 00:18:10.000 New long COVID Clinic.
NOTE Confidence: 0.9345508

00:18:10.000 --> 00:18:11.172 But I would be,

NOTE Confidence: 0.9345508
00:18:11.172 --> 00:18:13.347 it would be wrong of me not
NOTE Confidence: 0.9345508
00:18:13.347 --> 00:18:15.037 to talk about the real,
NOTE Confidence: 0.9345508
00:18:15.040 --> 00:18:17.370 the source of that clinic.
NOTE Confidence: 0.9345508
00:18:17.370 --> 00:18:20.808 These are the people who cared,
NOTE Confidence: 0.9345508
00:18:20.810 --> 00:18:23.235 who provided long COVID care
NOTE Confidence: 0.9345508
00:18:23.235 --> 00:18:25.660 for the first years of
NOTE Confidence: 0.9261149
00:18:25.758 --> 00:18:28.182 this pandemic. And actually several
NOTE Confidence: 0.9261149
00:18:28.182 --> 00:18:30.366 of the people in this slide,
NOTE Confidence: 0.9261149
00:18:30.370 --> 00:18:33.226 specifically Jennifer Possek,
NOTE Confidence: 0.9261149
00:18:33.226 --> 00:18:39.235 Erica Spatz, Lindsay McAlpine put
NOTE Confidence: 0.9261149
00:18:39.235 --> 00:18:43.050 together the clinic that I now run.
NOTE Confidence: 0.9261149
00:18:43.050 --> 00:18:45.185 And they were very thoughtful in how
NOTE Confidence: 0.9261149
00:18:45.185 --> 00:18:48.080 they put it together and and recognized
NOTE Confidence: 0.9261149
00:18:48.080 --> 00:18:50.465 that this required a multidisciplinary
NOTE Confidence: 0.9261149
00:18:50.465 --> 00:18:53.428 approach and that it required an internist.
NOTE Confidence: 0.9261149

00:18:53.430 --> 00:18:57.390 So I was thrilled when I heard about it.

NOTE Confidence: 0.9261149

00:18:57.390 --> 00:18:59.710 So this is our crowd.

NOTE Confidence: 0.9261149

00:18:59.710 --> 00:19:02.518 This is along COVID and you see that

NOTE Confidence: 0.9261149

00:19:02.518 --> 00:19:05.198 there there are respiratory therapists,

NOTE Confidence: 0.9261149

00:19:05.198 --> 00:19:06.944 there are nurses,

NOTE Confidence: 0.9261149

00:19:06.950 --> 00:19:09.510 there are physical therapists,

NOTE Confidence: 0.9261149

00:19:09.510 --> 00:19:14.078 there's a PA and ME and we see

NOTE Confidence: 0.9261149

00:19:14.078 --> 00:19:17.830 patients five days a week, 3 days.

NOTE Confidence: 0.9261149

00:19:17.830 --> 00:19:20.110 We see new patients two days.

NOTE Confidence: 0.9261149

00:19:20.110 --> 00:19:21.148 We do follow-ups.

NOTE Confidence: 0.9258703

00:19:23.830 --> 00:19:26.350 It's a multi specialty clinic.

NOTE Confidence: 0.9258703

00:19:31.590 --> 00:19:33.590 So we get to open.

NOTE Confidence: 0.9258703

00:19:33.590 --> 00:19:35.630 We got to open with the hard one

NOTE Confidence: 0.9258703

00:19:35.630 --> 00:19:37.380 knowledge of those who people who

NOTE Confidence: 0.9258703

00:19:37.380 --> 00:19:39.150 had seen patients here at Yale.

NOTE Confidence: 0.93777424

00:19:42.320 --> 00:19:44.504 Patients are screened by nursing before they

NOTE Confidence: 0.93777424

00:19:44.504 --> 00:19:47.196 come in so that we can get their records.

NOTE Confidence: 0.93777424

00:19:47.200 --> 00:19:50.700 We know that for most of them this

NOTE Confidence: 0.93777424

00:19:50.700 --> 00:19:53.920 is not their first visit by far.

NOTE Confidence: 0.93777424

00:19:53.920 --> 00:19:55.438 At the time of their visit,

NOTE Confidence: 0.93777424

00:19:55.440 --> 00:19:57.995 they're always seen by a physical therapist,

NOTE Confidence: 0.93777424

00:19:58.000 --> 00:20:02.797 also by social worker and and by a physician.

NOTE Confidence: 0.93777424

00:20:02.800 --> 00:20:04.393 And when appropriate,

NOTE Confidence: 0.93777424

00:20:04.393 --> 00:20:09.679 they're also seen by a respiratory therapist.

NOTE Confidence: 0.93777424

00:20:09.679 --> 00:20:12.838 We. Require referrals.

NOTE Confidence: 0.93777424

00:20:12.840 --> 00:20:16.480 We require referrals because after we sort

NOTE Confidence: 0.93777424

00:20:16.480 --> 00:20:19.915 of address these immediate concerns there,

NOTE Confidence: 0.93777424

00:20:19.915 --> 00:20:21.475 it's not like they're going to go away.

NOTE Confidence: 0.93777424

00:20:21.480 --> 00:20:24.036 It's not like we can give them two weeks

NOTE Confidence: 0.93777424

00:20:24.036 --> 00:20:26.104 of doxycycline and they'll get better.

NOTE Confidence: 0.93777424

00:20:26.104 --> 00:20:27.580 They're going to have these symptoms

NOTE Confidence: 0.93777424

00:20:27.627 --> 00:20:29.920 for a while, so we need to have them
NOTE Confidence: 0.93777424

00:20:29.920 --> 00:20:32.399 go back to their regular doctors.
NOTE Confidence: 0.93777424

00:20:32.400 --> 00:20:36.136 And we're located at the medical
NOTE Confidence: 0.93777424

00:20:36.136 --> 00:20:39.400 office building at Saint Ray's.
NOTE Confidence: 0.93777424

00:20:39.400 --> 00:20:40.948 So we opened on,
NOTE Confidence: 0.93777424

00:20:40.948 --> 00:20:44.240 we saw our first patient on March 20th
NOTE Confidence: 0.93777424

00:20:44.240 --> 00:20:47.570 and since then we've gotten about 240.
NOTE Confidence: 0.93777424

00:20:47.570 --> 00:20:50.800 This is up to July 1st at 245.
NOTE Confidence: 0.93777424

00:20:50.800 --> 00:20:54.000 Referrals we've seen had seen
NOTE Confidence: 0.93777424

00:20:54.000 --> 00:20:56.560 at that .206 patients,
NOTE Confidence: 0.93092215

00:21:00.400 --> 00:21:02.620 most of the most common
NOTE Confidence: 0.93092215

00:21:02.620 --> 00:21:03.952 referring diagnoses were
NOTE Confidence: 0.93092215

00:21:03.952 --> 00:21:06.079 exactly what you would think.
NOTE Confidence: 0.93092215

00:21:06.080 --> 00:21:09.888 Shortness of breath, fatigue,
NOTE Confidence: 0.93092215

00:21:09.890 --> 00:21:14.570 brain fog, pots, cough, anxiety.
NOTE Confidence: 0.93092215

00:21:14.570 --> 00:21:15.720 So that's what that's what

NOTE Confidence: 0.93092215

00:21:15.720 --> 00:21:16.410 they're starting with.

NOTE Confidence: 0.9259019

00:21:19.210 --> 00:21:22.636 Our job in this initial clinic

NOTE Confidence: 0.9259019

00:21:22.636 --> 00:21:25.730 evaluation is to see if their lungs work,

NOTE Confidence: 0.9259019

00:21:25.730 --> 00:21:28.488 if they have short shortness of breath,

NOTE Confidence: 0.9259019

00:21:28.490 --> 00:21:32.114 see how debilitated they are.

NOTE Confidence: 0.9259019

00:21:32.114 --> 00:21:34.610 They are the vast majority of

NOTE Confidence: 0.9259019

00:21:34.610 --> 00:21:37.444 patients who we see have not

NOTE Confidence: 0.9259019

00:21:37.444 --> 00:21:41.026 been active since they got sick.

NOTE Confidence: 0.9259019

00:21:41.030 --> 00:21:42.274 You know, I mean,

NOTE Confidence: 0.9259019

00:21:42.274 --> 00:21:45.090 many of them have spent a lot of far

NOTE Confidence: 0.9259019

00:21:45.090 --> 00:21:47.114 too much time on the sofa because

NOTE Confidence: 0.9259019

00:21:47.114 --> 00:21:48.818 they felt too terrible and because

NOTE Confidence: 0.9259019

00:21:48.818 --> 00:21:50.534 they were afraid that if they

NOTE Confidence: 0.9259019

00:21:50.534 --> 00:21:52.154 exercise they would get worse Because

NOTE Confidence: 0.9259019

00:21:52.154 --> 00:21:53.713 there were stories about people

NOTE Confidence: 0.9259019

00:21:53.713 --> 00:21:55.263 who had post exertional malaise,
NOTE Confidence: 0.9259019

00:21:55.270 --> 00:21:58.230 who exercised and got worse,
NOTE Confidence: 0.9259019

00:21:58.230 --> 00:21:59.470 or they did it themselves.
NOTE Confidence: 0.9259019

00:21:59.470 --> 00:22:00.276 They exercised.
NOTE Confidence: 0.9259019

00:22:00.276 --> 00:22:03.097 They decided to push through and go
NOTE Confidence: 0.9259019

00:22:03.097 --> 00:22:05.786 for that run and then you know they
NOTE Confidence: 0.9259019

00:22:05.786 --> 00:22:08.279 were in bed for days afterwards.
NOTE Confidence: 0.9259019

00:22:08.280 --> 00:22:10.236 So there with the physical therapist,
NOTE Confidence: 0.9259019

00:22:10.240 --> 00:22:14.596 we do 6 minute walk test for people who
NOTE Confidence: 0.9259019

00:22:14.596 --> 00:22:16.720 have symptoms of autonomic dysfunction.
NOTE Confidence: 0.9259019

00:22:16.720 --> 00:22:19.920 We do something called an active stand test.
NOTE Confidence: 0.9259019

00:22:19.920 --> 00:22:23.756 That's the poor man's tilt table test,
NOTE Confidence: 0.9259019

00:22:23.760 --> 00:22:25.160 which is supposed to be as good,
NOTE Confidence: 0.9259019

00:22:25.160 --> 00:22:27.920 but I don't know.
NOTE Confidence: 0.9259019

00:22:27.920 --> 00:22:29.920 That's what I read.
NOTE Confidence: 0.9259019

00:22:29.920 --> 00:22:32.242 Social work tries to assess their

NOTE Confidence: 0.9259019

00:22:32.242 --> 00:22:34.337 needs and their support and

NOTE Confidence: 0.9259019

00:22:34.337 --> 00:22:36.237 provide counseling when needed.

NOTE Confidence: 0.9259019

00:22:36.240 --> 00:22:39.236 And we have a psychiatrist we work

NOTE Confidence: 0.9259019

00:22:39.236 --> 00:22:41.430 with when medications are indicated

NOTE Confidence: 0.9259019

00:22:41.430 --> 00:22:44.070 and we have a support group,

NOTE Confidence: 0.9259019

00:22:44.070 --> 00:22:46.050 A zoom support group that will

NOTE Confidence: 0.9259019

00:22:46.050 --> 00:22:48.910 be starting in September.

NOTE Confidence: 0.9259019

00:22:48.910 --> 00:22:50.750 So and then I see them or sometimes

NOTE Confidence: 0.9259019

00:22:50.750 --> 00:22:51.830 my PA sees them,

NOTE Confidence: 0.9259019

00:22:51.830 --> 00:22:53.366 although he usually sees people in

NOTE Confidence: 0.9259019

00:22:53.366 --> 00:22:55.183 follow up and we get a thorough

NOTE Confidence: 0.9259019

00:22:55.183 --> 00:22:56.905 history and we do a physical exam.

NOTE Confidence: 0.9259019

00:22:56.910 --> 00:23:00.940 We get whatever work up we think is

NOTE Confidence: 0.9259019

00:23:00.940 --> 00:23:03.530 needed and we either treat them or

NOTE Confidence: 0.9259019

00:23:03.611 --> 00:23:07.067 refer them to subspecialists for treatment.

NOTE Confidence: 0.9259019

00:23:07.070 --> 00:23:10.750 My goal when I see them is to to make

NOTE Confidence: 0.9259019

00:23:10.750 --> 00:23:13.416 sure that they have long COVID and

NOTE Confidence: 0.9259019

00:23:13.416 --> 00:23:15.932 they don't have anything else about,

NOTE Confidence: 0.9259019

00:23:15.932 --> 00:23:19.424 I would say 1/6 or so.

NOTE Confidence: 0.9259019

00:23:19.430 --> 00:23:20.394 You know a good,

NOTE Confidence: 0.9259019

00:23:20.394 --> 00:23:21.840 a decent sized handful of the

NOTE Confidence: 0.9259019

00:23:21.900 --> 00:23:23.923 people who come to see me actually

NOTE Confidence: 0.9259019

00:23:23.923 --> 00:23:24.790 have something else.

NOTE Confidence: 0.9259019

00:23:24.790 --> 00:23:28.908 And so we try to get them taken

NOTE Confidence: 0.9259019

00:23:28.908 --> 00:23:31.190 care of for those things as I think

NOTE Confidence: 0.9259019

00:23:31.190 --> 00:23:32.870 it's actually kind of a victory

NOTE Confidence: 0.9259019

00:23:32.870 --> 00:23:35.170 when they have something else

NOTE Confidence: 0.9259019

00:23:35.170 --> 00:23:38.462 because most things we can do more

NOTE Confidence: 0.9259019

00:23:38.462 --> 00:23:42.150 for than we can for long COVID.

NOTE Confidence: 0.9259019

00:23:42.150 --> 00:23:46.105 So what do we have that works in long COVID?

NOTE Confidence: 0.9291728

00:23:48.230 --> 00:23:50.186 It's it's not a pretty picture,

NOTE Confidence: 0.9291728

00:23:50.190 --> 00:23:51.306 but I'll show them to you.

NOTE Confidence: 0.9291728

00:23:53.510 --> 00:23:56.846 So some things we can be

NOTE Confidence: 0.9291728

00:23:56.846 --> 00:23:59.070 sure are pretty helpful.

NOTE Confidence: 0.9291728

00:24:01.390 --> 00:24:04.440 Physical therapy is often helpful,

NOTE Confidence: 0.9291728

00:24:04.440 --> 00:24:06.048 with some caveats.

NOTE Confidence: 0.9291728

00:24:06.048 --> 00:24:08.728 Some patients crash when they

NOTE Confidence: 0.9291728

00:24:08.728 --> 00:24:10.640 push themselves too hard,

NOTE Confidence: 0.9291728

00:24:10.640 --> 00:24:12.716 something known as post exertional malaise.

NOTE Confidence: 0.9291728

00:24:12.720 --> 00:24:15.312 These patients have to increase their

NOTE Confidence: 0.9291728

00:24:15.312 --> 00:24:17.520 workload super slowly and recognize

NOTE Confidence: 0.9291728

00:24:17.520 --> 00:24:20.397 their limits so that they don't crash.

NOTE Confidence: 0.9291728

00:24:20.400 --> 00:24:22.224 I don't think that there's any

NOTE Confidence: 0.9291728

00:24:22.224 --> 00:24:24.080 evidence that these crashes cause harm,

NOTE Confidence: 0.9291728

00:24:24.080 --> 00:24:28.280 but they do steal time,

NOTE Confidence: 0.9291728

00:24:28.280 --> 00:24:31.790 and that's a bad thing.

NOTE Confidence: 0.9291728

00:24:31.790 --> 00:24:33.255 But they're kinds of exercises
NOTE Confidence: 0.9291728

00:24:33.255 --> 00:24:34.427 that have been developed.
NOTE Confidence: 0.9291728

00:24:34.430 --> 00:24:36.590 You see this woman who's
NOTE Confidence: 0.9291728

00:24:36.590 --> 00:24:38.750 exercising loaded to the floor.
NOTE Confidence: 0.9291728

00:24:38.750 --> 00:24:41.936 People who have or autonomic
NOTE Confidence: 0.9291728

00:24:41.936 --> 00:24:45.066 dysfunction often need to do
NOTE Confidence: 0.9291728

00:24:45.070 --> 00:24:46.990 exercise in a recumbent position.
NOTE Confidence: 0.9291728

00:24:46.990 --> 00:24:49.012 So there are a couple of
NOTE Confidence: 0.9291728

00:24:49.012 --> 00:24:51.270 protocols that we do for them.
NOTE Confidence: 0.92679805

00:24:55.790 --> 00:24:59.790 So something that we see a lot is pots.
NOTE Confidence: 0.93513685

00:25:01.840 --> 00:25:05.200 It's a kind of orthostatic intolerance.
NOTE Confidence: 0.93513685

00:25:05.200 --> 00:25:07.644 Pot stands for Postural
NOTE Confidence: 0.93513685

00:25:07.644 --> 00:25:09.477 Orthostatic Tachycardia syndrome,
NOTE Confidence: 0.93513685

00:25:09.480 --> 00:25:12.504 where they'll tell you their heart races
NOTE Confidence: 0.93513685

00:25:12.504 --> 00:25:15.917 and they get dizzy when they stand up.
NOTE Confidence: 0.93513685

00:25:15.920 --> 00:25:19.458 And these are the people you see in stories

NOTE Confidence: 0.93513685

00:25:19.458 --> 00:25:22.741 about long COVID who are in wheelchairs

NOTE Confidence: 0.93513685

00:25:22.741 --> 00:25:25.559 because they really cannot stand up.

NOTE Confidence: 0.93513685

00:25:25.560 --> 00:25:29.990 And it's been shown that certain kinds

NOTE Confidence: 0.93513685

00:25:29.990 --> 00:25:33.179 of exercises can be helpful for them,

NOTE Confidence: 0.93513685

00:25:33.180 --> 00:25:34.316 you know, recumbent exercise.

NOTE Confidence: 0.93513685

00:25:34.316 --> 00:25:36.578 But also one of the things that helps

NOTE Confidence: 0.93513685

00:25:36.578 --> 00:25:38.028 and there are, I'll get to this,

NOTE Confidence: 0.93513685

00:25:38.028 --> 00:25:39.060 there are a couple of medicines,

NOTE Confidence: 0.93513685

00:25:39.060 --> 00:25:41.418 but compression stockings,

NOTE Confidence: 0.93513685

00:25:41.418 --> 00:25:43.776 serious compression stockings,

NOTE Confidence: 0.93513685

00:25:43.780 --> 00:25:44.704 not the, you know,

NOTE Confidence: 0.93513685

00:25:44.704 --> 00:25:46.736 not the ones that you that you normally

NOTE Confidence: 0.93513685

00:25:46.736 --> 00:25:49.300 buy that have a pressure of about 15 to 20

NOTE Confidence: 0.93263376

00:25:51.420 --> 00:25:52.780 millimeters of mercury per

NOTE Confidence: 0.93263376

00:25:52.780 --> 00:25:55.568 square inch, but 30 to 40.

NOTE Confidence: 0.93263376

00:25:55.568 --> 00:25:58.126 And the compression increases as you
NOTE Confidence: 0.93263376

00:25:58.126 --> 00:25:59.687 move upwards and they have to go
NOTE Confidence: 0.93263376

00:25:59.687 --> 00:26:01.563 all the way to the waist because so
NOTE Confidence: 0.93263376

00:26:01.563 --> 00:26:03.301 much of that extra blood that we're
NOTE Confidence: 0.93263376

00:26:03.301 --> 00:26:06.318 trying to get back to the heart is in
NOTE Confidence: 0.93263376

00:26:06.318 --> 00:26:09.354 those in those lower blood vessels.
NOTE Confidence: 0.93263376

00:26:09.360 --> 00:26:11.304 So that's been shown to work
NOTE Confidence: 0.93263376

00:26:11.304 --> 00:26:12.600 in combination with sodium
NOTE Confidence: 0.92953676

00:26:16.240 --> 00:26:21.175 for brain fog, which is a super common
NOTE Confidence: 0.92953676

00:26:21.175 --> 00:26:23.480 complaint of those with long COVID.
NOTE Confidence: 0.92953676

00:26:23.480 --> 00:26:25.240 Cognitive therapy is sometimes
NOTE Confidence: 0.92953676

00:26:25.240 --> 00:26:27.000 useful for brain fog.
NOTE Confidence: 0.92953676

00:26:27.000 --> 00:26:28.944 Studies evaluating cognitive
NOTE Confidence: 0.92953676

00:26:28.944 --> 00:26:32.184 deficit after COVID generally show
NOTE Confidence: 0.92953676

00:26:32.184 --> 00:26:35.267 impairments in the cognitive domains
NOTE Confidence: 0.92953676

00:26:35.267 --> 00:26:37.465 of attention and executive function.

NOTE Confidence: 0.92953676

00:26:37.465 --> 00:26:40.360 And let me just say for daily life,

NOTE Confidence: 0.92953676

00:26:40.360 --> 00:26:41.740 those are the two skills

NOTE Confidence: 0.92953676

00:26:41.740 --> 00:26:43.120 that you use the most.

NOTE Confidence: 0.92953676

00:26:43.120 --> 00:26:45.979 And so these people are can be terribly

NOTE Confidence: 0.92953676

00:26:45.979 --> 00:26:47.711 debilitated and cognitive therapy

NOTE Confidence: 0.92953676

00:26:47.711 --> 00:26:50.847 has been shown to be helpful in some

NOTE Confidence: 0.92953676

00:26:50.847 --> 00:26:52.985 types of cognitive deficits or brain

NOTE Confidence: 0.92953676

00:26:52.985 --> 00:26:56.515 fog for example post traumatic you

NOTE Confidence: 0.92953676

00:26:56.515 --> 00:26:59.629 know post concussive brain fog has

NOTE Confidence: 0.92953676

00:26:59.629 --> 00:27:02.380 been shown to be helped by cognitive

NOTE Confidence: 0.92953676

00:27:02.460 --> 00:27:07.450 therapy or chemotherapy chemo brain.

NOTE Confidence: 0.92953676

00:27:07.450 --> 00:27:09.390 So for cognitive therapy, they're

NOTE Confidence: 0.92953676

00:27:09.390 --> 00:27:12.009 usually two kinds of approach it or two.

NOTE Confidence: 0.92953676

00:27:12.010 --> 00:27:13.450 Two aspects to this.

NOTE Confidence: 0.92953676

00:27:13.450 --> 00:27:16.330 First, they give them the skills to

NOTE Confidence: 0.92953676

00:27:16.330 --> 00:27:18.478 manage not having executive function

NOTE Confidence: 0.92953676

00:27:18.478 --> 00:27:21.070 and not having very good attention.

NOTE Confidence: 0.92953676

00:27:21.070 --> 00:27:23.009 So they give them some skills to

NOTE Confidence: 0.92953676

00:27:23.009 --> 00:27:24.950 learn how to manage that life.

NOTE Confidence: 0.92953676

00:27:24.950 --> 00:27:26.300 And then there are exercises

NOTE Confidence: 0.92953676

00:27:26.300 --> 00:27:28.150 to try to get things working.

NOTE Confidence: 0.92953676

00:27:28.150 --> 00:27:32.230 Again, the evidence isn't great,

NOTE Confidence: 0.92953676

00:27:32.230 --> 00:27:34.990 none of the evidence is great,

NOTE Confidence: 0.92953676

00:27:34.990 --> 00:27:36.110 but it's often helpful.

NOTE Confidence: 0.94128454

00:27:38.790 --> 00:27:40.310 And then there are medications.

NOTE Confidence: 0.9286827

00:27:44.020 --> 00:27:46.135 I haven't done a deep dive into their use,

NOTE Confidence: 0.9286827

00:27:46.140 --> 00:27:47.952 but other long supplements,

NOTE Confidence: 0.9286827

00:27:47.952 --> 00:27:49.682 for example, they are used.

NOTE Confidence: 0.9286827

00:27:49.682 --> 00:27:52.260 I haven't done a deep dive into their use,

NOTE Confidence: 0.9286827

00:27:52.260 --> 00:27:54.171 but other clinics like the one at

NOTE Confidence: 0.9286827

00:27:54.171 --> 00:27:56.420 Mount Sinai in New York use them a lot.

NOTE Confidence: 0.9286827

00:27:56.420 --> 00:27:58.496 1 combination that's supposed to be

NOTE Confidence: 0.9286827

00:27:58.496 --> 00:28:01.240 useful is L, arginine and vitamin C

NOTE Confidence: 0.9286827

00:28:01.240 --> 00:28:04.104 I'm not really sure what those do.

NOTE Confidence: 0.9286827

00:28:04.104 --> 00:28:06.065 I think it's for Vasospasm.

NOTE Confidence: 0.9286827

00:28:06.065 --> 00:28:08.900 I'm not exactly sure how it works,

NOTE Confidence: 0.9286827

00:28:08.900 --> 00:28:11.996 but there are some studies that look at that.

NOTE Confidence: 0.9286827

00:28:12.000 --> 00:28:15.486 I use the combination of supplement and

NOTE Confidence: 0.9286827

00:28:15.486 --> 00:28:18.422 medication that was evaluated by Armin

NOTE Confidence: 0.9286827

00:28:18.422 --> 00:28:21.158 Feshirakis a day a couple of years ago,

NOTE Confidence: 0.9286827

00:28:21.160 --> 00:28:24.092 an acetylcysteine and guanfacine,

NOTE Confidence: 0.9286827

00:28:24.092 --> 00:28:25.558 an acetylcysteine.

NOTE Confidence: 0.9286827

00:28:25.560 --> 00:28:27.520 I mean, I know about it because people

NOTE Confidence: 0.9286827

00:28:27.520 --> 00:28:29.759 use it after an overdose with Tylenol,

NOTE Confidence: 0.9286827

00:28:29.760 --> 00:28:31.875 but it's been used for a lot of things.

NOTE Confidence: 0.9286827

00:28:31.880 --> 00:28:33.760 And guanfacine was a medicine

NOTE Confidence: 0.9286827

00:28:33.760 --> 00:28:36.712 that was used for a DD and those
NOTE Confidence: 0.9286827

00:28:36.712 --> 00:28:39.208 have been shown to help many.
NOTE Confidence: 0.9286827

00:28:39.210 --> 00:28:41.474 And of course lots of people come in
NOTE Confidence: 0.9286827

00:28:41.474 --> 00:28:43.570 after hearing about low dose naltrexone.
NOTE Confidence: 0.9286827

00:28:43.570 --> 00:28:45.730 It's been used to treat chronic
NOTE Confidence: 0.9286827

00:28:45.730 --> 00:28:47.170 pain for many years.
NOTE Confidence: 0.9286827

00:28:47.170 --> 00:28:50.224 And one study done specifically in
NOTE Confidence: 0.9286827

00:28:50.224 --> 00:28:53.355 people with long COVID shows that
NOTE Confidence: 0.9286827

00:28:53.355 --> 00:28:56.367 it improved fatigue and brain fog.
NOTE Confidence: 0.9286827

00:28:56.370 --> 00:28:58.694 So one of the things that's been
NOTE Confidence: 0.9286827

00:28:58.694 --> 00:29:01.330 most well studied is loss of sense
NOTE Confidence: 0.9286827

00:29:01.330 --> 00:29:04.210 of smell and sense of taste.
NOTE Confidence: 0.9286827

00:29:04.210 --> 00:29:06.982 I think it's been studied so much
NOTE Confidence: 0.9286827

00:29:06.982 --> 00:29:09.940 because it's easy to measure and cheap.
NOTE Confidence: 0.9286827

00:29:09.940 --> 00:29:12.052 There are these things called sniffing
NOTE Confidence: 0.9286827

00:29:12.052 --> 00:29:14.772 sticks and you can, they've been,

NOTE Confidence: 0.9286827

00:29:14.772 --> 00:29:16.740 they're, they're measurable.

NOTE Confidence: 0.9286827

00:29:16.740 --> 00:29:21.140 So one of the easiest things are using

NOTE Confidence: 0.9286827

00:29:21.140 --> 00:29:24.579 a combination of four aromatic oils

NOTE Confidence: 0.9286827

00:29:24.580 --> 00:29:28.258 to help you improve your smelling.

NOTE Confidence: 0.9286827

00:29:28.260 --> 00:29:32.138 You're supposed to smell them every day,

NOTE Confidence: 0.9286827

00:29:32.140 --> 00:29:35.136 seven days a week for six months.

NOTE Confidence: 0.9286827

00:29:35.140 --> 00:29:37.444 And at the end of that time period,

NOTE Confidence: 0.9286827

00:29:37.450 --> 00:29:40.421 most people like over 60% of

NOTE Confidence: 0.9286827

00:29:40.421 --> 00:29:42.887 people will have their smell back.

NOTE Confidence: 0.9286827

00:29:42.890 --> 00:29:43.930 Was that just over time?

NOTE Confidence: 0.9286827

00:29:43.930 --> 00:29:47.330 I don't know, but that's what we know.

NOTE Confidence: 0.9281707

00:29:50.490 --> 00:29:52.930 There's also,

NOTE Confidence: 0.9281707

00:29:52.930 --> 00:29:54.928 I just read a fascinating piece,

NOTE Confidence: 0.9281707

00:29:54.930 --> 00:29:58.330 a systematic review looking at

NOTE Confidence: 0.9281707

00:29:58.330 --> 00:30:02.338 what works in in long COVID.

NOTE Confidence: 0.9281707

00:30:02.338 --> 00:30:04.708 And so they looked at, they did a
NOTE Confidence: 0.9281707

00:30:04.708 --> 00:30:06.719 deep dive into what's been tried for,
NOTE Confidence: 0.9281707

00:30:06.720 --> 00:30:09.996 the sense of smell and taste.
NOTE Confidence: 0.9281707

00:30:10.000 --> 00:30:11.800 So as an internist,
NOTE Confidence: 0.9281707

00:30:11.800 --> 00:30:13.600 everybody goes to steroids.
NOTE Confidence: 0.9281707

00:30:13.600 --> 00:30:17.807 And so nasal steroids have been extensively
NOTE Confidence: 0.9281707

00:30:17.807 --> 00:30:21.517 evaluated and found to not work at all.
NOTE Confidence: 0.9281707

00:30:21.520 --> 00:30:23.501 So there are a couple of other
NOTE Confidence: 0.9281707

00:30:23.501 --> 00:30:25.092 nasal solutions that have been
NOTE Confidence: 0.9281707

00:30:25.092 --> 00:30:26.797 shown to have some effectiveness.
NOTE Confidence: 0.9281707

00:30:26.800 --> 00:30:29.091 They're not on the market that you can't.
NOTE Confidence: 0.9281707

00:30:29.091 --> 00:30:30.393 You can get them made at
NOTE Confidence: 0.9281707

00:30:30.393 --> 00:30:31.759 a compounding pharmacy.
NOTE Confidence: 0.9281707

00:30:31.760 --> 00:30:36.432 One is a sodium gluconate solution.
NOTE Confidence: 0.9281707

00:30:36.432 --> 00:30:39.792 Another is something called Tetra
NOTE Confidence: 0.9281707

00:30:39.792 --> 00:30:42.480 sodium pyrophosphate nasal spray.

NOTE Confidence: 0.9281707

00:30:42.480 --> 00:30:44.304 I just learned about these and

NOTE Confidence: 0.9281707

00:30:44.304 --> 00:30:46.070 so I haven't examined them at

NOTE Confidence: 0.9281707

00:30:46.070 --> 00:30:47.792 all or tried to get them made,

NOTE Confidence: 0.9281707

00:30:47.800 --> 00:30:50.915 but they did seem to be effective.

NOTE Confidence: 0.9281707

00:30:50.920 --> 00:30:52.318 But they have to be made.

NOTE Confidence: 0.929017025

00:30:55.600 --> 00:30:59.989 So one of my patients came in

NOTE Confidence: 0.929017025

00:30:59.989 --> 00:31:03.130 and demanded this for her lack

NOTE Confidence: 0.929017025

00:31:03.130 --> 00:31:06.380 of sense of smell and taste.

NOTE Confidence: 0.929017025

00:31:06.380 --> 00:31:10.892 This is a stellate ganglion blockade

NOTE Confidence: 0.929017025

00:31:10.892 --> 00:31:12.780 they injected with lidocaine,

NOTE Confidence: 0.929017025

00:31:12.780 --> 00:31:14.280 which of course only lasts

NOTE Confidence: 0.929017025

00:31:14.280 --> 00:31:16.100 a few hours and wears off.

NOTE Confidence: 0.929017025

00:31:16.100 --> 00:31:19.046 But she said that the Facebook

NOTE Confidence: 0.929017025

00:31:19.046 --> 00:31:22.915 group on people who have lost their

NOTE Confidence: 0.929017025

00:31:22.915 --> 00:31:25.095 sense of taste and smell through

NOTE Confidence: 0.929017025

00:31:25.095 --> 00:31:29.050 COVID was all a flame over this.
NOTE Confidence: 0.929017025

00:31:29.050 --> 00:31:32.290 She'd already tried the aromatics.
NOTE Confidence: 0.929017025

00:31:32.290 --> 00:31:34.050 I didn't know about these other nasal sprays,
NOTE Confidence: 0.929017025

00:31:34.050 --> 00:31:35.754 but I didn't know that nasal
NOTE Confidence: 0.929017025

00:31:35.754 --> 00:31:36.606 steroids didn't work,
NOTE Confidence: 0.929017025

00:31:36.610 --> 00:31:38.325 and she'd also tried them several times.
NOTE Confidence: 0.929017025

00:31:38.330 --> 00:31:39.538 So I'm like, okay,
NOTE Confidence: 0.929017025

00:31:39.538 --> 00:31:41.350 Let's see if there's anybody at
NOTE Confidence: 0.929017025

00:31:41.414 --> 00:31:43.409 Yale who does this kind of thing,
NOTE Confidence: 0.929017025

00:31:43.410 --> 00:31:45.010 because it's used for a lot of things,
NOTE Confidence: 0.929017025

00:31:45.010 --> 00:31:46.045 mostly pain control.
NOTE Confidence: 0.929017025

00:31:46.045 --> 00:31:48.770 So I found a guy who does it,
NOTE Confidence: 0.929017025

00:31:48.770 --> 00:31:50.288 who was willing to do it.
NOTE Confidence: 0.929017025

00:31:50.290 --> 00:31:52.486 And so you see, there's ultrasound,
NOTE Confidence: 0.929017025

00:31:52.490 --> 00:31:54.890 there's an injection of lidocaine
NOTE Confidence: 0.929017025

00:31:54.890 --> 00:31:56.810 into the Stella Ganglion.

NOTE Confidence: 0.929017025

00:31:56.810 --> 00:31:59.690 And I thought, well, here's hoping.

NOTE Confidence: 0.929017025

00:31:59.690 --> 00:32:01.930 So took her three months to get in

NOTE Confidence: 0.929017025

00:32:01.930 --> 00:32:04.200 to see the surgeon because that's

NOTE Confidence: 0.929017025

00:32:04.200 --> 00:32:07.714 how medicine rolls these days.

NOTE Confidence: 0.929017025

00:32:07.714 --> 00:32:09.534 And she called me.

NOTE Confidence: 0.929017025

00:32:09.534 --> 00:32:11.990 She said she went, she got the injection.

NOTE Confidence: 0.929017025

00:32:11.990 --> 00:32:14.529 Her husband took her to a diner for lunch.

NOTE Confidence: 0.929017025

00:32:14.530 --> 00:32:16.280 She said for the first time in

NOTE Confidence: 0.929017025

00:32:16.280 --> 00:32:17.850 three years she smelled coffee

NOTE Confidence: 0.929017025

00:32:17.850 --> 00:32:19.010 since she burst into tears.

NOTE Confidence: 0.9321322

00:32:21.200 --> 00:32:23.480 That's an end of 1, so I don't know.

NOTE Confidence: 0.9321322

00:32:23.480 --> 00:32:25.237 There are a couple of studies being

NOTE Confidence: 0.9321322

00:32:25.237 --> 00:32:27.596 done now, so we'll see if this works.

NOTE Confidence: 0.9321322

00:32:27.600 --> 00:32:30.906 I called the surgeon Robert Chow

NOTE Confidence: 0.9321322

00:32:30.906 --> 00:32:33.960 and I said why would that work?

NOTE Confidence: 0.9321322

00:32:36.360 --> 00:32:39.040 And he said got me.
NOTE Confidence: 0.9321322

00:32:39.040 --> 00:32:41.000 So I don't think we have a Gray.
NOTE Confidence: 0.9321322

00:32:41.000 --> 00:32:42.820 He said maybe the lidocaine
NOTE Confidence: 0.9321322

00:32:42.820 --> 00:32:45.079 shuts down the nerve and then
NOTE Confidence: 0.9321322

00:32:45.079 --> 00:32:47.263 it when it's like turning off
NOTE Confidence: 0.9321322

00:32:47.263 --> 00:32:49.199 your computer and it reboots.
NOTE Confidence: 0.9321322

00:32:49.200 --> 00:32:49.560 I don't know,
NOTE Confidence: 0.92339045

00:32:51.680 --> 00:32:52.080 maybe.
NOTE Confidence: 0.92339045

00:32:54.400 --> 00:32:57.680 But the long and short of it is
NOTE Confidence: 0.92339045

00:32:57.680 --> 00:33:01.726 that treatment for these symptoms is
NOTE Confidence: 0.92339045

00:33:01.726 --> 00:33:03.908 still a work in progress, like St.
NOTE Confidence: 0.92339045

00:33:03.908 --> 00:33:06.278 Raphael's and New Haven itself.
NOTE Confidence: 0.92339045

00:33:06.280 --> 00:33:08.336 A work in progress.
NOTE Confidence: 0.92339045

00:33:08.336 --> 00:33:11.435 And I hope to be able to do
NOTE Confidence: 0.92339045

00:33:11.435 --> 00:33:12.679 something for these people.
NOTE Confidence: 0.92339045

00:33:12.680 --> 00:33:13.760 And I'll tell you what,

NOTE Confidence: 0.92339045

00:33:13.760 --> 00:33:16.160 what we do most consistently

NOTE Confidence: 0.92339045

00:33:16.160 --> 00:33:19.220 is make them here feel heard,

NOTE Confidence: 0.92339045

00:33:19.220 --> 00:33:21.537 which turns out to be really important,

NOTE Confidence: 0.92339045

00:33:21.540 --> 00:33:24.179 and tell them that they're not crazy,

NOTE Confidence: 0.92339045

00:33:24.180 --> 00:33:26.945 which turns out to be really important

NOTE Confidence: 0.92339045

00:33:26.945 --> 00:33:29.260 as well. So that's all I got.

NOTE Confidence: 0.92339045

00:33:29.260 --> 00:33:29.780 Thank you.

NOTE Confidence: 0.9247068

00:33:44.700 --> 00:33:46.100 See, y'all don't take care of patients,

NOTE Confidence: 0.9247068

00:33:46.100 --> 00:33:52.960 right? The view up there, talk to people

NOTE Confidence: 0.9329159

00:33:55.200 --> 00:33:57.173 with ideas, without evidence and

NOTE Confidence: 0.9329159

00:33:57.173 --> 00:34:00.000 how do you make the decision about,

NOTE Confidence: 0.9329159

00:34:04.800 --> 00:34:06.920 Well, of course that is the hard part.

NOTE Confidence: 0.9329159

00:34:06.920 --> 00:34:09.652 I try to you know, if they come in

NOTE Confidence: 0.9329159

00:34:09.652 --> 00:34:11.770 asking for something that doesn't seem

NOTE Confidence: 0.9329159

00:34:11.840 --> 00:34:14.725 harmful and maybe has gotten a couple

NOTE Confidence: 0.9329159

00:34:14.725 --> 00:34:18.082 of small studies, I'm open to it.

NOTE Confidence: 0.9329159

00:34:18.082 --> 00:34:19.870 Supplements seem okay.

NOTE Confidence: 0.9179047

00:34:21.910 --> 00:34:26.110 This, still a ganglion block,

NOTE Confidence: 0.9179047

00:34:26.110 --> 00:34:27.070 pushed me to my limit.

NOTE Confidence: 0.9179047

00:34:27.070 --> 00:34:28.150 She had to push hard,

NOTE Confidence: 0.9179047

00:34:30.390 --> 00:34:34.702 but it's what she came in for and

NOTE Confidence: 0.9179047

00:34:34.702 --> 00:34:36.870 so I thought, okay, let's try it.

NOTE Confidence: 0.9179047

00:34:39.230 --> 00:34:41.323 I don't know. I assume her insurance

NOTE Confidence: 0.9179047

00:34:41.323 --> 00:34:43.524 paid for it because when people's

NOTE Confidence: 0.9179047

00:34:43.524 --> 00:34:45.589 insurance don't pay for things,

NOTE Confidence: 0.9179047

00:34:45.590 --> 00:34:46.822 I do tend to hear about it

NOTE Confidence: 0.9179047

00:34:46.822 --> 00:34:48.030 and I didn't hear about it.

NOTE Confidence: 0.9179047

00:34:48.030 --> 00:34:50.780 So that was my question is how

NOTE Confidence: 0.9179047

00:34:50.780 --> 00:34:53.696 are these treatments paid for

NOTE Confidence: 0.9179047

00:34:53.696 --> 00:34:56.026 if there's not evidence of?

NOTE Confidence: 0.9179047

00:34:56.030 --> 00:34:57.878 I don't know how the insurance companies

NOTE Confidence: 0.9179047

00:34:57.878 --> 00:34:59.584 are dealing with that, Not well.

NOTE Confidence: 0.9179047

00:34:59.584 --> 00:35:01.486 But I'll tell you before you

NOTE Confidence: 0.9179047

00:35:01.486 --> 00:35:03.429 can get in to see anybody,

NOTE Confidence: 0.9179047

00:35:03.430 --> 00:35:04.695 they have somebody whose job

NOTE Confidence: 0.9179047

00:35:04.695 --> 00:35:06.316 it is to call the insurance

NOTE Confidence: 0.9179047

00:35:06.316 --> 00:35:08.388 company and say is that paid for?

NOTE Confidence: 0.9179047

00:35:08.390 --> 00:35:11.870 So nobody gets in the door without that.

NOTE Confidence: 0.9179047

00:35:11.870 --> 00:35:14.748 Yes, Sir. I loved your talk earlier today.

NOTE Confidence: 0.9382071

00:35:16.470 --> 00:35:19.503 So this is, it's a common kind of striking.

NOTE Confidence: 0.9382071

00:35:19.510 --> 00:35:22.066 So whenever you describe, you know,

NOTE Confidence: 0.9382071

00:35:22.070 --> 00:35:23.670 the literature that serves

NOTE Confidence: 0.9382071

00:35:23.670 --> 00:35:26.776 that you've done for, you know,

NOTE Confidence: 0.9382071

00:35:26.776 --> 00:35:29.506 this viral epidemic based 92,

NOTE Confidence: 0.9382071

00:35:29.510 --> 00:35:32.030 I've actually talked to other people

NOTE Confidence: 0.9382071

00:35:32.030 --> 00:35:33.722 about this both in science and,

NOTE Confidence: 0.9382071

00:35:33.722 --> 00:35:35.590 you know, kind of media and stuff.
NOTE Confidence: 0.9382071

00:35:35.590 --> 00:35:38.055 And some people actually hypothesize
NOTE Confidence: 0.9382071

00:35:38.055 --> 00:35:39.874 that without evidence you don't
NOTE Confidence: 0.9382071

00:35:39.874 --> 00:35:41.860 really have didn't have the ability
NOTE Confidence: 0.9382071

00:35:41.923 --> 00:35:43.410 to do accurate back prostate and
NOTE Confidence: 0.9382071

00:35:43.410 --> 00:35:45.114 what could have test back then
NOTE Confidence: 0.9382071

00:35:45.114 --> 00:35:46.746 but that could have actually been
NOTE Confidence: 0.9382071

00:35:46.750 --> 00:35:49.630 the introduction of a ancestor of
NOTE Confidence: 0.92820245

00:35:50.030 --> 00:35:52.515 OC 43 which is a common coronavirus
NOTE Confidence: 0.92820245

00:35:52.515 --> 00:35:55.550 from a build line coronavirus. So
NOTE Confidence: 0.92820245

00:35:55.790 --> 00:35:57.691 and and the reason why they got me
NOTE Confidence: 0.92820245

00:35:57.691 --> 00:35:59.420 in to myself is because you mentioned
NOTE Confidence: 0.92820245

00:35:59.475 --> 00:36:02.270 many of the you know posts that you
NOTE Confidence: 0.92820245

00:36:02.270 --> 00:36:06.144 infection symptoms of that 1892 viral
NOTE Confidence: 0.92820245

00:36:06.144 --> 00:36:10.080 out rate that if it in fact was a you
NOTE Confidence: 0.92820245

00:36:10.080 --> 00:36:12.420 know essentially a no supporting pre

NOTE Confidence: 0.92820245

00:36:12.420 --> 00:36:14.648 ancestor then that would have been

NOTE Confidence: 0.92820245

00:36:14.650 --> 00:36:16.936 you know I I guess accurate in in that

NOTE Confidence: 0.92820245

00:36:16.936 --> 00:36:18.943 regard but there's really no way to

NOTE Confidence: 0.92820245

00:36:18.943 --> 00:36:20.732 know whether that was an influenza

NOTE Confidence: 0.92820245

00:36:20.732 --> 00:36:22.825 virus or a coronavirus you know that

NOTE Confidence: 0.92820245

00:36:22.825 --> 00:36:25.424 the socalled Russian Russian flu.

NOTE Confidence: 0.92820245

00:36:25.424 --> 00:36:27.293 But anyways, I heard that and I

NOTE Confidence: 0.92820245

00:36:27.293 --> 00:36:29.287 was like that's super interesting.

NOTE Confidence: 0.92820245

00:36:29.290 --> 00:36:31.306 You know that if it was a coronavirus

NOTE Confidence: 0.92820245

00:36:31.306 --> 00:36:34.708 like that, the the overlap and you know,

NOTE Confidence: 0.92820245

00:36:34.710 --> 00:36:36.349 prosecute symptoms are strikingly

NOTE Confidence: 0.92820245

00:36:36.349 --> 00:36:37.468 similar to COVID,

NOTE Confidence: 0.9285583

00:36:38.270 --> 00:36:40.830 right. And but actually even with the flu,

NOTE Confidence: 0.9285583

00:36:40.830 --> 00:36:42.366 you know, it depends on which

NOTE Confidence: 0.9285583

00:36:42.366 --> 00:36:44.254 flu strain it is. But you know,

NOTE Confidence: 0.9285583

00:36:44.254 --> 00:36:46.270 just in the reading that I've done,
NOTE Confidence: 0.9285583

00:36:46.270 --> 00:36:49.135 it looks like up to 25% of people
NOTE Confidence: 0.9285583

00:36:49.135 --> 00:36:52.265 after they get just the flu have
NOTE Confidence: 0.9285583

00:36:52.265 --> 00:36:54.465 symptoms that can last up to a year.
NOTE Confidence: 0.9285583

00:36:54.470 --> 00:36:57.182 So I mean the difference and like the
NOTE Confidence: 0.9285583

00:36:57.182 --> 00:36:59.768 people who were in the INSPIRE study,
NOTE Confidence: 0.9285583

00:36:59.770 --> 00:37:01.930 who who went to get a COVID test,
NOTE Confidence: 0.9285583

00:37:01.930 --> 00:37:04.114 I mean probably a good portion
NOTE Confidence: 0.9285583

00:37:04.114 --> 00:37:05.970 of them had the flu.
NOTE Confidence: 0.9285583

00:37:05.970 --> 00:37:07.502 And so you know,
NOTE Confidence: 0.9285583

00:37:07.502 --> 00:37:10.149 I think that's why they had such
NOTE Confidence: 0.9285583

00:37:10.149 --> 00:37:14.298 a dramatic and lengthy recovery.
NOTE Confidence: 0.9285583

00:37:14.298 --> 00:37:15.770 Yes, Sir. Hi,
NOTE Confidence: 0.9304754

00:37:15.770 --> 00:37:16.874 Justin Belski, Emergency Medicine.
NOTE Confidence: 0.9304754

00:37:16.874 --> 00:37:19.335 So we we see quite a few of these
NOTE Confidence: 0.9304754

00:37:19.335 --> 00:37:21.092 patients who are kind of desperate to

NOTE Confidence: 0.9304754

00:37:21.143 --> 00:37:22.971 come to the emergency room and really

NOTE Confidence: 0.9304754

00:37:22.971 --> 00:37:25.218 it's nothing we can really offer them.

NOTE Confidence: 0.9304754

00:37:25.220 --> 00:37:25.866 two-part question,

NOTE Confidence: 0.9304754

00:37:25.866 --> 00:37:27.804 one is you said there's sometimes

NOTE Confidence: 0.9304754

00:37:27.804 --> 00:37:28.980 an alternative diagnosis.

NOTE Confidence: 0.9304754

00:37:28.980 --> 00:37:31.155 What is your #1 alternative

NOTE Confidence: 0.9304754

00:37:31.155 --> 00:37:32.460 diagnosis you find?

NOTE Confidence: 0.9304754

00:37:32.460 --> 00:37:35.178 And #2, are there any objective

NOTE Confidence: 0.9304754

00:37:35.178 --> 00:37:38.058 tests such as abnormal PFT's and

NOTE Confidence: 0.9304754

00:37:38.058 --> 00:37:40.588 young healthy patients or anything

NOTE Confidence: 0.9304754

00:37:40.588 --> 00:37:42.939 objective that you can say okay,

NOTE Confidence: 0.9304754

00:37:42.940 --> 00:37:44.272 this is long COVID versus just

NOTE Confidence: 0.9304754

00:37:44.272 --> 00:37:45.900 kind of going off their symptoms.

NOTE Confidence: 0.9304754

00:37:45.900 --> 00:37:46.060 There's

NOTE Confidence: 0.9381581

00:37:47.980 --> 00:37:50.308 nothing. I mean that's not true.

NOTE Confidence: 0.9381581

00:37:50.310 --> 00:37:53.761 There are some super specialized testing that
NOTE Confidence: 0.9381581

00:37:53.761 --> 00:37:57.470 shows that are abnormal in some patients.
NOTE Confidence: 0.9381581

00:37:57.470 --> 00:38:02.186 Like I was talking to a group of doctors
NOTE Confidence: 0.9381581

00:38:02.186 --> 00:38:05.790 earlier today and was hearing about CPET
NOTE Confidence: 0.9381581

00:38:05.790 --> 00:38:07.626 that often that can show something.
NOTE Confidence: 0.9381581

00:38:07.630 --> 00:38:10.010 I mean, some people have studies that
NOTE Confidence: 0.9381581

00:38:10.010 --> 00:38:12.669 show they have endothelial dysfunction,
NOTE Confidence: 0.9381581

00:38:12.670 --> 00:38:17.046 but most people in most testing that is
NOTE Confidence: 0.9381581

00:38:17.046 --> 00:38:20.780 done routinely outside of research centers,
NOTE Confidence: 0.9381581

00:38:20.780 --> 00:38:21.950 they're completely normal,
NOTE Confidence: 0.9381581

00:38:21.950 --> 00:38:23.900 but they don't feel normal.
NOTE Confidence: 0.9381581

00:38:23.900 --> 00:38:26.700 But you know, tests are like questions,
NOTE Confidence: 0.9381581

00:38:26.700 --> 00:38:29.892 you know, and we've all played 20 questions
NOTE Confidence: 0.9381581

00:38:29.892 --> 00:38:33.260 where the 1st 20 answers we get are all no.
NOTE Confidence: 0.9381581

00:38:33.260 --> 00:38:34.828 And that's what's happening.
NOTE Confidence: 0.9381581

00:38:34.828 --> 00:38:37.180 I think in these postinfectious syndromes,

NOTE Confidence: 0.9381581

00:38:37.180 --> 00:38:38.620 we're asking the wrong questions.

NOTE Confidence: 0.9381581

00:38:38.620 --> 00:38:41.060 We don't know the right questions to ask.

NOTE Confidence: 0.9381581

00:38:41.060 --> 00:38:43.545 We don't have, maybe we don't even

NOTE Confidence: 0.9381581

00:38:43.545 --> 00:38:45.945 have the test yet to get there.

NOTE Confidence: 0.9381581

00:38:45.945 --> 00:38:47.670 But that's why they're their

NOTE Confidence: 0.9381581

00:38:47.670 --> 00:38:49.030 tests are negative.

NOTE Confidence: 0.9381581

00:38:49.030 --> 00:38:51.746 But that's of course why they they're

NOTE Confidence: 0.9381581

00:38:51.750 --> 00:38:53.310 looked at with such skepticism.

NOTE Confidence: 0.9381581

00:38:53.310 --> 00:38:54.792 Hey, I've done every test that

NOTE Confidence: 0.9381581

00:38:54.792 --> 00:38:56.527 I do want patients who are sick

NOTE Confidence: 0.9381581

00:38:56.527 --> 00:38:57.907 and I I can't find anything.

NOTE Confidence: 0.9381581

00:38:57.910 --> 00:38:58.810 But you know,

NOTE Confidence: 0.9381581

00:38:58.810 --> 00:39:00.910 I've written my column for 20 years,

NOTE Confidence: 0.9381581

00:39:00.910 --> 00:39:02.353 21 years now.

NOTE Confidence: 0.9381581

00:39:02.353 --> 00:39:04.277 And virtually everybody I've

NOTE Confidence: 0.9381581

00:39:04.277 --> 00:39:06.604 written about got that comment
NOTE Confidence: 0.9381581

00:39:06.604 --> 00:39:09.010 from a doctor at one point,
NOTE Confidence: 0.9381581

00:39:09.010 --> 00:39:10.570 you know that we've done everything we can
NOTE Confidence: 0.9381581

00:39:10.570 --> 00:39:12.087 to figure out what's going on with you.
NOTE Confidence: 0.9381581

00:39:12.090 --> 00:39:14.365 It's because they hadn't thought
NOTE Confidence: 0.9381581

00:39:14.365 --> 00:39:16.645 or didn't know the right test,
NOTE Confidence: 0.9381581

00:39:16.645 --> 00:39:18.170 the right question to ask.
NOTE Confidence: 0.9381581

00:39:18.170 --> 00:39:19.610 And that's where these patients are
NOTE Confidence: 0.9356267

00:39:23.490 --> 00:39:25.247 six. Well, I mean, they've been different.
NOTE Confidence: 0.9356267

00:39:25.250 --> 00:39:29.290 You know, I had one person who who's
NOTE Confidence: 0.9356267

00:39:29.290 --> 00:39:31.976 described monthly episodes of fever
NOTE Confidence: 0.9356267

00:39:31.976 --> 00:39:34.925 and pain and terribly heavy periods,
NOTE Confidence: 0.9356267

00:39:34.925 --> 00:39:36.815 and so I thought she probably
NOTE Confidence: 0.9356267

00:39:36.815 --> 00:39:38.850 had some sort of endometriosis.
NOTE Confidence: 0.9356267

00:39:38.850 --> 00:39:40.790 And I had a patient who I wrote about in
NOTE Confidence: 0.9356267

00:39:40.844 --> 00:39:43.050 my column, because I totally missed it,

NOTE Confidence: 0.9356267

00:39:43.050 --> 00:39:43.995 who had hyperthyroidism.

NOTE Confidence: 0.9356267

00:39:43.995 --> 00:39:45.570 I wanted to shoot myself.

NOTE Confidence: 0.9356267

00:39:45.570 --> 00:39:47.526 It was such an obvious diagnosis.

NOTE Confidence: 0.9356267

00:39:47.530 --> 00:39:48.130 But, you know,

NOTE Confidence: 0.9356267

00:39:48.130 --> 00:39:49.850 so they have a variety of different things.

NOTE Confidence: 0.9356267

00:39:49.850 --> 00:39:51.370 Some have neurologic problems

NOTE Confidence: 0.9356267

00:39:51.370 --> 00:39:54.050 that I don't know what they have,

NOTE Confidence: 0.9356267

00:39:54.050 --> 00:39:56.787 but it's definitely not long COVID and

NOTE Confidence: 0.9356267

00:39:56.787 --> 00:39:59.449 you definitely need to see somebody else.

NOTE Confidence: 0.9356267

00:39:59.450 --> 00:40:01.298 So you know I've I've referred

NOTE Confidence: 0.9356267

00:40:01.298 --> 00:40:02.530 people on to specialists,

NOTE Confidence: 0.9356267

00:40:02.530 --> 00:40:04.130 subspecialists who are still seeing

NOTE Confidence: 0.9356267

00:40:04.130 --> 00:40:06.329 them and we'll see what they have.

NOTE Confidence: 0.9356267

00:40:06.330 --> 00:40:07.646 Maybe they'll get sent back to me.

NOTE Confidence: 0.9356267

00:40:07.650 --> 00:40:09.122 We can't find anything.

NOTE Confidence: 0.9356267

00:40:09.122 --> 00:40:11.330 Probably is long COVID that's also

NOTE Confidence: 0.9356267

00:40:11.397 --> 00:40:14.015 that's also a possibility but at least

NOTE Confidence: 0.9356267

00:40:14.015 --> 00:40:15.970 they seemed atypical at the time.

NOTE Confidence: 0.9356267

00:40:15.970 --> 00:40:16.330 Thanks.