WEBVTT

 $00:00:00.000 \longrightarrow 00:00:02.226$ Funding for Yale Cancer Answers is

NOTE Confidence: 0.814035860909091

 $00{:}02.226 --> 00{:}00{:}04.330$ provided by Smilow Cancer Hospital.

NOTE Confidence: 0.683893617777778

 $00:00:06.430 \longrightarrow 00:00:08.605$ Welcome to Yale Cancer Answers

NOTE Confidence: 0.683893617777778

 $00:00:08.605 \longrightarrow 00:00:10.345$ with Doctor Anish Chappar.

NOTE Confidence: 0.683893617777778

 $00{:}00{:}10.350 \dashrightarrow 00{:}00{:}12.225$ Yale Cancer Answers features the

NOTE Confidence: 0.683893617777778

 $00:00:12.225 \longrightarrow 00:00:14.100$ latest information on cancer care

NOTE Confidence: 0.683893617777778

00:00:14.164 --> 00:00:15.644 by welcoming oncologists and

NOTE Confidence: 0.683893617777778

 $00{:}00{:}15.644 \dashrightarrow 00{:}00{:}17.864$ specialists who are on the forefront

NOTE Confidence: 0.683893617777778

 $00:00:17.922 \longrightarrow 00:00:19.626$ of the battle to fight cancer.

NOTE Confidence: 0.683893617777778

 $00:00:19.630 \longrightarrow 00:00:21.994$ This week, it's a conversation about

NOTE Confidence: 0.683893617777778

 $00:00:21.994 \longrightarrow 00:00:24.530$ esophageal cancer with Doctor Harry Aslanian.

NOTE Confidence: 0.683893617777778

 $00:00:24.530 \longrightarrow 00:00:26.826$ Dr. Aslanian is a professor of medicine

NOTE Confidence: 0.683893617777778

 $00{:}00{:}26.826 \dashrightarrow 00{:}00{:}28.659$ and director of endoscopic ultrasound

NOTE Confidence: 0.683893617777778

 $00:00:28.659 \longrightarrow 00:00:31.029$ at the Yale School of Medicine,

NOTE Confidence: 0.683893617777778

 $00:00:31.030 \longrightarrow 00:00:33.250$ where Doctor Chagpar is a professor

 $00:00:33.250 \longrightarrow 00:00:34.360$ of surgical oncology.

NOTE Confidence: 0.8878461196

 $00{:}00{:}35.160 \dashrightarrow 00{:}00{:}37.024$ Doctor Aslanian, maybe we can start

NOTE Confidence: 0.8878461196

 $00:00:37.024 \longrightarrow 00:00:39.363$ off by you telling us a little bit more

NOTE Confidence: 0.8878461196

00:00:39.363 --> 00:00:41.110 about yourself and what it is you do.

NOTE Confidence: 0.811522089375

00:00:41.180 --> 00:00:43.030 I'm a gastroenterologist

NOTE Confidence: 0.811522089375

 $00:00:43.030 \longrightarrow 00:00:45.810$ and I work as part of the

NOTE Confidence: 0.811522089375

 $00{:}00{:}45.810 \dashrightarrow 00{:}00{:}47.518$ Yale Advanced Endoscopy team.

NOTE Confidence: 0.811522089375

 $00:00:47.520 \longrightarrow 00:00:51.286$ So endoscopy is sort of its own

NOTE Confidence: 0.811522089375

 $00{:}00{:}51.286 \dashrightarrow 00{:}00{:}53.993$ subspecialty in gastroenterology where we

NOTE Confidence: 0.811522089375

 $00:00:53.993 \longrightarrow 00:00:57.029$ perform a variety of specialized scope

NOTE Confidence: 0.811522089375

 $00{:}00{:}57.029 \dashrightarrow 00{:}00{:}59.540$ procedures very commonly to diagnose

NOTE Confidence: 0.811522089375

 $00:00:59.540 \longrightarrow 00:01:02.378$ and stage and more frequently

NOTE Confidence: 0.811522089375

 $00{:}01{:}02.378 \dashrightarrow 00{:}01{:}05.710$ also treat early cancers of the

NOTE Confidence: 0.811522089375

 $00{:}01{:}05.710 --> 00{:}01{:}06.984 \ esophagus, \ stomach,$

NOTE Confidence: 0.811522089375

 $00:01:06.984 \longrightarrow 00:01:10.806$ small bowel, colon and we

NOTE Confidence: 0.811522089375

 $00{:}01{:}10.806 \dashrightarrow 00{:}01{:}13.728$ can also diagnose and treat some

 $00:01:13.728 \longrightarrow 00:01:15.376$ pancreas and biliary diseases.

NOTE Confidence: 0.848241874

 $00:01:16.040 \longrightarrow 00:01:18.296$ That sounds awe some.

NOTE Confidence: 0.848241874

 $00:01:18.296 \longrightarrow 00:01:20.885$ The question that I

NOTE Confidence: 0.848241874

 $00:01:20.885 \longrightarrow 00:01:23.395$ have for you is,

NOTE Confidence: 0.848241874

 $00:01:23.395 \longrightarrow 00:01:26.219$ we talk a lot about cancer on this show.

NOTE Confidence: 0.848241874

00:01:26.220 --> 00:01:28.428 Clearly it is Yale Cancer Answers, but

NOTE Confidence: 0.848241874

 $00:01:28.428 \longrightarrow 00:01:31.740$ we don't often talk about

NOTE Confidence: 0.848241874

 $00:01:31.740 \longrightarrow 00:01:32.494$ esophageal cancer.

NOTE Confidence: 0.848241874

00:01:32.494 --> 00:01:35.133 So can you paint

NOTE Confidence: 0.848241874

 $00:01:35.133 \longrightarrow 00:01:37.439$ the landscape for us on that?

NOTE Confidence: 0.848241874

 $00:01:37.440 \longrightarrow 00:01:40.176$ What exactly is this cancer?

NOTE Confidence: 0.848241874

 $00:01:40.180 \longrightarrow 00:01:41.768$ How common is it?

NOTE Confidence: 0.848241874

00:01:41.768 --> 00:01:43.820 Who gets it, that kind of stuff?

NOTE Confidence: 0.886510033333333

 $00:01:44.930 \longrightarrow 00:01:47.126$ Yeah, there's a lot of interesting features.

NOTE Confidence: 0.886510033333333

 $00:01:48.318 \longrightarrow 00:01:50.519$ We often take the esophagus

 $00:01:50.519 \longrightarrow 00:01:52.289$ for granted and think of

NOTE Confidence: 0.886510033333333

 $00:01:52.290 \longrightarrow 00:01:54.082$ just a tube that we

NOTE Confidence: 0.886510033333333

 $00:01:54.082 \longrightarrow 00:01:56.050$ are able to swallow something.

NOTE Confidence: 0.886510033333333

00:01:56.050 --> 00:01:58.558 And swallowing is quite a complex

NOTE Confidence: 0.886510033333333

 $00:01:58.558 \longrightarrow 00:02:01.129$ mechanism to get something to transfer

NOTE Confidence: 0.886510033333333

00:02:01.129 --> 00:02:03.589 from our mouths into the esophagus.

NOTE Confidence: 0.886510033333333

 $00:02:03.590 \longrightarrow 00:02:05.930$ But once it reaches the esophagus,

NOTE Confidence: 0.886510033333333

 $00:02:05.930 \longrightarrow 00:02:09.188$ the esophagus also has a

NOTE Confidence: 0.8865100333333333

 $00{:}02{:}09.188 \dashrightarrow 00{:}02{:}12.218$ musculature like an electrical

NOTE Confidence: 0.886510033333333

00:02:12.218 --> 00:02:15.490 motor that has a stripping wave

NOTE Confidence: 0.8865100333333333

 $00:02:15.490 \longrightarrow 00:02:18.784$ that carries the food down from the

NOTE Confidence: 0.886510033333333

 $00:02:18.784 \longrightarrow 00:02:21.266$ upper esophagus towards the stomach

NOTE Confidence: 0.886510033333333

 $00{:}02{:}21.266 \dashrightarrow 00{:}02{:}24.570$ and then there's a valve called the

NOTE Confidence: 0.8865100333333333

 $00:02:24.665 \longrightarrow 00:02:27.863$ lower esophageal sphincter that

NOTE Confidence: 0.886510033333333

 $00:02:27.863 \longrightarrow 00:02:30.528$ coordinates with that electrical motor.

NOTE Confidence: 0.886510033333333

 $00:02:30.530 \longrightarrow 00:02:32.794$ So we want to open that Valve to

 $00:02:32.794 \longrightarrow 00:02:35.207$ let the food out of the esophagus

NOTE Confidence: 0.886510033333333

 $00:02:35.210 \longrightarrow 00:02:37.380$ at the right time because then the

NOTE Confidence: 0.886510033333333

 $00:02:37.380 \longrightarrow 00:02:39.210$ stomach does its important job.

NOTE Confidence: 0.886510033333333

00:02:39.210 --> 00:02:41.828 It's a very acidic environment and it's

NOTE Confidence: 0.886510033333333

 $00:02:41.828 \longrightarrow 00:02:44.308$ grinding up and digesting the food,

NOTE Confidence: 0.886510033333333

 $00:02:44.310 \longrightarrow 00:02:45.566$ so we don't want

NOTE Confidence: 0.886510033333333

 $00:02:45.566 \longrightarrow 00:02:48.533$ all of that acid and bile that's in the

NOTE Confidence: 0.886510033333333

 $00{:}02{:}48.533 \dashrightarrow 00{:}02{:}51.690$ stomach to be coming up into the esophagus.

NOTE Confidence: 0.886510033333333

 $00:02:51.690 \longrightarrow 00:02:55.290$ So that lower valve will be shut most

NOTE Confidence: 0.886510033333333

 $00:02:55.290 \longrightarrow 00:02:59.288$ of the time and because bile, which

NOTE Confidence: 0.8865100333333333

00:02:59.288 --> 00:03:02.221 happens to be alkaline and then stomach

NOTE Confidence: 0.886510033333333

 $00:03:02.221 \longrightarrow 00:03:04.416$ acid can be very irritating to the

NOTE Confidence: 0.886510033333333

 $00{:}03{:}04.416 \dashrightarrow 00{:}03{:}06.830$ esophagus and cause a lot of inflammation.

NOTE Confidence: 0.886510033333333

 $00:03:06.830 \longrightarrow 00:03:10.630$ So the symptoms of heartburn are

NOTE Confidence: 0.886510033333333

 $00:03:10.630 \longrightarrow 00:03:13.330$ extremely common and we all experience

 $00:03:13.330 \longrightarrow 00:03:16.739$ that usually at some point or other and

NOTE Confidence: 0.886510033333333

 $00{:}03{:}16.740 \dashrightarrow 00{:}03{:}19.673$ that's also why the medications to

NOTE Confidence: 0.886510033333333

 $00:03:19.673 \longrightarrow 00:03:22.195$ block stomach acid called proton pump

NOTE Confidence: 0.886510033333333

00:03:22.195 --> 00:03:25.710 inhibitors and the older ones H2 blockers,

NOTE Confidence: 0.886510033333333

 $00{:}03{:}25.710 \dashrightarrow 00{:}03{:}28.510$ which would be like a brand names

NOTE Confidence: 0.886510033333333

00:03:28.510 --> 00:03:31.110 like Pepcid or Prilosec are extremely

NOTE Confidence: 0.886510033333333

 $00:03:31.110 \longrightarrow 00:03:32.735$ common and are

NOTE Confidence: 0.886510033333333

 $00:03:32.740 \longrightarrow 00:03:35.005$ multibillion dollar medications across the

NOTE Confidence: 0.886510033333333

 $00:03:35.005 \longrightarrow 00:03:37.939$ world because these symptoms are so common.

NOTE Confidence: 0.886510033333333

 $00:03:37.940 \longrightarrow 00:03:39.515$ And just a little more

NOTE Confidence: 0.8865100333333333

 $00:03:39.515 \longrightarrow 00:03:40.775$ background about the esophagus.

NOTE Confidence: 0.886510033333333

 $00:03:40.780 \longrightarrow 00:03:43.445$ So the esophagus itself is

NOTE Confidence: 0.886510033333333

 $00:03:43.445 \longrightarrow 00:03:46.110$ normally lined by squamous mucosa.

NOTE Confidence: 0.8865100333333333

 $00:03:46.110 \longrightarrow 00:03:47.988$ So those are the kind of

NOTE Confidence: 0.886510033333333

 $00:03:47.988 \longrightarrow 00:03:49.670$ cells that line our skin.

NOTE Confidence: 0.886510033333333

 $00:03:49.670 \longrightarrow 00:03:52.267$ And one type of cancer that

 $00:03:52.267 \longrightarrow 00:03:54.497$ arises from the squamous line

NOTE Confidence: 0.886510033333333

 $00:03:54.497 \longrightarrow 00:03:57.087$ is called squamous cell cancer.

NOTE Confidence: 0.886510033333333

00:03:57.090 --> 00:04:00.093 And that can occur anywhere throughout the

NOTE Confidence: 0.886510033333333

 $00:04:00.093 \longrightarrow 00:04:03.349$ esophagus and it can be multiple locations.

NOTE Confidence: 0.886510033333333

00:04:03.350 --> 00:04:05.660 And that's the cancer that's much

NOTE Confidence: 0.886510033333333

 $00{:}04{:}05.660 \dashrightarrow 00{:}04{:}07.690$ more common around the world.

NOTE Confidence: 0.886510033333333

00:04:07.690 --> 00:04:10.329 So esophageal cancer overall is the 8th

NOTE Confidence: 0.886510033333333

 $00:04:10.329 \longrightarrow 00:04:12.620$ most common cancer worldwide and the

NOTE Confidence: 0.886510033333333

 $00:04:12.620 \longrightarrow 00:04:15.168$ 6th most common cause of cancer death.

NOTE Confidence: 0.886510033333333

 $00:04:15.170 \longrightarrow 00:04:19.188$ But in countries across Africa and Asia,

NOTE Confidence: 0.886510033333333300:04:19.190 --> 00:04:20.144 there's some

NOTE Confidence: 0.886510033333333

 $00:04:20.144 \longrightarrow 00:04:23.006$ areas where there's a lot

NOTE Confidence: 0.8865100333333333

 $00{:}04{:}23.006 \mathrel{--}{>} 00{:}04{:}25.649$ of squamous cell cancer and

NOTE Confidence: 0.886510033333333

 $00:04:25.650 \longrightarrow 00:04:27.234$ factors that are thought to contribute

NOTE Confidence: 0.886510033333333

00:04:27.234 --> 00:04:28.700 to that include smoking,

 $00:04:28.700 \longrightarrow 00:04:33.040$ alcohol, and poor nutrition.

NOTE Confidence: 0.886510033333333

 $00:04:33.040 \longrightarrow 00:04:35.020$ But in the United States,

NOTE Confidence: 0.886510033333333

 $00:04:35.020 \longrightarrow 00:04:37.939$ in Western countries,

NOTE Confidence: 0.886510033333333

 $00:04:37.940 \longrightarrow 00:04:41.153$ a different type of cell is becoming the most

NOTE Confidence: 0.8865100333333333

 $00:04:41.153 \longrightarrow 00:04:44.076$ common cancer that we call a denocarcinoma.

NOTE Confidence: 0.886510033333333

 $00:04:44.080 \longrightarrow 00:04:46.250$ So the cells lining the

NOTE Confidence: 0.886510033333333

 $00:04:46.250 \longrightarrow 00:04:48.420$ stomach are different types.

NOTE Confidence: 0.886510033333333

00:04:48.420 --> 00:04:50.874 And there's this process that's thought

NOTE Confidence: 0.8865100333333333

 $00:04:50.874 \longrightarrow 00:04:53.926$ to be related to chronic acid reflux

NOTE Confidence: 0.886510033333333

 $00:04:53.926 \longrightarrow 00:04:56.602$ where the more resistant

NOTE Confidence: 0.8865100333333333

 $00:04:56.602 \longrightarrow 00:04:58.874$ stomach lining called columnar cells

NOTE Confidence: 0.886510033333333

 $00:04:58.874 \longrightarrow 00:05:01.502$ grow upwards into the bottom of

NOTE Confidence: 0.886510033333333

 $00:05:01.510 \longrightarrow 00:05:04.842$ the esophagus to kind of make that

NOTE Confidence: 0.8865100333333333

 $00:05:04.842 \longrightarrow 00:05:07.560$ more resistant to stomach acid.

NOTE Confidence: 0.886510033333333

00:05:07.560 --> 00:05:09.096 And some people think that might

NOTE Confidence: 0.886510033333333

 $00:05:09.096 \longrightarrow 00:05:10.120$ have been an evolutionary

 $00{:}05{:}10.120 \dashrightarrow 00{:}05{:}12.365$ process as an adaptation to

NOTE Confidence: 0.886510033333333

 $00:05:12.365 \longrightarrow 00:05:14.610$ reduce the symptoms of heartburn.

NOTE Confidence: 0.886510033333333

 $00:05:14.610 \longrightarrow 00:05:16.507$ So it seems like a fine thing,

NOTE Confidence: 0.85772564

 $00:05:16.510 \longrightarrow 00:05:18.990$ but unfortunately there's a

NOTE Confidence: 0.85772564

 $00:05:18.990 \longrightarrow 00:05:22.090$ small risk that that lining,

NOTE Confidence: 0.85772564

 $00:05:22.090 \longrightarrow 00:05:24.052$ which is metaplasia when one cell

NOTE Confidence: 0.85772564

 $00:05:24.052 \longrightarrow 00:05:26.110$ moves from one spot to another,

NOTE Confidence: 0.85772564

00:05:26.110 --> 00:05:27.410 sometimes we call it Barretts

NOTE Confidence: 0.85772564

 $00{:}05{:}27.410 \dashrightarrow 00{:}05{:}29.985$ Esophagus has a greater risk

NOTE Confidence: 0.85772564

 $00:05:29.985 \longrightarrow 00:05:32.045$ of getting precancerous changes,

NOTE Confidence: 0.85772564

 $00:05:32.050 \longrightarrow 00:05:35.010$ and that can lead to

NOTE Confidence: 0.85772564

 $00:05:35.010 \longrightarrow 00:05:36.618$ adenocarcinoma of the esophagus,

NOTE Confidence: 0.85772564

 $00{:}05{:}36.618 {\:\dashrightarrow\:} 00{:}05{:}39.030$ which is the most common type

NOTE Confidence: 0.85772564

 $00:05:39.095 \longrightarrow 00:05:40.907$ we see in the United States.

NOTE Confidence: 0.885042108

 $00:05:43.130 \longrightarrow 00:05:45.530$ And so in the US,

00:05:45.530 --> 00:05:47.936 how many people every year get

NOTE Confidence: 0.885042108

 $00:05:47.936 \longrightarrow 00:05:50.404$ esophageal cancer and how would they

NOTE Confidence: 0.885042108

 $00:05:50.404 \longrightarrow 00:05:52.768$ know what the first symptoms are?

NOTE Confidence: 0.885042108

 $00:05:52.770 \longrightarrow 00:05:54.470$ I mean, is that heartburn?

NOTE Confidence: 0.885042108

 $00:05:54.470 \longrightarrow 00:05:55.666$ But as you mentioned,

NOTE Confidence: 0.885042108

 $00:05:55.666 \longrightarrow 00:05:57.460$ heartburn is really kind of common.

NOTE Confidence: 0.83731740875

 $00:05:57.910 \longrightarrow 00:05:58.732$ Yes, absolutely.

NOTE Confidence: 0.83731740875

 $00:05:58.732 \longrightarrow 00:06:02.126$ So that is part of the challenge.

NOTE Confidence: 0.83731740875

 $00{:}06{:}02.126 \dashrightarrow 00{:}06{:}04.441$ I think esophageal cancer accounts

NOTE Confidence: 0.83731740875

 $00:06:04.441 \longrightarrow 00:06:07.890$ for about 1% of all cancers in the

NOTE Confidence: 0.83731740875

 $00:06:07.890 \longrightarrow 00:06:09.950$ United States which amounts

NOTE Confidence: 0.83731740875

 $00:06:10.037 \longrightarrow 00:06:13.044$ to about 16,000 people a year.

NOTE Confidence: 0.83731740875

 $00:06:13.044 \longrightarrow 00:06:16.400$ And like many situations

NOTE Confidence: 0.83731740875

 $00:06:16.400 \longrightarrow 00:06:18.056$ with cancer screening,

NOTE Confidence: 0.83731740875

 $00:06:18.060 \longrightarrow 00:06:20.268$ the symptoms either develop too late

NOTE Confidence: 0.83731740875

 $00:06:20.268 \longrightarrow 00:06:23.884$ and if we go by symptoms then the

 $00:06:23.884 \longrightarrow 00:06:26.480$ cancer is already in advanced stage.

NOTE Confidence: 0.83731740875

 $00:06:26.480 \longrightarrow 00:06:28.412$ But the early symptoms may be

NOTE Confidence: 0.83731740875

 $00:06:28.412 \longrightarrow 00:06:30.645$ so common that very few people

NOTE Confidence: 0.83731740875

 $00:06:30.645 \longrightarrow 00:06:32.397$ actually have those symptoms.

NOTE Confidence: 0.83731740875

 $00{:}06{:}32.400 \dashrightarrow 00{:}06{:}36.929$ So the late symptoms of esophageal cancer

NOTE Confidence: 0.83731740875

 $00:06:36.929 \longrightarrow 00:06:40.780$ would be difficulty swallowing so

NOTE Confidence: 0.83731740875

 $00:06:40.780 \longrightarrow 00:06:42.644$ if a cancer grows

NOTE Confidence: 0.83731740875

 $00:06:42.644 \longrightarrow 00:06:44.417$ in the tube of the esophagus,

NOTE Confidence: 0.83731740875

00:06:44.420 --> 00:06:46.464 it starts to take up space and

NOTE Confidence: 0.83731740875

 $00:06:46.464 \longrightarrow 00:06:48.418$ it'll block the transit of food.

NOTE Confidence: 0.83731740875

 $00:06:48.420 \longrightarrow 00:06:51.096$ So certainly if someone had

NOTE Confidence: 0.83731740875

00:06:51.096 --> 00:06:53.048 new onset difficulty swallowing,

NOTE Confidence: 0.83731740875

 $00{:}06{:}53.050 \dashrightarrow 00{:}06{:}57.054$ that's very important to see your doctor

NOTE Confidence: 0.83731740875

 $00{:}06{:}57.054 \dashrightarrow 00{:}07{:}02.299$ and investigate that and then

NOTE Confidence: 0.83731740875

 $00:07:02.300 \longrightarrow 00:07:05.495$ we know that acid reflux is a risk factor

 $00:07:05.495 \longrightarrow 00:07:08.335$ for developing Barretts esophagus and

NOTE Confidence: 0.83731740875

 $00:07:08.335 \longrightarrow 00:07:11.935$ for chronic inflammation of the esophagus.

NOTE Confidence: 0.83731740875

00:07:11.940 --> 00:07:13.320 And like anywhere in the body,

NOTE Confidence: 0.83731740875

 $00:07:13.320 \longrightarrow 00:07:14.965$ if you have chronic inflammation

NOTE Confidence: 0.83731740875

 $00:07:14.965 \longrightarrow 00:07:16.998$ that puts stress on the cells

NOTE Confidence: 0.83731740875

 $00{:}07{:}16.998 \dashrightarrow 00{:}07{:}19.301$ and may lead to the cells having

NOTE Confidence: 0.83731740875

 $00:07:19.301 \longrightarrow 00:07:20.745$ trouble repairing themselves and

NOTE Confidence: 0.83731740875

00:07:20.745 --> 00:07:23.293 in some type of abnormality like a

NOTE Confidence: 0.83731740875

 $00:07:23.293 \longrightarrow 00:07:24.442$ precancerous condition developing.

 $00:07:24.833 \longrightarrow 00:07:27.570$ So that is the challenge then if

NOTE Confidence: 0.83731740875

 $00{:}07{:}27.642 \dashrightarrow 00{:}07{:}30.330$ we have a very common symptom like

NOTE Confidence: 0.83731740875

 $00:07:30.330 \longrightarrow 00:07:32.298$ heartburn or sometimes we call it

NOTE Confidence: 0.83731740875

 $00{:}07{:}32.300 \dashrightarrow 00{:}07{:}34.588$ gastroesophageal reflux disease.

NOTE Confidence: 0.83731740875

 $00{:}07{:}34.588 \dashrightarrow 00{:}07{:}38.560$ How do we then identify amongst all

NOTE Confidence: 0.83731740875

 $00{:}07{:}38.560 \dashrightarrow 00{:}07{:}41.260$ of that large group which people

NOTE Confidence: 0.83731740875

00:07:41.260 --> 00:07:43.510 would benefit from screening?

 $00:07:43.510 \longrightarrow 00:07:45.230$ And that's been looked at,

NOTE Confidence: 0.83731740875

 $00{:}07{:}45.230 \dashrightarrow 00{:}07{:}48.320$ and like many areas

NOTE Confidence: 0.88395417

 $00:07:50.490 \longrightarrow 00:07:52.614$ it's not still not entirely clear

NOTE Confidence: 0.88395417

00:07:52.614 --> 00:07:54.899 because only a small proportion of

NOTE Confidence: 0.88395417

 $00:07:54.899 \longrightarrow 00:07:57.299$ people that have acid reflux will

NOTE Confidence: 0.88395417

00:07:57.299 --> 00:07:59.935 have Barretts esophagus or will be

NOTE Confidence: 0.88395417

 $00{:}07{:}59.935 \dashrightarrow 00{:}08{:}01.703$ predisposed to esophageal cancer.

NOTE Confidence: 0.88395417

 $00:08:01.710 \longrightarrow 00:08:03.852$ But typically the most effective

NOTE Confidence: 0.88395417

 $00{:}08{:}03.852 \dashrightarrow 00{:}08{:}06.469$ way we do that is by endoscopy.

NOTE Confidence: 0.88395417

00:08:06.470 --> 00:08:09.278 So that's a scope procedure with a light

NOTE Confidence: 0.88395417

 $00{:}08{:}09.278 \dashrightarrow 00{:}08{:}11.906$ and a camera at the end of the scope,

NOTE Confidence: 0.88395417

00:08:11.910 --> 00:08:14.416 and we can carefully examine the lining,

NOTE Confidence: 0.88395417

 $00:08:14.420 \longrightarrow 00:08:16.770$ the mucosal lining of the

NOTE Confidence: 0.88395417

 $00:08:16.770 \longrightarrow 00:08:18.650$ esophagus and the junction,

NOTE Confidence: 0.88395417

 $00:08:18.650 \longrightarrow 00:08:21.130$ that Valve or the stomach and the esophagus.

 $00:08:23.460 \longrightarrow 00:08:26.617$ So we're looking for signs of inflammation.

 $00:08:26.620 \longrightarrow 00:08:28.448$ We call that esophagitis

NOTE Confidence: 0.88395417

 $00{:}08{:}28.448 \to 00{:}08{:}30.276$ or a Barretts esophagus,

NOTE Confidence: 0.88395417

 $00:08:30.280 \longrightarrow 00:08:33.311$ which is that cell type that's acid

NOTE Confidence: 0.88395417

 $00:08:33.311 \longrightarrow 00:08:35.900$ resistant growing upwards from the stomach.

NOTE Confidence: 0.88395417

 $00:08:35.900 \longrightarrow 00:08:37.860$ And then also most importantly,

NOTE Confidence: 0.88395417

 $00:08:37.860 \longrightarrow 00:08:41.828$ we then can take biopsies if there's a

NOTE Confidence: 0.88395417

 $00{:}08{:}41.828 \dashrightarrow 00{:}08{:}44.796$ Barretts esophagus to make sure there's

NOTE Confidence: 0.88395417

00:08:44.796 --> 00:08:47.266 no dysplasia or precancerous change.

NOTE Confidence: 0.88395417

 $00:08:47.270 \longrightarrow 00:08:50.427$ And so the population that seems

NOTE Confidence: 0.88395417

00:08:50.427 --> 00:08:54.000 to benefit the most from screening

NOTE Confidence: 0.88395417

 $00:08:54.000 \longrightarrow 00:08:56.385$ for Barrett's esophagus includes

NOTE Confidence: 0.88395417

 $00:08:56.385 \longrightarrow 00:08:59.460$ people with chronic reflux, age

NOTE Confidence: 0.88395417

 $00:08:59.460 \longrightarrow 00:09:02.418$ over 50 in the case of Barretts,

NOTE Confidence: 0.88395417

 $00:09:02.420 \longrightarrow 00:09:02.982$ males,

NOTE Confidence: 0.88395417

 $00:09:02.982 \longrightarrow 00:09:07.114$ more common than females and more common

NOTE Confidence: 0.88395417

 $00:09:07.114 \longrightarrow 00:09:10.490$ in those who are Caucasian versus when

 $00:09:10.490 \longrightarrow 00:09:13.190$ we talked about squamous cell cancer.

NOTE Confidence: 0.88395417

 $00:09:13.190 \longrightarrow 00:09:14.888$ We see that more commonly in

NOTE Confidence: 0.88395417

 $00:09:14.888 \longrightarrow 00:09:16.360$ regions of Africa and Asia.

NOTE Confidence: 0.913087098888889

00:09:17.570 --> 00:09:20.144 So just a couple of questions to clarify.

NOTE Confidence: 0.913087098888889

 $00:09:20.150 \longrightarrow 00:09:23.490$ When you say chronic reflux,

NOTE Confidence: 0.913087098888889

 $00:09:23.490 \longrightarrow 00:09:26.721$ how long does reflux need to go on

NOTE Confidence: 0.913087098888889

 $00:09:26.721 \longrightarrow 00:09:30.169$ for it to be classified as chronic?

NOTE Confidence: 0.913087098888889

 $00:09:30.170 \longrightarrow 00:09:32.221$ Or is it a matter

NOTE Confidence: 0.913087098888889

 $00:09:32.221 \longrightarrow 00:09:34.330$ of more the frequency?

NOTE Confidence: 0.913087098888889

00:09:34.330 --> 00:09:36.269 In other words, if you get heartburn,

NOTE Confidence: 0.913087098888889

00:09:36.270 --> 00:09:38.346 you know once in a while,

NOTE Confidence: 0.913087098888889

 $00{:}09{:}38.350 \dashrightarrow 00{:}09{:}40.264$ you know after a large meal

NOTE Confidence: 0.913087098888889

 $00:09:40.264 \longrightarrow 00:09:41.540$ that really doesn't count,

NOTE Confidence: 0.913087098888889

 $00:09:41.540 \longrightarrow 00:09:43.034$ but if you get reflux every

NOTE Confidence: 0.913087098888889

 $00:09:43.034 \longrightarrow 00:09:44.030$ day then that counts.

 $00:09:44.030 \longrightarrow 00:09:47.423$ So can you kind of tell us what classifies

NOTE Confidence: 0.913087098888889

 $00:09:47.430 \longrightarrow 00:09:49.302$ as chronic reflux.

NOTE Confidence: 0.913087098888889

 $00:09:49.302 \longrightarrow 00:09:51.365$ And then for the people

NOTE Confidence: 0.913087098888889

00:09:51.365 --> 00:09:53.240 who do fit that criteria,

NOTE Confidence: 0.913087098888889

 $00:09:53.240 \longrightarrow 00:09:56.160$ who are over 50 who have chronic reflux,

NOTE Confidence: 0.913087098888889

 $00:09:56.160 \longrightarrow 00:09:57.770$ how often should they be

NOTE Confidence: 0.913087098888889

 $00:09:57.770 \longrightarrow 00:09:58.736$ getting an endoscopy?

NOTE Confidence: 0.871393626

00:09:59.750 --> 00:10:01.430 Yeah, all very good questions.

NOTE Confidence: 0.871393626

 $00{:}10{:}01.430 \dashrightarrow 00{:}10{:}05.091$ And so for length of time as

NOTE Confidence: 0.871393626

 $00:10:05.091 \longrightarrow 00:10:09.828$ sort of a general rule of thumb,

NOTE Confidence: 0.871393626

 $00{:}10{:}09.830 \dashrightarrow 00{:}10{:}13.056$ some medical organizations have

NOTE Confidence: 0.871393626

 $00:10:13.056 \longrightarrow 00:10:16.188$ suggested five years or longer of

NOTE Confidence: 0.871393626

00:10:16.188 --> 00:10:18.910 symptoms as defining chronic,

NOTE Confidence: 0.871393626

00:10:18.910 --> 00:10:19.672 but you're right,

NOTE Confidence: 0.871393626

 $00:10:19.672 \longrightarrow 00:10:21.784$ pretty much everyone we know if we eat

NOTE Confidence: 0.871393626

 $00:10:21.784 \longrightarrow 00:10:23.458$ certain foods or drinks certain things

 $00:10:23.458 \longrightarrow 00:10:25.570$ we're going to have reflux that evening.

NOTE Confidence: 0.871393626

 $00:10:25.570 \longrightarrow 00:10:27.525$ So it's really looking at

NOTE Confidence: 0.871393626

 $00:10:27.525 \longrightarrow 00:10:29.537$ the frequency as well, so

NOTE Confidence: 0.871393626

 $00:10:29.537 \longrightarrow 00:10:31.772$ symptoms that are perhaps occurring

NOTE Confidence: 0.871393626

 $00:10:31.772 \longrightarrow 00:10:34.840$ on a daily basis or several times

NOTE Confidence: 0.871393626

 $00:10:34.840 \longrightarrow 00:10:38.860$ per week over five years or longer

NOTE Confidence: 0.871393626

00:10:38.860 --> 00:10:41.680 period would certainly,

NOTE Confidence: 0.871393626

 $00:10:41.680 \longrightarrow 00:10:43.808$ you know, raise concern.

NOTE Confidence: 0.871393626

00:10:43.808 --> 00:10:46.629 And again this is where it gets

NOTE Confidence: 0.871393626

 $00:10:46.629 \longrightarrow 00:10:49.815$ tricky is that in the esophagus you can have

00:10:50.772 --> 00:10:52.200 significant regular reflux,

NOTE Confidence: 0.871393626

00:10:52.200 --> 00:10:54.105 but it doesn't necessarily mean

NOTE Confidence: 0.871393626

 $00:10:54.105 \longrightarrow 00:10:56.444$ you have actual tissue damage or

NOTE Confidence: 0.871393626

00:10:56.444 --> 00:10:58.259 inflammation or that you're

NOTE Confidence: 0.871393626

 $00:10:58.259 \longrightarrow 00:11:00.400$ going to have Barretts esophagus.

NOTE Confidence: 0.871393626

 $00:11:00.400 \longrightarrow 00:11:04.944$ So even amongst those higher sort of

00:11:04.944 --> 00:11:07.416 risk group to have Barretts esophagus,

NOTE Confidence: 0.871393626

00:11:07.420 --> 00:11:09.864 it might only be about 20% of that

NOTE Confidence: 0.871393626

00:11:09.864 --> 00:11:11.376 group that will ultimately have it.

NOTE Confidence: 0.871393626

 $00:11:11.380 \longrightarrow 00:11:14.116$ And then another

NOTE Confidence: 0.871393626

 $00:11:14.116 \longrightarrow 00:11:16.517$ sort of risk stratification is

NOTE Confidence: 0.871393626

 $00:11:16.517 \longrightarrow 00:11:19.445$ that if there's at the initial

NOTE Confidence: 0.871393626

00:11:19.445 --> 00:11:21.800 identification of Barrett's esophagus,

NOTE Confidence: 0.871393626

 $00:11:21.800 \longrightarrow 00:11:23.364$ if there's no dysplasia

NOTE Confidence: 0.871393626

00:11:23.364 --> 00:11:24.537 or precancerous change,

NOTE Confidence: 0.871393626

 $00:11:24.540 \longrightarrow 00:11:28.326$ the risk is very low and so that's

NOTE Confidence: 0.871393626

 $00:11:28.326 \longrightarrow 00:11:29.618$ a very important distinction.

 $00:11:30.799 \longrightarrow 00:11:32.764$ The medical term for precancerous changes

NOTE Confidence: 0.871393626

00:11:32.764 --> 00:11:35.022 is dysplasia and we can grade that

NOTE Confidence: 0.871393626

 $00:11:35.022 \longrightarrow 00:11:37.202$ as lower and high grade and if that's

NOTE Confidence: 0.871393626

00:11:37.202 --> 00:11:39.338 present then we now have technology

NOTE Confidence: 0.871393626

 $00{:}11{:}39.338 \dashrightarrow 00{:}11{:}41.575$ through the scope to kind of ablate

 $00:11:41.575 \longrightarrow 00:11:43.564$ the lining of the Barretts esophagus

NOTE Confidence: 0.871393626

 $00:11:43.564 \longrightarrow 00:11:45.549$ in a very controlled fashion.

NOTE Confidence: 0.871393626

 $00:11:45.550 \longrightarrow 00:11:47.886$ So with a series of scope procedures

NOTE Confidence: 0.871393626

 $00:11:47.886 \longrightarrow 00:11:50.074$ we could actually convert that Barrett's

NOTE Confidence: 0.871393626

 $00{:}11{:}50.074 \dashrightarrow 00{:}11{:}52.730$ lining back to a normal lining in

NOTE Confidence: 0.871393626

 $00:11:52.730 \longrightarrow 00:11:55.108$ most cases and about 80% of the time.

NOTE Confidence: 0.871393626

00:11:55.108 --> 00:11:56.738 But it's really only worth

NOTE Confidence: 0.871393626

 $00{:}11{:}56.738 \dashrightarrow 00{:}11{:}59.051$ doing that if there's dysplasia

NOTE Confidence: 0.871393626

 $00{:}11{:}59.051 \dashrightarrow 00{:}12{:}00.647$ without precancerous change,

NOTE Confidence: 0.871393626

00:12:00.650 --> 00:12:02.450 the Barretts is so low risk

 $00{:}12{:}03.182 \dashrightarrow 00{:}12{:}05.378$ it's not really beneficial to pursue

NOTE Confidence: 0.871393626

 $00:12:05.378 \longrightarrow 00:12:07.493$ that series of scope procedures and

NOTE Confidence: 0.871393626

 $00:12:07.493 \longrightarrow 00:12:10.090$ then if no dysplasia with the Barretts,

NOTE Confidence: 0.871393626

 $00:12:10.090 \longrightarrow 00:12:11.632$ we would repeat the scope in

NOTE Confidence: 0.871393626

 $00:12:11.632 \longrightarrow 00:12:13.020$ roughly three to five years.

NOTE Confidence: 0.927536681111111

 $00{:}12{:}13.760 \dashrightarrow 00{:}12{:}16.514$ So getting back to one of the things

00:12:16.514 --> 00:12:19.417 that you mentioned at the top of the show,

NOTE Confidence: 0.927536681111111

 $00:12:19.420 \longrightarrow 00:12:21.436$ which is that there's these two forms,

NOTE Confidence: 0.927536681111111

00:12:21.440 --> 00:12:23.185 right, the squamous cell carcinoma

NOTE Confidence: 0.927536681111111

 $00:12:23.185 \longrightarrow 00:12:25.694$ and the adeno and the Barretts is

NOTE Confidence: 0.927536681111111

 $00:12:25.694 \longrightarrow 00:12:27.794$ really more in that latter group.

NOTE Confidence: 0.927536681111111

 $00:12:27.800 \longrightarrow 00:12:30.516$ But the squamous tends to be really

NOTE Confidence: 0.927536681111111

 $00:12:30.516 \longrightarrow 00:12:33.150$ frequent in parts of Asia and Africa.

NOTE Confidence: 0.927536681111111

 $00{:}12{:}33.150 \dashrightarrow 00{:}12{:}34.938$ And you mentioned that there were

NOTE Confidence: 0.927536681111111

 $00:12:34.938 \longrightarrow 00:12:36.699$ a number of reasons for that,

NOTE Confidence: 0.927536681111111

 $00{:}12{:}36.700 \dashrightarrow 00{:}12{:}39.790$ smoking and alcohol and poor nutrition.

NOTE Confidence: 0.9275366811111111

 $00:12:39.790 \longrightarrow 00:12:42.010$ So couple of questions on that.

NOTE Confidence: 0.927536681111111

 $00:12:42.010 \longrightarrow 00:12:43.906$ If people are in the US,

NOTE Confidence: 0.927536681111111

 $00:12:43.910 \longrightarrow 00:12:45.728$ but they smoke and they drink,

NOTE Confidence: 0.927536681111111

00:12:45.730 --> 00:12:48.210 and maybe they have poor nutrition as well,

NOTE Confidence: 0.927536681111111

 $00:12:48.210 \longrightarrow 00:12:49.820$ there are plenty of food

00:12:49.820 --> 00:12:51.430 deserts in this country too,

NOTE Confidence: 0.927536681111111

 $00:12:51.430 \longrightarrow 00:12:54.054$ are they at risk of squamous cell carcinoma?

NOTE Confidence: 0.927536681111111

 $00:12:54.060 \longrightarrow 00:12:57.570$ And if so, does screening apply to them too?

NOTE Confidence: 0.927536681111111

00:12:57.570 --> 00:13:00.146 And the second part of the question is,

NOTE Confidence: 0.927536681111111

 $00:13:00.150 \longrightarrow 00:13:02.676$ is there a genetic link for

NOTE Confidence: 0.927536681111111

00:13:02.676 --> 00:13:04.810 esophageal cancers that might make

NOTE Confidence: 0.927536681111111

 $00:13:04.810 \longrightarrow 00:13:07.066$ this more common in certain parts

NOTE Confidence: 0.927536681111111

 $00:13:07.066 \longrightarrow 00:13:09.900$ of the world rather than in the US?

NOTE Confidence: 0.893577395666667

 $00{:}13{:}10.910 \dashrightarrow 00{:}13{:}12.206$ Yes, very interesting.

NOTE Confidence: 0.893577395666667

 $00:13:12.206 \longrightarrow 00:13:15.116$ And as you know well

NOTE Confidence: 0.893577395666667

 $00{:}13{:}15.116 \dashrightarrow 00{:}13{:}17.687$ these themes kind of show up in many

NOTE Confidence: 0.893577395666667

 $00:13:17.687 \longrightarrow 00:13:19.752$ different sort of cancer questions

NOTE Confidence: 0.893577395666667

 $00:13:19.752 \longrightarrow 00:13:21.931$ across different types of cancers.

NOTE Confidence: 0.893577395666667

 $00:13:21.931 \longrightarrow 00:13:26.099$ So it seems to be multifactorial that

NOTE Confidence: 0.893577395666667

 $00:13:26.099 \longrightarrow 00:13:29.547$ there is some genetic predisposition

NOTE Confidence: 0.893577395666667

00:13:29.550 --> 00:13:32.430 towards either getting

00:13:32.430 --> 00:13:34.660 squamous cancer versus

NOTE Confidence: 0.893577395666667

 $00{:}13{:}34.660 \dashrightarrow 00{:}13{:}38.440$ the adenocarcinoma and then also

NOTE Confidence: 0.893577395666667

00:13:38.440 --> 00:13:40.960 some behavioral or environmental

NOTE Confidence: 0.893577395666667

 $00:13:41.055 \longrightarrow 00:13:42.699$ exposures as well.

NOTE Confidence: 0.893577395666667

 $00:13:42.700 \longrightarrow 00:13:44.940$ So like we see in other settings

NOTE Confidence: 0.893577395666667

00:13:44.940 --> 00:13:45.900 like colon cancer,

NOTE Confidence: 0.893577395666667

 $00:13:45.900 \longrightarrow 00:13:47.538$ when you move say from one country

NOTE Confidence: 0.893577395666667

 $00{:}13{:}47.538 \dashrightarrow 00{:}13{:}49.158$ like Japan and the United States,

NOTE Confidence: 0.893577395666667

 $00{:}13{:}49.160 \dashrightarrow 00{:}13{:}52.758$ your cancer profile shifts.

NOTE Confidence: 0.893577395666667

 $00:13:52.760 \longrightarrow 00:13:55.448$ So there are some dietary and

NOTE Confidence: 0.893577395666667

 $00:13:55.448 \longrightarrow 00:13:57.240$ environmental exposures that likely

NOTE Confidence: 0.893577395666667

 $00:13:57.316 \longrightarrow 00:13:59.868$ are a factor and that are often

NOTE Confidence: 0.893577395666667

 $00{:}13{:}59.870 \dashrightarrow 00{:}14{:}02.971$ very difficult to kind of tease out

NOTE Confidence: 0.893577395666667

 $00{:}14{:}02.971 \dashrightarrow 00{:}14{:}05.592$ exactly what are the greatest factors in

NOTE Confidence: 0.893577395666667

 $00:14:05.592 \longrightarrow 00:14:08.120$ addition to a genetic predisposition,

 $00:14:08.120 \longrightarrow 00:14:10.610$ but one thing that's interesting that

NOTE Confidence: 0.893577395666667

 $00{:}14{:}10.610 \dashrightarrow 00{:}14{:}13.442$ has been identified in studies for

NOTE Confidence: 0.893577395666667

00:14:13.442 --> 00:14:16.290 squamous cell cancer in Africa and Asia is

NOTE Confidence: 0.855606250714286

00:14:19.270 --> 00:14:22.474 the practice of drinking very hot

NOTE Confidence: 0.855606250714286

 $00:14:22.474 \longrightarrow 00:14:25.005$ liquids often drinking frequent very

NOTE Confidence: 0.855606250714286

 $00:14:25.005 \longrightarrow 00:14:28.960$ hot tea is part of the culture and

NOTE Confidence: 0.855606250714286

00:14:28.960 --> 00:14:31.661 and that's been thought to irritate

NOTE Confidence: 0.855606250714286

 $00:14:31.661 \longrightarrow 00:14:33.887$ the esophagus and stress the esophagus.

NOTE Confidence: 0.855606250714286

 $00{:}14{:}33.890 \dashrightarrow 00{:}14{:}36.510$ So that's an interesting environmental

NOTE Confidence: 0.855606250714286

 $00:14:36.510 \longrightarrow 00:14:39.620$ sort of cultural factor as well.

NOTE Confidence: 0.879655568

 $00:14:40.470 \longrightarrow 00:14:42.353$ Well, we're going to pick

NOTE Confidence: 0.879655568

 $00:14:42.353 \longrightarrow 00:14:43.958$ up this conversation right after we

NOTE Confidence: 0.879655568

 $00{:}14{:}43.958 \dashrightarrow 00{:}14{:}45.708$ take a short break for medical minute.

NOTE Confidence: 0.879655568

 $00{:}14{:}45.710 \dashrightarrow 00{:}14{:}47.705$ Please stay tuned to learn more about

NOTE Confidence: 0.879655568

 $00:14:47.710 \longrightarrow 00:14:49.570$ esophageal cancer with my

NOTE Confidence: 0.879655568

00:14:49.570 --> 00:14:51.430 guest doctor Harry Aslanian.

00:14:52.000 --> 00:14:54.010 Funding for Yale Cancer Answers

NOTE Confidence: 0.795965673

 $00{:}14{:}54.010 \dashrightarrow 00{:}14{:}56.020$ comes from Smilow Cancer Hospital,

NOTE Confidence: 0.795965673

 $00:14:56.020 \longrightarrow 00:14:57.775$ where their cancer genetics and

NOTE Confidence: 0.795965673

00:14:57.775 --> 00:15:00.022 prevention program includes a colon cancer

NOTE Confidence: 0.795965673

 $00:15:00.022 \longrightarrow 00:15:02.197$ genetics and prevention program that

NOTE Confidence: 0.795965673

00:15:02.197 --> 00:15:03.937 provides comprehensive risk assessment,

NOTE Confidence: 0.795965673

 $00:15:03.940 \longrightarrow 00:15:06.655$ education, and screening.

NOTE Confidence: 0.795965673

00:15:06.655 --> 00:15:09.930 Smilowcancerhospital.org.

NOTE Confidence: 0.795965673

 $00:15:09.930 \longrightarrow 00:15:11.570$ There are many obstacles to

NOTE Confidence: 0.795965673

00:15:11.570 --> 00:15:12.882 face when quitting smoking,

NOTE Confidence: 0.795965673

 $00:15:12.890 \dashrightarrow 00:15:15.928$ as smoking involves the potent drug nicotine.

NOTE Confidence: 0.795965673

00:15:15.930 --> 00:15:17.705 Quitting smoking is a very

NOTE Confidence: 0.795965673

 $00{:}15{:}17.705 \dashrightarrow 00{:}15{:}18.770$ important lifestyle change,

NOTE Confidence: 0.795965673

00:15:18.770 --> 00:15:20.240 especially for patients

NOTE Confidence: 0.795965673

00:15:20.240 --> 00:15:21.710 undergoing cancer treatment,

 $00:15:21.710 \longrightarrow 00:15:24.002$ as it's been shown to positively

NOTE Confidence: 0.795965673

 $00{:}15{:}24.002 \dashrightarrow 00{:}15{:}25.530$ impact response to treatments,

NOTE Confidence: 0.795965673

 $00:15:25.530 \longrightarrow 00:15:27.615$ decrease the likelihood that patients

NOTE Confidence: 0.795965673

00:15:27.615 --> 00:15:29.283 will develop second malignancies,

NOTE Confidence: 0.795965673

 $00:15:29.290 \longrightarrow 00:15:31.590$ and increase rates of survival.

NOTE Confidence: 0.795965673

00:15:31.590 --> 00:15:33.790 Tobacco treatment programs are currently

NOTE Confidence: 0.795965673

 $00{:}15{:}33.790 \dashrightarrow 00{:}15{:}35.990$ being offered at federally designated

NOTE Confidence: 0.795965673

 $00{:}15{:}36.052 \dashrightarrow 00{:}15{:}37.472$ Comprehensive cancer centers such

NOTE Confidence: 0.795965673

 $00:15:37.472 \longrightarrow 00:15:39.950$ as Yale Cancer Center and Smilow

NOTE Confidence: 0.795965673

 $00:15:39.950 \longrightarrow 00:15:40.876$ Cancer Hospital.

NOTE Confidence: 0.795965673

 $00:15:40.876 \longrightarrow 00:15:43.191$ All treatment components are evidence

NOTE Confidence: 0.795965673

 $00{:}15{:}43.191 \dashrightarrow 00{:}15{:}45.784$ based and patients are treated with

NOTE Confidence: 0.795965673

 $00:15:45.784 \longrightarrow 00:15:48.064$ FDA approved first line medications as

NOTE Confidence: 0.795965673

 $00:15:48.064 \longrightarrow 00:15:50.541$ well as smoking cessation counseling

NOTE Confidence: 0.795965673

 $00:15:50.541 \longrightarrow 00:15:53.076$ that stresses appropriate coping skills.

NOTE Confidence: 0.795965673

 $00{:}15{:}53.080 \dashrightarrow 00{:}15{:}55.464$ More information is available

 $00:15:55.464 \longrightarrow 00:15:56.494$ at yale cancercenter.org.

NOTE Confidence: 0.795965673

 $00{:}15{:}56.494 \dashrightarrow 00{:}15{:}59.098$ You're listening to Connecticut public radio.

NOTE Confidence: 0.830786923333333

 $00:16:00.240 \longrightarrow 00:16:02.238$ Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.830786923333333

00:16:02.240 --> 00:16:03.914 This is doctor Anees Chappar and

NOTE Confidence: 0.830786923333333

00:16:03.914 --> 00:16:05.579 I'm joined today by my guest,

NOTE Confidence: 0.830786923333333

 $00:16:05.580 \longrightarrow 00:16:06.858$ Doctor Harry Aslanian.

NOTE Confidence: 0.830786923333333

00:16:06.858 --> 00:16:09.840 We're learning about the care of patients

NOTE Confidence: 0.830786923333333

 $00{:}16{:}09.907 \dashrightarrow 00{:}16{:}12.661$ with esophageal cancer in honor of

NOTE Confidence: 0.830786923333333

 $00:16:12.661 \longrightarrow 00:16:14.497$ esophageal cancer Awareness Month.

NOTE Confidence: 0.830786923333333

00:16:14.500 --> 00:16:16.600 Now before the break, Harry,

NOTE Confidence: 0.830786923333333

 $00:16:16.600 \longrightarrow 00:16:19.174$ you were telling us about two

NOTE Confidence: 0.830786923333333

00:16:19.174 --> 00:16:21.480 different kinds of esophageal cancer,

NOTE Confidence: 0.830786923333333

 $00{:}16{:}21.480 \dashrightarrow 00{:}16{:}22.716$ squamous cell carcinoma,

NOTE Confidence: 0.830786923333333

00:16:22.716 --> 00:16:25.600 which tends to be very common in

NOTE Confidence: 0.830786923333333

 $00:16:25.681 \longrightarrow 00:16:27.754$ Asia and Africa, and adenocarcinoma,

 $00:16:27.754 \longrightarrow 00:16:30.496$ which tends to be more frequent

NOTE Confidence: 0.830786923333333

 $00:16:30.500 \longrightarrow 00:16:35.396$ here in the US, often caused by

NOTE Confidence: 0.830786923333333

00:16:35.400 --> 00:16:37.104 Gastroesophageal reflux,

NOTE Confidence: 0.830786923333333

 $00:16:37.104 \longrightarrow 00:16:42.216$ which can lead to this precancerous

NOTE Confidence: 0.830786923333333

00:16:42.220 --> 00:16:45.248 lesion with dysplasia found

NOTE Confidence: 0.830786923333333

 $00:16:45.248 \longrightarrow 00:16:47.519$ in Barrett's esophagus.

NOTE Confidence: 0.830786923333333

00:16:47.520 --> 00:16:49.578 So when you were telling us a

NOTE Confidence: 0.830786923333333

00:16:49.578 --> 00:16:51.120 bit about Barrett's esophagus,

NOTE Confidence: 0.830786923333333

 $00:16:51.120 \longrightarrow 00:16:54.080$ you started to tell us a bit more

NOTE Confidence: 0.830786923333333

 $00:16:54.080 \longrightarrow 00:16:57.056$ about how this could be treated

NOTE Confidence: 0.830786923333333

 $00:16:57.056 \longrightarrow 00:17:00.268$ endoscopically such that you can

NOTE Confidence: 0.830786923333333

00:17:00.268 --> 00:17:02.908 actually ablate the lining of that

NOTE Confidence: 0.830786923333333

 $00:17:02.908 \longrightarrow 00:17:05.316$ Barrett and turn it back into normal.

 $00{:}17{:}05.643 \dashrightarrow 00{:}17{:}07.904$ I was wondering if you could

NOTE Confidence: 0.830786923333333

 $00:17:07.904 \longrightarrow 00:17:10.277$ tell us a little bit more about

NOTE Confidence: 0.830786923333333

 $00:17:10.277 \longrightarrow 00:17:12.692$ that and whether in fact do those

00:17:12.692 --> 00:17:14.756 patients in whom you do ablate,

NOTE Confidence: 0.830786923333333

 $00:17:14.760 \longrightarrow 00:17:15.633$ is there risk,

NOTE Confidence: 0.830786923333333

00:17:15.633 --> 00:17:17.670 does their risk go back to baseline?

NOTE Confidence: 0.886166352222222

 $00:17:18.620 \longrightarrow 00:17:20.150$ Yeah, it's been an

NOTE Confidence: 0.886166352222222

 $00:17:20.150 \longrightarrow 00:17:21.374$ exciting development for us.

NOTE Confidence: 0.886166352222222

 $00:17:21.380 \longrightarrow 00:17:23.648$ We have very highly calibrated

NOTE Confidence: 0.886166352222222

 $00:17:23.648 \longrightarrow 00:17:26.036$ tools now that can ablate the

NOTE Confidence: 0.886166352222222

 $00:17:26.036 \longrightarrow 00:17:28.430$ thin mucosal lining which is the

NOTE Confidence: 0.8861663522222222

 $00:17:28.430 \longrightarrow 00:17:30.498$ inner surface of the esophagus, with

NOTE Confidence: 0.886166352222222

00:17:30.500 --> 00:17:34.005 just enough energy called radiofrequency

NOTE Confidence: 0.8861663522222222

 $00{:}17{:}34.005 \mathrel{--}{>} 00{:}17{:}36.772$ ablation to treat that without

NOTE Confidence: 0.886166352222222

 $00:17:36.772 \longrightarrow 00:17:39.496$ damaging the wall of the esophagus.

NOTE Confidence: 0.886166352222222

 $00:17:39.500 \longrightarrow 00:17:43.300$ And in about 80% of cases we can

NOTE Confidence: 0.8861663522222222

 $00{:}17{:}43.300 \dashrightarrow 00{:}17{:}45.770$ remove the precancerous change

NOTE Confidence: 0.886166352222222

 $00:17:45.770 \longrightarrow 00:17:48.939$ and also clear out all of the

NOTE Confidence: 0.886166352222222

 $00:17:48.940 \longrightarrow 00:17:52.330$ Barrett's and the durability of those

 $00:17:52.330 \longrightarrow 00:17:55.679$ treatments appears to be very good

NOTE Confidence: 0.886166352222222

00:17:55.679 --> 00:17:58.773 where there's only about 2% per

NOTE Confidence: 0.886166352222222

 $00:17:58.773 \longrightarrow 00:18:02.391$ year recurrence of Barretts and it's

NOTE Confidence: 0.886166352222222

 $00:18:02.391 \longrightarrow 00:18:04.804$ typically non dysplastic barriers

NOTE Confidence: 0.886166352222222

 $00:18:04.804 \longrightarrow 00:18:07.828$ that can just be a retreated.

NOTE Confidence: 0.886166352222222

 $00:18:07.830 \longrightarrow 00:18:14.765$ So this rate of conversion has been very

NOTE Confidence: 0.886166352222222

 $00:18:14.765 \longrightarrow 00:18:18.085$ reliable and very safe and long lasting.

NOTE Confidence: 0.842574002142857

 $00{:}18{:}19.400 \dashrightarrow 00{:}18{:}21.680$ Now, not all patients will present

NOTE Confidence: 0.842574002142857

 $00{:}18{:}21.680 \rightarrow 00{:}18{:}24.377$ with Barretts. At the top of the show

NOTE Confidence: 0.842574002142857

 $00:18:24.380 \longrightarrow 00:18:27.818$ you were mentioning that

NOTE Confidence: 0.842574002142857

 $00:18:27.820 \longrightarrow 00:18:29.770$ esophageal cancer is one of these

NOTE Confidence: 0.842574002142857

 $00{:}18{:}29.770 \dashrightarrow 00{:}18{:}32.482$ that's really tricky in the sense

NOTE Confidence: 0.842574002142857

 $00{:}18{:}32.482 \dashrightarrow 00{:}18{:}34.350$ that if you don't have symptoms

NOTE Confidence: 0.842574002142857

 $00{:}18{:}34.350 \dashrightarrow 00{:}18{:}36.220$ or you have things like reflux,

NOTE Confidence: 0.842574002142857

 $00:18:36.220 \longrightarrow 00:18:39.012$ many of us get that and it has

 $00:18:39.012 \longrightarrow 00:18:42.008$ nothing to do with esophageal cancer.

NOTE Confidence: 0.842574002142857 00:18:42.010 --> 00:18:43.051 Unless NOTE Confidence: 0.842574002142857

 $00:18:43.051 \longrightarrow 00:18:44.786$ it leads to something like

NOTE Confidence: 0.842574002142857

 $00:18:44.786 \longrightarrow 00:18:46.170$ Barretts and dysplasia.

NOTE Confidence: 0.842574002142857

 $00:18:46.170 \longrightarrow 00:18:49.200$ And so oftentimes patients may present

NOTE Confidence: 0.842574002142857

 $00:18:49.200 \longrightarrow 00:18:52.608$ late with symptoms like I can't swallow.

NOTE Confidence: 0.842574002142857

00:18:52.610 --> 00:18:55.809 So in those patients who

NOTE Confidence: 0.842574002142857

 $00:18:55.810 \longrightarrow 00:18:58.786$ go to their doctor because they're

NOTE Confidence: 0.842574002142857

00:18:58.786 --> 00:19:00.274 having difficulty swallowing.

NOTE Confidence: 0.842574002142857

 $00:19:00.280 \longrightarrow 00:19:02.984$ And they have a scope test which finds

NOTE Confidence: 0.842574002142857

 $00:19:02.984 \longrightarrow 00:19:06.038$ a mass as opposed to simply a little

NOTE Confidence: 0.842574002142857

00:19:06.038 --> 00:19:08.780 bit of dysplasia that you can ablate.

NOTE Confidence: 0.842574002142857

 $00:19:08.780 \dashrightarrow 00:19:11.116$ One would think that the treatment of

NOTE Confidence: 0.842574002142857

 $00:19:11.116 \longrightarrow 00:19:13.138$ those cancers is a little bit different.

NOTE Confidence: 0.842574002142857

00:19:13.140 --> 00:19:13.719 Is that right?

NOTE Confidence: 0.8428668025

 $00:19:14.400 \longrightarrow 00:19:19.026$ Yes, so the the sort of warning signs

 $00{:}19{:}19.026 \mathrel{--}{>} 00{:}19{:}22.307$ of something more serious like

NOTE Confidence: 0.8428668025

00:19:22.307 --> 00:19:23.863 you mentioned difficulty swallowing

NOTE Confidence: 0.8428668025

 $00:19:23.863 \longrightarrow 00:19:25.785$ is something that you would

NOTE Confidence: 0.8428668025

 $00:19:25.785 \longrightarrow 00:19:28.111$ want to be aware of and talk to

NOTE Confidence: 0.8428668025

00:19:28.111 --> 00:19:29.696 your doctor about very promptly.

NOTE Confidence: 0.8428668025

 $00:19:29.700 \longrightarrow 00:19:32.256$ And other signs would be bleeding.

NOTE Confidence: 0.8428668025

 $00:19:32.260 \longrightarrow 00:19:34.450$ So bleeding from the esophagus or

NOTE Confidence: 0.8428668025

 $00{:}19{:}34.450 \dashrightarrow 00{:}19{:}36.292$ stomach typically would present as

NOTE Confidence: 0.8428668025

00:19:36.292 --> 00:19:38.212 very dark black stools because the

NOTE Confidence: 0.8428668025

 $00:19:38.212 \dashrightarrow 00:19:40.007$ blood gets digested by the stomach

NOTE Confidence: 0.8428668025

 $00{:}19{:}40.007 \dashrightarrow 00{:}19{:}41.813$ acid and then turns a very dark

NOTE Confidence: 0.8428668025

 $00:19:41.820 \longrightarrow 00:19:44.494$ color as it passes out through the

NOTE Confidence: 0.8428668025

 $00:19:44.500 \longrightarrow 00:19:47.332$ Colon and through the bottom and

NOTE Confidence: 0.8428668025

 $00:19:47.332 \longrightarrow 00:19:51.350$ also weight loss would be another

NOTE Confidence: 0.8428668025

00:19:51.350 --> 00:19:54.250 concerning symptom or vomiting

 $00:19:54.250 \longrightarrow 00:19:57.528$ or feeling like food is getting

NOTE Confidence: 0.8428668025

 $00:19:57.528 \longrightarrow 00:19:59.774$ stuck or having to regurgitate food.

NOTE Confidence: 0.8428668025

 $00:19:59.774 \longrightarrow 00:20:02.770$ So these are all signs of something larger

NOTE Confidence: 0.8428668025

 $00{:}20{:}02.770 \dashrightarrow 00{:}20{:}05.410$ that could be blocking the esophagus.

NOTE Confidence: 0.8428668025

 $00:20:05.410 \longrightarrow 00:20:08.700$ And early detection as in many other

NOTE Confidence: 0.8428668025

00:20:08.700 --> 00:20:11.973 cancers is very important because we know

NOTE Confidence: 0.8428668025

 $00:20:11.973 \longrightarrow 00:20:15.173$ that the earlier stages have much better

NOTE Confidence: 0.8428668025

 $00:20:15.173 \longrightarrow 00:20:18.400$ treatment options and much better chance of

NOTE Confidence: 0.8428668025

 $00{:}20{:}18.478 \dashrightarrow 00{:}20{:}23.300$ a curative and long-lasting the rapy.

NOTE Confidence: 0.8428668025

 $00:20:23.300 \longrightarrow 00:20:25.964$ So endoscopy is the mainstay of

NOTE Confidence: 0.8428668025

 $00{:}20{:}25.964 \to 00{:}20{:}28.967$ the initial sort of assessment and

NOTE Confidence: 0.8428668025

 $00:20:28.967 \longrightarrow 00:20:32.363$ diagnosis of these kinds of symptoms.

NOTE Confidence: 0.8428668025

 $00:20:32.370 \longrightarrow 00:20:35.470$ And so we can

NOTE Confidence: 0.8428668025

 $00:20:36.290 \longrightarrow 00:20:38.750$ very comfortably pass a scope through

NOTE Confidence: 0.8428668025

 $00:20:38.750 \longrightarrow 00:20:41.367$ the mouth under anesthesia and examine

NOTE Confidence: 0.8428668025

00:20:41.367 --> 00:20:44.391 the lining of the esophagus and the

00:20:44.391 --> 00:20:46.545 stomach and then get biopsies of

NOTE Confidence: 0.8428668025

00:20:46.545 --> 00:20:49.320 the esophagus and stomach.

NOTE Confidence: 0.8428668025

 $00:20:49.320 \longrightarrow 00:20:53.272$ And then if there is a growth or tumor

NOTE Confidence: 0.8428668025

00:20:53.272 --> 00:20:56.896 in the esophagus or upper stomach,

NOTE Confidence: 0.8428668025

 $00:20:56.900 \longrightarrow 00:20:59.948$ we use a combination of tools

NOTE Confidence: 0.8428668025

 $00:20:59.948 \longrightarrow 00:21:01.980$ like in other cancers.

NOTE Confidence: 0.8428668025

00:21:01.980 --> 00:21:04.094 CAT scans to determine and make

NOTE Confidence: 0.8428668025

 $00:21:04.094 \longrightarrow 00:21:06.662$ sure that none of the cancer cells have

NOTE Confidence: 0.8428668025

00:21:06.662 --> 00:21:08.870 spread to other areas around the body.

NOTE Confidence: 0.8428668025

 $00{:}21{:}08.870 \dashrightarrow 00{:}21{:}11.144$ And then we use this combination

NOTE Confidence: 0.8428668025

00:21:11.144 --> 00:21:12.660 of ultrasound and endoscopy

NOTE Confidence: 0.8428668025

00:21:12.727 --> 00:21:14.560 called endoscopic ultrasound,

NOTE Confidence: 0.8428668025

 $00{:}21{:}14.560 \dashrightarrow 00{:}21{:}16.840$ where we do an ultrasound right

NOTE Confidence: 0.8428668025

 $00:21:16.840 \longrightarrow 00:21:19.097$ inside the esophagus and right next

NOTE Confidence: 0.8428668025

 $00:21:19.097 \longrightarrow 00:21:21.421$ to the tumor and we determine how

 $00:21:21.421 \longrightarrow 00:21:23.798$ deep into the wall the tumor goes.

NOTE Confidence: 0.8428668025

 $00{:}21{:}23.800 \dashrightarrow 00{:}21{:}25.360$ We call that at stage.

NOTE Confidence: 0.8428668025

 $00:21:25.360 \longrightarrow 00:21:27.022$ And then we determine if there's

NOTE Confidence: 0.8428668025

 $00:21:27.022 \longrightarrow 00:21:28.860$ any lymph nodes that look like

NOTE Confidence: 0.8428668025

 $00:21:28.860 \longrightarrow 00:21:30.216$ they're involved with cancer,

NOTE Confidence: 0.8428668025

 $00:21:30.220 \longrightarrow 00:21:32.540$ which is the end stage.

NOTE Confidence: 0.8428668025

 $00:21:32.540 \longrightarrow 00:21:34.430$ We call that local staging,

NOTE Confidence: 0.8428668025

 $00:21:34.430 \longrightarrow 00:21:38.742$ and the depth that the cancer goes

NOTE Confidence: 0.8428668025

 $00:21:38.742 \longrightarrow 00:21:42.090$ into the esophageal wall determines the

NOTE Confidence: 0.8428668025

 $00:21:42.090 \longrightarrow 00:21:44.390$ stage and determines what treatments

NOTE Confidence: 0.8428668025

 $00{:}21{:}44.390 \dashrightarrow 00{:}21{:}47.689$ would be most effective and appropriate.

NOTE Confidence: 0.8428668025

00:21:47.690 --> 00:21:49.466 If we catch something really early

NOTE Confidence: 0.8428668025

 $00:21:49.466 \longrightarrow 00:21:51.239$ where it's just sitting on the

NOTE Confidence: 0.8428668025

00:21:51.239 --> 00:21:52.584 mucosal surface more and more,

NOTE Confidence: 0.8428668025

 $00:21:52.590 \longrightarrow 00:21:55.260$ we can treat those very early

NOTE Confidence: 0.8428668025

 $00{:}21{:}55.260 \dashrightarrow 00{:}21{:}57.497$ cancers right through the scope

00:21:57.497 --> 00:21:59.717 where we can cut them out.

NOTE Confidence: 0.8428668025

 $00:21:59.720 \longrightarrow 00:22:01.540$ Either by placing a band

NOTE Confidence: 0.8428668025

00:22:01.540 --> 00:22:03.161 around the tissue and grabbing it

NOTE Confidence: 0.8428668025

00:22:03.161 --> 00:22:04.981 away from the wall and cutting it,

NOTE Confidence: 0.8428668025

 $00{:}22{:}04.990 \dashrightarrow 00{:}22{:}09.568$ or a specialized technique that we can

NOTE Confidence: 0.8428668025

 $00:22:09.568 \longrightarrow 00:22:11.404$ perform called endoscopic submucosal

NOTE Confidence: 0.8428668025

00:22:11.404 --> 00:22:14.360 dissection or ESD where we cut around

NOTE Confidence: 0.8428668025

 $00{:}22{:}14.360 \dashrightarrow 00{:}22{:}16.454$ the cancer and then cut underneath

NOTE Confidence: 0.8428668025

 $00:22:16.454 \longrightarrow 00:22:19.606$ it to separate it from the wall.

NOTE Confidence: 0.8428668025

 $00:22:19.610 \longrightarrow 00:22:22.310$ But as the cancer grows deeper into the wall,

NOTE Confidence: 0.8428668025

 $00:22:22.310 \longrightarrow 00:22:23.900$ there's a fat layer and a

NOTE Confidence: 0.8428668025

 $00{:}22{:}23.900 \dashrightarrow 00{:}22{:}25.410$ muscle layer below the mucosa.

NOTE Confidence: 0.8428668025

 $00:22:25.410 \longrightarrow 00:22:29.466$ Then it requires more extensive therapy.

NOTE Confidence: 0.8428668025

 $00:22:29.470 \longrightarrow 00:22:30.349$ So if it's

NOTE Confidence: 0.8428668025

 $00:22:30.349 \longrightarrow 00:22:32.107$ very early just into the wall,

00:22:32.110 --> 00:22:34.539 then surgery can be pursued and as

NOTE Confidence: 0.8428668025

 $00:22:34.539 \longrightarrow 00:22:37.073$ it goes through the wall or spreads

NOTE Confidence: 0.8428668025

 $00:22:37.073 \longrightarrow 00:22:38.843$ to other areas then typically

NOTE Confidence: 0.8428668025

00:22:38.843 --> 00:22:41.337 a combination of radiation and

NOTE Confidence: 0.8428668025

 $00:22:41.337 \longrightarrow 00:22:42.885$ chemotherapy is pursued

NOTE Confidence: 0.834576598571429

 $00:22:42.890 \longrightarrow 00:22:45.585$ and then after the tumor is shrunken,

NOTE Confidence: 0.834576598571429

 $00:22:45.590 \longrightarrow 00:22:48.299$ which is can be done very effectively

NOTE Confidence: 0.834576598571429

00:22:48.299 --> 00:22:50.285 with those medications then surgery

NOTE Confidence: 0.834576598571429

 $00:22:50.285 \longrightarrow 00:22:52.559$ is considered to remove that area.

NOTE Confidence: 0.893914826

 $00:22:53.670 \longrightarrow 00:22:55.450$ And so with that surgery,

NOTE Confidence: 0.893914826

 $00:22:55.450 \longrightarrow 00:22:57.262$ would that surgery at that point

NOTE Confidence: 0.893914826

00:22:57.262 --> 00:22:59.533 be done through a scope or would

NOTE Confidence: 0.893914826

 $00:22:59.533 \longrightarrow 00:23:01.193$ that mean a bigger operation?

NOTE Confidence: 0.725260306666667

 $00:23:02.050 \longrightarrow 00:23:06.534$ Yes, that surgery is done most

NOTE Confidence: 0.725260306666667

00:23:06.534 --> 00:23:10.330 typically by thoracic surgeons and

NOTE Confidence: 0.725260306666667

 $00{:}23{:}10.330 \dashrightarrow 00{:}23{:}13.726$ it involves cutting out the affected

00:23:13.726 --> 00:23:16.360 piece of the esophagus and they

NOTE Confidence: 0.725260306666667

 $00:23:16.443 \longrightarrow 00:23:18.939$ do a special kind of lengthening

NOTE Confidence: 0.725260306666667

 $00:23:18.939 \longrightarrow 00:23:21.499$ procedure to pull up the stomach

NOTE Confidence: 0.725260306666667

 $00:23:21.499 \longrightarrow 00:23:24.362$ and connect it up to the esophagus

NOTE Confidence: 0.725260306666667

 $00:23:24.370 \longrightarrow 00:23:29.570$ higher up in the in the chest.

NOTE Confidence: 0.725260306666667

 $00:23:29.570 \longrightarrow 00:23:31.856$ So it's in expert hands

NOTE Confidence: 0.725260306666667

 $00:23:31.856 \longrightarrow 00:23:34.259$ the outcomes are very good,

NOTE Confidence: 0.725260306666667

 $00{:}23{:}34.260 \dashrightarrow 00{:}23{:}36.836$ but it's a rather large operation.

NOTE Confidence: 0.90117452375

 $00:23:37.070 \longrightarrow 00:23:40.094$ Yeah, it certainly sounds like it would

NOTE Confidence: 0.90117452375

 $00:23:40.094 \longrightarrow 00:23:42.686$ be a lot better to catch this early

NOTE Confidence: 0.90117452375

 $00:23:42.686 \longrightarrow 00:23:45.233$ and have what sounds like a fairly

NOTE Confidence: 0.90117452375

 $00:23:45.233 \longrightarrow 00:23:47.561$ minor surgery done through the scope.

NOTE Confidence: 0.90117452375

 $00{:}23{:}47.570 \dashrightarrow 00{:}23{:}51.607$ Would that be like a day surgery?

NOTE Confidence: 0.90117452375

 $00{:}23{:}51.610 \dashrightarrow 00{:}23{:}54.410$ Do you even have to stay in hospital

NOTE Confidence: 0.90117452375

 $00:23:54.410 \longrightarrow 00:23:56.912$ after you do one of these

00:23:56.912 --> 00:23:59.240 resections through the scope?

NOTE Confidence: 0.884383444166667

 $00{:}23{:}59.530 \dashrightarrow 00{:}24{:}01.378$ Yeah, most commonly we're able to

NOTE Confidence: 0.884383444166667

 $00:24:01.378 \longrightarrow 00:24:03.189$ send people home the same day.

NOTE Confidence: 0.884383444166667

 $00:24:03.190 \longrightarrow 00:24:05.218$ Occasionally we'll observe someone

NOTE Confidence: 0.884383444166667

00:24:05.218 --> 00:24:07.640 overnight in the hospital, but

 $00:24:13.090 \longrightarrow 00:24:15.988$ it is very remarkable how

NOTE Confidence: 0.724627428333333

00:24:15.990 --> 00:24:18.525 the necessary treatment

NOTE Confidence: 0.724627428333333

 $00:24:18.525 \longrightarrow 00:24:21.544$ changes as the cancer becomes more

NOTE Confidence: 0.724627428333333

 $00{:}24{:}21.544 \dashrightarrow 00{:}24{:}24.034$ involved and and grows deeper.

NOTE Confidence: 0.884797958461538

 $00:24:24.590 \longrightarrow 00:24:26.838$ So talk a little bit about how you

NOTE Confidence: 0.884797958461538

 $00{:}24{:}26.838 \to 00{:}24{:}28.479$ really evaluate these lymph nodes.

NOTE Confidence: 0.884797958461538

 $00:24:28.480 \longrightarrow 00:24:30.696$ I mean one can understand that if you

NOTE Confidence: 0.884797958461538

00:24:30.696 --> 00:24:33.579 have a scope and you put it down the

NOTE Confidence: 0.884797958461538

 $00{:}24{:}33.579 \dashrightarrow 00{:}24{:}35.847$ esophagus and you see the little cancer,

NOTE Confidence: 0.884797958461538

 $00:24:35.850 \longrightarrow 00:24:38.990$ you can take it out or ablate it or resect it.

00:24:41.180 --> 00:24:43.964 But the lymph nodes aren't in the esophagus,

NOTE Confidence: 0.884797958461538

 $00:24:43.970 \longrightarrow 00:24:46.409$ so how do you really assess them and how

 $00:24:46.409 \longrightarrow 00:24:49.138$ do you tell whether those harbor cancers?

NOTE Confidence: 0.884797958461538

00:24:49.140 --> 00:24:51.556 So many of our listeners may be familiar

NOTE Confidence: 0.884797958461538

 $00{:}24{:}51.556 \dashrightarrow 00{:}24{:}53.736$ with other kinds of cancers where you

NOTE Confidence: 0.884797958461538

00:24:53.736 --> 00:24:56.182 actually need to kind of look at those

NOTE Confidence: 0.884797958461538

00:24:56.182 --> 00:24:58.212 lymph nodes and often take a biopsy

NOTE Confidence: 0.884797958461538

 $00{:}24{:}58.220 \dashrightarrow 00{:}25{:}00.440$ to know that those aren't involved.

NOTE Confidence: 0.884797958461538

 $00:25:00.440 \longrightarrow 00:25:02.519$ How does that work in esophageal cancer?

NOTE Confidence: 0.701466006666667

00:25:03.860 --> 00:25:08.199 Lymph nodes, as you know,

NOTE Confidence: 0.701466006666667

00:25:08.199 --> 00:25:10.390 live in various spots throughout the

NOTE Confidence: 0.701466006666667

 $00{:}25{:}10.457 \dashrightarrow 00{:}25{:}12.900$ body and they're kind of like filters

NOTE Confidence: 0.701466006666667

 $00:25:12.900 \longrightarrow 00:25:14.718$ for different regions of the body.

NOTE Confidence: 0.701466006666667

 $00:25:14.720 \longrightarrow 00:25:18.450$ So when we get like a sore throat,

NOTE Confidence: 0.701466006666667

 $00{:}25{:}18.450 \dashrightarrow 00{:}25{:}20.165$ your doctor might feel your neck to

NOTE Confidence: 0.701466006666667

 $00:25:20.165 \longrightarrow 00:25:22.218$ see if there's any swollen lymph nodes.

NOTE Confidence: 0.701466006666667

 $00:25:22.220 \longrightarrow 00:25:24.796$ And so those lymph nodes are always there.

00:25:24.800 --> 00:25:26.978 But if they're swollen and enlarged,

NOTE Confidence: 0.701466006666667

 $00{:}25{:}26.980 \dashrightarrow 00{:}25{:}29.028$ they're reacting to something.

NOTE Confidence: 0.701466006666667

00:25:29.028 --> 00:25:32.100 And that often is inflammation

NOTE Confidence: 0.701466006666667

 $00:25:32.178 \longrightarrow 00:25:33.730$ due to an infection.

NOTE Confidence: 0.701466006666667

 $00:25:33.730 \longrightarrow 00:25:37.076$ Or sometimes they they can be responding

NOTE Confidence: 0.701466006666667

 $00{:}25{:}37.076 \dashrightarrow 00{:}25{:}40.730$ to the spread of cancer cells and so

NOTE Confidence: 0.701466006666667

 $00:25:40.730 \longrightarrow 00:25:43.568$ that often is a challenge throughout

NOTE Confidence: 0.701466006666667

 $00:25:43.568 \longrightarrow 00:25:46.668$ cancer staging is to determine,

NOTE Confidence: 0.701466006666667

 $00:25:46.670 \longrightarrow 00:25:49.807$ how do we know if cancers in

NOTE Confidence: 0.701466006666667

00:25:49.807 --> 00:25:51.709 these might be very microscopic amounts

NOTE Confidence: 0.701466006666667

 $00:25:51.709 \longrightarrow 00:25:54.251$ of cells that have traveled from the site of

NOTE Confidence: 0.701466006666667

 $00{:}25{:}54.251 \dashrightarrow 00{:}25{:}56.349$ the original cancer and then have sort

NOTE Confidence: 0.701466006666667

00:25:56.349 --> 00:25:58.876 of been filtered by a lymph node nearby.

NOTE Confidence: 0.701466006666667

 $00:25:58.876 \longrightarrow 00:26:00.820$ So in esophageal cancer

NOTE Confidence: 0.701466006666667

 $00:26:00.820 \longrightarrow 00:26:03.250$ when we use the ultrasound

NOTE Confidence: 0.701466006666667

 $00:26:03.250 \longrightarrow 00:26:05.294$ probe at the tip of the scope,

 $00{:}26{:}05.300 \dashrightarrow 00{:}26{:}07.468$ we can see through the wall of the

NOTE Confidence: 0.701466006666667

 $00:26:07.468 \longrightarrow 00:26:09.788$ esophagus and we can see the surrounding

NOTE Confidence: 0.701466006666667

 $00{:}26{:}09.788 \to 00{:}26{:}11.910$ structures and those include lymph nodes.

NOTE Confidence: 0.701466006666667

 $00:26:11.910 \longrightarrow 00:26:15.240$ So we look at the node and as it gets larger,

NOTE Confidence: 0.701466006666667

00:26:15.240 --> 00:26:17.600 darker or rounder on ultrasound,

NOTE Confidence: 0.701466006666667

 $00:26:17.600 \longrightarrow 00:26:19.598$ then we become concerned that it

NOTE Confidence: 0.701466006666667

 $00:26:19.598 \longrightarrow 00:26:21.751$ may be involved with the cancer and

NOTE Confidence: 0.701466006666667

 $00{:}26{:}21.751 \dashrightarrow 00{:}26{:}24.017$ in some cases we can do a biopsy

NOTE Confidence: 0.701466006666667

 $00:26:24.017 \longrightarrow 00:26:26.217$ right through the ultrasound scope.

NOTE Confidence: 0.701466006666667

 $00:26:26.220 \longrightarrow 00:26:28.338$ We can pass this flexible long

NOTE Confidence: 0.701466006666667

 $00:26:28.338 \longrightarrow 00:26:30.424$ needle through the scope and then

NOTE Confidence: 0.701466006666667

 $00:26:30.424 \longrightarrow 00:26:32.538$ safely pass it through the wall of

NOTE Confidence: 0.701466006666667

 $00{:}26{:}32.538 \dashrightarrow 00{:}26{:}34.766$ the esophagus and stomach to get

NOTE Confidence: 0.701466006666667

00:26:34.770 --> 00:26:35.998 samples of lymph nodes.

NOTE Confidence: 0.701466006666667

00:26:35.998 --> 00:26:38.220 We don't typically do that for lymph

 $00:26:38.220 \longrightarrow 00:26:40.128$ nodes right next to the cancer

NOTE Confidence: 0.701466006666667

 $00{:}26{:}40.128 \operatorname{--}{>} 00{:}26{:}42.172$ because we wouldn't be able to tell

NOTE Confidence: 0.701466006666667

 $00:26:42.172 \longrightarrow 00:26:44.002$ if the cancer cells came from the

NOTE Confidence: 0.701466006666667

00:26:44.002 --> 00:26:46.046 primary tumor or from the lymph node.

NOTE Confidence: 0.701466006666667

00:26:46.050 --> 00:26:48.642 But if there's lymph nodes further

NOTE Confidence: 0.701466006666667

 $00:26:48.642 \longrightarrow 00:26:50.370$ away from the cancer,

NOTE Confidence: 0.701466006666667

 $00:26:50.370 \longrightarrow 00:26:54.954$ then we can directly sample them in other

NOTE Confidence: 0.701466006666667

00:26:54.960 --> 00:26:57.210 Imaging modalities like CAT scan,

NOTE Confidence: 0.701466006666667

 $00{:}26{:}57.210 \dashrightarrow 00{:}26{:}59.576$ they also look for the size and

NOTE Confidence: 0.701466006666667

 $00:26:59.576 \longrightarrow 00:27:01.657$ features of lymph node and then

NOTE Confidence: 0.701466006666667

 $00{:}27{:}01.657 \dashrightarrow 00{:}27{:}03.974$ there's pet scans that look at the

NOTE Confidence: 0.701466006666667

 $00:27:04.048 \longrightarrow 00:27:06.202$ sort of metabolic activity of the

NOTE Confidence: 0.701466006666667

 $00:27:06.202 \longrightarrow 00:27:08.984$ lymph nodes and as it gets very

NOTE Confidence: 0.701466006666667

 $00:27:08.984 \longrightarrow 00:27:11.224$ active can also help distinguish

NOTE Confidence: 0.701466006666667

 $00:27:11.224 \longrightarrow 00:27:12.939$ between inflammation and cancer.

NOTE Confidence: 0.886827814545455

00:27:14.320 --> 00:27:16.966 How often do we do cat scans and PET

00:27:16.966 --> 00:27:19.388 scans and so on in esophageal cancer

NOTE Confidence: 0.886827814545455

 $00:27:19.388 \longrightarrow 00:27:22.160$ to look at distant metastatic disease?

NOTE Confidence: 0.9120661425

 $00:27:22.860 \longrightarrow 00:27:24.888$ Yeah, it's very important

NOTE Confidence: 0.9120661425

 $00:27:24.888 \longrightarrow 00:27:27.419$ as part of the initial staging.

NOTE Confidence: 0.9120661425

 $00:27:27.420 \longrightarrow 00:27:31.870$ And so the accuracy of that initial

NOTE Confidence: 0.9120661425

 $00:27:31.870 \longrightarrow 00:27:34.338$ staging is very important so that we

NOTE Confidence: 0.9120661425

 $00:27:34.338 \longrightarrow 00:27:36.980$ can fit the treatment to the problem.

NOTE Confidence: 0.9120661425

 $00:27:36.980 \longrightarrow 00:27:38.359$ So we don't want to under treat,

NOTE Confidence: 0.9120661425

 $00:27:38.360 \longrightarrow 00:27:40.160$ we don't want to over treat.

NOTE Confidence: 0.9120661425

 $00:27:40.160 \longrightarrow 00:27:44.894$ So that initial staging including CAT scans,

NOTE Confidence: 0.9120661425

 $00{:}27{:}44.894 \dashrightarrow 00{:}27{:}47.729$ sometimes PET scan for esophageal

NOTE Confidence: 0.9120661425

 $00:27:47.729 \longrightarrow 00:27:51.254$ cancer will almost always do that

NOTE Confidence: 0.9120661425

 $00{:}27{:}51.254 \dashrightarrow 00{:}27{:}53.566$ endoscopic ultrasound as well.

NOTE Confidence: 0.9120661425

 $00:27:53.570 \longrightarrow 00:27:56.770$ And then from there,

NOTE Confidence: 0.9120661425

 $00:27:56.770 \longrightarrow 00:27:59.338$ we work as a multidisciplinary team

 $00:27:59.338 \longrightarrow 00:28:02.105$ with the radiologist who look at the scans,

NOTE Confidence: 0.9120661425

 $00:28:02.110 \longrightarrow 00:28:02.720$ the pathologists,

NOTE Confidence: 0.9120661425

 $00:28:02.720 \longrightarrow 00:28:04.245$ who look at the biopsies,

NOTE Confidence: 0.9120661425

 $00:28:04.250 \longrightarrow 00:28:07.466$ the surgeons and the oncologist and

NOTE Confidence: 0.9120661425

 $00:28:07.466 \longrightarrow 00:28:10.096$ the radiation oncologist and then

NOTE Confidence: 0.9120661425

 $00:28:10.096 \longrightarrow 00:28:12.910$ make a treatment plan and then

NOTE Confidence: 0.9120661425

 $00:28:12.910 \longrightarrow 00:28:15.640$ once the treatment begins then

NOTE Confidence: 0.816114438181818

00:28:17.670 --> 00:28:19.458 the oncologists typically would

NOTE Confidence: 0.816114438181818

 $00{:}28{:}19.458 \dashrightarrow 00{:}28{:}22.830$ have a set protocol where they'll

NOTE Confidence: 0.816114438181818

 $00:28:22.830 \longrightarrow 00:28:25.119$ get periodic scans as the

NOTE Confidence: 0.816114438181818

 $00{:}28{:}25.119 \dashrightarrow 00{:}28{:}26.836$ treatments progress and then again

NOTE Confidence: 0.816114438181818

 $00:28:26.836 \longrightarrow 00:28:28.536$ once the treatment is completed.

NOTE Confidence: 0.817459095263158

 $00:28:29.150 \longrightarrow 00:28:31.382$ Doctor Harry Aslanian is a professor

NOTE Confidence: 0.817459095263158

00:28:31.382 --> 00:28:33.691 of medicine and director of endoscopic

NOTE Confidence: 0.817459095263158

 $00:28:33.691 \longrightarrow 00:28:36.344$ ultrasound at the Yale School of Medicine.

NOTE Confidence: 0.817459095263158

 $00:28:36.350 \longrightarrow 00:28:38.394$ If you have questions,

00:28:38.394 --> 00:28:40.396 the address is canceranswers@yale.edu,

NOTE Confidence: 0.817459095263158

 $00:28:40.396 \longrightarrow 00:28:43.192$ and past editions of the program

NOTE Confidence: 0.817459095263158

00:28:43.192 --> 00:28:45.611 are available in audio and written

NOTE Confidence: 0.817459095263158

00:28:45.611 --> 00:28:46.565 form at yalecancercenter.org.

NOTE Confidence: 0.817459095263158

 $00{:}28{:}46.565 \dashrightarrow 00{:}28{:}49.085$ We hope you'll join us next week to

NOTE Confidence: 0.817459095263158

 $00:28:49.085 \longrightarrow 00:28:51.000$ learn more about the fight against

NOTE Confidence: 0.817459095263158

 $00:28:51.000 \longrightarrow 00:28:52.900$ cancer here on Connecticut Public Radio.

NOTE Confidence: 0.817459095263158

 $00{:}28{:}52.900 \dashrightarrow 00{:}28{:}55.018$ Funding for Yale Cancer Answers is

NOTE Confidence: 0.817459095263158

 $00:28:55.018 \longrightarrow 00:28:57.030$ provided by Smilow Cancer Hospital.