WEBVTT

00:00:00.160 --> 00:00:01.920 Funding for Yale Cancer Answers

NOTE Confidence: 0.9782213

00:00:01.920 --> 00:00:03.679 is provided by Smilow Cancer

NOTE Confidence: 0.9782213

00:00:03.679 --> 00:00:04.180 Hospital.

NOTE Confidence: 0.96100855

00:00:06.000 --> 00:00:08.000 Welcome to Yale Cancer Answers

NOTE Confidence: 0.96100855

00:00:08.000 --> 00:00:08.960 with the director of

NOTE Confidence: 0.96100855

00:00:08.960 --> 00:00:10.719 Yale Cancer Center, doctor Eric

NOTE Confidence: 0.96100855

00:00:10.719 --> 00:00:11.219 Winer.

NOTE Confidence: 0.99334383

00:00:11.759 --> 00:00:14.145 Yale Cancer Answers features conversations

NOTE Confidence: 0.99334383

00:00:14.145 --> 00:00:16.225 with oncologists and specialists who

NOTE Confidence: 0.99334383

00:00:16.225 --> 00:00:17.105 are on the forefront of

NOTE Confidence: 0.99334383

00:00:17.105 --> 00:00:18.565 the battle to fight cancer.

NOTE Confidence: 0.98652625

00:00:19.105 --> 00:00:20.405 This week, it's a conversation

NOTE Confidence: 0.98652625

00:00:20.465 --> 00:00:21.905 about the surgical treatment of

NOTE Confidence: 0.98652625

00:00:21.905 --> 00:00:23.825 thoracic cancers with doctor Dan

NOTE Confidence: 0.98652625

00:00:23.825 --> 00:00:24.325 Boffa.

NOTE Confidence: 0.9876756

00:00:24.704 --> 00:00:26.145 Doctor Boffa is a professor

NOTE Confidence: 0.9876756

00:00:26.145 --> 00:00:27.665 of thoracic surgery at the

NOTE Confidence: 0.9876756

00:00:27.665 --> 00:00:28.885 Yale School of Medicine.

NOTE Confidence: 0.92693835

00:00:29.420 --> 00:00:30.480 Here's doctor Winer.

NOTE Confidence: 0.97197235

00:00:31.500 --> 00:00:32.860 Maybe we can just start

NOTE Confidence: 0.97197235

00:00:32.860 --> 00:00:34.640 off as I often do,

NOTE Confidence: 0.97197235

00:00:34.940 --> 00:00:36.140 just asking you a little

NOTE Confidence: 0.97197235

00:00:36.140 --> 00:00:37.120 bit about yourself.

NOTE Confidence: 0.94192123

00:00:38.220 --> 00:00:39.420 How was it that you

NOTE Confidence: 0.94192123

00:00:39.420 --> 00:00:41.040 became a doctor? And

NOTE Confidence: 0.95953685

00:00:41.565 --> 00:00:42.784 probably, more importantly,

NOTE Confidence: 0.7949459

00:00:43.405 --> 00:00:44.604 how was that you ended up

00:00:45.485 --> 00:00:45.985 focusing on cancers of

NOTE Confidence: 0.9923891

00:00:49.165 --> 00:00:49.825 the chest?

NOTE Confidence: 0.97864294

00:00:51.005 --> 00:00:53.165 Well, I grew up in

NOTE Confidence: 0.97864294

00:00:53.165 --> 00:00:53.665 Ohio

NOTE Confidence: 0.9503976

00:00:55.005 --> 00:00:56.385 at a time when

NOTE Confidence: 0.9728944

00:00:57.530 --> 00:00:58.190 I was

NOTE Confidence: 0.95824516

00:00:59.050 --> 00:01:00.649 left to the television a

NOTE Confidence: 0.95824516

00:01:00.649 --> 00:01:02.730 fair bit.

NOTE Confidence: 0.95824516

00:01:02.730 --> 00:01:03.690 You and me both.

NOTE Confidence: 0.99295264

00:01:04.170 --> 00:01:06.250 I was really

NOTE Confidence: 0.99295264

00:01:06.250 --> 00:01:08.110 drawn to the television show

NOTE Confidence: 0.76622814

00:01:08.569 --> 00:01:09.069 MASH and

00:01:11.015 --> 00:01:12.555 more for the medical aspects

NOTE Confidence: 0.9948635

00:01:12.775 --> 00:01:14.315 and the dynamics than

NOTE Confidence: 0.9243888

00:01:15.415 --> 00:01:16.455 some of the mischief on

NOTE Confidence: 0.9243888

00:01:16.455 --> 00:01:17.915 that show. But,

NOTE Confidence: 0.9765064

00:01:19.095 --> 00:01:20.935 that really drew me to

NOTE Confidence: 0.9765064

00:01:20.935 --> 00:01:21.435 surgery.

00:01:23.069 --> 00:01:24.509 And it was only later in

NOTE Confidence: 0.9989623

00:01:24.509 --> 00:01:26.450 life that I learned that

NOTE Confidence: 0.9879034

00:01:27.150 --> 00:01:29.150 Hawkeye, who was the

NOTE Confidence: 0.9879034

00:01:29.150 --> 00:01:30.509 character I most

NOTE Confidence: 0.9879034

00:01:30.509 --> 00:01:31.569 identified with

NOTE Confidence: 0.97364074

00:01:32.430 --> 00:01:33.709 on the show was a

NOTE Confidence: 0.97364074

00:01:33.709 --> 00:01:35.310 thoracic surgeon, but that was

NOTE Confidence: 0.97364074

00:01:35.310 --> 00:01:36.509 not what

NOTE Confidence: 0.97364074

00:01:36.509 --> 00:01:37.729 drew me to the specialty.

NOTE Confidence: 0.99774134

00:01:42.655 --> 00:01:43.694 When I was in New

NOTE Confidence: 0.99774134

00:01:43.694 --> 00:01:45.715 York, as a surgery resident I

00:01:47.774 --> 00:01:49.795 had a mentor who really

NOTE Confidence: 0.97598654

00:01:51.010 --> 00:01:52.550 got me interested in thoracic

NOTE Confidence: 0.97598654

00:01:52.610 --> 00:01:54.710 surgery and the anatomy and

00:01:56.370 --> 00:01:57.410 it's one of the

NOTE Confidence: 0.9903526

00:01:57.410 --> 00:01:59.250 few specialties where we

NOTE Confidence: 0.9903526

00:01:59.250 --> 00:02:00.070 really go

NOTE Confidence: 0.98022723

00:02:01.010 --> 00:02:02.610 in multiple different parts of

NOTE Confidence: 0.98022723

00:02:02.610 --> 00:02:03.855 the body and treat

NOTE Confidence: 0.9890368

00:02:05.135 --> 00:02:06.975 literally hundreds of different types

NOTE Confidence: 0.9890368

00:02:06.975 --> 00:02:08.975 of diseases. And so it

NOTE Confidence: 0.9890368

00:02:08.975 --> 00:02:10.275 it allows you to be a

00:02:11.294 --> 00:02:13.055 physician as much as it

NOTE Confidence: 0.97522134

00:02:13.055 --> 00:02:14.335 does a surgeon, and I

NOTE Confidence: 0.97522134

00:02:14.335 --> 00:02:15.935 really like that.

NOTE Confidence: 0.97522134

00:02:15.935 --> 00:02:17.935 There are thoracic surgeons who spend

NOTE Confidence: 0.97522134

00:02:17.935 --> 00:02:19.155 less of their time

NOTE Confidence: 0.99961996

00:02:19.470 --> 00:02:21.069 focused on cancer than you do?

00:02:22.510 --> 00:02:23.010 Yeah.

NOTE Confidence: 0.97206813

00:02:23.310 --> 00:02:23.889 I think

NOTE Confidence: 0.99910355

00:02:25.310 --> 00:02:26.610 in the field of surgery,

NOTE Confidence: 0.990724

00:02:27.150 --> 00:02:28.510 the lines get a little

NOTE Confidence: 0.990724

00:02:28.510 --> 00:02:30.129 bit blurry, and it depends on

00:02:31.790 --> 00:02:33.090 the size of the hospital

NOTE Confidence: 0.97493345

00:02:33.470 --> 00:02:35.715 and the types, and complexity

NOTE Confidence: 0.97493345

00:02:35.855 --> 00:02:37.395 of cases that come through.

NOTE Confidence: 0.99661654

00:02:38.575 --> 00:02:39.614 I grew up in an

NOTE Confidence: 0.99661654

00:02:39.614 --> 00:02:41.635 era where the thoracic surgeons

00:02:43.375 --> 00:02:45.075 did cancer and noncancer,

NOTE Confidence: 0.98905814

00:02:46.575 --> 00:02:48.910 and so I have continued

NOTE Confidence: 0.98905814

00:02:48.910 --> 00:02:49.710 to have that as

NOTE Confidence: 0.98905814

00:02:49.710 --> 00:02:50.830 part of my practice. But

NOTE Confidence: 0.98905814

00:02:50.830 --> 00:02:52.350 there are I would say

NOTE Confidence: 0.98905814

00:02:52.350 --> 00:02:53.970 the majority of thoracic surgeons

NOTE Confidence: 0.9947975

00:02:54.270 --> 00:02:55.389 spend the majority of their

NOTE Confidence: 0.9947975

00:02:55.389 --> 00:02:55.889 practice

NOTE Confidence: 0.99260014

00:02:57.230 --> 00:02:58.750 dealing with at least

NOTE Confidence: 0.99260014

00:02:58.750 --> 00:02:59.570 lung cancer.

NOTE Confidence: 0.9776567

00:02:59.975 --> 00:03:00.875 Some of the more

NOTE Confidence: 0.9967248

00:03:01.735 --> 00:03:02.955 less common cancers,

NOTE Confidence: 0.9733018

00:03:04.535 --> 00:03:05.495 I think a lot of

NOTE Confidence: 0.9733018

00:03:05.495 --> 00:03:06.955 the thoracic surgeons

NOTE Confidence: 0.979983

00:03:07.575 --> 00:03:08.215 tend to

NOTE Confidence: 0.9493719

00:03:09.095 --> 00:03:10.535 refer those on to

NOTE Confidence: 0.9457753

00:03:10.935 --> 00:03:11.755 larger centers,

NOTE Confidence: 0.9091235

00:03:12.615 --> 00:03:13.355 such as Yale or some of

00:03:15.080 --> 00:03:16.380 the other larger centers.

NOTE Confidence: 0.982044

00:03:16.919 --> 00:03:18.760 And other than lung cancer,

NOTE Confidence: 0.982044

00:03:18.760 --> 00:03:20.040 what other cancers do you

NOTE Confidence: 0.982044

00:03:20.040 --> 00:03:20.940 end up treating?

NOTE Confidence: 0.96580845

00:03:21.720 --> 00:03:23.639 Esophageal cancer is probably the

NOTE Confidence: 0.96580845

00:03:23.639 --> 00:03:24.860 second most common,

NOTE Confidence: 0.9822989

00:03:25.239 --> 00:03:27.419 but really any tumor that

NOTE Confidence: 0.9822989

00:03:27.639 --> 00:03:28.139 arises

NOTE Confidence: 0.9794644

00:03:28.599 --> 00:03:30.014 in the chest and that

NOTE Confidence: 0.9794644

00:03:30.014 --> 00:03:30.655 could be

NOTE Confidence: 0.9975498

00:03:31.135 --> 00:03:32.495 tumors can arise from the

NOTE Confidence: 0.9975498

00:03:32.495 --> 00:03:32.995 bones,

NOTE Confidence: 0.9970904

00:03:33.935 --> 00:03:34.435 mesothelioma.

NOTE Confidence: 0.8677548

00:03:36.015 --> 00:03:36.915 There are

NOTE Confidence: 0.96625906

00:03:38.895 --> 00:03:40.575 tumors that can spread from other

NOTE Confidence: 0.96625906

00:03:40.575 --> 00:03:42.170 parts of the body to

NOTE Confidence: 0.96625906

00:03:42.170 --> 00:03:43.930 the lungs, and we can

NOTE Confidence: 0.96625906

00:03:43.930 --> 00:03:44.330 help the

NOTE Confidence: 0.9939441

00:03:45.690 --> 00:03:47.390 teams that manage colorectal

NOTE Confidence: 0.9939441

00:03:47.530 --> 00:03:48.670 cancer, for instance,

NOTE Confidence: 0.86833704

00:03:49.370 --> 00:03:50.510 by treating

NOTE Confidence: 0.99616504

00:03:50.970 --> 00:03:52.010 some of the sites of

NOTE Confidence: 0.99616504

00:03:52.010 --> 00:03:53.370 disease that spread to the

NOTE Confidence: 0.99616504

00:03:53.370 --> 00:03:53.870 lungs.

NOTE Confidence: 0.9808066

00:03:54.965 --> 00:03:57.045 And in the abdomen, there

NOTE Confidence: 0.9808066

00:03:57.045 --> 00:03:58.105 are various cancers

NOTE Confidence: 0.98191464

00:03:58.484 --> 00:04:00.025 that we get involved with,

NOTE Confidence: 0.96716094

00:04:01.045 --> 00:04:01.545 sometimes,

NOTE Confidence: 0.9684899

00:04:02.084 --> 00:04:03.064 gastric cancers that are

00:04:05.605 --> 00:04:07.144 close to the esophagus.

NOTE Confidence: 0.97433007

00:04:07.510 --> 00:04:09.110 But, really, anything that

NOTE Confidence: 0.97433007

00:04:09.110 --> 00:04:10.330 happens in the chest that

00:04:13.110 --> 00:04:14.490 doesn't need a heart surgeon,

NOTE Confidence: 0.98869336

00:04:15.430 --> 00:04:16.730 we're the people to call.

NOTE Confidence: 0.9919195

00:04:17.190 --> 00:04:18.710 So maybe we can start

NOTE Confidence: 0.9919195

00:04:18.710 --> 00:04:20.550 off talking a little about

NOTE Confidence: 0.9919195

00:04:20.550 --> 00:04:21.670 lung cancer, and then we'll

NOTE Confidence: 0.9919195

00:04:21.670 --> 00:04:22.730 move on to

NOTE Confidence: 0.998665

00:04:23.035 --> 00:04:25.035 talking about esophageal cancer. We

NOTE Confidence: 0.998665

00:04:25.035 --> 00:04:25.935 recently had

NOTE Confidence: 0.95120376

00:04:26.395 --> 00:04:28.315 Roy Herbst on on the

NOTE Confidence: 0.95120376

00:04:28.315 --> 00:04:28.815 show

NOTE Confidence: 0.993316

00:04:29.355 --> 00:04:30.635 and talked about some of

NOTE Confidence: 0.993316

00:04:30.635 --> 00:04:32.175 the medical aspects

NOTE Confidence: 0.9975874

00:04:32.475 --> 00:04:34.555 of lung cancer treatment and

NOTE Confidence: 0.9975874

00:04:34.555 --> 00:04:36.779 how it has just evolved

NOTE Confidence: 0.9993411

00:04:37.160 --> 00:04:38.360 so much over the past

NOTE Confidence: 0.9993411

00:04:38.360 --> 00:04:39.580 twenty years with

NOTE Confidence: 0.9981197

00:04:39.960 --> 00:04:40.940 both immunotherapy

NOTE Confidence: 0.99657637

00:04:41.640 --> 00:04:43.400 and various forms of targeted

NOTE Confidence: 0.99657637

00:04:43.400 --> 00:04:43.900 therapy.

NOTE Confidence: 0.9996804

00:04:44.520 --> 00:04:46.779 Tell us about your involvement

NOTE Confidence: 0.9996804

00:04:46.839 --> 00:04:48.380 in patients with lung cancer

NOTE Confidence: 0.83301413

00:04:49.160 --> 00:04:49.660 and,

NOTE Confidence: 0.9700624

00:04:50.555 --> 00:04:51.294 in particular,

NOTE Confidence: 0.98504853

00:04:51.595 --> 00:04:53.514 how the changes in the

NOTE Confidence: 0.98504853

00:04:53.514 --> 00:04:55.354 medical therapies have affected what

NOTE Confidence: 0.98504853

00:04:55.354 --> 00:04:56.014 you do?

NOTE Confidence: 0.99917686

00:04:56.794 --> 00:04:58.475 So whenever we think about

NOTE Confidence: 0.99917686

00:04:58.475 --> 00:05:00.475 cancer, we think about what

NOTE Confidence: 0.99917686

00:05:00.475 --> 00:05:01.595 we see and what we

NOTE Confidence: 0.99917686

00:05:01.595 --> 00:05:04.255 can't see. So surgery is a

00:05:05.529 --> 00:05:07.229 treatment that's very effective

NOTE Confidence: 0.9963894

00:05:08.009 --> 00:05:09.529 in sites of cancer that

NOTE Confidence: 0.9963894

00:05:09.529 --> 00:05:10.430 we can see.

NOTE Confidence: 0.9877508

00:05:11.690 --> 00:05:12.190 Unfortunately,

NOTE Confidence: 0.9972357

00:05:12.570 --> 00:05:13.770 a lot of patients who

NOTE Confidence: 0.9972357

00:05:13.770 --> 00:05:15.210 have their life shortened by

NOTE Confidence: 0.9972357

00:05:15.210 --> 00:05:17.130 cancer, it's the disease we

NOTE Confidence: 0.9972357

00:05:17.130 --> 00:05:18.250 can't see that gets them

NOTE Confidence: 0.9972357

00:05:18.250 --> 00:05:18.990 into trouble.

NOTE Confidence: 0.9975409

00:05:19.585 --> 00:05:20.705 And I would say what's

NOTE Confidence: 0.9975409

00:05:20.705 --> 00:05:22.165 really exciting about

NOTE Confidence: 0.9996352

00:05:22.544 --> 00:05:24.805 the current era of cancer is

00:05:25.904 --> 00:05:27.445 we now have answers

NOTE Confidence: 0.99100834

00:05:27.904 --> 00:05:29.264 for the disease we can't

NOTE Confidence: 0.99100834

00:05:29.264 --> 00:05:30.305 see that we've never had

NOTE Confidence: 0.99100834

00:05:30.305 --> 00:05:31.285 before. And so,

NOTE Confidence: 0.99914646

00:05:32.290 --> 00:05:34.630 we're turning more patients into

NOTE Confidence: 0.99914646

00:05:34.930 --> 00:05:35.430 curable

NOTE Confidence: 0.9864038

00:05:35.890 --> 00:05:37.410 than we've ever seen.

NOTE Confidence: 0.9864038

00:05:37.570 --> 00:05:38.850 And to be clear,

NOTE Confidence: 0.9864038

00:05:38.850 --> 00:05:40.310 the not seeing,

NOTE Confidence: 0.97594666

00:05:40.770 --> 00:05:42.130 which is what the

NOTE Confidence: 0.97594666

00:05:42.130 --> 00:05:43.890 disease that ultimately can threaten

NOTE Confidence: 0.97594666

00:05:43.890 --> 00:05:44.790 someone's life,

NOTE Confidence: 0.88786393

00:05:45.235 --> 00:05:46.515 it's not seeing it at

NOTE Confidence: 0.88786393

00:05:46.515 --> 00:05:48.835 diagnosis, but eventually it becomes

NOTE Confidence: 0.88786393

00:05:48.835 --> 00:05:49.335 apparent.

NOTE Confidence: 0.9980762

00:05:49.715 --> 00:05:51.475 That's right. So it's

NOTE Confidence: 0.9980762

00:05:51.475 --> 00:05:53.955 the microscopic cancer that's either

NOTE Confidence: 0.9980762

00:05:53.955 --> 00:05:55.315 living in the blood or

NOTE Confidence: 0.9980762

00:05:55.315 --> 00:05:56.375 a vital organ

NOTE Confidence: 0.9778184

00:05:56.835 --> 00:05:58.515 that has left the cancer

NOTE Confidence: 0.9778184

00:05:58.515 --> 00:06:00.115 where it started and traveled

NOTE Confidence: 0.9778184

00:06:00.115 --> 00:06:01.849 somewhere else. And it's just

NOTE Confidence: 0.9778184

00:06:01.849 --> 00:06:03.050 too small to be seen

NOTE Confidence: 0.9778184

00:06:03.050 --> 00:06:04.490 on a CT scan or

NOTE Confidence: 0.9778184

00:06:04.490 --> 00:06:05.529 a PET scan or a

NOTE Confidence: 0.9778184

00:06:05.529 --> 00:06:06.349 brain MRI,

NOTE Confidence: 0.99745244

00:06:06.810 --> 00:06:08.430 and it's only over time

NOTE Confidence: 0.99745244

00:06:08.729 --> 00:06:10.650 that cancer grows

NOTE Confidence: 0.99745244

00:06:10.650 --> 00:06:11.629 and then becomes

NOTE Confidence: 0.9853871

00:06:12.250 --> 00:06:13.770 apparent on the scans. But

NOTE Confidence: 0.9853871

00:06:13.770 --> 00:06:14.595 at that point,

NOTE Confidence: 0.998738

00:06:15.075 --> 00:06:17.075 our ability to treat it

NOTE Confidence: 0.95100266

00:06:18.035 --> 00:06:20.035 for a cure historically or

NOTE Confidence: 0.95100266

00:06:20.035 --> 00:06:21.395 in the past has

NOTE Confidence: 0.95100266

00:06:21.395 --> 00:06:23.154 been very low. But now

NOTE Confidence: 0.95100266

00:06:23.154 --> 00:06:24.835 with some of these treatments

NOTE Confidence: 0.95100266

00:06:24.835 --> 00:06:26.035 and lung cancer in

NOTE Confidence: 0.95100266

00:06:26.035 --> 00:06:26.535 particular,

NOTE Confidence: 0.9995447

00:06:27.270 --> 00:06:29.130 we're taking patients who

NOTE Confidence: 0.9344007

00:06:29.990 --> 00:06:31.350 have always been thought

NOTE Confidence: 0.9344007

00:06:31.350 --> 00:06:32.250 to be incurable

NOTE Confidence: 0.95320624

00:06:32.710 --> 00:06:33.450 and actually,

NOTE Confidence: 0.9828571

00:06:34.070 --> 00:06:35.350 curing them. And so it's

NOTE Confidence: 0.9828571

00:06:35.350 --> 00:06:36.630 just a really exciting

NOTE Confidence: 0.9828571

00:06:36.630 --> 00:06:37.130 time.

00:06:40.470 --> 00:06:41.210 And while

NOTE Confidence: 0.9909781

00:06:42.015 --> 00:06:42.515 ultimately,

NOTE Confidence: 0.9747047

00:06:43.135 --> 00:06:44.575 maybe there'll be a

NOTE Confidence: 0.9747047

00:06:44.575 --> 00:06:46.095 time when there's the magic

NOTE Confidence: 0.9747047

00:06:46.095 --> 00:06:47.395 pill for all cancer,

NOTE Confidence: 0.97722393

00:06:48.015 --> 00:06:48.835 at the moment,

NOTE Confidence: 0.99437374

00:06:49.455 --> 00:06:51.214 as the pills and as

NOTE Confidence: 0.99437374

00:06:51.214 --> 00:06:52.735 the infusions get better, it just

00:06:54.175 --> 00:06:56.130 allows us to do that

NOTE Confidence: 0.9857537

00:06:56.130 --> 00:06:57.089 much more in the way

NOTE Confidence: 0.9857537

00:06:57.089 --> 00:06:57.830 of surgery,

NOTE Confidence: 0.99741566

00:06:58.850 --> 00:06:59.350 because

NOTE Confidence: 0.94539016

00:07:00.050 --> 00:07:01.669 as you said, people who

NOTE Confidence: 0.94539016

00:07:01.810 --> 00:07:02.930 in the past wouldn't have

NOTE Confidence: 0.94539016

00:07:02.930 --> 00:07:03.669 been curable,

NOTE Confidence: 0.9854682

00:07:04.210 --> 00:07:06.630 now we can eradicate their

NOTE Confidence: 0.9854682

00:07:06.850 --> 00:07:07.350 micrometastatic

NOTE Confidence: 0.94916934

00:07:07.970 --> 00:07:09.590 disease, and that leaves you

NOTE Confidence: 0.9818251

00:07:10.125 --> 00:07:12.045 dealing with the lung nodule

NOTE Confidence: 0.9818251

00:07:12.045 --> 00:07:13.265 that's still left behind.

NOTE Confidence: 0.9190555

00:07:13.645 --> 00:07:15.885 Absolutely. And I think

NOTE Confidence: 0.9190555

00:07:15.885 --> 00:07:17.025 at the same time that

00:07:18.685 --> 00:07:19.985 the treatments,

NOTE Confidence: 0.9990525

00:07:20.525 --> 00:07:21.265 the chemotherapies

NOTE Confidence: 0.9257278

00:07:21.645 --> 00:07:23.345 and the medications

NOTE Confidence: 0.9257278

00:07:23.485 --> 00:07:24.385 that are given,

NOTE Confidence: 0.99994516

00:07:25.560 --> 00:07:26.060 intravenously

NOTE Confidence: 0.931805

00:07:27.000 --> 00:07:27.900 have improved,

NOTE Confidence: 0.997101

00:07:28.680 --> 00:07:30.120 the surgical techniques have gotten

NOTE Confidence: 0.997101

00:07:30.120 --> 00:07:31.340 a lot better. And so

NOTE Confidence: 0.99811953

00:07:31.640 --> 00:07:33.980 we used to make a

NOTE Confidence: 0.99172896

00:07:34.760 --> 00:07:36.380 five to ten inch incision

NOTE Confidence: 0.9780652

00:07:37.320 --> 00:07:39.080 to remove early stage lung

NOTE Confidence: 0.9780652

00:07:39.080 --> 00:07:40.300 cancers. And now

NOTE Confidence: 0.9800832

00:07:40.985 --> 00:07:41.884 ninety percent,

NOTE Confidence: 0.99912393

00:07:42.345 --> 00:07:43.645 to ninety five percent of

00:07:45.224 --> 00:07:47.065 lung cancers are removed

NOTE Confidence: 0.98386765

00:07:47.065 --> 00:07:48.764 using minimally invasive techniques.

NOTE Confidence: 0.95134866

00:07:49.784 --> 00:07:51.784 Here, mostly using the robot.

NOTE Confidence: 0.95134866

00:07:51.784 --> 00:07:53.224 So your biggest incision is

NOTE Confidence: 0.95134866

00:07:53.224 --> 00:07:53.724 about

NOTE Confidence: 0.9984706

00:07:54.025 --> 00:07:55.080 an inch and a half,

NOTE Confidence: 0.9285473

00:07:55.560 --> 00:07:57.000 maybe two inches, and everything's

NOTE Confidence: 0.9285473

00:07:57.000 --> 00:07:57.500 done

NOTE Confidence: 0.9887997

00:07:58.199 --> 00:08:00.039 minimally invasively. And that

NOTE Confidence: 0.9887997

00:08:00.039 --> 00:08:01.720 really speeds up recovery and

NOTE Confidence: 0.9887997

00:08:01.720 --> 00:08:03.180 allows people who

NOTE Confidence: 0.9955097

00:08:03.560 --> 00:08:04.939 maybe weren't as healthy,

NOTE Confidence: 0.9997209

00:08:05.639 --> 00:08:06.460 to get through

NOTE Confidence: 0.97603804

00:08:07.405 --> 00:08:08.225 an operation,

NOTE Confidence: 0.9958462

00:08:08.925 --> 00:08:09.885 a lot more easily and

NOTE Confidence: 0.9958462

00:08:09.885 --> 00:08:11.085 get back to their life

NOTE Confidence: 0.9958462

00:08:11.324 --> 00:08:12.145 much faster.

NOTE Confidence: 0.99164104

00:08:12.525 --> 00:08:14.145 And those ten to fifteen

NOTE Confidence: 0.96651894

00:08:14.445 --> 00:08:16.365 inch incisions for early stage

NOTE Confidence: 0.96651894

00:08:16.365 --> 00:08:17.104 lung cancer,

NOTE Confidence: 0.97596264

00:08:17.565 --> 00:08:19.245 that was being done how

NOTE Confidence: 0.97596264

00:08:19.245 --> 00:08:19.985 long ago?

NOTE Confidence: 0.9599853

00:08:20.520 --> 00:08:22.520 Twenty years? Ten years? How

NOTE Confidence: 0.9599853

00:08:22.520 --> 00:08:23.480 long has it been?

NOTE Confidence: 0.9599853

00:08:23.480 --> 00:08:25.320 I would say

NOTE Confidence: 0.9599853

00:08:25.320 --> 00:08:26.760 a ten inch incision is

NOTE Confidence: 0.9599853

00:08:26.760 --> 00:08:28.380 something I've seen,

NOTE Confidence: 0.99729717

00:08:29.000 --> 00:08:30.440 maybe twenty five years ago.

NOTE Confidence: 0.99729717

00:08:30.440 --> 00:08:31.800 Even when I

NOTE Confidence: 0.99729717

00:08:31.800 --> 00:08:32.840 have to do what we

NOTE Confidence: 0.99729717

00:08:32.840 --> 00:08:34.300 call a traditional incision,

NOTE Confidence: 0.97116107

00:08:34.895 --> 00:08:36.015 it's now like a five

NOTE Confidence: 0.97116107

00:08:36.015 --> 00:08:37.715 inch incision, and we don't

NOTE Confidence: 0.97116107

00:08:37.855 --> 00:08:39.455 usually cut big muscles. So

NOTE Confidence: 0.97116107

00:08:39.455 --> 00:08:40.595 if somebody ever

NOTE Confidence: 0.9967001

00:08:41.455 --> 00:08:42.735 says you're not a candidate

NOTE Confidence: 0.9967001

00:08:42.735 --> 00:08:44.355 for a minimally invasive approach,

NOTE Confidence: 0.9809946

00:08:45.775 --> 00:08:47.455 that still is way better

NOTE Confidence: 0.9809946

00:08:47.455 --> 00:08:49.295 than what patients used to be

00:08:51.110 --> 00:08:52.170 subjected to

NOTE Confidence: 0.92845356

00:08:52.630 --> 00:08:54.330 twenty five, thirty years ago

NOTE Confidence: 0.92845356

00:08:54.390 --> 00:08:55.429 where it was a

NOTE Confidence: 0.92845356

00:08:55.429 --> 00:08:56.809 much bigger cut and

NOTE Confidence: 0.9806811

00:08:57.670 --> 00:08:58.809 ribs were commonly

NOTE Confidence: 0.9906353

00:08:59.510 --> 00:09:00.010 taken.

NOTE Confidence: 0.9707733

00:09:01.110 --> 00:09:02.870 Now the vast majority

NOTE Confidence: 0.9707733

00:09:02.870 --> 00:09:03.910 of patients who even get

NOTE Confidence: 0.9707733

00:09:03.910 --> 00:09:05.050 a traditional incision,

NOTE Confidence: 0.9994324

00:09:05.845 --> 00:09:07.765 the recovery is actually much

NOTE Confidence: 0.9994324

00:09:07.765 --> 00:09:08.885 faster than when we were

NOTE Confidence: 0.9994324

00:09:08.885 --> 00:09:10.425 making those really big incisions.

NOTE Confidence: 0.9951119

00:09:10.725 --> 00:09:11.765 No. I think it's really

NOTE Confidence: 0.9951119

00:09:11.765 --> 00:09:13.445 remarkable. It's been true across

NOTE Confidence: 0.9951119

00:09:13.445 --> 00:09:14.905 the whole surgical field.

NOTE Confidence: 0.99040306

00:09:16.005 --> 00:09:17.525 I'll share that, you know,

NOTE Confidence: 0.99040306

00:09:17.525 --> 00:09:18.745 I recently had

NOTE Confidence: 0.8982139

00:09:19.125 --> 00:09:20.105 a hip done.

00:09:21.819 --> 00:09:23.420 And the day of surgery, they tried

NOTE Confidence: 0.9660151

00:09:23.420 --> 00:09:24.639 to get you up walking.

NOTE Confidence: 0.9745875

00:09:25.100 --> 00:09:26.059 You know, there was a

NOTE Confidence: 0.9745875

00:09:26.059 --> 00:09:27.519 time years ago

NOTE Confidence: 0.9388686

00:09:28.059 --> 00:09:29.420 when whether it was a

NOTE Confidence: 0.9388686

00:09:29.420 --> 00:09:30.620 hip or whether it was

NOTE Confidence: 0.9388686

00:09:30.620 --> 00:09:32.939 a lung cancer, people

NOTE Confidence: 0.9388686

00:09:32.939 --> 00:09:34.139 were put in their beds for

00:09:35.154 --> 00:09:36.855 you know, a long time.

00:09:38.915 --> 00:09:39.975 I think that

NOTE Confidence: 0.99799573

00:09:40.275 --> 00:09:40.775 medicine

NOTE Confidence: 0.9886996

00:09:41.554 --> 00:09:42.775 tends to improve

NOTE Confidence: 0.99550694

00:09:44.275 --> 00:09:46.195 in one area and pull

NOTE Confidence: 0.99550694

00:09:46.195 --> 00:09:48.455 other areas along. And so

NOTE Confidence: 0.96394306

00:09:48.860 --> 00:09:50.480 I would say that the

NOTE Confidence: 0.96394306

00:09:50.600 --> 00:09:53.579 patient experience now benefits from

NOTE Confidence: 0.96394306

00:09:53.579 --> 00:09:55.420 better anesthesia. So people are

NOTE Confidence: 0.96394306

00:09:55.420 --> 00:09:57.500 less nauseous people wake up

NOTE Confidence: 0.96394306

00:09:57.500 --> 00:09:59.420 faster, their pain is much

NOTE Confidence: 0.96394306

00:09:59.420 --> 00:10:00.860 better controlled at the same

NOTE Confidence: 0.96394306

00:10:00.860 --> 00:10:01.600 time. We're

NOTE Confidence: 0.9717564

00:10:02.275 --> 00:10:04.515 making smaller incisions. We're better

NOTE Confidence: 0.9717564

00:10:04.515 --> 00:10:05.175 at controlling

NOTE Confidence: 0.8514854

00:10:05.635 --> 00:10:06.135 pain.

NOTE Confidence: 0.9740785

00:10:06.595 --> 00:10:07.955 And, because of

NOTE Confidence: 0.9480722

00:10:08.835 --> 00:10:09.975 the opioid

NOTE Confidence: 0.99070436

00:10:10.675 --> 00:10:11.175 pandemic,

NOTE Confidence: 0.9414939

00:10:12.275 --> 00:10:13.015 we really

NOTE Confidence: 0.97633857

00:10:13.475 --> 00:10:15.630 try to minimize narcotics, and

NOTE Confidence: 0.97633857

00:10:15.630 --> 00:10:16.830 we have all of these

NOTE Confidence: 0.97633857

00:10:16.830 --> 00:10:17.309 different

NOTE Confidence: 0.9497245

00:10:17.710 --> 00:10:19.630 techniques that we can keep

NOTE Confidence: 0.9497245

00:10:19.630 --> 00:10:20.130 people

NOTE Confidence: 0.9820952

00:10:20.910 --> 00:10:22.270 active and doing the things

NOTE Confidence: 0.9820952

00:10:22.270 --> 00:10:23.470 we need them to do

NOTE Confidence: 0.9820952

00:10:23.470 --> 00:10:24.130 to recover,

NOTE Confidence: 0.9899536

00:10:25.470 --> 00:10:26.590 yet doing it in a

NOTE Confidence: 0.9899536

00:10:26.590 --> 00:10:27.870 way that their pain is

NOTE Confidence: 0.9899536

00:10:27.870 --> 00:10:28.370 controlled,

NOTE Confidence: 0.9996021

00:10:28.830 --> 00:10:29.970 and they're not getting

NOTE Confidence: 0.9749676

00:10:30.954 --> 00:10:32.735 a lot of narcotic medication.

NOTE Confidence: 0.98323935

00:10:33.355 --> 00:10:34.554 Yeah. I mean, it is

NOTE Confidence: 0.98323935

00:10:34.554 --> 00:10:36.334 fairly dramatic how

NOTE Confidence: 0.994207

00:10:36.795 --> 00:10:38.334 the concern about opioids

NOTE Confidence: 0.9939509

00:10:38.795 --> 00:10:40.154 and the abuse of

NOTE Confidence: 0.9939509

00:10:40.154 --> 00:10:40.654 opioids

NOTE Confidence: 0.98929

00:10:41.514 --> 00:10:42.954 has led to far more

NOTE Confidence: 0.98929

00:10:42.954 --> 00:10:43.454 creativity

NOTE Confidence: 0.9994343

00:10:43.834 --> 00:10:45.375 about how we use them

NOTE Confidence: 0.9903649

00:10:45.980 --> 00:10:47.819 in people who have

NOTE Confidence: 0.9903649

00:10:47.819 --> 00:10:49.679 significant pain and how

NOTE Confidence: 0.98510027

00:10:50.220 --> 00:10:51.279 we don't let people

NOTE Confidence: 0.99207646

00:10:51.660 --> 00:10:53.339 remain in pain, but we

NOTE Confidence: 0.99207646

00:10:53.339 --> 00:10:54.540 come up with other ways

NOTE Confidence: 0.99207646

00:10:54.540 --> 00:10:56.540 of approaching the pain. So,

NOTE Confidence: 0.99207646

00:10:56.699 --> 00:10:57.500 you know, I'm not sure

NOTE Confidence: 0.99207646

00:10:57.500 --> 00:10:58.860 I've ever asked anyone this

NOTE Confidence: 0.99207646

00:10:58.860 --> 00:10:59.865 question, but I'm sure

00:11:02.345 --> 00:11:02.845 occasionally

NOTE Confidence: 0.9505555

00:11:03.145 --> 00:11:04.584 when you're doing a bigger

NOTE Confidence: 0.9505555

00:11:04.584 --> 00:11:05.084 surgery,

NOTE Confidence: 0.9997946

00:11:05.545 --> 00:11:07.625 you're in the operating room

NOTE Confidence: 0.9997946

00:11:07.625 --> 00:11:09.065 for quite a number of

NOTE Confidence: 0.9997946

00:11:09.065 --> 00:11:09.565 hours.

NOTE Confidence: 0.9748212

00:11:10.505 --> 00:11:12.184 What's that like to

NOTE Confidence: 0.9748212

00:11:12.184 --> 00:11:13.964 be just standing over

NOTE Confidence: 0.9582725

00:11:15.010 --> 00:11:17.570 a patient and

NOTE Confidence: 0.9582725

00:11:17.570 --> 00:11:19.250 it is standing. It's not

NOTE Confidence: 0.9582725

00:11:19.250 --> 00:11:20.790 sitting most of the time.

NOTE Confidence: 0.98116815

00:11:22.610 --> 00:11:23.490 How do you get through

NOTE Confidence: 0.98116815

00:11:23.490 --> 00:11:24.230 all that?

NOTE Confidence: 0.9996448

00:11:24.850 --> 00:11:25.510 It is

NOTE Confidence: 0.99955696

00:11:26.530 --> 00:11:27.030 amazingly

NOTE Confidence: 0.9997205

00:11:27.490 --> 00:11:27.990 compelling

NOTE Confidence: 0.9986434

00:11:28.370 --> 00:11:29.510 when you are

NOTE Confidence: 0.9975074

00:11:30.125 --> 00:11:32.524 in charge of a patient's

NOTE Confidence: 0.9975074

00:11:32.524 --> 00:11:33.024 life and not just

00:11:36.445 --> 00:11:38.225 whether something big

NOTE Confidence: 0.96710145

00:11:39.085 --> 00:11:40.785 happens in the operating room,

NOTE Confidence: 0.98895943

00:11:41.085 --> 00:11:41.585 but

NOTE Confidence: 0.99628305

00:11:42.059 --> 00:11:43.660 when somebody

NOTE Confidence: 0.99628305

00:11:43.660 --> 00:11:44.620 trusts you to take them

NOTE Confidence: 0.99628305

00:11:44.620 --> 00:11:45.980 to the operating room, they're

NOTE Confidence: 0.99628305

00:11:45.980 --> 00:11:46.960 trusting you

NOTE Confidence: 0.9696267

00:11:48.059 --> 00:11:49.980 to fight that battle for

NOTE Confidence: 0.9696267

00:11:49.980 --> 00:11:52.000 them. And so you are

NOTE Confidence: 0.9696267

00:11:52.300 --> 00:11:54.140 looking for any site of

NOTE Confidence: 0.9696267

00:11:54.140 --> 00:11:55.440 disease. You are

NOTE Confidence: 0.99979204

00:11:55.985 --> 00:11:57.764 so focused on getting

NOTE Confidence: 0.98683405

00:11:58.304 --> 00:11:59.665 every part of that tumor

NOTE Confidence: 0.98683405

00:11:59.665 --> 00:12:01.845 out as cleanly as possible,

NOTE Confidence: 0.998738

00:12:02.545 --> 00:12:04.865 and it really commands your

NOTE Confidence: 0.998738

00:12:04.865 --> 00:12:06.464 attention so much that the

NOTE Confidence: 0.998738

00:12:06.464 --> 00:12:08.220 time really flies by.

NOTE Confidence: 0.998738

00:12:08.300 --> 00:12:09.179 I do a lot of

NOTE Confidence: 0.998738

00:12:09.179 --> 00:12:11.259 surgeries that are three hours,

NOTE Confidence: 0.998738

00:12:11.259 --> 00:12:11.980 but I do a lot

NOTE Confidence: 0.998738

00:12:11.980 --> 00:12:13.600 of surgeries that are

NOTE Confidence: 0.9662567

00:12:14.379 --> 00:12:16.160 seven hours. And

NOTE Confidence: 0.99595946

00:12:17.179 --> 00:12:18.939 I would consider

NOTE Confidence: 0.99595946

00:12:18.939 --> 00:12:21.179 myself to have a pretty

NOTE Confidence: 0.99595946

00:12:21.179 --> 00:12:23.179 short attention span outside of

NOTE Confidence: 0.99595946

00:12:23.179 --> 00:12:24.675 the OR. But when you're

NOTE Confidence: 0.99595946

00:12:24.675 --> 00:12:25.495 in the OR,

NOTE Confidence: 0.99984205

00:12:26.195 --> 00:12:27.015 that responsibility

NOTE Confidence: 0.9999368

00:12:27.554 --> 00:12:28.615 is so compelling

NOTE Confidence: 0.9980434

00:12:29.155 --> 00:12:30.934 that the time just absolutely

NOTE Confidence: 0.9980434

00:12:30.995 --> 00:12:31.895 flies by.

NOTE Confidence: 0.99352676

00:12:32.675 --> 00:12:34.195 Well, I'm not

NOTE Confidence: 0.99352676

00:12:34.195 --> 00:12:35.715 a surgeon, and I have

NOTE Confidence: 0.99352676

00:12:35.715 --> 00:12:37.715 never been in a seven

NOTE Confidence: 0.99352676

00:12:37.715 --> 00:12:39.735 hour operation in the OR.

NOTE Confidence: 0.9721683

00:12:41.100 --> 00:12:42.540 I can tell you that

NOTE Confidence: 0.9820705

00:12:43.020 --> 00:12:44.640 the times when I feel

NOTE Confidence: 0.9820705

00:12:44.700 --> 00:12:46.860 most centered and focused are

NOTE Confidence: 0.9820705

00:12:46.860 --> 00:12:47.900 when I'm in a room

NOTE Confidence: 0.9820705

00:12:47.900 --> 00:12:48.720 with a patient,

NOTE Confidence: 0.9736686

00:12:49.340 --> 00:12:50.780 and in fact, the door

NOTE Confidence: 0.9736686

00:12:50.780 --> 00:12:52.380 closes and nothing else in

NOTE Confidence: 0.9736686

00:12:52.380 --> 00:12:53.580 the world is happening for

NOTE Confidence: 0.9736686

00:12:53.580 --> 00:12:54.080 me.

NOTE Confidence: 0.94573563

00:12:55.214 --> 00:12:56.175 I would hope that I

NOTE Confidence: 0.94573563

00:12:56.175 --> 00:12:57.214 would have the attention to

NOTE Confidence: 0.94573563

00:12:57.214 --> 00:12:58.495 do that for seven hours,

NOTE Confidence: 0.94573563

00:12:58.495 --> 00:12:59.954 but you obviously do.

00:13:01.694 --> 00:13:03.375 And I was a carpenter before medical

NOTE Confidence: 0.9554207

00:13:03.375 --> 00:13:04.274 school, and when

00:13:06.175 --> 00:13:07.214 you're in the thick of

NOTE Confidence: 0.96109176

00:13:07.214 --> 00:13:09.279 things, it's problem

NOTE Confidence: 0.96109176

00:13:09.279 --> 00:13:11.540 solving, and

NOTE Confidence: 0.96109176

00:13:11.839 --> 00:13:13.519 when you're concentrating on something

NOTE Confidence: 0.96109176

00:13:13.519 --> 00:13:14.959 that is stimulating and you

NOTE Confidence: 0.96109176

00:13:14.959 --> 00:13:16.100 care a lot about,

NOTE Confidence: 0.99857783

00:13:16.880 --> 00:13:18.420 time just flies by.

00:13:21.105 --> 00:13:22.464 And I suppose when you

NOTE Confidence: 0.99434155

00:13:22.464 --> 00:13:24.645 saw that in medical school,

NOTE Confidence: 0.9962527

00:13:25.825 --> 00:13:27.105 that's one of the things

NOTE Confidence: 0.9962527

00:13:27.105 --> 00:13:28.304 that drew you to become

NOTE Confidence: 0.9962527

00:13:28.304 --> 00:13:28.885 a surgeon.

NOTE Confidence: 0.9706126

00:13:29.825 --> 00:13:31.904 Hundred percent.

NOTE Confidence: 0.9706126

00:13:31.904 --> 00:13:33.105 Well we're gonna need to take

NOTE Confidence: 0.9706126

00:13:33.105 --> 00:13:34.304 just a brief break.

NOTE Confidence: 0.9706126

00:13:34.304 --> 00:13:35.265 When we come back, we're

NOTE Confidence: 0.9706126

00:13:35.265 --> 00:13:36.325 gonna talk about

NOTE Confidence: 0.98982906

00:13:36.770 --> 00:13:38.870 esophageal cancer and

NOTE Confidence: 0.96747124

00:13:39.490 --> 00:13:41.250 what has evolved in

NOTE Confidence: 0.96747124

00:13:41.250 --> 00:13:42.070 that area,

NOTE Confidence: 0.9989428

00:13:42.530 --> 00:13:43.650 and we'll talk a little

NOTE Confidence: 0.9989428

00:13:43.650 --> 00:13:44.370 bit about

NOTE Confidence: 0.99935514

00:13:44.770 --> 00:13:45.990 lung cancer screening.

NOTE Confidence: 0.9560075

00:13:46.450 --> 00:13:48.290 Funding for Yale Cancer Answers

NOTE Confidence: 0.9560075

00:13:48.290 --> 00:13:50.230 comes from Smilow Cancer Hospital,

NOTE Confidence: 0.9710625

00:13:50.554 --> 00:13:51.454 where their hematology

NOTE Confidence: 0.9990124

00:13:51.995 --> 00:13:53.375 program offers comprehensive

NOTE Confidence: 0.96487486

00:13:53.755 --> 00:13:55.355 diagnosis and treatment of blood

NOTE Confidence: 0.96487486

00:13:55.355 --> 00:13:57.995 cancers including lymphoma, leukemia, and

NOTE Confidence: 0.96487486

00:13:57.995 --> 00:13:58.495 myeloma.

NOTE Confidence: 0.8543402

00:13:59.115 --> 00:13:59.615 Smilowcancerhospital

NOTE Confidence: 0.99517787

00:14:00.714 --> 00:14:01.375 dot org.

NOTE Confidence: 0.9695432

00:14:03.410 --> 00:14:04.850 There are many obstacles to

NOTE Confidence: 0.9695432

00:14:04.850 --> 00:14:06.530 face when quitting smoking as

NOTE Confidence: 0.9695432

00:14:06.530 --> 00:14:08.210 smoking involves the potent drug

NOTE Confidence: 0.9695432

00:14:08.210 --> 00:14:08.710 nicotine.

NOTE Confidence: 0.97594744

00:14:09.410 --> 00:14:10.690 Quitting smoking is a very

NOTE Confidence: 0.97594744

00:14:10.690 --> 00:14:13.090 important lifestyle change especially for

NOTE Confidence: 0.97594744

00:14:13.090 --> 00:14:15.330 patients undergoing cancer treatment as

NOTE Confidence: 0.97594744

00:14:15.330 --> 00:14:16.790 it's been shown to positively

NOTE Confidence: 0.97594744

00:14:17.010 --> 00:14:18.710 impact response to treatments,

NOTE Confidence: 0.9907662

00:14:19.214 --> 00:14:20.815 decrease the likelihood that patients

NOTE Confidence: 0.9907662

00:14:20.815 --> 00:14:22.355 will develop second malignancies,

NOTE Confidence: 0.9945062

00:14:22.894 --> 00:14:24.595 and increase rates of survival.

NOTE Confidence: 0.9693164

00:14:25.134 --> 00:14:27.134 Tobacco treatment programs are currently

NOTE Confidence: 0.9693164

00:14:27.134 --> 00:14:28.995 being offered at federally designated

NOTE Confidence: 0.9693164

00:14:29.214 --> 00:14:31.535 comprehensive cancer centers, such as

NOTE Confidence: 0.9693164

00:14:31.535 --> 00:14:32.894 Yale Cancer Center and

NOTE Confidence: 0.9693164

00:14:32.894 --> 00:14:34.355 Smilow Cancer Hospital.

NOTE Confidence: 0.9752043

00:14:35.030 --> 00:14:36.950 All treatment components are evidence

NOTE Confidence: 0.9752043

00:14:36.950 --> 00:14:38.790 based and patients are treated

NOTE Confidence: 0.9752043

00:14:38.790 --> 00:14:40.630 with FDA approved first line

NOTE Confidence: 0.9752043

00:14:40.630 --> 00:14:41.130 medications

NOTE Confidence: 0.97618866

00:14:41.670 --> 00:14:43.210 as well as smoking cessation

NOTE Confidence: 0.97618866

00:14:43.270 --> 00:14:45.590 counseling that stresses appropriate coping

NOTE Confidence: 0.97618866

00:14:45.590 --> 00:14:46.090 skills.

NOTE Confidence: 0.95743346

00:14:46.630 --> 00:14:48.230 More information is available at

NOTE Confidence: 0.95743346

00:14:48.230 --> 00:14:50.170 yale cancer center dot org.

NOTE Confidence: 0.95743346

00:14:50.285 --> 00:14:52.045 You're listening to Connecticut Public

NOTE Confidence: 0.95743346

00:14:52.045 --> 00:14:52.545 Radio.

NOTE Confidence: 0.8999999

00:14:54.205 --> 00:14:55.985 Good evening again. This is

NOTE Confidence: 0.8999999

00:14:56.045 --> 00:14:56.865 Eric Winer

NOTE Confidence: 0.87420833

00:14:57.325 --> 00:14:58.945 with Yale Cancer Answers.

NOTE Confidence: 0.9988495

00:14:59.565 --> 00:15:01.665 And I'm joined tonight by

NOTE Confidence: 0.94454473

00:15:02.205 --> 00:15:04.525 Dan Boffa, who is a

NOTE Confidence: 0.94454473

00:15:04.525 --> 00:15:05.665 thoracic surgeon

NOTE Confidence: 0.99941444

00:15:06.660 --> 00:15:07.880 and leads our

NOTE Confidence: 0.9925968

00:15:08.339 --> 00:15:09.880 division of

NOTE Confidence: 0.98865277

00:15:11.220 --> 00:15:12.279 thoracic surgery.

NOTE Confidence: 0.93280303

00:15:13.940 --> 00:15:14.899 Dan, let's

NOTE Confidence: 0.9996326

00:15:15.460 --> 00:15:16.980 shift gears a little bit.

NOTE Confidence: 0.9996326

00:15:16.980 --> 00:15:18.040 We talked about

NOTE Confidence: 0.984519

00:15:18.915 --> 00:15:20.355 lung cancer, and we talked

NOTE Confidence: 0.984519

00:15:20.355 --> 00:15:21.735 about surgical techniques

NOTE Confidence: 0.9985616

00:15:22.195 --> 00:15:22.775 a bit.

NOTE Confidence: 0.9863852

00:15:23.235 --> 00:15:25.175 Let's talk about esophageal cancer.

NOTE Confidence: 0.9863852

00:15:25.315 --> 00:15:26.855 And esophageal cancer,

NOTE Confidence: 0.99541533

00:15:27.395 --> 00:15:28.595 I think, is one of

NOTE Confidence: 0.99541533

00:15:28.595 --> 00:15:30.750 those cancers that people are

NOTE Confidence: 0.99541533

00:15:30.990 --> 00:15:32.530 pretty frightened of.

NOTE Confidence: 0.99605113

00:15:33.150 --> 00:15:33.630 And,

NOTE Confidence: 0.99483776

00:15:34.030 --> 00:15:35.630 while it's not the most

NOTE Confidence: 0.99483776

00:15:35.630 --> 00:15:37.310 common cancer, it's by no

NOTE Confidence: 0.99483776

00:15:37.310 --> 00:15:38.290 means uncommon.

NOTE Confidence: 0.9995319

00:15:38.990 --> 00:15:40.190 So tell us a little

NOTE Confidence: 0.9995319

00:15:40.190 --> 00:15:40.850 bit about

NOTE Confidence: 0.9967423

00:15:41.870 --> 00:15:43.090 esophageal cancer.

NOTE Confidence: 0.99914473

00:15:44.095 --> 00:15:45.555 So esophageal cancer

NOTE Confidence: 0.9933938

00:15:46.255 --> 00:15:48.015 is a dangerous cancer that

NOTE Confidence: 0.9933938

00:15:48.015 --> 00:15:50.175 we don't have a great

NOTE Confidence: 0.9933938

00:15:50.175 --> 00:15:51.935 way to screen for yet.

NOTE Confidence: 0.9933938

00:15:51.935 --> 00:15:53.055 And I think because of

NOTE Confidence: 0.9933938

00:15:53.055 --> 00:15:53.555 that,

NOTE Confidence: 0.9995331

00:15:54.015 --> 00:15:55.935 we're not finding it until

NOTE Confidence: 0.9995331

00:15:55.935 --> 00:15:56.435 people

NOTE Confidence: 0.97662055

00:15:56.815 --> 00:15:57.715 have symptoms.

NOTE Confidence: 0.9916007

00:15:58.290 --> 00:15:59.910 And once you have symptoms,

NOTE Confidence: 0.98257744

00:16:00.610 --> 00:16:02.230 it is not necessarily,

NOTE Confidence: 0.99054134

00:16:03.810 --> 00:16:05.330 spread to vital organs, but

NOTE Confidence: 0.99054134

00:16:05.330 --> 00:16:06.790 it is not typically

NOTE Confidence: 0.98189557

00:16:07.250 --> 00:16:08.850 at its earliest stage and

NOTE Confidence: 0.98189557

00:16:08.850 --> 00:16:10.310 not the point where we're

NOTE Confidence: 0.98189557

00:16:10.495 --> 00:16:11.955 best able to cure people.

00:16:13.215 --> 00:16:14.495 Can you just comment

NOTE Confidence: 0.9605349

00:16:14.495 --> 00:16:15.535 for a minute on those

NOTE Confidence: 0.9605349

00:16:15.535 --> 00:16:16.035 symptoms?

NOTE Confidence: 0.9915696

00:16:16.655 --> 00:16:18.735 So if you notice that

NOTE Confidence: 0.9915696

00:16:18.735 --> 00:16:21.135 you're having difficulty swallowing, that

NOTE Confidence: 0.9915696

00:16:21.135 --> 00:16:22.915 food is getting stuck, particularly

NOTE Confidence: 0.9824732

00:16:23.790 --> 00:16:25.230 in the mid to lower

NOTE Confidence: 0.9824732

00:16:25.230 --> 00:16:27.070 part of your chest. Even

NOTE Confidence: 0.9824732

00:16:27.070 --> 00:16:28.130 if it just happens

NOTE Confidence: 0.9983438

00:16:28.670 --> 00:16:30.830 more than once, you really

NOTE Confidence: 0.9983438

00:16:30.830 --> 00:16:32.290 need to let your

NOTE Confidence: 0.9983438

00:16:32.430 --> 00:16:34.029 primary know about it

NOTE Confidence: 0.9983438

00:16:34.029 --> 00:16:35.170 and see a gastroenterologist.

NOTE Confidence: 0.9376628

00:16:37.135 --> 00:16:37.935 A lot of people

00:16:40.175 --> 00:16:40.835 have heartburn,

NOTE Confidence: 0.9966769

00:16:41.455 --> 00:16:42.655 and that's one of the

NOTE Confidence: 0.9966769

00:16:42.655 --> 00:16:43.795 things that makes

NOTE Confidence: 0.99944437

00:16:44.655 --> 00:16:45.795 esophageal cancer

NOTE Confidence: 0.91822034

00:16:46.735 --> 00:16:49.715 difficult to identify because the

00:16:51.459 --> 00:16:53.860 way that screening works is to find

NOTE Confidence: 0.99329364

00:16:53.860 --> 00:16:55.540 dangerous things before they do

NOTE Confidence: 0.99329364

00:16:55.540 --> 00:16:56.519 dangerous things.

NOTE Confidence: 0.9985927

00:16:57.060 --> 00:16:57.560 And

NOTE Confidence: 0.9995087

00:16:58.740 --> 00:16:59.880 the symptoms

NOTE Confidence: 0.99804366

00:17:00.339 --> 00:17:01.620 and the people at risk

NOTE Confidence: 0.99804366

00:17:01.620 --> 00:17:03.959 for esophageal cancer are generally

NOTE Confidence: 0.99804366

00:17:04.100 --> 00:17:04.600 people

NOTE Confidence: 0.9991663

00:17:04.980 --> 00:17:06.494 who have heartburn,

NOTE Confidence: 0.99963576

00:17:06.955 --> 00:17:08.075 who are over the age

NOTE Confidence: 0.99963576

00:17:08.075 --> 00:17:08.734 of fifty,

NOTE Confidence: 0.9968996

00:17:09.274 --> 00:17:10.815 who are overweight.

NOTE Confidence: 0.99636346

00:17:12.475 --> 00:17:14.234 White males tend to have

NOTE Confidence: 0.99636346

00:17:14.234 --> 00:17:15.215 a higher risk.

NOTE Confidence: 0.9820797

00:17:15.595 --> 00:17:16.475 Well, that's a lot of

NOTE Confidence: 0.9820797

00:17:16.475 --> 00:17:18.475 us. And I've described this

NOTE Confidence: 0.9820797

00:17:18.475 --> 00:17:19.835 in the past as kind

NOTE Confidence: 0.9820797

00:17:19.835 --> 00:17:20.815 of like a tornado.

NOTE Confidence: 0.98798144

00:17:21.380 --> 00:17:22.280 So tornadoes

NOTE Confidence: 0.97953063

00:17:22.660 --> 00:17:24.280 often happen when the conditions

NOTE Confidence: 0.97953063

00:17:24.500 --> 00:17:25.880 are right for a tornado.

NOTE Confidence: 0.9913776

00:17:26.340 --> 00:17:27.620 But most of the time

NOTE Confidence: 0.9913776

00:17:27.620 --> 00:17:29.300 that conditions are favorable for

NOTE Confidence: 0.9913776

00:17:29.300 --> 00:17:29.800 tornadoes,

NOTE Confidence: 0.95702416

00:17:30.260 --> 00:17:31.780 you don't get any. And

NOTE Confidence: 0.95702416

00:17:31.780 --> 00:17:33.320 sometimes tornadoes happen

NOTE Confidence: 0.98640156

00:17:33.934 --> 00:17:35.535 when the conditions aren't favorable.

NOTE Confidence: 0.98640156

00:17:35.535 --> 00:17:36.835 So it's really hard to

00:17:38.015 --> 00:17:39.535 pin down who you would

NOTE Confidence: 0.98731786

00:17:39.535 --> 00:17:40.755 do upper endoscopies,

NOTE Confidence: 0.97801256

00:17:42.174 --> 00:17:43.315 instead of a colonoscopy,

NOTE Confidence: 0.9854356

00:17:43.615 --> 00:17:44.815 which goes from the bottom.

NOTE Confidence: 0.9854356

00:17:44.815 --> 00:17:46.195 This is an upper endoscopy,

NOTE Confidence: 0.9854356

00:17:46.335 --> 00:17:47.695 which goes from your mouth

NOTE Confidence: 0.9854356

00:17:47.695 --> 00:17:49.475 into your esophagus. And so

NOTE Confidence: 0.9854356

00:17:49.580 --> 00:17:50.859 it's hard to screen for and

00:17:52.300 --> 00:17:53.600 we miss that opportunity to

00:17:55.260 --> 00:17:56.780 find it at its earliest

NOTE Confidence: 0.99713916

00:17:56.780 --> 00:17:57.280 stage.

NOTE Confidence: 0.9992895

00:17:57.740 --> 00:17:58.700 But if you do have

NOTE Confidence: 0.9992895

00:17:58.700 --> 00:17:59.200 heartburn,

NOTE Confidence: 0.9997665

00:18:00.060 --> 00:18:01.760 and it's not well controlled

NOTE Confidence: 0.9993499

00:18:02.060 --> 00:18:03.340 with an over the counter

NOTE Confidence: 0.9993499

00:18:03.340 --> 00:18:03.840 medication,

NOTE Confidence: 0.9867438

00:18:04.515 --> 00:18:06.035 and you're

NOTE Confidence: 0.9867438

00:18:06.035 --> 00:18:07.315 over the age of fifty,

NOTE Confidence: 0.9867438

00:18:07.315 --> 00:18:08.435 I would talk to your

NOTE Confidence: 0.9867438

00:18:08.435 --> 00:18:09.795 primary about having an upper

NOTE Confidence: 0.9867438

00:18:09.795 --> 00:18:10.295 endoscopy.

NOTE Confidence: 0.97855586

00:18:10.994 --> 00:18:12.435 And then there are certain

NOTE Confidence: 0.97855586

00:18:12.435 --> 00:18:14.035 conditions that are associated with

NOTE Confidence: 0.97855586

00:18:14.035 --> 00:18:15.715 a higher risk of

NOTE Confidence: 0.97855586

00:18:15.715 --> 00:18:16.215 esophageal

NOTE Confidence: 0.9647916

00:18:16.515 --> 00:18:17.895 cancer, things like

NOTE Confidence: 0.91957855

00:18:18.195 --> 00:18:19.255 Barrett's esophagus.

00:18:22.609 --> 00:18:23.590 Barrett's esophagus

NOTE Confidence: 0.99386054

00:18:23.970 --> 00:18:25.730 is a change in the

NOTE Confidence: 0.99386054

00:18:25.730 --> 00:18:27.430 esophagus where the lining

NOTE Confidence: 0.98720884

00:18:28.210 --> 00:18:30.230 changes from its normal lining

NOTE Confidence: 0.98720884

00:18:30.290 --> 00:18:31.890 to the lining that the

NOTE Confidence: 0.98720884

00:18:31.890 --> 00:18:33.410 intestine has on the other

NOTE Confidence: 0.98720884

00:18:33.410 --> 00:18:34.725 side of the stomach. In

NOTE Confidence: 0.98720884

00:18:34.725 --> 00:18:35.445 a lot of ways, that

NOTE Confidence: 0.98720884

00:18:35.445 --> 00:18:37.605 makes sense because the

NOTE Confidence: 0.98720884

00:18:37.605 --> 00:18:39.205 downstream side of the stomach

NOTE Confidence: 0.98720884

00:18:39.205 --> 00:18:40.825 sees acid all the time.

NOTE Confidence: 0.9753096

00:18:41.125 --> 00:18:43.285 And so its lining is

NOTE Confidence: 0.9753096

00:18:43.285 --> 00:18:44.744 designed to protect it,

NOTE Confidence: 0.9990977

00:18:45.125 --> 00:18:45.625 whereas

NOTE Confidence: 0.99061376

00:18:46.005 --> 00:18:47.785 acid shouldn't be going backwards.

NOTE Confidence: 0.99061376

00:18:48.019 --> 00:18:49.700 And so that lining is

NOTE Confidence: 0.99061376

00:18:49.700 --> 00:18:50.200 designed

NOTE Confidence: 0.99219817

00:18:50.980 --> 00:18:52.419 to help things pass through it.

NOTE Confidence: 0.99219817

00:18:52.419 --> 00:18:54.200 And so Barrett's esophagus

NOTE Confidence: 0.9804204

00:18:54.500 --> 00:18:55.700 sounds like a good thing

NOTE Confidence: 0.9804204

00:18:55.700 --> 00:18:57.379 because the acid is

NOTE Confidence: 0.9804204

00:18:57.379 --> 00:18:59.059 turning the lining into something

NOTE Confidence: 0.9804204

00:18:59.059 --> 00:19:00.795 that should be protecting it.

NOTE Confidence: 0.9804204

00:19:00.875 --> 00:19:02.075 The problem is once it

NOTE Confidence: 0.9804204

00:19:02.075 --> 00:19:03.755 makes that change, it loses

NOTE Confidence: 0.9804204

00:19:03.755 --> 00:19:05.055 its ability to control

NOTE Confidence: 0.9751777

00:19:05.835 --> 00:19:06.875 what it does and what

NOTE Confidence: 0.9751777

00:19:06.875 --> 00:19:07.755 it looks like, and

NOTE Confidence: 0.9751777

00:19:07.755 --> 00:19:09.595 a series of changes

NOTE Confidence: 0.9751777

00:19:09.595 --> 00:19:10.475 can happen, and it can

NOTE Confidence: 0.9751777

00:19:10.475 --> 00:19:12.075 turn into a cancer. But,

NOTE Confidence: 0.9751777

00:19:12.075 --> 00:19:13.295 again, most Barrett's

NOTE Confidence: 0.9899243

00:19:14.315 --> 00:19:15.935 does not turn into cancer.

NOTE Confidence: 0.98665404

00:19:16.730 --> 00:19:18.170 So it's hard to

NOTE Confidence: 0.98665404

00:19:18.170 --> 00:19:19.609 nail down who is

NOTE Confidence: 0.98665404

00:19:19.609 --> 00:19:21.230 really at highest risk.

NOTE Confidence: 0.999563

00:19:21.770 --> 00:19:23.470 And what about the role of

00:19:24.490 --> 00:19:27.130 tobacco use and alcohol in

NOTE Confidence: 0.96908677

00:19:27.130 --> 00:19:28.350 esophageal cancer?

NOTE Confidence: 0.99982095

00:19:28.730 --> 00:19:30.190 Both have been associated

NOTE Confidence: 0.9945418

00:19:30.730 --> 00:19:32.325 with an increased risk of

NOTE Confidence: 0.9945418

00:19:32.325 --> 00:19:33.544 esophageal cancer.

NOTE Confidence: 0.97590804

00:19:34.005 --> 00:19:35.145 So I think there's

NOTE Confidence: 0.99452114

00:19:35.765 --> 00:19:37.065 a lot of people who associate

NOTE Confidence: 0.97833097

00:19:37.605 --> 00:19:39.304 tobacco use with lung cancer,

NOTE Confidence: 0.7788661

00:19:39.605 --> 00:19:40.505 but really,

NOTE Confidence: 0.9986754

00:19:40.885 --> 00:19:41.385 most

NOTE Confidence: 0.9020972

00:19:41.845 --> 00:19:43.145 or many cancers,

NOTE Confidence: 0.9998619

00:19:43.924 --> 00:19:45.145 have an association

NOTE Confidence: 0.9810547

00:19:45.605 --> 00:19:47.859 with tobacco use. And we're

NOTE Confidence: 0.9810547

00:19:47.859 --> 00:19:48.359 increasingly

NOTE Confidence: 0.99550706

00:19:49.140 --> 00:19:51.880 finding signals that moderate

NOTE Confidence: 0.9997186

00:19:52.419 --> 00:19:53.960 to heavy alcohol use

NOTE Confidence: 0.7794917

00:19:54.580 --> 00:19:55.080 increases,

NOTE Confidence: 0.9947262

00:19:55.460 --> 00:19:56.660 to some degree, your risk

NOTE Confidence: 0.9947262

00:19:56.660 --> 00:19:58.740 for cancer in multiple parts

NOTE Confidence: 0.9947262

00:19:58.740 --> 00:19:59.940 of the body, including the

NOTE Confidence: 0.9947262

00:19:59.940 --> 00:20:01.240 esophagus and stomach.

NOTE Confidence: 0.9981784

00:20:01.625 --> 00:20:03.725 And with esophageal cancer,

NOTE Confidence: 0.99978304

00:20:04.265 --> 00:20:05.005 my recollection

NOTE Confidence: 0.99975

00:20:05.305 --> 00:20:06.125 is that

NOTE Confidence: 0.98048574

00:20:07.145 --> 00:20:08.744 if you think of smoking

NOTE Confidence: 0.98048574

00:20:08.744 --> 00:20:10.505 and drinking as one each,

NOTE Confidence: 0.98048574

00:20:10.505 --> 00:20:12.265 that one plus one doesn't

NOTE Confidence: 0.98048574

00:20:12.265 --> 00:20:13.965 equal two. It equals three.

NOTE Confidence: 0.9861099

00:20:14.425 --> 00:20:16.045 Yeah. I think that

NOTE Confidence: 0.9841573

00:20:17.130 --> 00:20:18.590 in many cancers,

NOTE Confidence: 0.89944345

00:20:19.050 --> 00:20:20.970 risk factors tend to

NOTE Confidence: 0.89944345

00:20:20.970 --> 00:20:23.290 stack into a

NOTE Confidence: 0.89944345

00:20:23.290 --> 00:20:24.270 greater risk.

NOTE Confidence: 0.9710885

00:20:25.050 --> 00:20:26.430 You know, I commonly,

NOTE Confidence: 0.99765897

00:20:27.210 --> 00:20:27.710 describe

NOTE Confidence: 0.9471692

00:20:28.250 --> 00:20:30.270 risk factors like smoking

NOTE Confidence: 0.9471692

00:20:30.490 --> 00:20:31.630 as a bad thing.

NOTE Confidence: 0.8975681

00:20:31.934 --> 00:20:33.315 Choosing to swim in gasoline

NOTE Confidence: 0.99957514

00:20:33.855 --> 00:20:34.674 is a bad

NOTE Confidence: 0.99137217

00:20:34.975 --> 00:20:36.255 thing. Doing both of them

NOTE Confidence: 0.99137217

00:20:36.255 --> 00:20:37.855 is a really, really bad

NOTE Confidence: 0.99137217

00:20:37.855 --> 00:20:39.134 thing. And so I think

NOTE Confidence: 0.99137217

00:20:39.134 --> 00:20:40.335 that's a fair point. I

NOTE Confidence: 0.99137217

00:20:40.335 --> 00:20:42.494 think that describes it quite

NOTE Confidence: 0.99137217

00:20:42.494 --> 00:20:44.514 well.

NOTE Confidence: 0.9985677

00:20:45.054 --> 00:20:45.554 How has esophageal cancer

00:20:46.950 --> 00:20:48.869 treatment changed over the years?

NOTE Confidence: 0.9962412

00:20:48.869 --> 00:20:51.029 Because this is one of

NOTE Confidence: 0.9962412

00:20:51.029 --> 00:20:53.109 those tumors where our success

NOTE Confidence: 0.9962412

00:20:53.109 --> 00:20:54.490 rate is going up.

NOTE Confidence: 0.8160808

00:20:58.710 --> 00:20:59.289 The mainstay

NOTE Confidence: 0.99773157

00:20:59.750 --> 00:21:02.169 of cure for esophageal cancer

NOTE Confidence: 0.9994567

00:21:02.825 --> 00:21:05.085 has been removing the esophagus

NOTE Confidence: 0.96607757

00:21:05.465 --> 00:21:07.484 and reconstructing the esophagus,

NOTE Confidence: 0.9771568

00:21:08.265 --> 00:21:10.045 typically by bringing the stomach,

NOTE Confidence: 0.9771568

00:21:10.265 --> 00:21:11.725 making it into a tube,

NOTE Confidence: 0.99824405

00:21:12.105 --> 00:21:13.885 and replacing the esophagus.

NOTE Confidence: 0.9987531

00:21:14.760 --> 00:21:16.540 So several things have happened.

NOTE Confidence: 0.99774104

00:21:17.240 --> 00:21:19.320 One is the earliest stage

NOTE Confidence: 0.99774104

00:21:19.320 --> 00:21:21.320 esophageal cancers can now be

NOTE Confidence: 0.99774104

00:21:21.320 --> 00:21:22.540 treated successfully

NOTE Confidence: 0.9909399

00:21:23.320 --> 00:21:23.820 endoscopically.

NOTE Confidence: 0.9883596

00:21:24.359 --> 00:21:24.760 So,

NOTE Confidence: 0.95044374

00:21:25.320 --> 00:21:26.280 you come and go the

NOTE Confidence: 0.95044374

00:21:26.280 --> 00:21:27.960 same day. You have an

NOTE Confidence: 0.95044374

00:21:27.960 --> 00:21:28.700 upper endoscopy and

00:21:30.355 --> 00:21:31.335 either by

NOTE Confidence: 0.7994707

00:21:31.875 --> 00:21:32.375 cooking

NOTE Confidence: 0.9962137

00:21:32.994 --> 00:21:34.835 with heat or freezing or

NOTE Confidence: 0.9962137

00:21:34.835 --> 00:21:35.335 scraping,

NOTE Confidence: 0.99974906

00:21:36.434 --> 00:21:37.174 you can

NOTE Confidence: 0.9479555

00:21:38.115 --> 00:21:40.054 remove the earliest stage esophageal

NOTE Confidence: 0.983156

00:21:40.835 --> 00:21:42.375 cancers, which we used to

NOTE Confidence: 0.93920404

00:21:42.755 --> 00:21:43.575 do an esophageectomy

NOTE Confidence: 0.9997215

00:21:43.955 --> 00:21:44.455 for.

NOTE Confidence: 0.99365395

00:21:44.790 --> 00:21:46.070 Now for the people we

NOTE Confidence: 0.99365395

00:21:46.070 --> 00:21:48.410 do offer an esophagectomy for,

NOTE Confidence: 0.9997463

00:21:48.710 --> 00:21:49.369 it is

NOTE Confidence: 0.9888103

00:21:49.750 --> 00:21:51.930 a much less invasive operation.

NOTE Confidence: 0.9888103

00:21:52.070 --> 00:21:53.670 Ninety percent of

NOTE Confidence: 0.9888103

00:21:53.670 --> 00:21:55.530 the esophagectomies I do now

NOTE Confidence: 0.96160847

00:21:55.910 --> 00:21:57.270 are done with a minimally

NOTE Confidence: 0.96160847

00:21:57.270 --> 00:21:58.869 invasive approach, and the biggest

NOTE Confidence: 0.96160847

00:21:58.869 --> 00:21:59.369 incision,

NOTE Confidence: 0.9648225

00:22:00.205 --> 00:22:01.485 which used to be two

NOTE Confidence: 0.9648225

00:22:01.485 --> 00:22:03.005 eight inch incisions, is now

NOTE Confidence: 0.9648225

00:22:03.005 --> 00:22:04.285 the biggest incision is a

NOTE Confidence: 0.9648225

00:22:04.285 --> 00:22:05.805 single two inch incision. And

NOTE Confidence: 0.9648225

00:22:05.805 --> 00:22:06.305 so,

NOTE Confidence: 0.9744663

00:22:06.685 --> 00:22:08.285 the recovery is much faster,

NOTE Confidence: 0.9744663

00:22:08.285 --> 00:22:09.485 and people get back to

NOTE Confidence: 0.9744663

00:22:09.485 --> 00:22:09.885 their

NOTE Confidence: 0.9895239

00:22:10.365 --> 00:22:12.225 routines much faster.

NOTE Confidence: 0.96597767

00:22:12.845 --> 00:22:14.685 And now just like in

NOTE Confidence: 0.96597767

00:22:14.685 --> 00:22:15.425 lung cancer,

NOTE Confidence: 0.99982953

00:22:16.100 --> 00:22:16.600 there are

NOTE Confidence: 0.88758564

00:22:18.100 --> 00:22:19.400 different types of chemotherapies

NOTE Confidence: 0.9901271

00:22:20.020 --> 00:22:21.400 and immunotherapies

NOTE Confidence: 0.99767154

00:22:21.859 --> 00:22:22.900 that are starting to show

NOTE Confidence: 0.99767154

00:22:22.900 --> 00:22:23.400 promise

NOTE Confidence: 0.97913563

00:22:23.940 --> 00:22:25.880 in esophageal cancer. So, again,

NOTE Confidence: 0.9957046

00:22:26.740 --> 00:22:27.800 trying to address

NOTE Confidence: 0.99610895

00:22:28.125 --> 00:22:29.805 the cancer we can't see

NOTE Confidence: 0.99610895

00:22:29.805 --> 00:22:31.405 on CT scans and PET

NOTE Confidence: 0.99610895

00:22:31.405 --> 00:22:33.185 scans, the microscopic cancer,

NOTE Confidence: 0.9705448

00:22:34.125 --> 00:22:34.625 using

NOTE Confidence: 0.9905407

00:22:35.005 --> 00:22:36.145 the novel treatments

NOTE Confidence: 0.9944702

00:22:36.605 --> 00:22:38.045 is showing great promise in

NOTE Confidence: 0.9944702

00:22:38.045 --> 00:22:40.365 esophageal cancer as well.

NOTE Confidence: 0.9944702

00:22:40.365 --> 00:22:40.865 immunotherapy,

NOTE Confidence: 0.9051027

00:22:42.160 --> 00:22:43.460 presumably with chemotherapy,

NOTE Confidence: 0.9789028

00:22:44.080 --> 00:22:45.600 is now a standard for

NOTE Confidence: 0.9789028

00:22:45.600 --> 00:22:47.780 many patients with esophageal cancer?

NOTE Confidence: 0.95715183

00:22:48.240 --> 00:22:49.300 For many patients.

NOTE Confidence: 0.97842306

00:22:49.680 --> 00:22:51.359 Not all, but for

NOTE Confidence: 0.97842306

00:22:51.359 --> 00:22:53.119 many patients. I think because

NOTE Confidence: 0.97842306

00:22:53.119 --> 00:22:54.740 there's less of them,

NOTE Confidence: 0.9795394

00:22:55.359 --> 00:22:57.220 than than, say, lung cancer,

NOTE Confidence: 0.9982581

00:22:57.734 --> 00:22:59.655 we're still trying to learn

NOTE Confidence: 0.9982581

00:22:59.655 --> 00:23:01.115 who would be best served,

NOTE Confidence: 0.9891627

00:23:01.655 --> 00:23:03.655 by these by immunotherapy and

NOTE Confidence: 0.9891627

00:23:03.655 --> 00:23:04.535 some of the more novel

NOTE Confidence: 0.9891627

00:23:04.535 --> 00:23:05.035 treatments.

NOTE Confidence: 0.99833506

00:23:05.655 --> 00:23:06.775 And what are the kinds

NOTE Confidence: 0.99833506

00:23:06.775 --> 00:23:08.555 of problems people with esophageal

NOTE Confidence: 0.99833506

00:23:08.775 --> 00:23:10.555 cancer have after surgery?

NOTE Confidence: 0.9711858

00:23:11.335 --> 00:23:13.160 Well, if you have

NOTE Confidence: 0.9711858

00:23:13.160 --> 00:23:14.700 your esophagus

NOTE Confidence: 0.9985042

00:23:15.560 --> 00:23:17.100 removed and reconstructed,

NOTE Confidence: 0.9768915

00:23:18.040 --> 00:23:19.500 the biggest thing is

00:23:22.119 --> 00:23:23.880 everybody walks around with about

NOTE Confidence: 0.98340935

00:23:23.880 --> 00:23:25.080 a Coke cans worth of

NOTE Confidence: 0.98340935

00:23:25.080 --> 00:23:26.760 fluid in your stomach, which

NOTE Confidence: 0.98340935

00:23:26.760 --> 00:23:28.595 is now in your chest

NOTE Confidence: 0.98340935

00:23:28.734 --> 00:23:29.934 as opposed to your belly.

NOTE Confidence: 0.98340935

00:23:29.934 --> 00:23:31.054 And so that means that

NOTE Confidence: 0.98340935

00:23:31.054 --> 00:23:32.275 you can't lie flat.

NOTE Confidence: 0.9949649

00:23:32.655 --> 00:23:33.615 Now we have

NOTE Confidence: 0.98980176

00:23:34.015 --> 00:23:35.075 people that

NOTE Confidence: 0.99790764

00:23:36.095 --> 00:23:37.475 are competitive triathletes,

NOTE Confidence: 0.97818136

00:23:38.095 --> 00:23:40.115 people who swim, and

00:23:41.970 --> 00:23:43.330 I have a woman who

NOTE Confidence: 0.8575806

00:23:43.330 --> 00:23:43.830 bikes

NOTE Confidence: 0.9841523

00:23:44.690 --> 00:23:45.430 in Europe.

NOTE Confidence: 0.9867567

00:23:45.970 --> 00:23:46.770 Actually, we have a lot

NOTE Confidence: 0.9867567

00:23:46.770 --> 00:23:47.410 of bikers.

NOTE Confidence: 0.950343

00:23:48.210 --> 00:23:49.730 So you can get back

NOTE Confidence: 0.950343

00:23:49.730 --> 00:23:51.590 to a very normal

NOTE Confidence: 0.9972326

00:23:52.050 --> 00:23:53.330 quality of life, but there

NOTE Confidence: 0.9972326

00:23:53.330 --> 00:23:54.310 are some considerations,

NOTE Confidence: 0.99649227

00:23:55.010 --> 00:23:56.555 for sure. And so do

NOTE Confidence: 0.99649227

00:23:56.555 --> 00:23:57.695 people have to sleep

NOTE Confidence: 0.99579334

00:23:58.075 --> 00:23:59.055 on an incline?

NOTE Confidence: 0.98874706

00:23:59.755 --> 00:24:00.955 Yeah. So you have to

NOTE Confidence: 0.98874706

00:24:00.955 --> 00:24:01.455 sleep

NOTE Confidence: 0.98196065

00:24:02.075 --> 00:24:02.875 with your head of the

NOTE Confidence: 0.98196065

00:24:02.875 --> 00:24:03.935 bed thirty degrees,

NOTE Confidence: 0.99939567

00:24:04.715 --> 00:24:05.915 either with a wedge or

NOTE Confidence: 0.99939567

00:24:05.915 --> 00:24:07.055 a mechanical bed.

NOTE Confidence: 0.98154986

00:24:07.675 --> 00:24:09.275 And if not, the problem

NOTE Confidence: 0.98154986

00:24:09.275 --> 00:24:11.130 is that there's aspiration

NOTE Confidence: 0.98154986

00:24:11.130 --> 00:24:12.670 of fluid into your lungs.

NOTE Confidence: 0.96345603

00:24:12.970 --> 00:24:14.810 There's no valve

NOTE Confidence: 0.96345603

00:24:14.810 --> 00:24:16.730 anymore that separates the stomach

NOTE Confidence: 0.96345603

00:24:16.730 --> 00:24:17.850 from the esophagus. So if

NOTE Confidence: 0.96345603

00:24:17.850 --> 00:24:19.050 you were to lie completely

NOTE Confidence: 0.96345603

00:24:19.050 --> 00:24:21.210 flat, that Coke cans worth

NOTE Confidence: 0.96345603

00:24:21.210 --> 00:24:22.650 of fluid can go

NOTE Confidence: 0.96345603

00:24:22.650 --> 00:24:23.609 into the back of your

NOTE Confidence: 0.96345603

00:24:23.609 --> 00:24:24.810 mouth and you could choke

NOTE Confidence: 0.96345603

00:24:24.810 --> 00:24:25.845 on it. And so

NOTE Confidence: 0.96345603

00:24:25.845 --> 00:24:27.525 it's really an important thing

NOTE Confidence: 0.96345603

00:24:27.525 --> 00:24:29.045 that you keep your head

NOTE Confidence: 0.96345603

00:24:29.045 --> 00:24:29.945 of bed elevated

NOTE Confidence: 0.969969

00:24:30.325 --> 00:24:31.685 at all times. It sounds

NOTE Confidence: 0.969969

00:24:31.685 --> 00:24:33.305 like a challenge for biomedical

NOTE Confidence: 0.969969

00:24:33.605 --> 00:24:34.105 engineers.

NOTE Confidence: 0.9995749

00:24:35.445 --> 00:24:37.125 Well, I think there's

NOTE Confidence: 0.9995749

00:24:37.125 --> 00:24:38.105 a lot of opportunities

NOTE Confidence: 0.9731658

00:24:38.405 --> 00:24:39.845 for innovation, and I think that

NOTE Confidence: 0.9728127

00:24:43.590 --> 00:24:45.350 both in the engineering world, but

NOTE Confidence: 0.9728127

00:24:45.350 --> 00:24:46.470 also in sort of the

NOTE Confidence: 0.9728127

00:24:46.470 --> 00:24:47.910 data science world to try

NOTE Confidence: 0.9728127

00:24:47.910 --> 00:24:49.109 to figure out who are

NOTE Confidence: 0.9728127

00:24:49.109 --> 00:24:50.470 the best people for

NOTE Confidence: 0.9728127

00:24:50.470 --> 00:24:51.210 which treatment.

NOTE Confidence: 0.9996016

00:24:51.750 --> 00:24:52.250 Sure.

NOTE Confidence: 0.9927456

00:24:54.085 --> 00:24:55.125 Can we talk a little

NOTE Confidence: 0.9927456

00:24:55.125 --> 00:24:57.144 bit about lung cancer screening?

NOTE Confidence: 0.98826236

00:24:57.605 --> 00:24:58.725 I had promised to do

NOTE Confidence: 0.98826236

00:24:58.725 --> 00:25:00.164 that on a

NOTE Confidence: 0.98826236

00:25:00.164 --> 00:25:00.664 previous

NOTE Confidence: 0.93468654

00:25:01.605 --> 00:25:03.625 episode or previous show

00:25:05.779 --> 00:25:07.059 and we didn't quite get

NOTE Confidence: 0.99455506

00:25:07.059 --> 00:25:08.659 into all the details that

NOTE Confidence: 0.99455506

00:25:08.659 --> 00:25:10.519 I had hoped to.

NOTE Confidence: 0.99511886

00:25:10.899 --> 00:25:11.399 But,

NOTE Confidence: 0.99868757

00:25:11.859 --> 00:25:13.720 lung cancer screening is potentially

NOTE Confidence: 0.9025917

00:25:14.580 --> 00:25:15.480 really lifesaving,

NOTE Confidence: 0.9927233

00:25:15.859 --> 00:25:17.240 potentially very important.

NOTE Confidence: 0.9994354

00:25:18.419 --> 00:25:20.600 Yeah. So lung cancer screening

NOTE Confidence: 0.975888

00:25:21.234 --> 00:25:22.135 in my lifetime

NOTE Confidence: 0.99392086

00:25:22.514 --> 00:25:24.514 will probably be the single

NOTE Confidence: 0.99392086

00:25:24.514 --> 00:25:25.654 most impactful

NOTE Confidence: 0.8831495

00:25:26.755 --> 00:25:27.734 medical discovery

NOTE Confidence: 0.9673876

00:25:28.115 --> 00:25:29.794 for the cancers I treat.

NOTE Confidence: 0.9673876

00:25:29.794 --> 00:25:30.934 Lung cancer screening

NOTE Confidence: 0.99372405

00:25:31.554 --> 00:25:33.394 reduces a person's chances of

NOTE Confidence: 0.99372405

00:25:33.394 --> 00:25:35.014 dying of lung cancer by

NOTE Confidence: 0.9589689

00:25:35.315 --> 00:25:36.615 more than twenty percent.

NOTE Confidence: 0.9674792

00:25:37.850 --> 00:25:39.630 It's a CT scan

NOTE Confidence: 0.9674792

00:25:39.770 --> 00:25:40.510 that happens

NOTE Confidence: 0.9999552

00:25:41.290 --> 00:25:42.110 once a year

NOTE Confidence: 0.9929058

00:25:42.490 --> 00:25:44.410 and looks for anything that

NOTE Confidence: 0.9929058

00:25:44.410 --> 00:25:46.090 could be a precancer or

NOTE Confidence: 0.9929058

00:25:46.090 --> 00:25:46.750 a cancer,

NOTE Confidence: 0.99546635

00:25:47.770 --> 00:25:48.890 and then leads to the

NOTE Confidence: 0.99546635

00:25:48.890 --> 00:25:50.110 various evaluations.

NOTE Confidence: 0.99912566

00:25:51.315 --> 00:25:52.755 For reasons that we don't

NOTE Confidence: 0.99912566

00:25:52.755 --> 00:25:53.655 fully understand,

NOTE Confidence: 0.98682684

00:25:54.835 --> 00:25:56.115 only about ten percent of

NOTE Confidence: 0.98682684

00:25:56.115 --> 00:25:57.494 the people who are eligible

NOTE Confidence: 0.98682684

00:25:57.554 --> 00:25:58.674 for screening, so those are

NOTE Confidence: 0.98682684

00:25:58.674 --> 00:26:00.595 people who are fifty years

NOTE Confidence: 0.98682684

00:26:00.595 --> 00:26:02.609 or older and who've smoked

NOTE Confidence: 0.97104245

00:26:04.850 --> 00:26:06.130 only about ten percent of

NOTE Confidence: 0.97104245

00:26:06.130 --> 00:26:07.270 the people who are eligible

NOTE Confidence: 0.98502946

00:26:07.650 --> 00:26:08.630 actually participate.

NOTE Confidence: 0.9905908

00:26:10.049 --> 00:26:11.570 We've tried to understand why

NOTE Confidence: 0.9905908

00:26:11.570 --> 00:26:13.010 this is, and we've done

NOTE Confidence: 0.9905908

00:26:13.010 --> 00:26:15.109 some research here at Yale.

NOTE Confidence: 0.9905908

00:26:15.394 --> 00:26:16.274 One of the things we

NOTE Confidence: 0.9905908

00:26:16.274 --> 00:26:17.475 found that was a bit

NOTE Confidence: 0.97961754

00:26:17.955 --> 00:26:19.794 surprising is that the

NOTE Confidence: 0.97961754

00:26:19.794 --> 00:26:22.034 primary care clinician is pretty

NOTE Confidence: 0.97961754

00:26:22.034 --> 00:26:23.315 important in the lung cancer

NOTE Confidence: 0.97961754

00:26:23.315 --> 00:26:24.294 screening process,

NOTE Confidence: 0.9985576

00:26:24.674 --> 00:26:25.634 and one out of three

NOTE Confidence: 0.9985576

00:26:25.634 --> 00:26:26.835 people in the United States

NOTE Confidence: 0.9985576

00:26:26.835 --> 00:26:27.875 does not actually have a

NOTE Confidence: 0.9985576

00:26:27.875 --> 00:26:29.095 primary care clinician.

NOTE Confidence: 0.9698511

00:26:30.200 --> 00:26:31.820 We tried to call hospitals

NOTE Confidence: 0.9698511

00:26:31.880 --> 00:26:32.840 to see if they could

NOTE Confidence: 0.9698511

00:26:32.840 --> 00:26:33.980 help, and, actually,

NOTE Confidence: 0.9982801

00:26:34.680 --> 00:26:35.720 only ten percent of the

NOTE Confidence: 0.9982801

00:26:35.720 --> 00:26:37.080 hospitals can actually help if

NOTE Confidence: 0.9982801

00:26:37.080 --> 00:26:38.359 you call them directly. And

NOTE Confidence: 0.9982801

00:26:38.359 --> 00:26:38.859 so

NOTE Confidence: 0.98032266

00:26:39.160 --> 00:26:40.460 we're working with the

NOTE Confidence: 0.9986165

00:26:41.925 --> 00:26:43.145 big organizations

NOTE Confidence: 0.99958354

00:26:43.445 --> 00:26:44.965 and primary care clinicians to try

00:26:46.085 --> 00:26:48.245 to alleviate that barrier

NOTE Confidence: 0.9909456

00:26:48.245 --> 00:26:49.685 to screening. But I also

NOTE Confidence: 0.9909456

00:26:49.685 --> 00:26:50.425 think patients

00:26:52.165 --> 00:26:52.905 have legitimate

NOTE Confidence: 0.8893442

00:26:53.765 --> 00:26:55.525 concerns about screening.

00:26:56.850 --> 00:26:58.230 a lot of people feel

NOTE Confidence: 0.9625495

00:26:58.690 --> 00:27:00.050 that there's no hope if

NOTE Confidence: 0.9625495

00:27:00.050 --> 00:27:01.970 you find things. Nobody wants

NOTE Confidence: 0.9625495

00:27:01.970 --> 00:27:03.090 to look for something you

NOTE Confidence: 0.9625495

00:27:03.090 --> 00:27:04.070 don't wanna find.

00:27:06.690 --> 00:27:07.970 But I think that when

NOTE Confidence: 0.9986123

00:27:07.970 --> 00:27:09.510 you participate in screening,

NOTE Confidence: 0.99612397

00:27:09.925 --> 00:27:11.465 you're gonna find a cancer

NOTE Confidence: 0.99612397

00:27:11.525 --> 00:27:12.505 at its earliest

NOTE Confidence: 0.9965995

00:27:12.805 --> 00:27:14.125 stage when the treatment is

NOTE Confidence: 0.9965995

00:27:14.125 --> 00:27:15.465 a lot easier on you.

NOTE Confidence: 0.9965995

00:27:15.525 --> 00:27:16.965 And so I do think

NOTE Confidence: 0.9965995

00:27:16.965 --> 00:27:17.465 that

NOTE Confidence: 0.98863804

00:27:18.085 --> 00:27:19.225 it's such an important thing.

NOTE Confidence: 0.99248654

00:27:21.045 --> 00:27:22.565 And anybody who's

NOTE Confidence: 0.99248654

00:27:22.565 --> 00:27:23.445 listening to this, if you

NOTE Confidence: 0.99248654

00:27:23.445 --> 00:27:24.965 know somebody who's fifty years

NOTE Confidence: 0.99248654

00:27:24.965 --> 00:27:26.380 or older and has a

NOTE Confidence: 0.99248654

00:27:26.380 --> 00:27:27.440 history of smoking,

NOTE Confidence: 0.978003

00:27:28.460 --> 00:27:29.900 either reach out or

NOTE Confidence: 0.978003

00:27:30.059 --> 00:27:30.859 have them reach out to

NOTE Confidence: 0.978003

00:27:30.859 --> 00:27:32.320 their primary or call us

00:27:36.059 --> 00:27:36.940 and we can hook you

NOTE Confidence: 0.98597693

00:27:36.940 --> 00:27:38.080 up with screening.

NOTE Confidence: 0.9988217

00:27:38.655 --> 00:27:39.615 And do you think some

NOTE Confidence: 0.9988217

00:27:39.615 --> 00:27:41.455 primary care doctors just don't

NOTE Confidence: 0.9988217

00:27:41.455 --> 00:27:42.835 buy into it yet?

00:27:44.975 --> 00:27:46.175 There was a recent study.

NOTE Confidence: 0.98564005

00:27:46.175 --> 00:27:47.715 And I've had conversations

NOTE Confidence: 0.96688235

00:27:48.095 --> 00:27:48.415 with

NOTE Confidence: 0.9852541

00:27:49.295 --> 00:27:50.735 leaders of the primary care

NOTE Confidence: 0.9852541

00:27:50.735 --> 00:27:51.235 organizations,

NOTE Confidence: 0.9773337

00:27:51.799 --> 00:27:52.919 and there's just such a

NOTE Confidence: 0.9773337

00:27:52.919 --> 00:27:54.539 shortage of primary care

NOTE Confidence: 0.9751307

00:27:55.080 --> 00:27:57.080 clinicians right now that

NOTE Confidence: 0.9751307

00:27:57.080 --> 00:27:58.520 if you had a primary

NOTE Confidence: 0.9751307

00:27:58.520 --> 00:28:00.299 care clinician do everything

NOTE Confidence: 0.98290986

00:28:00.679 --> 00:28:02.359 that's recommended as a best

NOTE Confidence: 0.98290986

00:28:02.359 --> 00:28:02.859 practice,

NOTE Confidence: 0.994935

00:28:03.400 --> 00:28:04.600 they would have to work

NOTE Confidence: 0.994935

00:28:04.600 --> 00:28:05.640 eight or nine days a

NOTE Confidence: 0.994935

00:28:05.640 --> 00:28:07.260 week, which is obviously impossible.

00:28:08.425 --> 00:28:09.965 I think that

NOTE Confidence: 0.9646787

00:28:10.425 --> 00:28:11.065 a lot of the

NOTE Confidence: 0.9646787

00:28:11.065 --> 00:28:11.565 primaries

NOTE Confidence: 0.9886253

00:28:13.225 --> 00:28:14.825 trust that the screening works.

NOTE Confidence: 0.9886253

00:28:14.825 --> 00:28:16.445 It's justthey're so overwhelmed

NOTE Confidence: 0.9886253

00:28:16.665 --> 00:28:17.785 in many parts of the

NOTE Confidence: 0.9886253

00:28:17.785 --> 00:28:19.705 country. They just don't have

NOTE Confidence: 0.9886253

00:28:19.705 --> 00:28:20.445 the bandwidth

NOTE Confidence: 0.9940479

00:28:21.150 --> 00:28:22.670 to chase down all of

NOTE Confidence: 0.9940479

00:28:22.670 --> 00:28:23.470 these things. So I do

NOTE Confidence: 0.9940479

00:28:23.470 --> 00:28:24.910 think it's a

NOTE Confidence: 0.9940479

00:28:24.910 --> 00:28:25.410 responsibility

NOTE Confidence: 0.99315554

00:28:25.710 --> 00:28:26.910 that we have to put

NOTE Confidence: 0.99315554

00:28:26.910 --> 00:28:28.990 on patients as well

NOTE Confidence: 0.99315554

00:28:28.990 --> 00:28:30.050 as their primaries,

NOTE Confidence: 0.99816704

00:28:30.670 --> 00:28:32.290 because it's so powerful,

NOTE Confidence: 0.9719356

00:28:33.150 --> 00:28:34.190 and such an

NOTE Confidence: 0.9719356

00:28:34.190 --> 00:28:35.924 important thing to do.

NOTE Confidence: 0.9719356

00:28:35.924 --> 00:28:37.365 Dr. Dan Boffa is a professor

NOTE Confidence: 0.9719356

00:28:37.365 --> 00:28:38.965 of thoracic surgery at the

NOTE Confidence: 0.9719356

00:28:38.965 --> 00:28:40.184 Yale School of Medicine.

NOTE Confidence: 0.9623063

00:28:40.804 --> 00:28:42.085 If you have questions, the

NOTE Confidence: 0.9623063

00:28:42.085 --> 00:28:43.765 address is cancer answers at

NOTE Confidence: 0.9623063

00:28:43.765 --> 00:28:45.144 yale dot e d u,

NOTE Confidence: 0.9623063

00:28:45.205 --> 00:28:46.485 and past editions of the

NOTE Confidence: 0.9623063

00:28:46.485 --> 00:28:48.245 program are available in audio

NOTE Confidence: 0.9623063

00:28:48.245 --> 00:28:49.605 and written form at yale

NOTE Confidence: 0.9623063

00:28:49.605 --> 00:28:51.120 cancer center dot org.

NOTE Confidence: 0.99798495

00:28:51.520 --> 00:28:52.480 We hope you'll join us

NOTE Confidence: 0.99798495

00:28:52.480 --> 00:28:53.600 next time to learn more

NOTE Confidence: 0.99798495

00:28:53.600 --> 00:28:54.980 about the fight against cancer.

NOTE Confidence: 0.96299785

00:28:55.440 --> 00:28:57.200 Funding for Yale Cancer Answers

NOTE Confidence: 0.96299785

00:28:57.200 --> 00:28:58.880 is provided by Smilow Cancer

NOTE Confidence: 0.96299785

00:28:58.880 --> 00:28:59.380 Hospital.