## WEBVTT

 $00:00:00.000 \longrightarrow 00:00:03.168$  Funding for Yale Cancer Answers is

NOTE Confidence: 0.9380808

00:00:03.168 --> 00:00:06.160 provided by Smilow Cancer Hospital.

NOTE Confidence: 0.9380808

00:00:06.160 --> 00:00:08.360 Welcome to Yale Cancer Answers

NOTE Confidence: 0.9380808

 $00:00:08.360 \longrightarrow 00:00:10.120$  with Doctor Anees Chappar.

NOTE Confidence: 0.9380808

 $00{:}00{:}10.120 \dashrightarrow 00{:}00{:}11.556$  Yale Cancer Answers features

NOTE Confidence: 0.9380808

00:00:11.556 --> 00:00:13.351 the latest information on cancer

NOTE Confidence: 0.9380808

00:00:13.351 --> 00:00:15.186 care by welcoming oncologists and

NOTE Confidence: 0.9380808

 $00:00:15.186 \longrightarrow 00:00:17.310$  specialists who are on the forefront

NOTE Confidence: 0.9380808

 $00:00:17.366 \longrightarrow 00:00:18.998$  of the battle to fight cancer.

NOTE Confidence: 0.9380808

 $00{:}00{:}19.000 \dashrightarrow 00{:}00{:}20.662$  This week it's a conversation about

NOTE Confidence: 0.9380808

 $00{:}00{:}20.662 \rightarrow 00{:}00{:}22.750$  the role of speech pathology and head

NOTE Confidence: 0.9380808

00:00:22.750 --> 00:00:24.598 and neck cancers with John Gerrity,

NOTE Confidence: 0.9380808

 $00{:}00{:}24.600 \dashrightarrow 00{:}00{:}26.635$ a speech pathologist at Yale

NOTE Confidence: 0.9380808

00:00:26.635 --> 00:00:27.856 New Haven Hospital.

NOTE Confidence: 0.9380808

 $00:00:27.860 \longrightarrow 00:00:29.918$  Doctor Chagpar is a professor of surgical

 $00:00:29.918 \longrightarrow 00:00:32.099$  oncology at the Yale School of Medicine.

NOTE Confidence: 0.93497586

 $00:00:33.580 \longrightarrow 00:00:35.412$  John, maybe we can start off by you

NOTE Confidence: 0.93497586

 $00:00:35.412 \longrightarrow 00:00:37.091$  telling us a little bit more about

NOTE Confidence: 0.93497586

 $00:00:37.091 \longrightarrow 00:00:38.659$  yourself and what it is you do.

NOTE Confidence: 0.93497586

00:00:39.140 --> 00:00:42.536 As a speech language pathologist,

NOTE Confidence: 0.93497586

 $00:00:42.540 \longrightarrow 00:00:44.240$  I'm a specialist who works

NOTE Confidence: 0.93497586

 $00:00:44.240 \longrightarrow 00:00:45.940$  amongst others who can prevent,

NOTE Confidence: 0.93497586

00:00:45.940 --> 00:00:49.380 diagnose, assess, and treat speech,

NOTE Confidence: 0.93497586

 $00{:}00{:}49.380 \dashrightarrow 00{:}00{:}51.516$  language, social communication,

NOTE Confidence: 0.93497586

00:00:51.516 --> 00:00:52.940 cognitive communication,

NOTE Confidence: 0.93497586

 $00:00:52.940 \longrightarrow 00:00:54.928$  voice and swallowing disorders.

NOTE Confidence: 0.93497586

 $00{:}00{:}54.928 \dashrightarrow 00{:}00{:}58.286$  And my work primarily is at an

NOTE Confidence: 0.93497586

00:00:58.286 --> 00:00:59.790 outpatient or otolaryngology clinic,

NOTE Confidence: 0.93497586

 $00{:}00{:}59.790 \dashrightarrow 00{:}01{:}01.342$  treating patients with voice

NOTE Confidence: 0.93497586

 $00:01:01.342 \longrightarrow 00:01:02.506$  and swallowing disorders.

NOTE Confidence: 0.93497586

 $00{:}01{:}02.510 \dashrightarrow 00{:}01{:}04.436$  And I also work with patients

 $00:01:04.436 \longrightarrow 00:01:06.171$  who have voice swallowing and

NOTE Confidence: 0.93497586

 $00:01:06.171 \longrightarrow 00:01:07.880$  speech disorders related to a

NOTE Confidence: 0.93497586

 $00:01:07.880 \longrightarrow 00:01:09.430$  diagnosis of head and neck cancer.

NOTE Confidence: 0.93497586

 $00:01:09.430 \longrightarrow 00:01:11.610$  And I do that work at Smilow Cancer

NOTE Confidence: 0.93497586

 $00{:}01{:}11.670 \dashrightarrow 00{:}01{:}13.590$  Hospital in a multispecialty clinic.

NOTE Confidence: 0.92852366

00:01:14.100 --> 00:01:16.473 I mean, it seems like patients who

NOTE Confidence: 0.92852366

00:01:16.473 --> 00:01:19.562 have head and neck cancers may well

NOTE Confidence: 0.92852366

 $00{:}01{:}19.562 \dashrightarrow 00{:}01{:}22.417$  have dysfunctions in speech and

NOTE Confidence: 0.92852366

 $00{:}01{:}22.420 \dashrightarrow 00{:}01{:}24.778$  language and swallowing and so on,

NOTE Confidence: 0.92852366

 $00{:}01{:}24.780 \dashrightarrow 00{:}01{:}27.845$  either because of the diagnosis

NOTE Confidence: 0.92852366

 $00:01:27.845 \longrightarrow 00:01:30.420$  itself or because of the treatments

NOTE Confidence: 0.92852366

 $00:01:30.420 \longrightarrow 00:01:32.380$  that may have side effects.

NOTE Confidence: 0.92852366

 $00{:}01{:}32.380 \dashrightarrow 00{:}01{:}34.804$  So can you talk a little bit about

NOTE Confidence: 0.92852366

 $00:01:34.804 \longrightarrow 00:01:37.111$  some of the issues that patients

NOTE Confidence: 0.92852366

00:01:37.111 --> 00:01:39.541 may have either from the cancer

 $00:01:39.616 \longrightarrow 00:01:42.610$  itself or from the treatment and

NOTE Confidence: 0.92852366

 $00:01:42.610 \longrightarrow 00:01:45.046$  what people can kind of anticipate?

NOTE Confidence: 0.9382134

00:01:46.290 --> 00:01:48.582 Absolutely. So patients who have a

NOTE Confidence: 0.9382134

00:01:48.582 --> 00:01:50.969 diagnosis of head and neck cancer,

NOTE Confidence: 0.9382134

00:01:50.970 --> 00:01:52.450 primarily in the outpatient setting,

NOTE Confidence: 0.9382134

 $00:01:52.450 \longrightarrow 00:01:55.084$  we're seeing them for assessment of

NOTE Confidence: 0.9382134

 $00:01:55.084 \longrightarrow 00:01:57.279$  swallowing function because that can

NOTE Confidence: 0.9382134

 $00:01:57.279 \longrightarrow 00:01:59.523$  very much be impacted for patients

NOTE Confidence: 0.9382134

 $00{:}01{:}59.523 \dashrightarrow 00{:}02{:}01.630$  with that diagnosis just because of the

NOTE Confidence: 0.9382134

00:02:01.630 --> 00:02:03.810 presence of a mass that a patient has,

NOTE Confidence: 0.9382134

 $00:02:03.810 \longrightarrow 00:02:05.610$  that can affect the timing,

NOTE Confidence: 0.9382134

00:02:05.610 --> 00:02:07.415 the coordination of swallowing and

NOTE Confidence: 0.9382134

00:02:07.415 --> 00:02:09.830 that can really put patients at a

NOTE Confidence: 0.9382134

 $00:02:09.830 \longrightarrow 00:02:11.755$  risk for aspiration in which food or

NOTE Confidence: 0.9382134

 $00:02:11.755 \longrightarrow 00:02:13.806$  liquid can go down towards the lungs,

NOTE Confidence: 0.9382134

 $00{:}02{:}13.810 \dashrightarrow 00{:}02{:}16.570$  creating risk of health complications.

 $00:02:16.570 \longrightarrow 00:02:18.904$  So these patients will oftentimes

NOTE Confidence: 0.9382134

 $00:02:18.904 \longrightarrow 00:02:20.958$  see them before they're undergoing

NOTE Confidence: 0.9382134

 $00:02:20.958 \longrightarrow 00:02:23.260$  a surgery to see what their baseline

NOTE Confidence: 0.9382134

 $00:02:23.260 \longrightarrow 00:02:24.130$  swallow function is.

NOTE Confidence: 0.9382134

 $00:02:24.130 \longrightarrow 00:02:26.328$  We might be working with these patients

NOTE Confidence: 0.9382134

 $00{:}02{:}26.330 \dashrightarrow 00{:}02{:}28.290$  after they've had an operation to see

NOTE Confidence: 0.9382134

 $00:02:28.290 \longrightarrow 00:02:30.179$  what their swallow function looks like.

NOTE Confidence: 0.9382134

 $00:02:30.180 \longrightarrow 00:02:31.794$  And so there's definitely some impact

NOTE Confidence: 0.9382134

00:02:31.794 --> 00:02:34.274 that can be had just from the presence of

NOTE Confidence: 0.9382134

 $00:02:34.274 \longrightarrow 00:02:36.340$  the cancer or from surgical intervention.

NOTE Confidence: 0.9382134

 $00:02:36.340 \longrightarrow 00:02:38.888$  We also work with patients who after

NOTE Confidence: 0.9382134

 $00:02:38.888 \longrightarrow 00:02:40.767$  undergoing radiation treatment or

NOTE Confidence: 0.9382134

 $00:02:40.767 \longrightarrow 00:02:42.933$  even during the process of radiation,

NOTE Confidence: 0.9382134

 $00:02:42.940 \longrightarrow 00:02:44.980$  the effects of radiation that

NOTE Confidence: 0.9382134

 $00:02:44.980 \longrightarrow 00:02:46.612$  set in including fibrosis.

 $00:02:46.620 \longrightarrow 00:02:48.420$  So tightening of these structures

NOTE Confidence: 0.9382134

 $00:02:48.420 \longrightarrow 00:02:49.500$  can impact swallowing.

NOTE Confidence: 0.9382134

 $00:02:49.500 \longrightarrow 00:02:52.182$  So we try and provide therapy to make sure

NOTE Confidence: 0.9382134

 $00:02:52.182 \longrightarrow 00:02:54.895$  that patients can safely take enough food,

NOTE Confidence: 0.9382134

 $00:02:54.900 \longrightarrow 00:02:57.315$  nutrition and be able to maintain their

NOTE Confidence: 0.9382134

 $00:02:57.315 \longrightarrow 00:02:59.926$  quality of life when it comes to eating.

NOTE Confidence: 0.9382134

 $00:02:59.930 \longrightarrow 00:03:01.370$  As far as speech is concerned,

NOTE Confidence: 0.9382134

 $00{:}03{:}01.370 \dashrightarrow 00{:}03{:}03.490$  a patient can come in and we can

NOTE Confidence: 0.9382134

 $00:03:03.548 \longrightarrow 00:03:05.564$  really help them in a variety of areas.

NOTE Confidence: 0.9382134

 $00:03:05.570 \longrightarrow 00:03:07.563$  As it relates to speech and

NOTE Confidence: 0.9382134

 $00{:}03{:}07.563 \dashrightarrow 00{:}03{:}08.928$  the realm of speech pathology,

NOTE Confidence: 0.9382134

 $00:03:08.930 \longrightarrow 00:03:10.514$  we talk about speech and voice

NOTE Confidence: 0.9382134

 $00:03:10.514 \longrightarrow 00:03:11.570$  a little bit differently.

NOTE Confidence: 0.9382134

 $00:03:11.570 \longrightarrow 00:03:13.245$  So for patients who have

NOTE Confidence: 0.9382134

 $00:03:13.245 \longrightarrow 00:03:14.250$  undergone radiation treatment,

NOTE Confidence: 0.9382134

 $00:03:14.250 \longrightarrow 00:03:15.948$  they can have some swelling or

 $00:03:15.948 \longrightarrow 00:03:17.413$  inflammation of their vocal cords

NOTE Confidence: 0.9382134

 $00{:}03{:}17.413 \dashrightarrow 00{:}03{:}19.087$  giving them a horse vocal quality.

NOTE Confidence: 0.9382134

 $00:03:19.090 \longrightarrow 00:03:20.890$  We can help them target that.

NOTE Confidence: 0.9382134

00:03:20.890 --> 00:03:22.790 And for patients who've undergone

NOTE Confidence: 0.9382134

 $00:03:22.790 \longrightarrow 00:03:24.310$  treatment where their articulatory

NOTE Confidence: 0.9382134

 $00:03:24.310 \longrightarrow 00:03:25.370$  structures are impacted,

NOTE Confidence: 0.9382134

 $00:03:25.370 \longrightarrow 00:03:27.470$  we can help them on

NOTE Confidence: 0.9382134

 $00{:}03{:}27.470 \dashrightarrow 00{:}03{:}29.150$  intelligibility strategies as well.

NOTE Confidence: 0.9382134

 $00{:}03{:}29.150 \dashrightarrow 00{:}03{:}30.766$  So that's just a real small subset of

NOTE Confidence: 0.9382134

 $00:03:30.766 \longrightarrow 00:03:32.189$  the patients that we're working with.

NOTE Confidence: 0.93783677

 $00{:}03{:}33.070 \dashrightarrow 00{:}03{:}35.308$  In terms of swallowing,

NOTE Confidence: 0.93783677

 $00:03:35.310 \longrightarrow 00:03:37.975$  when people have difficulty swallowing

NOTE Confidence: 0.93783677

 $00{:}03{:}37.975 \dashrightarrow 00{:}03{:}41.910$  either because of a mass or because of,

NOTE Confidence: 0.93783677

 $00:03:41.910 \longrightarrow 00:03:45.130$  you know, infiltration of a tumor in

NOTE Confidence: 0.93783677

 $00:03:45.130 \longrightarrow 00:03:47.929$  nerves or because they've had surgery

 $00:03:47.929 \longrightarrow 00:03:52.130$  that may have caused some damage to those

NOTE Confidence: 0.93783677

 $00{:}03{:}52.130 \to 00{:}03{:}54.910$  structures or radiation with fibrosis,

NOTE Confidence: 0.93783677

 $00:03:54.910 \longrightarrow 00:03:56.989$  certainly swallowing can be a real issue.

NOTE Confidence: 0.93783677

 $00:03:56.990 \longrightarrow 00:03:59.045$  The question then is what

NOTE Confidence: 0.93783677

 $00:03:59.045 \longrightarrow 00:04:00.278$  treatments are available?

NOTE Confidence: 0.93783677

00:04:00.280 --> 00:04:02.880 I mean, how can patients make this better?

NOTE Confidence: 0.93783677

 $00:04:02.880 \longrightarrow 00:04:05.337$  Do they ever get back to normal

NOTE Confidence: 0.93783677

 $00:04:05.337 \longrightarrow 00:04:07.640$  swallowing and what does that entail?

NOTE Confidence: 0.93735623

 $00{:}04{:}08.680 {\:{\circ}{\circ}{\circ}}>00{:}04{:}10.252$  Patients can get back to their

NOTE Confidence: 0.93735623

 $00:04:10.252 \longrightarrow 00:04:11.626$  baseline diet with normal swallowing

NOTE Confidence: 0.93735623

 $00{:}04{:}11.626 \dashrightarrow 00{:}04{:}13.530$  and there are a bunch of different

NOTE Confidence: 0.93735623

 $00:04:13.530 \longrightarrow 00:04:14.920$  factors that will impact that.

NOTE Confidence: 0.93735623

 $00:04:14.920 \longrightarrow 00:04:17.040$  As far as you know, other treatments,

NOTE Confidence: 0.93735623

 $00:04:17.040 \longrightarrow 00:04:19.200$  they've undergone the size or location

NOTE Confidence: 0.93735623

 $00:04:19.200 \longrightarrow 00:04:21.920$  of a mass, so prognosis can be impacted.

NOTE Confidence: 0.93735623

 $00:04:21.920 \longrightarrow 00:04:24.458$  But we start off by assessing

 $00:04:24.460 \longrightarrow 00:04:26.500$  the swallowing type of disorder,

NOTE Confidence: 0.93735623

 $00:04:26.500 \longrightarrow 00:04:27.900$  the severity of the disorder.

NOTE Confidence: 0.93735623

 $00:04:27.900 \longrightarrow 00:04:29.676$  So we always begin by taking

NOTE Confidence: 0.93735623

 $00:04:29.676 \longrightarrow 00:04:31.500$  a look at the swallow.

NOTE Confidence: 0.93735623

 $00{:}04{:}31.500 \dashrightarrow 00{:}04{:}34.545$  We do that by doing direct visualization

NOTE Confidence: 0.93735623

 $00:04:34.545 \longrightarrow 00:04:37.020$  with fiber optical Laryngoscopy or a ear,

NOTE Confidence: 0.93735623

 $00:04:37.020 \longrightarrow 00:04:38.472$  nose and throat camera where we

NOTE Confidence: 0.93735623

 $00:04:38.472 \longrightarrow 00:04:40.197$  look right down in the throat or

NOTE Confidence: 0.93735623

00:04:40.197 --> 00:04:41.613 we can do X-ray swallow tests.

NOTE Confidence: 0.93735623

 $00:04:41.620 \longrightarrow 00:04:42.540$  And when we do that,

NOTE Confidence: 0.93735623

 $00:04:42.540 \longrightarrow 00:04:44.108$  we get a great sense of how

NOTE Confidence: 0.93735623

00:04:44.108 --> 00:04:45.180 the structures are moving,

NOTE Confidence: 0.93735623

 $00:04:45.180 \longrightarrow 00:04:47.016$  how timing is, what strength is like,

NOTE Confidence: 0.93735623

 $00:04:47.020 \longrightarrow 00:04:48.428$  what coordination is like.

NOTE Confidence: 0.93735623

 $00:04:48.428 \longrightarrow 00:04:50.540$  And from there we give targeted

00:04:50.606 --> 00:04:52.940 exercises that really try and help

NOTE Confidence: 0.93735623

 $00:04:52.940 \longrightarrow 00:04:55.225$  either strengthen the swallow or get

NOTE Confidence: 0.93735623

 $00{:}04{:}55.225 \dashrightarrow 00{:}04{:}57.229$  some of these tightened structures to

NOTE Confidence: 0.93735623

 $00:04:57.229 \longrightarrow 00:04:59.068$  begin moving a little bit better.

NOTE Confidence: 0.93735623

 $00:04:59.068 \longrightarrow 00:05:01.538$  So patients can be coming to see us

 $00:05:02.072 \longrightarrow 00:05:03.668$  usually once a week throughout

NOTE Confidence: 0.93735623

 $00:05:03.668 \longrightarrow 00:05:04.900$  the course of treatment.

NOTE Confidence: 0.93735623

00:05:04.900 --> 00:05:06.284 For intensive swallowing exercises,

NOTE Confidence: 0.93735623

 $00{:}05{:}06.284 \dashrightarrow 00{:}05{:}08.360$  we carry them through a regimen

NOTE Confidence: 0.93735623

 $00:05:08.419 \longrightarrow 00:05:10.417$  and try and ensure that they're

NOTE Confidence: 0.93735623

00:05:10.417 --> 00:05:11.416 following these exercises,

NOTE Confidence: 0.93735623

 $00:05:11.420 \longrightarrow 00:05:13.058$  which will make sure they maintain their

NOTE Confidence: 0.93735623

 $00:05:13.058 \longrightarrow 00:05:14.539$  swallow function or try and improve it.

NOTE Confidence: 0.92884845

 $00{:}05{:}15.550 \dashrightarrow 00{:}05{:}16.318$  That's really interesting.

NOTE Confidence: 0.92884845

00:05:16.318 --> 00:05:18.378 I mean, I'm sure you know,

NOTE Confidence: 0.92884845

 $00:05:18.378 \longrightarrow 00:05:21.714$  we often think about exercises like at

 $00:05:21.714 \longrightarrow 00:05:24.510$  the gym where we're strengthening muscles.

NOTE Confidence: 0.92884845

 $00{:}05{:}24.510 \dashrightarrow 00{:}05{:}26.778$  I don't know that many of us have really

NOTE Confidence: 0.92884845

 $00:05:26.778 \longrightarrow 00:05:28.707$  thought about exercises for swallowing.

NOTE Confidence: 0.92884845

 $00:05:28.710 \longrightarrow 00:05:30.201$  Can you kind of give us a

NOTE Confidence: 0.92884845

 $00:05:30.201 \longrightarrow 00:05:31.549$  sense of what that's like?

NOTE Confidence: 0.92884845

00:05:31.550 --> 00:05:33.552 I mean, how do you train your

NOTE Confidence: 0.92884845

 $00:05:33.552 \longrightarrow 00:05:35.110$  muscles in your esophagus?

NOTE Confidence: 0.9420021

 $00:05:36.200 \longrightarrow 00:05:38.376$  When it comes to training all the

NOTE Confidence: 0.9420021

 $00{:}05{:}38.376 \dashrightarrow 00{:}05{:}40.328$  different muscles, we have a pretty,

NOTE Confidence: 0.9420021

 $00:05:40.328 \longrightarrow 00:05:42.088$  pretty consistent set of exercises

NOTE Confidence: 0.9420021

 $00{:}05{:}42.088 \dashrightarrow 00{:}05{:}44.280$  that we use for patients just to

NOTE Confidence: 0.9420021

 $00{:}05{:}44.280 \to 00{:}05{:}46.080$  work on keeping the pharynx strong,

NOTE Confidence: 0.9420021

00:05:46.080 --> 00:05:49.160 maintaining range of motion,

NOTE Confidence: 0.9420021

 $00{:}05{:}49.160 \dashrightarrow 00{:}05{:}50.840$  making sure that the airway stays

NOTE Confidence: 0.9420021

 $00:05:50.840 \longrightarrow 00:05:51.960$  protected when you swallow.

NOTE Confidence: 0.9420021

 $00:05:51.960 \longrightarrow 00:05:53.538$  So a lot of these exercises

 $00:05:53.538 \longrightarrow 00:05:55.640$  have to do with range of motion.

NOTE Confidence: 0.9420021

 $00:05:55.640 \longrightarrow 00:05:57.470$  So for patients undergoing radiation

NOTE Confidence: 0.9420021

 $00:05:57.470 \longrightarrow 00:05:58.860$  treatment, moving the mouth,

NOTE Confidence: 0.9420021

00:05:58.860 --> 00:06:00.688 moving your jaw, your tongue.

NOTE Confidence: 0.9420021

 $00:06:00.688 \longrightarrow 00:06:02.708$  But then with the actual

NOTE Confidence: 0.9420021

 $00:06:02.708 \longrightarrow 00:06:03.516$  swallowing exercises,

NOTE Confidence: 0.9420021

00:06:03.520 --> 00:06:05.152 where you're physically swallowing,

NOTE Confidence: 0.9420021

 $00:06:05.152 \longrightarrow 00:06:06.876$  it's using a lot of force.

NOTE Confidence: 0.9420021

 $00:06:06.880 \longrightarrow 00:06:09.000$  Swallowing your saliva as hard as you can.

NOTE Confidence: 0.9420021

 $00:06:09.000 \longrightarrow 00:06:10.729$  Or trying to swallow while you're holding

NOTE Confidence: 0.9420021

 $00{:}06{:}10.729 \dashrightarrow 00{:}06{:}12.360$  your tongue in between your teeth.

NOTE Confidence: 0.9420021

 $00:06:12.360 \longrightarrow 00:06:14.208$  Or making sure that you're elevating

NOTE Confidence: 0.9420021

00:06:14.208 --> 00:06:16.408 your voice box and holding your swallow

NOTE Confidence: 0.9420021

 $00:06:16.408 \longrightarrow 00:06:18.886$  nice and high and tight as you're trying

NOTE Confidence: 0.9420021

 $00:06:18.886 \longrightarrow 00:06:21.278$  to go through some of these exercises.

 $00:06:21.280 \longrightarrow 00:06:23.970$  It's something that is

NOTE Confidence: 0.9420021

 $00{:}06{:}23.970 \dashrightarrow 00{:}06{:}25.130$  definitely not second nature.

NOTE Confidence: 0.9420021

 $00:06:25.130 \longrightarrow 00:06:27.074$  A lot of patients need a lot of

NOTE Confidence: 0.9420021

 $00:06:27.074 \longrightarrow 00:06:28.424$  repetition because it's a very

NOTE Confidence: 0.9420021

 $00:06:28.424 \longrightarrow 00:06:30.044$  interesting way to target the swallow.

NOTE Confidence: 0.9420021

 $00:06:30.050 \longrightarrow 00:06:31.646$  But what we're going on is

NOTE Confidence: 0.9420021

 $00:06:31.646 \longrightarrow 00:06:32.444$  just the repetition,

NOTE Confidence: 0.9420021

 $00:06:32.450 \longrightarrow 00:06:32.962$  this movement,

NOTE Confidence: 0.9420021

00:06:32.962 --> 00:06:33.474 the strengthening,

NOTE Confidence: 0.9420021

 $00:06:33.474 \longrightarrow 00:06:34.498$  that's what helps them

NOTE Confidence: 0.9420021

 $00:06:34.498 \longrightarrow 00:06:35.609$  get that function back.

NOTE Confidence: 0.93331736

 $00:06:36.650 \longrightarrow 00:06:38.204$  You know, while you were saying that

NOTE Confidence: 0.93331736

00:06:38.204 --> 00:06:39.786 I just tried to swallow holding my

NOTE Confidence: 0.93331736

 $00{:}06{:}39.786 \dashrightarrow 00{:}06{:}41.730$  tongue in my teeth and it's pretty tough.

NOTE Confidence: 0.93331736

00:06:41.730 --> 00:06:43.690 I'm sure all of our listeners just

NOTE Confidence: 0.93331736

 $00:06:43.690 \longrightarrow 00:06:46.206$  tried that. It takes a lot of work.

00:06:47.090 --> 00:06:48.497 That's a lot of feedback

NOTE Confidence: 0.93331736

 $00{:}06{:}48.497 \dashrightarrow 00{:}06{:}49.688$  I've gotten on that one too.

NOTE Confidence: 0.9371702

 $00:06:52.040 \longrightarrow 00:06:53.492$  In terms of speech,

NOTE Confidence: 0.9371702

00:06:53.492 --> 00:06:55.670 that's another one where

NOTE Confidence: 0.9371702

 $00:06:55.748 \longrightarrow 00:06:58.380$  so many of these things we take as

NOTE Confidence: 0.9371702

 $00:06:58.380 \longrightarrow 00:07:00.482$  second nature and then to try to

NOTE Confidence: 0.9371702

 $00:07:00.482 \longrightarrow 00:07:04.360$  learn how to go about speaking,

NOTE Confidence: 0.9371702

 $00:07:04.360 \longrightarrow 00:07:06.170$  especially when there may have

NOTE Confidence: 0.9371702

00:07:06.170 --> 00:07:08.403 been damage to nerves or other

NOTE Confidence: 0.9371702

 $00{:}07{:}08.403 \dashrightarrow 00{:}07{:}10.533$  structures that really help us to

NOTE Confidence: 0.9371702

 $00{:}07{:}10.533 \dashrightarrow 00{:}07{:}13.415$  get the sounds out that we use for

NOTE Confidence: 0.9371702

 $00{:}07{:}13.415 \dashrightarrow 00{:}07{:}15.160$  speech might be really difficult.

NOTE Confidence: 0.9371702

00:07:15.160 --> 00:07:17.288 Talk a little bit about some of

NOTE Confidence: 0.9371702

 $00{:}07{:}17.288 \dashrightarrow 00{:}07{:}19.002$  the therapies that are available

NOTE Confidence: 0.9371702

 $00:07:19.002 \longrightarrow 00:07:21.264$  for patients who may have speech

 $00:07:21.264 \longrightarrow 00:07:23.592$  issues after surgery or radiation or

NOTE Confidence: 0.9371702

 $00:07:23.592 \longrightarrow 00:07:26.177$  as a result of a cancer directly.

NOTE Confidence: 0.93357134

 $00:07:26.940 \longrightarrow 00:07:29.173$  With the therapy that's

NOTE Confidence: 0.93357134

 $00:07:29.173 \longrightarrow 00:07:31.139$  involved with the tongue being our

NOTE Confidence: 0.93357134

00:07:31.140 --> 00:07:33.380 most used articulator for speech,

NOTE Confidence: 0.93357134

 $00{:}07{:}33.380 \dashrightarrow 00{:}07{:}35.180$  we're typically working with a

NOTE Confidence: 0.93357134

 $00{:}07{:}35.180 \dashrightarrow 00{:}07{:}36.980$  lot of patients who've undergone

NOTE Confidence: 0.93357134

 $00:07:37.045 \longrightarrow 00:07:38.820$  surgeries for a lingual cancer.

NOTE Confidence: 0.93357134

 $00{:}07{:}38.820 \dashrightarrow 00{:}07{:}40.800$  So we do have some patients who might have

NOTE Confidence: 0.93357134

00:07:40.800 --> 00:07:42.622 had portion of their tongue removed due

NOTE Confidence: 0.93357134

 $00:07:42.622 \longrightarrow 00:07:44.647$  to cancer and then replaced with a flap

NOTE Confidence: 0.93357134

 $00:07:44.647 \longrightarrow 00:07:46.740$  to try and poke their tongue back up.

NOTE Confidence: 0.93357134

 $00:07:46.740 \longrightarrow 00:07:48.100$  And for these patients,

NOTE Confidence: 0.93357134

 $00:07:48.100 \longrightarrow 00:07:49.600$  they've been speaking a certain way

NOTE Confidence: 0.93357134

 $00:07:49.600 \longrightarrow 00:07:51.180$  the entire course of their lives.

NOTE Confidence: 0.93357134

 $00:07:51.180 \longrightarrow 00:07:52.620$  Then all of a sudden they've

 $00:07:52.620 \longrightarrow 00:07:53.340$  undergone some intervention.

NOTE Confidence: 0.93357134

 $00:07:53.340 \longrightarrow 00:07:55.748$  They've had cancer and they're used to

NOTE Confidence: 0.93357134

00:07:55.748 --> 00:07:58.218 talking in their normal speech pattern,

NOTE Confidence: 0.93357134

00:07:58.220 --> 00:08:00.215 but now it's not getting that clarity,

NOTE Confidence: 0.93357134

 $00:08:00.220 \longrightarrow 00:08:02.460$  that articulation that they want.

NOTE Confidence: 0.93357134

 $00:08:02.460 \longrightarrow 00:08:03.444$  So as speech pathologists,

NOTE Confidence: 0.93357134

 $00:08:03.444 \longrightarrow 00:08:05.939$  what we'll do is we meet with these patients,

NOTE Confidence: 0.93357134

 $00{:}08{:}05.940 \dashrightarrow 00{:}08{:}06.992$  we assess their articulation,

NOTE Confidence: 0.93357134

 $00:08:06.992 \longrightarrow 00:08:09.618$  we have them make a lot of different sounds.

NOTE Confidence: 0.93357134

 $00{:}08{:}09.620 \dashrightarrow 00{:}08{:}11.104$  We want to make sure that we're

NOTE Confidence: 0.93357134

 $00:08:11.104 \longrightarrow 00:08:12.523$  covering all the sounds of the

NOTE Confidence: 0.93357134

 $00{:}08{:}12.523 \dashrightarrow 00{:}08{:}13.993$  English language and then we target

NOTE Confidence: 0.9335713

 $00{:}08{:}14.810 \dashrightarrow 00{:}08{:}16.430$  are there any strategies that you

NOTE Confidence: 0.93357134

 $00:08:16.430 \longrightarrow 00:08:18.470$  can do to try and get your speech

NOTE Confidence: 0.93357134

 $00:08:18.470 \longrightarrow 00:08:19.958$  stronger or clearer or more crisp?

 $00:08:19.960 \longrightarrow 00:08:22.800$  As I like to say for a lot of

NOTE Confidence: 0.93357134

 $00:08:22.800 \longrightarrow 00:08:24.320$  these patients and includes

NOTE Confidence: 0.93357134

 $00:08:24.320 \longrightarrow 00:08:25.080$  compensatory strategies.

NOTE Confidence: 0.93357134

00:08:25.080 --> 00:08:27.440 So sometimes that's over articulating,

NOTE Confidence: 0.93357134

00:08:27.440 --> 00:08:28.808 moving your mouth more,

NOTE Confidence: 0.93357134

 $00{:}08{:}28.808 \dashrightarrow 00{:}08{:}30.518$  slowing your rate of speech,

NOTE Confidence: 0.93357134

 $00:08:30.520 \longrightarrow 00:08:32.648$  trying to increase your volume in a healthy

NOTE Confidence: 0.93357134

 $00:08:32.648 \longrightarrow 00:08:34.756$  way, using a lot of breath support.

NOTE Confidence: 0.93357134

 $00{:}08{:}34.760 \dashrightarrow 00{:}08{:}37.040$  These strategies can help intelligibility.

NOTE Confidence: 0.93357134

 $00:08:37.040 \longrightarrow 00:08:39.320$  But then it's also some repetition,

NOTE Confidence: 0.93357134

 $00:08:39.320 \longrightarrow 00:08:41.080$  some directed exercises with

NOTE Confidence: 0.93357134

 $00:08:41.080 \longrightarrow 00:08:42.400$  different speech sounds.

NOTE Confidence: 0.93357134

00:08:42.400 --> 00:08:42.782 All right,

NOTE Confidence: 0.93357134

 $00:08:42.782 \longrightarrow 00:08:44.119$  let's make sure that your S,

NOTE Confidence: 0.93357134

 $00:08:44.120 \longrightarrow 00:08:47.200$  your T is crisp right where we need it to be.

NOTE Confidence: 0.93357134

 $00:08:47.200 \longrightarrow 00:08:48.440$  And then for other patients,

 $00:08:48.440 \longrightarrow 00:08:50.492$  if we're noticing it has a lot to do

NOTE Confidence: 0.93357134

 $00{:}08{:}50.492 \dashrightarrow 00{:}08{:}52.379$  with scar tissue or if it has to do

NOTE Confidence: 0.93357134

 $00:08:52.379 \longrightarrow 00:08:54.400$  a lot with our radiation fibrosis,

NOTE Confidence: 0.93357134

 $00:08:54.400 \longrightarrow 00:08:56.680$  we can also offer them something

NOTE Confidence: 0.93357134

 $00{:}08{:}56.680 \dashrightarrow 00{:}08{:}58.200$  called myofascial release where

NOTE Confidence: 0.93357134

 $00:08:58.262 \longrightarrow 00:09:00.254$  it's manual exercises that we can

NOTE Confidence: 0.93357134

00:09:00.254 --> 00:09:02.485 try and teach patients to get their

NOTE Confidence: 0.93357134

00:09:02.485 --> 00:09:04.438 tongue to be less tight so they're

NOTE Confidence: 0.93357134

 $00:09:04.440 \longrightarrow 00:09:05.700$  able to move their articulators

NOTE Confidence: 0.93357134

 $00:09:05.700 \longrightarrow 00:09:07.243$  better and usually get some better

NOTE Confidence: 0.93357134

 $00:09:07.243 \longrightarrow 00:09:08.199$  speech along with it.

NOTE Confidence: 0.92165166

 $00:09:09.070 \longrightarrow 00:09:11.262$  And so give us a sense of how

NOTE Confidence: 0.92165166

 $00{:}09{:}11.262 \dashrightarrow 00{:}09{:}13.474$  common these problems are after your

NOTE Confidence: 0.92165166

 $00:09:13.474 \longrightarrow 00:09:15.469$  head and neck cancer treatment.

NOTE Confidence: 0.92165166

00:09:15.470 --> 00:09:18.198 I mean, are we talking about the majority

00:09:18.198 --> 00:09:20.592 of patients who need to undergo these

NOTE Confidence: 0.92165166

 $00:09:20.592 \longrightarrow 00:09:22.950$  the rapies or is it really just a few

NOTE Confidence: 0.9384525

 $00:09:23.960 \longrightarrow 00:09:26.400$  when it comes to swallowing?

NOTE Confidence: 0.9384525

 $00:09:26.400 \longrightarrow 00:09:28.228$  Every single patient who's

NOTE Confidence: 0.9384525

00:09:28.228 --> 00:09:29.599 undergoing radiation treatment,

NOTE Confidence: 0.9384525

 $00:09:29.600 \longrightarrow 00:09:32.040$  we try to see for swallowing therapy and

NOTE Confidence: 0.9384525

 $00{:}09{:}32.040 \dashrightarrow 00{:}09{:}34.837$  we do a lot of prophylactic exercises.

NOTE Confidence: 0.9384525

 $00:09:34.840 \longrightarrow 00:09:36.716$  So if patients are going to be

NOTE Confidence: 0.9384525

 $00{:}09{:}36.716 \dashrightarrow 00{:}09{:}37.520$  getting radiation treatment,

NOTE Confidence: 0.9384525

 $00:09:37.520 \longrightarrow 00:09:39.725$  we know that those side effects of

NOTE Confidence: 0.9384525

 $00{:}09{:}39.725 \dashrightarrow 00{:}09{:}41.331$  radiation can continue to impact

NOTE Confidence: 0.9384525

 $00{:}09{:}41.331 \dashrightarrow 00{:}09{:}43.438$  patients years and years down the line.

NOTE Confidence: 0.9384525

 $00:09:43.440 \longrightarrow 00:09:46.272$  So being proactive in getting exercises

NOTE Confidence: 0.9384525

 $00{:}09{:}46.272 {\:{\circ}{\circ}{\circ}}>00{:}09{:}48.725$  can help prevent patients from

NOTE Confidence: 0.9384525

 $00:09:48.725 \longrightarrow 00:09:51.145$  potentially having issues later on.

NOTE Confidence: 0.9384525

 $00{:}09{:}51.150 \dashrightarrow 00{:}09{:}52.274$  So every body essentially we

 $00:09:52.274 \longrightarrow 00:09:54.651$  would love to come and see us for

NOTE Confidence: 0.9384525

 $00:09:54.651 \longrightarrow 00:09:56.236$  swallowing exercises or any speech

NOTE Confidence: 0.9384525

 $00:09:56.236 \longrightarrow 00:09:58.028$  pathologist who you have access to.

NOTE Confidence: 0.9384525

00:09:58.030 --> 00:09:59.998 For patients who might have some

NOTE Confidence: 0.9384525

00:09:59.998 --> 00:10:02.150 trouble with speech or articulation,

NOTE Confidence: 0.9384525

 $00:10:02.150 \longrightarrow 00:10:03.950$  that's more related to those who

NOTE Confidence: 0.9384525

 $00:10:03.950 \longrightarrow 00:10:05.781$  typically have a lot of involvement

NOTE Confidence: 0.9384525

00:10:05.781 --> 00:10:08.045 in the base of their tongue or more

NOTE Confidence: 0.9384525

 $00:10:08.110 \longrightarrow 00:10:10.222$  of their oral tongue as they're

NOTE Confidence: 0.9384525

 $00:10:10.222 \longrightarrow 00:10:11.630$  undergoing cancer treatment or

NOTE Confidence: 0.9384525

00:10:11.630 --> 00:10:13.670 other structures like their palate.

NOTE Confidence: 0.9384525

 $00:10:13.670 \longrightarrow 00:10:15.574$  So it might not be very common as

NOTE Confidence: 0.9384525

 $00{:}10{:}15.574 \dashrightarrow 00{:}10{:}17.406$  far as the general population with

NOTE Confidence: 0.9384525

 $00:10:17.406 \longrightarrow 00:10:19.820$  people who have had a neck cancer,

NOTE Confidence: 0.9384525

 $00:10:19.820 \longrightarrow 00:10:21.156$  but by and large,

00:10:21.156 --> 00:10:22.826 if those patients undergo any

NOTE Confidence: 0.9384525

 $00:10:22.826 \longrightarrow 00:10:24.060$  intervention on those sites,

NOTE Confidence: 0.9384525

 $00:10:24.060 \longrightarrow 00:10:25.084$  we'll be seeing them.

NOTE Confidence: 0.9384525

 $00:10:25.084 \longrightarrow 00:10:26.620$  And then there are also patients

NOTE Confidence: 0.9384525

 $00:10:26.671 \longrightarrow 00:10:27.976$  in a completely different subset

NOTE Confidence: 0.9384525

 $00:10:27.976 \longrightarrow 00:10:29.900$  who will see for voice restoration.

NOTE Confidence: 0.93081397

 $00:10:30.860 \longrightarrow 00:10:33.590$  Talk a little bit about the difference

NOTE Confidence: 0.93081397

 $00:10:33.590 \longrightarrow 00:10:35.900$  between speech and voice restoration.

NOTE Confidence: 0.9250192

 $00:10:36.980 \longrightarrow 00:10:37.898$  So with speech,

NOTE Confidence: 0.9250192

00:10:37.898 --> 00:10:39.734 what we're really talking about is,

NOTE Confidence: 0.9250192

 $00{:}10{:}39.740 \dashrightarrow 00{:}10{:}41.096$  are those main articulators.

NOTE Confidence: 0.9250192

 $00{:}10{:}41.096 \dashrightarrow 00{:}10{:}44.080$  So we're looking at the the lips, the tongue,

NOTE Confidence: 0.9250192

 $00:10:44.080 \longrightarrow 00:10:45.820$  how they impact the different structures,

NOTE Confidence: 0.9250192

00:10:45.820 --> 00:10:47.008 your palate, your teeth.

NOTE Confidence: 0.9250192

 $00:10:47.008 \longrightarrow 00:10:48.493$  When it comes to voice,

NOTE Confidence: 0.9250192

 $00:10:48.500 \longrightarrow 00:10:50.168$  we are really focusing on the

00:10:50.168 --> 00:10:51.949 vocal cords and how the vocal

NOTE Confidence: 0.9250192

00:10:51.949 --> 00:10:53.779 cords vibrate to produce a clear,

NOTE Confidence: 0.9250192

 $00:10:53.780 \longrightarrow 00:10:54.743$  steady, consistent voice.

NOTE Confidence: 0.9250192

00:10:54.743 --> 00:10:57.445 Now for a lot of patients who undergo

NOTE Confidence: 0.9250192

 $00:10:57.445 \longrightarrow 00:10:59.400$  radiation treatment and that radiation

NOTE Confidence: 0.9250192

00:10:59.400 --> 00:11:01.729 field can impact the vocal cords,

NOTE Confidence: 0.9250192

00:11:01.730 --> 00:11:03.085 they might end up having

NOTE Confidence: 0.9250192

 $00:11:03.085 \longrightarrow 00:11:04.169$  a horse vocal quality.

NOTE Confidence: 0.9250192

 $00:11:04.170 \longrightarrow 00:11:06.158$  They might have some stiffness to their

NOTE Confidence: 0.9250192

 $00:11:06.158 \longrightarrow 00:11:07.915$  vocal cords and that might prevent

NOTE Confidence: 0.9250192

 $00{:}11{:}07.915 \dashrightarrow 00{:}11{:}10.369$  them from getting as clear or strong a voice.

NOTE Confidence: 0.9250192

00:11:10.370 --> 00:11:11.112 Voice therapy,

NOTE Confidence: 0.9250192

 $00:11:11.112 \longrightarrow 00:11:12.967$  which is similar to the

NOTE Confidence: 0.9250192

 $00:11:12.967 \longrightarrow 00:11:15.128$  other types of therapy we do,

NOTE Confidence: 0.9250192

00:11:15.130 --> 00:11:16.970 which is very highly repetitive,

00:11:16.970 --> 00:11:17.930 different voice exercises,

NOTE Confidence: 0.9250192

 $00:11:17.930 \longrightarrow 00:11:19.530$  ways to relax the throat,

NOTE Confidence: 0.9250192

00:11:19.530 --> 00:11:21.600 get those vocal cords to stretch,

NOTE Confidence: 0.9250192

 $00:11:21.600 \longrightarrow 00:11:23.400$  and that's what we can work on with people.

NOTE Confidence: 0.9250192

 $00:11:23.400 \longrightarrow 00:11:25.592$  But we also have a very large patient

NOTE Confidence: 0.9250192

 $00{:}11{:}25.592 \dashrightarrow 00{:}11{:}27.093$  population that undergoes a procedure

NOTE Confidence: 0.9250192

 $00:11:27.093 \longrightarrow 00:11:29.193$  due to a laryngeal cancer where they

NOTE Confidence: 0.9250192

 $00:11:29.244 \longrightarrow 00:11:31.519$  actually might need their voice box removed.

NOTE Confidence: 0.9250192

 $00:11:31.520 \longrightarrow 00:11:32.876$  And as part of that procedure,

NOTE Confidence: 0.9250192

 $00:11:32.880 \longrightarrow 00:11:34.180$  they no longer have their

NOTE Confidence: 0.9250192

 $00{:}11{:}34.180 \dashrightarrow 00{:}11{:}34.960 \ {\rm vocal \ cords \ present}.$ 

NOTE Confidence: 0.9250192

00:11:34.960 --> 00:11:36.888 So we need to determine ways in which

NOTE Confidence: 0.9250192

 $00:11:36.888 \longrightarrow 00:11:39.076$  we can help them get that voice back.

NOTE Confidence: 0.9250192

 $00:11:39.080 \longrightarrow 00:11:40.490$  And that's one of the largest

NOTE Confidence: 0.9250192

00:11:40.490 --> 00:11:41.680 patient populations we work with.

NOTE Confidence: 0.9250192

00:11:41.680 --> 00:11:42.960 They're those who've undergone

 $00:11:42.960 \longrightarrow 00:11:43.920$  a total laryngectomy.

NOTE Confidence: 0.9250192

00:11:43.920 --> 00:11:44.120 So wait

NOTE Confidence: 0.937665772

00:11:44.960 --> 00:11:46.738 a minute, I thought you need your

NOTE Confidence: 0.937665772

 $00{:}11{:}46.738 \dashrightarrow 00{:}11{:}48.727$  vocal cords in order to have a voice.

NOTE Confidence: 0.937665772

 $00:11:48.730 \longrightarrow 00:11:51.145$  So if they've been removed and you

NOTE Confidence: 0.937665772

00:11:51.145 --> 00:11:53.522 don't have them anymore, how exactly

NOTE Confidence: 0.937665772

00:11:53.522 --> 00:11:56.370 are people going to still have a voice?

NOTE Confidence: 0.9381287

 $00:11:57.250 \longrightarrow 00:11:59.062$  We are very fortunate just with

NOTE Confidence: 0.9381287

00:11:59.062 --> 00:12:01.200 the technology that we have to help

NOTE Confidence: 0.9381287

00:12:01.200 --> 00:12:02.946 people get that voice after surgery

NOTE Confidence: 0.9381287

 $00:12:02.946 \longrightarrow 00:12:04.828$  and very skilled surgeons and the

NOTE Confidence: 0.9381287

 $00:12:04.828 \longrightarrow 00:12:06.645$  whole care team really is involved

NOTE Confidence: 0.9381287

00:12:06.645 --> 00:12:08.570 in the care of all our patients.

NOTE Confidence: 0.9381287

 $00:12:08.570 \longrightarrow 00:12:10.062$  But you know

NOTE Confidence: 0.9381287

 $00:12:10.062 \longrightarrow 00:12:11.927$  this patient population in particular,

 $00:12:11.930 \longrightarrow 00:12:13.880$  when a patient undergoes a total

NOTE Confidence: 0.9381287

 $00{:}12{:}13.880 \dashrightarrow 00{:}12{:}15.275$  laryngectomy, what happens is

NOTE Confidence: 0.9381287

00:12:15.275 --> 00:12:17.405 because that voice box is removed,

NOTE Confidence: 0.9381287

 $00:12:17.410 \longrightarrow 00:12:19.601$  there is no longer a connection between

NOTE Confidence: 0.9381287

00:12:19.601 --> 00:12:21.490 their airway and their food pipe.

NOTE Confidence: 0.9381287

 $00{:}12{:}21.490 \dashrightarrow 00{:}12{:}23.512$  So these patients have their airway

NOTE Confidence: 0.9381287

 $00:12:23.512 \longrightarrow 00:12:25.470$  redirected and a permanent opening called

NOTE Confidence: 0.9381287

 $00{:}12{:}25.470 \dashrightarrow 00{:}12{:}27.686$  a stoma to the front of their necks.

NOTE Confidence: 0.9381287

 $00{:}12{:}27.690 \dashrightarrow 00{:}12{:}29.982$  Now, usually during the surgery in

NOTE Confidence: 0.9381287

00:12:29.982 --> 00:12:32.330 which a total laryngectomy takes place,

NOTE Confidence: 0.9381287

 $00{:}12{:}32.330 \mathrel{--}{>} 00{:}12{:}34.358$  the ear, nose and throat surgeon

NOTE Confidence: 0.9381287

 $00:12:34.358 \longrightarrow 00:12:36.218$  who's completing this surgery will

NOTE Confidence: 0.9381287

 $00{:}12{:}36.218 \rightarrow 00{:}12{:}38.468$  actually insert what's called a

NOTE Confidence: 0.9381287

00:12:38.468 --> 00:12:39.368 tracheoesophageal prosthesis,

NOTE Confidence: 0.9381287

 $00:12:39.370 \longrightarrow 00:12:42.219$  or ATEP, into the wall between

NOTE Confidence: 0.9381287

 $00:12:42.219 \longrightarrow 00:12:44.619$  the trachea and the esophagus.

 $00:12:44.620 \longrightarrow 00:12:45.556$  So what this is,

NOTE Confidence: 0.9381287

 $00:12:45.556 \longrightarrow 00:12:47.400$  is this is a valve that when

NOTE Confidence: 0.9381287

00:12:47.400 --> 00:12:49.260 patients redirect air through it,

NOTE Confidence: 0.9381287

 $00:12:49.260 \longrightarrow 00:12:51.510$  it vibrates tissue within the esophagus

NOTE Confidence: 0.9381287

 $00:12:51.510 \longrightarrow 00:12:54.059$  and they can actually achieve a voice.

NOTE Confidence: 0.9381287

00:12:54.060 --> 00:12:55.216 It's an esophageal speech,

NOTE Confidence: 0.9381287

 $00:12:55.216 \longrightarrow 00:12:56.661$  but they're able to communicate

NOTE Confidence: 0.9381287

 $00:12:56.661 \longrightarrow 00:12:57.779$  with their loved ones.

NOTE Confidence: 0.9427049

 $00:12:58.250 \longrightarrow 00:12:59.550$  Well, that's very interesting.

NOTE Confidence: 0.9427049

 $00:12:59.550 \longrightarrow 00:13:01.175$  So we're going to take

NOTE Confidence: 0.9427049

 $00{:}13{:}01.175 \dashrightarrow 00{:}13{:}02.808$  a quick medical minute.

NOTE Confidence: 0.9427049

 $00:13:02.810 \longrightarrow 00:13:04.850$  But on the other side of the break,

NOTE Confidence: 0.9427049

 $00:13:04.850 \longrightarrow 00:13:06.992$  we will learn more about that and

NOTE Confidence: 0.9427049

 $00{:}13{:}06.992 \dashrightarrow 00{:}13{:}08.823$  other aspects of speech, language,

NOTE Confidence: 0.9427049

 $00{:}13{:}08.823 \dashrightarrow 00{:}13{:}10.888$  pathology and head neck cancer

 $00:13:10.888 \longrightarrow 00:13:12.930$  with my guest, John Gerrity.

NOTE Confidence: 0.9427049

 $00{:}13{:}13.530 \dashrightarrow 00{:}13{:}15.530$  Funding for Yale Cancer Answers

NOTE Confidence: 0.9427049

 $00:13:15.530 \longrightarrow 00:13:17.530$  comes from Smilow Cancer Hospital,

NOTE Confidence: 0.9427049

 $00:13:17.530 \longrightarrow 00:13:19.770$  where 16 locations across the

NOTE Confidence: 0.9427049

00:13:19.770 --> 00:13:21.562 region provide patients with

NOTE Confidence: 0.9427049

00:13:21.562 --> 00:13:22.682 individualized, innovative,

NOTE Confidence: 0.9427049

 $00{:}13{:}22.682 \rightarrow 00{:}13{:}25.370$  convenient and comprehensive care.

NOTE Confidence: 0.9427049

00:13:25.370 --> 00:13:28.520 Find a Smilow location near you

NOTE Confidence: 0.9427049

 $00{:}13{:}28.520 \dashrightarrow 00{:}13{:}31.330$  at smilocancer hospital.org.

NOTE Confidence: 0.9427049

 $00:13:31.330 \longrightarrow 00:13:32.950$  There are many obstacles to

NOTE Confidence: 0.9427049

 $00{:}13{:}32.950 \dashrightarrow 00{:}13{:}34.246$  face when quitting smoking,

NOTE Confidence: 0.9427049

 $00:13:34.250 \longrightarrow 00:13:37.330$  as smoking involves the potent drug nicotine.

NOTE Confidence: 0.9427049

 $00:13:37.330 \longrightarrow 00:13:39.080$  Quitting smoking is a very

NOTE Confidence: 0.9427049

 $00{:}13{:}39.080 \dashrightarrow 00{:}13{:}40.130$  important lifestyle change,

NOTE Confidence: 0.9427049

00:13:40.130 --> 00:13:41.782 especially for patients undergoing

NOTE Confidence: 0.9427049

 $00{:}13{:}41.782 \dashrightarrow 00{:}13{:}44.761$  cancer treatment as it's been shown to

00:13:44.761 --> 00:13:46.926 positively impact response to treatments,

NOTE Confidence: 0.9427049

 $00:13:46.930 \longrightarrow 00:13:49.170$  decrease the likelihood that patients

NOTE Confidence: 0.9427049

 $00:13:49.170 \longrightarrow 00:13:50.962$  will develop second malignancies

NOTE Confidence: 0.9427049

 $00:13:50.962 \longrightarrow 00:13:53.110$  and increase rates of survival.

NOTE Confidence: 0.9427049

 $00{:}13{:}53.110 \dashrightarrow 00{:}13{:}54.946$  To bacco treatment programs are

NOTE Confidence: 0.9427049

00:13:54.946 --> 00:13:57.241 currently being offered at federally

NOTE Confidence: 0.9427049

 $00:13:57.241 \longrightarrow 00:13:58.518$  designated comprehensive cancer

NOTE Confidence: 0.9427049

 $00{:}13{:}58.518 \dashrightarrow 00{:}14{:}00.780$  centers such as Yale Cancer Center

NOTE Confidence: 0.9427049

 $00:14:00.780 \longrightarrow 00:14:02.829$  and Smilow Cancer Hospital.

NOTE Confidence: 0.9427049

 $00{:}14{:}02.830 \dashrightarrow 00{:}14{:}04.920$  All treatment components are evidence

NOTE Confidence: 0.9427049

00:14:04.920 --> 00:14:07.796 based and patients are treated with FDA

NOTE Confidence: 0.9427049

 $00:14:07.796 \longrightarrow 00:14:09.968$  approved first line medications as well

NOTE Confidence: 0.9427049

 $00:14:09.968 \longrightarrow 00:14:12.365$  as smoking cessation counseling that

NOTE Confidence: 0.9427049

 $00:14:12.365 \longrightarrow 00:14:14.505$  stresses appropriate coping skills.

NOTE Confidence: 0.9427049

 $00{:}14{:}14.510 \dashrightarrow 00{:}14{:}16.878$  More information is available

 $00:14:16.878 \longrightarrow 00:14:17.898$  at yalecancercenter.org.

NOTE Confidence: 0.9427049

00:14:17.898 --> 00:14:20.466 You're listening to Connecticut Public Radio.

NOTE Confidence: 0.9349574

 $00{:}14{:}21.950 \dashrightarrow 00{:}14{:}23.828$  Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.9349574

00:14:23.830 --> 00:14:25.390 This is Doctor Anees Chappar,

NOTE Confidence: 0.9349574

00:14:25.390 --> 00:14:27.546 and I'm joined tonight by my guest,

NOTE Confidence: 0.9349574

00:14:27.550 --> 00:14:28.146 John Gerrity.

NOTE Confidence: 0.9349574

00:14:28.146 --> 00:14:29.934 We're talking about the role of

NOTE Confidence: 0.9349574

00:14:29.934 --> 00:14:31.749 a speech language pathologist,

NOTE Confidence: 0.9349574

 $00{:}14{:}31.750 \dashrightarrow 00{:}14{:}33.530$  particularly in patients who have

NOTE Confidence: 0.9349574

 $00:14:33.530 \longrightarrow 00:14:35.310$  faced head and neck cancers.

NOTE Confidence: 0.9349574

 $00:14:35.310 \longrightarrow 00:14:37.310$  And right before the break,

NOTE Confidence: 0.9349574

00:14:37.310 --> 00:14:39.410 John, you were talking about

NOTE Confidence: 0.9349574

00:14:39.410 --> 00:14:41.510 this population of patients who

NOTE Confidence: 0.9349574

 $00{:}14{:}41.580 \dashrightarrow 00{:}14{:}43.750$  may have had laryngeal cancers,

NOTE Confidence: 0.9349574

 $00:14:43.750 \longrightarrow 00:14:45.586$  So cancers of the voice box,

NOTE Confidence: 0.9349574

 $00{:}14{:}45.590 \dashrightarrow 00{:}14{:}48.572$  where the voice box actually had to

 $00:14:48.572 \longrightarrow 00:14:51.225$  be removed and how you can actually

NOTE Confidence: 0.9349574

 $00{:}14{:}51.225 \to 00{:}14{:}54.140$  help patients to get a voice back even

NOTE Confidence: 0.9349574

 $00:14:54.140 \longrightarrow 00:14:56.030$  though they don't have a voice box.

NOTE Confidence: 0.9349574

 $00:14:56.030 \longrightarrow 00:15:00.302$  So you were talking a little bit about

NOTE Confidence: 0.9349574

 $00{:}15{:}00.302 \dashrightarrow 00{:}15{:}02.430$  this tracheoesophageal prosthesis.

NOTE Confidence: 0.9349574

 $00:15:02.430 \longrightarrow 00:15:05.350$  Tell us more about what exactly that is.

NOTE Confidence: 0.9349574

 $00:15:05.350 \longrightarrow 00:15:08.506$  Is it like a metallic implant?

NOTE Confidence: 0.9349574

00:15:08.510 --> 00:15:10.870 Is it your own tissue?

NOTE Confidence: 0.9349574

 $00:15:10.870 \longrightarrow 00:15:14.758$  And how is it that patients learn to

NOTE Confidence: 0.9349574

00:15:14.760 --> 00:15:17.436 make this thing vibrate even though

NOTE Confidence: 0.9349574

 $00{:}15{:}17.436 \dashrightarrow 00{:}15{:}21.000$  the air is coming from their esophagus

NOTE Confidence: 0.92123026

 $00:15:21.360 \longrightarrow 00:15:23.160$  with the tracheoesophageal prosthesis?

NOTE Confidence: 0.92123026

 $00{:}15{:}23.160 \dashrightarrow 00{:}15{:}27.080$  So what that is, is it's a small silicon

NOTE Confidence: 0.92123026

 $00:15:27.080 \longrightarrow 00:15:29.718$  type prosthesis and they're only about

NOTE Confidence: 0.92123026

 $00:15:29.718 \longrightarrow 00:15:32.316$  on average a centimeter in length.

 $00:15:32.320 \longrightarrow 00:15:34.678$  So it's a one way valve and this valve

NOTE Confidence: 0.92123026

 $00{:}15{:}34.678 {\:\dashrightarrow\:} 00{:}15{:}37.423$  is put right in the patient's tissue and

NOTE Confidence: 0.92123026

00:15:37.423 --> 00:15:39.903 what the patient learns to do when they

NOTE Confidence: 0.92123026

 $00:15:39.903 \longrightarrow 00:15:42.832$  want to talk is they breathe in and when

NOTE Confidence: 0.92123026

 $00:15:42.832 \longrightarrow 00:15:45.680$  they breathe out they cover their stoma.

NOTE Confidence: 0.92123026

 $00:15:45.680 \longrightarrow 00:15:48.317$  So that opening in the front of their throat,

NOTE Confidence: 0.92123026

 $00:15:48.320 \longrightarrow 00:15:50.402$  that air travels through that one

NOTE Confidence: 0.92123026

 $00:15:50.402 \longrightarrow 00:15:53.036$  way valve and it's going to vibrate

NOTE Confidence: 0.92123026

 $00:15:53.036 \longrightarrow 00:15:54.996$  the tissue in their esophagus.

NOTE Confidence: 0.92123026

 $00:15:55.000 \longrightarrow 00:15:58.400$  And so that's how that voice is produced.

NOTE Confidence: 0.92123026

 $00{:}15{:}58.400 \dashrightarrow 00{:}16{:}00.626$  Patients typically start using that as

NOTE Confidence: 0.92123026

 $00:16:00.626 \longrightarrow 00:16:03.209$  soon as three weeks after

NOTE Confidence: 0.92123026

 $00:16:03.209 \longrightarrow 00:16:05.510$  and it can be this very intense,

NOTE Confidence: 0.92123026

 $00:16:05.510 \longrightarrow 00:16:08.410$  very life changing procedure.

NOTE Confidence: 0.92123026

00:16:08.410 --> 00:16:09.964 And as we're working with these patients,

NOTE Confidence: 0.92123026

 $00:16:09.970 \longrightarrow 00:16:11.650$  it's real hands on treatment.

 $00:16:11.650 \longrightarrow 00:16:13.638$  Getting them to be able to inspect

NOTE Confidence: 0.92123026

 $00:16:13.638 \longrightarrow 00:16:14.206$  this prosthesis,

NOTE Confidence: 0.92123026

00:16:14.210 --> 00:16:16.569 knowing how to care for the prosthesis,

NOTE Confidence: 0.92123026

 $00:16:16.570 \longrightarrow 00:16:18.938$  being able to occlude their own stoma with

NOTE Confidence: 0.92123026

 $00:16:18.938 \longrightarrow 00:16:21.128$  their hands so they can produce a voice.

NOTE Confidence: 0.92123026

 $00:16:21.130 \longrightarrow 00:16:23.506$  It's a lot of follow up with the speech

NOTE Confidence: 0.92123026

 $00:16:23.506 \longrightarrow 00:16:25.076$  pathologist seeing us at least once

NOTE Confidence: 0.92123026

 $00:16:25.076 \longrightarrow 00:16:27.202$  a week on the outpatient side to make

NOTE Confidence: 0.92123026

 $00{:}16{:}27.202 \dashrightarrow 00{:}16{:}29.127$  sure that you're able to communicate all

NOTE Confidence: 0.92123026

 $00:16:29.130 \longrightarrow 00:16:30.530$  of your wants and all of your needs.

NOTE Confidence: 0.923322

 $00:16:31.290 \longrightarrow 00:16:35.500$  And so when you had mentioned that it's an

NOTE Confidence: 0.923322

 $00:16:35.500 \longrightarrow 00:16:38.020$  esophageal voice in part because

NOTE Confidence: 0.923322

 $00{:}16{:}38.020 \dashrightarrow 00{:}16{:}41.228$  the sound I guess is coming from your

NOTE Confidence: 0.923322

 $00:16:41.228 \longrightarrow 00:16:43.420$  esophagus through this oneway valve,

NOTE Confidence: 0.923322

00:16:43.420 --> 00:16:46.140 how is that different from a tracheal voice?

00:16:46.140 --> 00:16:47.778 I mean does it sound different?

NOTE Confidence: 0.9349909

00:16:48.060 --> 00:16:50.058 It does sound different in quality,

NOTE Confidence: 0.9349909

 $00:16:50.060 \longrightarrow 00:16:51.940$  but the clarity of it is actually great.

NOTE Confidence: 0.9349909

 $00:16:51.940 \longrightarrow 00:16:53.876$  I have a lot of patients who say

NOTE Confidence: 0.9349909

00:16:53.876 --> 00:16:55.754 that given how their voice might

NOTE Confidence: 0.9349909

00:16:55.754 --> 00:16:57.414 have been before their surgery,

NOTE Confidence: 0.9349909

 $00:16:57.420 \longrightarrow 00:16:59.586$  they might feel like they're better

NOTE Confidence: 0.9349909

 $00:16:59.586 \longrightarrow 00:17:01.870$  understood after the surgery given how

NOTE Confidence: 0.9349909

 $00{:}17{:}01.870 \dashrightarrow 00{:}17{:}03.805$  healthy their esophagus was vibrating.

NOTE Confidence: 0.9349909

 $00{:}17{:}03.810 \dashrightarrow 00{:}17{:}05.777$  One of the main differences in voice

NOTE Confidence: 0.9349909

 $00:17:05.777 \longrightarrow 00:17:07.940$  is that you're not going to be able

NOTE Confidence: 0.9349909

 $00:17:07.940 \longrightarrow 00:17:09.837$  to have that pitch change or as

NOTE Confidence: 0.9349909

 $00{:}17{:}09.837 \dashrightarrow 00{:}17{:}11.553$  substantial a volume change as you

NOTE Confidence: 0.9349909

 $00{:}17{:}11.553 \dashrightarrow 00{:}17{:}15.302$  would with vocal cords because your

NOTE Confidence: 0.9349909

00:17:15.302 --> 00:17:18.300 pitch changes depending

NOTE Confidence: 0.9349909

 $00:17:18.300 \longrightarrow 00:17:20.348$  on how your vocal cords stretch and

00:17:20.348 --> 00:17:22.364 change their tension and how much

NOTE Confidence: 0.9349909

 $00{:}17{:}22.364 \to 00{:}17{:}24.326$  valve your air to change your volume.

NOTE Confidence: 0.9349909

 $00:17:24.330 \longrightarrow 00:17:26.055$  So these patients might have

NOTE Confidence: 0.9349909

00:17:26.055 --> 00:17:27.780 trouble with changing their volume

NOTE Confidence: 0.9349909

 $00:17:27.840 \longrightarrow 00:17:29.650$  as significantly and their pitch,

NOTE Confidence: 0.9349909

 $00:17:29.650 \longrightarrow 00:17:31.918$  but their intelligibility is really great.

NOTE Confidence: 0.9349909

 $00:17:31.920 \longrightarrow 00:17:34.062$  As long as though those articulation

NOTE Confidence: 0.9349909

 $00{:}17{:}34.062 \dashrightarrow 00{:}17{:}36.239$  structures for speech are still intact

NOTE Confidence: 0.93319446

 $00:17:36.640 \longrightarrow 00:17:40.070$  and so, so they can, even though

NOTE Confidence: 0.93319446

 $00:17:40.070 \longrightarrow 00:17:41.720$  they don't have a voice box,

NOTE Confidence: 0.93319446

 $00:17:41.720 \longrightarrow 00:17:44.036$  they can continue to live

NOTE Confidence: 0.93319446

 $00:17:44.036 \longrightarrow 00:17:46.239$  a productive life with a voice,

NOTE Confidence: 0.93319446

 $00:17:46.240 \longrightarrow 00:17:48.395$  albeit a voice that they've

NOTE Confidence: 0.93319446

 $00:17:48.395 \longrightarrow 00:17:50.720$  had to learn to manage.

NOTE Confidence: 0.93319446

00:17:51.760 --> 00:17:54.440 And this patient population,

 $00:17:54.440 \longrightarrow 00:17:56.827$  I've had a lot of patients go

NOTE Confidence: 0.93319446

 $00{:}17{:}56.827 \dashrightarrow 00{:}17{:}58.861$  on to continue to go back to

NOTE Confidence: 0.93319446

00:17:58.861 --> 00:17:59.889 resuming their normal lives,

NOTE Confidence: 0.93319446

00:17:59.890 --> 00:18:02.170 going back to work, enjoying

NOTE Confidence: 0.93319446

 $00:18:02.170 \longrightarrow 00:18:04.450$  activities with friends and families.

NOTE Confidence: 0.93319446

00:18:04.450 --> 00:18:06.568 And it's been very rewarding.

NOTE Confidence: 0.93319446

 $00:18:06.570 \longrightarrow 00:18:08.022$  So you can definitely live a

NOTE Confidence: 0.93319446

00:18:08.022 --> 00:18:09.290 pretty normal life.

NOTE Confidence: 0.9405293

00:18:09.650 --> 00:18:11.785 You know when we think about these

NOTE Confidence: 0.9405293

00:18:11.785 --> 00:18:13.454 patients who have gone through

NOTE Confidence: 0.9405293

 $00{:}18{:}13.454 \dashrightarrow 00{:}18{:}15.530$  head and neck cancers and they're

NOTE Confidence: 0.9405293

 $00:18:15.530 \longrightarrow 00:18:17.252$  dealing with significant disruptions

NOTE Confidence: 0.9405293

00:18:17.252 --> 00:18:19.828 or changes in what we all think of

NOTE Confidence: 0.9405293

00:18:19.828 --> 00:18:22.154 as normal daily functions, right?

NOTE Confidence: 0.9405293

00:18:22.154 --> 00:18:25.920 Our swallowing, our speech, our voice.

NOTE Confidence: 0.9405293

 $00:18:25.920 \longrightarrow 00:18:28.476$  I can only imagine that for some of them,

 $00:18:28.480 \longrightarrow 00:18:30.628$  even though

NOTE Confidence: 0.9405293

00:18:30.628 --> 00:18:34.222 we have now technology where we can

NOTE Confidence: 0.9405293

00:18:34.222 --> 00:18:37.379 make people learn how to swallow and

NOTE Confidence: 0.9405293

00:18:37.379 --> 00:18:39.740 learn how to speak again and even

NOTE Confidence: 0.9405293

00:18:39.740 --> 00:18:41.960 have a voice without a voice box,

NOTE Confidence: 0.9405293

 $00:18:41.960 \longrightarrow 00:18:45.460$  that this may still be something

NOTE Confidence: 0.9405293

 $00:18:45.460 \longrightarrow 00:18:47.544$  that is a little distressing.

NOTE Confidence: 0.9405293

 $00:18:47.544 \longrightarrow 00:18:50.455$  Talk a little bit about the

NOTE Confidence: 0.9405293

 $00{:}18{:}50.455 \dashrightarrow 00{:}18{:}53.133$  psychosocial aspects of this and

NOTE Confidence: 0.9405293

 $00:18:53.133 \longrightarrow 00:18:55.884$  effect of support groups

NOTE Confidence: 0.9405293

 $00{:}18{:}55.884 \dashrightarrow 00{:}18{:}58.675$  and trying to give people mutual support

NOTE Confidence: 0.9405293

 $00:18:58.675 \longrightarrow 00:19:01.260$  as they go through this journey?

NOTE Confidence: 0.9355745

00:19:02.140 --> 00:19:05.220 For the patients who I've worked with,

NOTE Confidence: 0.9355745

 $00{:}19{:}05.220 \dashrightarrow 00{:}19{:}06.925$ you know it's definitely phenomenal

NOTE Confidence: 0.9355745

 $00:19:06.925 \longrightarrow 00:19:08.967$  and really remarkable just to

 $00:19:08.967 \longrightarrow 00:19:10.464$  see the resilience, their resolve,

NOTE Confidence: 0.9355745

 $00:19:10.464 \longrightarrow 00:19:12.074$  their strength and undergoing what

NOTE Confidence: 0.9355745

 $00:19:12.074 \longrightarrow 00:19:14.318$  can be a life changing procedure

NOTE Confidence: 0.9355745

00:19:14.318 --> 00:19:15.938 or life changing treatment.

NOTE Confidence: 0.9355745

00:19:15.940 --> 00:19:17.444 And you're exactly right

NOTE Confidence: 0.9355745

 $00:19:17.444 \longrightarrow 00:19:19.324$  with how the different,

NOTE Confidence: 0.9355745

 $00:19:19.330 \longrightarrow 00:19:21.270$  the psychosocial impact and just

NOTE Confidence: 0.9355745

00:19:21.270 --> 00:19:23.602 the impact on their quality of

NOTE Confidence: 0.9355745

 $00{:}19{:}23.602 \dashrightarrow 00{:}19{:}26.810$  life overall can be great.

NOTE Confidence: 0.9355745

00:19:26.810 --> 00:19:28.840 And we're really fortunate in

NOTE Confidence: 0.9355745

 $00{:}19{:}28.840 \mathrel{--}{>} 00{:}19{:}31.410$  that we do have support groups

NOTE Confidence: 0.9355745

 $00:19:31.410 \longrightarrow 00:19:33.130$  where patients can come together,

NOTE Confidence: 0.9355745

 $00:19:33.130 \longrightarrow 00:19:35.650$  really talk about what their experience

NOTE Confidence: 0.9355745

 $00:19:35.650 \longrightarrow 00:19:38.170$  has been, to

NOTE Confidence: 0.9355745

 $00:19:38.170 \longrightarrow 00:19:39.910$  share what their daily struggles

NOTE Confidence: 0.9355745

 $00{:}19{:}39.910 \dashrightarrow 00{:}19{:}42.551$  might be and how they're able to go

 $00:19:42.551 \longrightarrow 00:19:44.511$  through each day just being able to

NOTE Confidence: 0.9355745

00:19:44.581 --> 00:19:46.583 communicate and do the best that they

NOTE Confidence: 0.9355745

 $00:19:46.583 \longrightarrow 00:19:50.010$  can to live as normal a life as they can.

NOTE Confidence: 0.9355745

00:19:50.010 --> 00:19:51.110 What I really love about

NOTE Confidence: 0.9355745

 $00:19:51.110 \longrightarrow 00:19:52.210$  one of our support groups,

NOTE Confidence: 0.9355745

 $00:19:52.210 \longrightarrow 00:19:54.640$  which is a laryngectomy support group

NOTE Confidence: 0.9355745

00:19:54.640 --> 00:19:57.088 that I'm part of is, you know,

NOTE Confidence: 0.9355745

 $00{:}19{:}57.090 \dashrightarrow 00{:}19{:}58.770$  you can really pose a question,

NOTE Confidence: 0.9355745

 $00:19:58.770 \longrightarrow 00:20:00.120$  start the conversation and then

NOTE Confidence: 0.9355745

 $00{:}20{:}00.120 \dashrightarrow 00{:}20{:}01.889$  these patients are the ones who

NOTE Confidence: 0.9355745

 $00:20:01.890 \longrightarrow 00:20:03.588$  living with these

NOTE Confidence: 0.9355745

 $00:20:03.588 \longrightarrow 00:20:05.040$  diagnoses and they really

NOTE Confidence: 0.9355745

 $00:20:05.040 \longrightarrow 00:20:06.370$  just take it from there.

NOTE Confidence: 0.9355745

 $00:20:06.370 \longrightarrow 00:20:07.530$  They give each other insight,

NOTE Confidence: 0.9355745

 $00:20:07.530 \longrightarrow 00:20:08.610$  they give each other tips,

00:20:08.610 --> 00:20:11.050 they give each other reassurance

NOTE Confidence: 0.9355745

 $00{:}20{:}11.050 \dashrightarrow 00{:}20{:}12.615$  and having those resources and

NOTE Confidence: 0.9355745

00:20:12.615 --> 00:20:14.180 just letting people come together

NOTE Confidence: 0.9355745

 $00:20:14.180 \longrightarrow 00:20:16.304$  as a community has been

NOTE Confidence: 0.9355745

 $00:20:16.304 \longrightarrow 00:20:18.095$  something that I'm really grateful

NOTE Confidence: 0.9355745

 $00:20:18.095 \longrightarrow 00:20:20.216$  we've been able to do.

NOTE Confidence: 0.9355745

 $00:20:20.220 \longrightarrow 00:20:22.020$  And in addition to that,

NOTE Confidence: 0.9355745

00:20:22.020 --> 00:20:23.592 just whenever I have people coming

NOTE Confidence: 0.9355745

 $00:20:23.592 \longrightarrow 00:20:25.798$  into clinic and I know that all the

NOTE Confidence: 0.9355745

00:20:25.798 --> 00:20:27.183 providers are fantastic and trying

NOTE Confidence: 0.9355745

 $00{:}20{:}27.183 \mathrel{--}{>} 00{:}20{:}28.741$  to make sure that patients are

NOTE Confidence: 0.9355745

 $00:20:28.741 \longrightarrow 00:20:30.260$  set up with the right counseling

NOTE Confidence: 0.9355745

 $00:20:30.260 \longrightarrow 00:20:31.940$  services that they may need or

NOTE Confidence: 0.9355745

 $00:20:31.940 \longrightarrow 00:20:34.085$  even if they don't need it at that

NOTE Confidence: 0.9355745

00:20:34.085 --> 00:20:35.856 time or would prefer maybe to talk

NOTE Confidence: 0.9355745

 $00:20:35.856 \longrightarrow 00:20:37.260$  to somebody at a later time.

 $00:20:37.260 \longrightarrow 00:20:39.241$  They always set them up with those

NOTE Confidence: 0.9355745

00:20:39.241 --> 00:20:40.744 resources to make sure whether

NOTE Confidence: 0.9355745

 $00:20:40.744 \longrightarrow 00:20:42.239$  it's social work or somebody

NOTE Confidence: 0.9355745

 $00:20:42.239 \longrightarrow 00:20:44.307$  else who they can talk to that

NOTE Confidence: 0.9355745

 $00{:}20{:}44.307 \dashrightarrow 00{:}20{:}45.697$  these resources are in place.

NOTE Confidence: 0.9355745

 $00:20:45.700 \longrightarrow 00:20:47.975$  I let my patients know who are

NOTE Confidence: 0.9355745

00:20:47.980 --> 00:20:49.356 particularly undergoing a total

NOTE Confidence: 0.9355745

 $00:20:49.356 \longrightarrow 00:20:51.076$  laryngectomy because we see these

NOTE Confidence: 0.9355745

 $00:20:51.076 \longrightarrow 00:20:52.780$  patients so frequently for follow up.

NOTE Confidence: 0.9355745

 $00{:}20{:}52.780 \dashrightarrow 00{:}20{:}54.607$  You know we're here for you this

NOTE Confidence: 0.9355745

00:20:54.607 --> 00:20:56.257 Cancer Center is here for you.

NOTE Confidence: 0.9355745

 $00:20:56.260 \longrightarrow 00:20:57.435$  You become a friend with

NOTE Confidence: 0.9355745

00:20:57.435 --> 00:20:58.375 my department for life.

NOTE Confidence: 0.9355745

 $00:20:58.380 \longrightarrow 00:21:00.873$  Given how often we follow up with you and

 $00:21:01.244 \longrightarrow 00:21:02.336$  if there's anything that we can

NOTE Confidence: 0.9355745

 $00:21:02.336 \longrightarrow 00:21:03.768$  do to support you or point you

00:21:03.768 --> 00:21:04.793 in the direction of support,

NOTE Confidence: 0.9355745

 $00:21:04.800 \longrightarrow 00:21:05.920$  we're going to be here to do that.

NOTE Confidence: 0.9332625

 $00:21:06.600 \longrightarrow 00:21:08.560$  Yeah. That that's so important.

NOTE Confidence: 0.9332625

 $00:21:08.560 \longrightarrow 00:21:10.372$  And I'm sure that your patients

NOTE Confidence: 0.9332625

 $00:21:10.372 \longrightarrow 00:21:12.432$  really love that kind of of support

NOTE Confidence: 0.9332625

 $00:21:12.432 \longrightarrow 00:21:14.266$  as well as the support that they

NOTE Confidence: 0.9332625

00:21:14.331 --> 00:21:16.156 get from other cancer survivors.

NOTE Confidence: 0.9332625

00:21:16.160 --> 00:21:18.704 I can just imagine if you were newly

NOTE Confidence: 0.9332625

00:21:18.704 --> 00:21:20.870 diagnosed and you're faced with this,

NOTE Confidence: 0.9332625

 $00:21:20.870 \longrightarrow 00:21:22.106$  you are no longer

NOTE Confidence: 0.9332625

 $00{:}21{:}22.106 \dashrightarrow 00{:}21{:}23.469$  going to have a voice box.

NOTE Confidence: 0.9332625

 $00:21:23.470 \longrightarrow 00:21:25.376$  You are going to have to learn

NOTE Confidence: 0.9332625

 $00{:}21{:}25.376 \dashrightarrow 00{:}21{:}27.106$  how to manage a prosthesis.

NOTE Confidence: 0.9332625

 $00:21:27.110 \longrightarrow 00:21:29.315$  Just to hear from somebody who might

NOTE Confidence: 0.9332625

00:21:29.315 --> 00:21:31.414 have gone through it before that this

 $00:21:31.414 \longrightarrow 00:21:33.835$  is livable and that you can do this

NOTE Confidence: 0.9332625

 $00:21:33.835 \longrightarrow 00:21:35.967$  and get through it and live a normal

NOTE Confidence: 0.9332625

 $00:21:35.967 \longrightarrow 00:21:39.623$  and healthy life I'm sure is so reassuring.

NOTE Confidence: 0.9332625

 $00:21:39.630 \longrightarrow 00:21:42.437$  The other piece though that I think

NOTE Confidence: 0.9332625

 $00:21:42.437 \longrightarrow 00:21:44.366$  is really important is

NOTE Confidence: 0.9332625

00:21:44.366 --> 00:21:45.857 one that you've kind of touched on,

NOTE Confidence: 0.9332625

 $00:21:45.860 \longrightarrow 00:21:48.268$  which is that there are other people on

NOTE Confidence: 0.9332625

 $00:21:48.268 \longrightarrow 00:21:50.820$  the team who are also there to support.

NOTE Confidence: 0.9332625

 $00:21:50.820 \longrightarrow 00:21:52.556$  So whether that's social

NOTE Confidence: 0.9332625

 $00:21:52.556 \longrightarrow 00:21:53.858$  workers or psychologists.

NOTE Confidence: 0.9332625

 $00{:}21{:}53.860 \dashrightarrow 00{:}21{:}54.775$  And you know,

NOTE Confidence: 0.9332625

00:21:54.775 --> 00:21:56.605 even thinking about what we were

NOTE Confidence: 0.9332625

 $00:21:56.605 \longrightarrow 00:21:58.377$  talking about before the break in

NOTE Confidence: 0.9332625

00:21:58.377 --> 00:22:00.300 terms of learning how to swallow,

NOTE Confidence: 0.9332625

 $00:22:00.300 \longrightarrow 00:22:01.500$  again, I'm sure that,

 $00:22:02.100 \longrightarrow 00:22:05.192$  having relationships with dietitians

 $00:22:05.192 \longrightarrow 00:22:06.738$  and nutritionists,

NOTE Confidence: 0.9332625

 $00:22:06.740 \longrightarrow 00:22:08.765$  other physical therapists as well

NOTE Confidence: 0.9332625

00:22:08.765 --> 00:22:11.046 as your medical team is really

NOTE Confidence: 0.9332625

00:22:11.046 --> 00:22:13.014 important in terms of making sure

NOTE Confidence: 0.9332625

00:22:13.014 --> 00:22:14.751 that you're getting the right

NOTE Confidence: 0.9332625

 $00{:}22{:}14.751 \longrightarrow 00{:}22{:}16.791$  nutrition and when you should be

NOTE Confidence: 0.9332625

 $00{:}22{:}16.791 \dashrightarrow 00{:}22{:}18.642$  having more solid food and when

NOTE Confidence: 0.9332625

00:22:18.642 --> 00:22:20.460 you should be having more pureed

NOTE Confidence: 0.9332625

 $00:22:20.518 \longrightarrow 00:22:22.149$  food and so on and so forth.

NOTE Confidence: 0.9332625

 $00:22:22.150 \longrightarrow 00:22:25.974$  Talk a little bit more about how that

NOTE Confidence: 0.9332625

 $00{:}22{:}25.974 \dashrightarrow 00{:}22{:}27.510$  multidisciplinary interaction occurs.

NOTE Confidence: 0.9361997

 $00:22:27.790 \longrightarrow 00:22:29.146$  The multidisciplinary interaction

NOTE Confidence: 0.9361997

00:22:29.146 --> 00:22:31.858 really starts off at the very

NOTE Confidence: 0.9361997

 $00:22:31.858 \longrightarrow 00:22:33.310$  beginning of a diagnosis.

NOTE Confidence: 0.9361997

 $00:22:33.310 \longrightarrow 00:22:36.758$  So if a patient's coming in to see

NOTE Confidence: 0.9361997

 $00:22:36.760 \longrightarrow 00:22:38.870$  your nose and throat physician,

00:22:38.870 --> 00:22:42.170 they just received the diagnosis of

NOTE Confidence: 0.9361997

 $00{:}22{:}42.170 \longrightarrow 00{:}22{:}44.430$  cancer where the patients typically go

NOTE Confidence: 0.9361997

 $00:22:44.430 \longrightarrow 00:22:46.479$  for direction of treatment after that

NOTE Confidence: 0.9361997

00:22:46.479 --> 00:22:48.474 is a tumor board and that's something

NOTE Confidence: 0.9361997

 $00:22:48.474 \longrightarrow 00:22:50.349$  where the staff meets weekly and we have

NOTE Confidence: 0.9361997

 $00:22:50.349 \longrightarrow 00:22:52.079$  people from all different disciplines.

NOTE Confidence: 0.9361997

 $00:22:52.080 \longrightarrow 00:22:54.372$  We have medical oncology,

NOTE Confidence: 0.9361997

 $00:22:54.372 \longrightarrow 00:22:56.187$  radiation oncology, ear,

NOTE Confidence: 0.9361997

00:22:56.187 --> 00:23:00.189 nose and throat dietitian speech pathology,

NOTE Confidence: 0.9361997

 $00:23:00.190 \longrightarrow 00:23:02.054$  APRN's. It's a whole host of

NOTE Confidence: 0.9361997

 $00:23:02.054 \longrightarrow 00:23:03.548$  members on the medical team.

NOTE Confidence: 0.9361997

00:23:03.550 --> 00:23:04.790 And they really get together,

NOTE Confidence: 0.9361997

 $00{:}23{:}04.790 \dashrightarrow 00{:}23{:}07.270$  look at this patient's diagnosis,

NOTE Confidence: 0.9361997

 $00:23:07.270 \longrightarrow 00:23:09.223$  look at what the testing has told

NOTE Confidence: 0.9361997

 $00:23:09.223 \longrightarrow 00:23:11.068$  them and develop a treatment plan.

 $00:23:11.070 \longrightarrow 00:23:12.174$  And typically that's where

NOTE Confidence: 0.9361997

00:23:12.174 --> 00:23:13.830 patients would then come to me,

NOTE Confidence: 0.9361997

 $00:23:13.830 \longrightarrow 00:23:15.816$  they get a referral for speech

NOTE Confidence: 0.9361997

00:23:15.816 --> 00:23:17.430 because the physician might say,

NOTE Confidence: 0.9361997

 $00:23:17.430 \longrightarrow 00:23:18.339$  all right, well,

NOTE Confidence: 0.9361997

 $00:23:18.339 \longrightarrow 00:23:19.248$  we're anticipating swallowing

NOTE Confidence: 0.9361997

00:23:19.248 --> 00:23:21.133 issues for this patient or this

NOTE Confidence: 0.9361997

00:23:21.133 --> 00:23:22.069 patient's getting radiation.

NOTE Confidence: 0.9361997

 $00{:}23{:}22.070 \dashrightarrow 00{:}23{:}23.771$  Let's get them over to a speech

NOTE Confidence: 0.9361997

 $00:23:23.771 \longrightarrow 00:23:25.110$  pathology for an assessment,

NOTE Confidence: 0.9361997

 $00{:}23{:}25.110 \dashrightarrow 00{:}23{:}27.310$  and at that point I complete my assessment.

NOTE Confidence: 0.9361997

00:23:27.310 --> 00:23:28.310 I'm doing my therapy,

NOTE Confidence: 0.9361997

 $00:23:28.310 \longrightarrow 00:23:29.310$  but throughout the course

NOTE Confidence: 0.9361997

 $00:23:29.310 \longrightarrow 00:23:30.790$  of the patient's treatment,

NOTE Confidence: 0.9361997

 $00{:}23{:}30.790 \dashrightarrow 00{:}23{:}32.510$  I'm in constant communication

NOTE Confidence: 0.9361997

 $00{:}23{:}32.510 \dashrightarrow 00{:}23{:}34.230$  with our registered dietitians,

 $00:23:34.230 \longrightarrow 00:23:35.674$  ensuring that the recommendations

NOTE Confidence: 0.9361997

 $00{:}23{:}35.674 \dashrightarrow 00{:}23{:}37.840$  I've made for eating and drinking

NOTE Confidence: 0.9361997

00:23:37.897 --> 00:23:39.857 are ones that a patient can follow

NOTE Confidence: 0.9361997

 $00:23:39.857 \longrightarrow 00:23:41.509$  and get nutrition and hydration.

NOTE Confidence: 0.9361997

 $00:23:41.510 \longrightarrow 00:23:43.370$  I'm also letting the physicians

NOTE Confidence: 0.9361997

00:23:43.370 --> 00:23:45.230 know how the patient's progressing,

NOTE Confidence: 0.9361997

 $00:23:45.230 \longrightarrow 00:23:47.246$  where I think that I'm going to be

NOTE Confidence: 0.9361997

 $00:23:47.246 \longrightarrow 00:23:49.759$  able to help them get to as far as

NOTE Confidence: 0.9361997

 $00:23:49.759 \longrightarrow 00:23:51.000$  eating and drinking all throughout

NOTE Confidence: 0.9361997

 $00:23:51.000 \longrightarrow 00:23:52.025$  the course of the treatment.

NOTE Confidence: 0.9361997

 $00:23:52.030 \longrightarrow 00:23:53.955$  It's something where we're in

NOTE Confidence: 0.9361997

00:23:53.955 --> 00:23:55.110 very close communication,

NOTE Confidence: 0.9361997

00:23:55.110 --> 00:23:56.438 the staff collaborate great,

NOTE Confidence: 0.9361997

 $00{:}23{:}56.438 \dashrightarrow 00{:}23{:}57.766$  all the medical providers

NOTE Confidence: 0.9361997

 $00:23:57.766 \longrightarrow 00:23:59.149$  that we're working with.

 $00:23:59.150 \longrightarrow 00:24:00.830$  And the feedback that I've gotten

NOTE Confidence: 0.9361997

 $00:24:00.830 \longrightarrow 00:24:02.808$  from patients is it's very nice how

NOTE Confidence: 0.9361997

 $00:24:02.808 \longrightarrow 00:24:04.422$  open the lines of communication are

NOTE Confidence: 0.9361997

 $00:24:04.422 \longrightarrow 00:24:06.430$  and how it seems like everybody's

NOTE Confidence: 0.9361997

 $00:24:06.430 \longrightarrow 00:24:08.110$  really collaborating well to provide

NOTE Confidence: 0.9361997

 $00:24:08.110 \longrightarrow 00:24:09.629$  a patient with the best care possible.

NOTE Confidence: 0.9392133

 $00:24:10.630 \longrightarrow 00:24:12.712$  And then finally you know as

NOTE Confidence: 0.9392133

 $00:24:12.712 \longrightarrow 00:24:15.638$  we talk about all of the newer

NOTE Confidence: 0.9392133

 $00:24:15.638 \longrightarrow 00:24:18.068$  technologies that have really helped

NOTE Confidence: 0.9392133

 $00:24:18.068 \longrightarrow 00:24:20.822$  patients in terms of for

NOTE Confidence: 0.9392133

 $00{:}24{:}20.822 \dashrightarrow 00{:}24{:}22.839$  example regaining voice and so on.

NOTE Confidence: 0.9392133

 $00:24:22.840 \longrightarrow 00:24:25.009$  Can you talk a little bit about some of

NOTE Confidence: 0.9392133

 $00:24:25.009 \longrightarrow 00:24:27.436$  the newer things coming down the Pike?

NOTE Confidence: 0.9392133

 $00:24:27.440 \longrightarrow 00:24:29.813$  Is there research that goes on

NOTE Confidence: 0.9392133

00:24:29.813 --> 00:24:32.239 in speech and language pathology

NOTE Confidence: 0.9392133

 $00:24:32.240 \longrightarrow 00:24:33.956$  that patients should be aware of?

 $00:24:34.920 \longrightarrow 00:24:36.906$  Of course, there is always new

NOTE Confidence: 0.9381542

 $00:24:36.906 \longrightarrow 00:24:38.619$  research that's being

NOTE Confidence: 0.9381542

00:24:38.619 --> 00:24:40.274 published for speech pathology in

NOTE Confidence: 0.9381542

 $00:24:40.274 \longrightarrow 00:24:42.080$  the areas of voice, swallowing,

NOTE Confidence: 0.9381542

 $00:24:42.080 \longrightarrow 00:24:44.960$  articulation, and a lot of that.

NOTE Confidence: 0.9381542

 $00:24:44.960 \longrightarrow 00:24:48.152$  Evidence base is just all evidence base

NOTE Confidence: 0.9381542

00:24:48.152 --> 00:24:51.560 is really what's driving our practice

NOTE Confidence: 0.9381542

 $00:24:51.560 \longrightarrow 00:24:53.954$  as far as it goes with swallowing.

NOTE Confidence: 0.9381542

 $00:24:53.960 \longrightarrow 00:24:55.584$  There's been a lot of research that's

NOTE Confidence: 0.9381542

00:24:55.584 --> 00:24:57.640 come out and new technology for patients,

NOTE Confidence: 0.9381542

 $00:24:57.640 \longrightarrow 00:24:58.029$  biofeedback.

NOTE Confidence: 0.9381542

 $00:24:58.029 \longrightarrow 00:25:00.363$  So different machines that can measure

NOTE Confidence: 0.9381542

 $00:25:00.363 \longrightarrow 00:25:02.640$  the strength of a patient swallow,

NOTE Confidence: 0.9381542

 $00:25:02.640 \longrightarrow 00:25:05.048$  give them a visual readout of how

NOTE Confidence: 0.9381542

 $00:25:05.048 \longrightarrow 00:25:07.190$  hard they're swallowing or how much

 $00:25:07.190 \longrightarrow 00:25:09.030$  force they're using and encourage

NOTE Confidence: 0.9381542

 $00{:}25{:}09.030 \dashrightarrow 00{:}25{:}11.210$  them, coach them to practice with

NOTE Confidence: 0.9381542

 $00:25:11.210 \longrightarrow 00:25:12.960$  a greater amount of intensity.

NOTE Confidence: 0.9381542

 $00:25:12.960 \longrightarrow 00:25:15.324$  That's one piece of technology that's

NOTE Confidence: 0.9381542

 $00:25:15.324 \longrightarrow 00:25:17.520$  been really beneficial for patients.

NOTE Confidence: 0.9381542

 $00:25:17.520 \longrightarrow 00:25:19.564$  We also have different devices that might

NOTE Confidence: 0.9381542

 $00:25:19.564 \longrightarrow 00:25:21.557$  help patients with their range of motion.

NOTE Confidence: 0.9381542

00:25:21.560 --> 00:25:24.038 So some patients who I have with

NOTE Confidence: 0.9381542

 $00{:}25{:}24.038 \dashrightarrow 00{:}25{:}25.799$  difficulty with opening their jaw,

NOTE Confidence: 0.9381542

 $00:25:25.800 \longrightarrow 00:25:27.040$  we have different devices that

NOTE Confidence: 0.9381542

00:25:27.040 --> 00:25:28.560 can help their jaw open more,

NOTE Confidence: 0.9381542

 $00:25:28.560 \longrightarrow 00:25:30.498$  find ways to do stretches and

NOTE Confidence: 0.9381542

 $00:25:30.498 \longrightarrow 00:25:32.788$  not to mention just the whole

NOTE Confidence: 0.9381542

00:25:32.788 --> 00:25:34.636 host of artificial intelligence,

NOTE Confidence: 0.9381542

 $00:25:34.640 \longrightarrow 00:25:37.000$  different things with voice reproduction,

NOTE Confidence: 0.9381542

 $00:25:37.000 \longrightarrow 00:25:37.708$  voice banking.

 $00{:}25{:}37.708 --> 00{:}25{:}39.832$  It's a constant change and

NOTE Confidence: 0.9381542

00:25:39.832 --> 00:25:41.826 it's really taken off I think

NOTE Confidence: 0.9381542

00:25:41.826 --> 00:25:43.656 exponentially with a lot of what

NOTE Confidence: 0.9381542

 $00:25:43.722 \longrightarrow 00:25:45.798$  we're able to access for patients.

NOTE Confidence: 0.9381542

00:25:45.800 --> 00:25:48.640 And with all the research that's being done,

NOTE Confidence: 0.9381542

00:25:48.640 --> 00:25:50.856 I think we're just going to have more

NOTE Confidence: 0.9381542

 $00:25:50.856 \longrightarrow 00:25:53.277$  and more to offer from a rehabilitative

NOTE Confidence: 0.9381542

 $00:25:53.280 \longrightarrow 00:25:55.359$  perspective in the years to come.

NOTE Confidence: 0.93266284

00:25:56.510 --> 00:25:58.465 So just a question, what

NOTE Confidence: 0.93266284

 $00:25:58.465 \longrightarrow 00:26:00.029$  exactly is voice banking?

NOTE Confidence: 0.93266284

 $00{:}26{:}01.110 \dashrightarrow 00{:}26{:}02.730$  So voice banking is something

NOTE Confidence: 0.93266284

 $00:26:02.730 \longrightarrow 00:26:05.008$  that if patients might have a

NOTE Confidence: 0.93266284

 $00{:}26{:}05.008 \dashrightarrow 00{:}26{:}06.790$  diagnosis of head and neck cancer,

NOTE Confidence: 0.93266284

 $00:26:06.790 \longrightarrow 00:26:09.190$  they might have another diagnosis that

NOTE Confidence: 0.93266284

00:26:09.190 --> 00:26:10.956 might impact their their communication

 $00:26:10.956 \longrightarrow 00:26:12.888$  abilities or it might be degenerative

NOTE Confidence: 0.93266284

 $00:26:12.888 \longrightarrow 00:26:14.830$  in nature for their communications.

NOTE Confidence: 0.93266284

 $00{:}26{:}14.830 \dashrightarrow 00{:}26{:}16.265$  So we'd expect their speech

NOTE Confidence: 0.93266284

 $00:26:16.265 \longrightarrow 00:26:18.110$  and their voice to get worse.

NOTE Confidence: 0.93266284

 $00:26:18.110 \longrightarrow 00:26:19.770$  There's software out there where

NOTE Confidence: 0.93266284

 $00:26:19.770 \longrightarrow 00:26:21.840$  we can record a patient's voice.

NOTE Confidence: 0.93266284

 $00:26:21.840 \longrightarrow 00:26:23.640$  And then given some of the

NOTE Confidence: 0.93266284

 $00:26:23.640 \longrightarrow 00:26:24.840$  software that we have,

NOTE Confidence: 0.93266284

 $00{:}26{:}24.840 \dashrightarrow 00{:}26{:}26.240$  you can plug it into a device.

NOTE Confidence: 0.93266284

00:26:26.240 --> 00:26:28.200 And that device speaks for the patient,

NOTE Confidence: 0.93266284

 $00{:}26{:}28.200 \dashrightarrow 00{:}26{:}29.598$  because they're able to program it,

NOTE Confidence: 0.93266284

 $00:26:29.600 \longrightarrow 00:26:30.800$  it will sound like them.

NOTE Confidence: 0.93266284

 $00{:}26{:}30.800 \dashrightarrow 00{:}26{:}32.588$  So it'll continue to have their

NOTE Confidence: 0.93266284

 $00:26:32.588 \longrightarrow 00:26:34.512$  voice even if they're not able

NOTE Confidence: 0.93266284

 $00:26:34.512 \longrightarrow 00:26:36.197$  to produce it themselves anymore.

NOTE Confidence: 0.931326

 $00:26:37.000 \longrightarrow 00:26:38.728$  Wow, that's very cool.

 $00:26:38.728 \longrightarrow 00:26:41.120$  So, but how does that work?

NOTE Confidence: 0.931326

00:26:41.120 --> 00:26:42.730 I mean, how does the device know

NOTE Confidence: 0.931326

 $00:26:42.730 \longrightarrow 00:26:44.078$  what the patient wants to say?

NOTE Confidence: 0.931326

 $00:26:44.080 \longrightarrow 00:26:46.756$  I mean, how does that work?

NOTE Confidence: 0.93890756

 $00:26:47.290 \longrightarrow 00:26:49.450$  So that's augmentative and

NOTE Confidence: 0.93890756

 $00:26:49.450 \longrightarrow 00:26:50.530$  alternative communications.

NOTE Confidence: 0.93890756

 $00:26:50.530 \longrightarrow 00:26:52.605$  So these are different devices

NOTE Confidence: 0.93890756

 $00{:}26{:}52.605 \dashrightarrow 00{:}26{:}55.535$  similarly set up like a like a

NOTE Confidence: 0.93890756

 $00:26:55.535 \longrightarrow 00:26:57.694$  smart tablet where the programs

NOTE Confidence: 0.93890756

 $00:26:57.694 \longrightarrow 00:27:00.204$  that they have preset,

NOTE Confidence: 0.93890756

 $00{:}27{:}00.210 --> 00{:}27{:}02.195 \ \mathrm{messages} \ \mathrm{or} \ \mathrm{they}$ 

NOTE Confidence: 0.93890756

 $00{:}27{:}02.195 \dashrightarrow 00{:}27{:}04.180$  might also have simple buttons

NOTE Confidence: 0.93890756

 $00:27:04.248 \longrightarrow 00:27:06.299$  you can click which will end up

NOTE Confidence: 0.93890756

 $00:27:06.300 \longrightarrow 00:27:07.780$  communicating a message for you.

NOTE Confidence: 0.93890756

 $00:27:07.780 \longrightarrow 00:27:11.020$  So a variety of ways where just by the

 $00:27:11.020 \longrightarrow 00:27:13.836$  click of a few buttons or even by eye

NOTE Confidence: 0.93890756

 $00:27:13.836 \longrightarrow 00:27:16.140$  gaze and some of the advanced technology,

NOTE Confidence: 0.93890756

 $00:27:16.140 \longrightarrow 00:27:17.668$  these these devices can

NOTE Confidence: 0.93890756

00:27:17.668 --> 00:27:18.814 help patients communicate.

NOTE Confidence: 0.93869585

00:27:19.260 --> 00:27:22.977 Very cool. And then for the biofeedback,

NOTE Confidence: 0.93869585

 $00{:}27{:}22.980 \dashrightarrow 00{:}27{:}25.332$  I can imagine that that's really helpful

NOTE Confidence: 0.93869585

 $00:27:25.332 \longrightarrow 00:27:27.558$  as patients are going through their

NOTE Confidence: 0.93869585

00:27:27.558 --> 00:27:29.914 training and and doing their exercises,

NOTE Confidence: 0.93869585

 $00{:}27{:}29.914 \dashrightarrow 00{:}27{:}33.238$  Is that like an app that they carry around

NOTE Confidence: 0.93869585

 $00:27:33.238 \longrightarrow 00:27:35.450$  with them where it gives them feedback

NOTE Confidence: 0.93869585

 $00:27:35.513 \longrightarrow 00:27:37.606$  or is that like external technology that

NOTE Confidence: 0.93869585

 $00:27:37.606 \longrightarrow 00:27:39.810$  they need to hook up to themselves?

NOTE Confidence: 0.93869585

 $00:27:39.810 \longrightarrow 00:27:41.210$  How does that work exactly?

NOTE Confidence: 0.9326238

 $00{:}27{:}42.010 \dashrightarrow 00{:}27{:}44.074$  So that's typically some external technology

NOTE Confidence: 0.9326238

 $00:27:44.074 \longrightarrow 00:27:46.250$  that they'll hook up to themselves.

NOTE Confidence: 0.9326238

 $00:27:46.250 \longrightarrow 00:27:47.790$  So we have different,

 $00:27:47.790 \longrightarrow 00:27:50.100$  we have different devices that patients

NOTE Confidence: 0.9326238

 $00{:}27{:}50.172 \dashrightarrow 00{:}27{:}52.140$  can use and they can even sync it

NOTE Confidence: 0.9326238

 $00:27:52.140 \longrightarrow 00:27:54.410$  to an application on their phone.

NOTE Confidence: 0.9326238

00:27:54.410 --> 00:27:55.970 So if I'm working with a

NOTE Confidence: 0.9326238

00:27:55.970 --> 00:27:57.010 patient on tongue strength,

NOTE Confidence: 0.9326238

 $00:27:57.010 \longrightarrow 00:27:58.746$  what we might be able to do

NOTE Confidence: 0.9326238

 $00:27:58.746 \longrightarrow 00:28:00.530$  is use a pressure bulb.

NOTE Confidence: 0.9326238

 $00:28:00.530 \longrightarrow 00:28:01.650$  I'll have them try and

NOTE Confidence: 0.9326238

 $00:28:02.650 \longrightarrow 00:28:03.730$  put as much pressure as

NOTE Confidence: 0.934074903333333

 $00:28:03.730 \longrightarrow 00:28:05.445$  they can to try and work those

NOTE Confidence: 0.934074903333333

00:28:05.445 --> 00:28:06.941 swallowing muscles and they'll get a

NOTE Confidence: 0.934074903333333

 $00{:}28{:}06.941 \dashrightarrow 00{:}28{:}08.593$  readout on their phone and that tells

NOTE Confidence: 0.934074903333333

 $00{:}28{:}08.643 \dashrightarrow 00{:}28{:}10.113$  them if they're getting into the

NOTE Confidence: 0.934074903333333

 $00{:}28{:}10.113 \longrightarrow 00{:}28{:}12.500$  range that they need to be in or not.

NOTE Confidence: 0.934074903333333

 $00:28:12.500 \longrightarrow 00:28:14.396$  With a lot of the patients

00:28:14.396 --> 00:28:15.660 that we're working with,

NOTE Confidence: 0.934074903333333

 $00{:}28{:}15.660 \dashrightarrow 00{:}28{:}17.364$  sometimes sensation can really

NOTE Confidence: 0.934074903333333

00:28:17.364 --> 00:28:19.494 be impacted given the surgery,

NOTE Confidence: 0.934074903333333

 $00:28:19.500 \longrightarrow 00:28:21.576$  the radiation, the presence of cancer.

NOTE Confidence: 0.934074903333333

 $00:28:21.580 \longrightarrow 00:28:23.052$  So having this biofeedback,

NOTE Confidence: 0.934074903333333

00:28:23.052 --> 00:28:24.524 letting patients know how

NOTE Confidence: 0.934074903333333

00:28:24.524 --> 00:28:26.179 hard their body's working,

NOTE Confidence: 0.934074903333333

00:28:26.180 --> 00:28:28.460 how well they're doing the exercises,

NOTE Confidence: 0.934074903333333

 $00{:}28{:}28.460 \to 00{:}28{:}29.745$  that really provides them with

NOTE Confidence: 0.934074903333333

00:28:29.745 --> 00:28:31.030 the benefit of knowing they're

NOTE Confidence: 0.934074903333333

00:28:31.079 --> 00:28:32.318 working as hard as they can to

NOTE Confidence: 0.934074903333333

 $00:28:32.318 \longrightarrow 00:28:33.739$  try and get the best end result.

NOTE Confidence: 0.926814

 $00:28:34.460 \longrightarrow 00:28:36.632$  John Gerrity is a speech language

NOTE Confidence: 0.926814

 $00{:}28{:}36.632 \dashrightarrow 00{:}28{:}39.099$  pathologist at Yale New Haven Hospital.

NOTE Confidence: 0.926814

 $00:28:39.100 \longrightarrow 00:28:41.218$  If you have questions, the address

NOTE Confidence: 0.926814

 $00{:}28{:}41.218 --> 00{:}28{:}43.540$  is Cancer Answers at Yale dot Edu.

 $00:28:43.540 \longrightarrow 00:28:45.844$  And past editions of the program

NOTE Confidence: 0.926814

 $00{:}28{:}45.844 \dashrightarrow 00{:}28{:}48.115$  are available in audio and written

NOTE Confidence: 0.926814

 $00{:}28{:}48.115 \dashrightarrow 00{:}28{:}49.079$  form at yale cancercenter.org.

NOTE Confidence: 0.926814

 $00{:}28{:}49.079 \dashrightarrow 00{:}28{:}51.471$  We hope you'll join us next week to

NOTE Confidence: 0.926814

 $00:28:51.471 \longrightarrow 00:28:53.291$  learn more about the fight against

NOTE Confidence: 0.926814

 $00:28:53.291 \longrightarrow 00:28:55.100$  cancer here on Connecticut Public Radio.

NOTE Confidence: 0.926814

 $00{:}28{:}55.100 \dashrightarrow 00{:}28{:}57.614$  Funding for Yale Cancer Answers is

NOTE Confidence: 0.926814

 $00{:}28{:}57.614 \dashrightarrow 00{:}29{:}00.000$  provided by Smilow Cancer Hospital.