WEBVTT

00:00:00.000 --> 00:00:02.490 Support for Yale Cancer Answers

NOTE Confidence: 0.8569666

 $00:00:02.490 \longrightarrow 00:00:04.980$ comes from AstraZeneca dedicated

NOTE Confidence: 0.8569666

00:00:05.057 --> 00:00:07.432 to advancing options and providing

NOTE Confidence: 0.8569666

 $00:00:07.432 \longrightarrow 00:00:10.420$ hope for people living with cancer.

NOTE Confidence: 0.8569666

 $00:00:10.420 \longrightarrow 00:00:14.240$ More information at a strazeneca-us.com.

NOTE Confidence: 0.8569666

 $00:00:14.240 \longrightarrow 00:00:16.082$ Welcome to Yale Cancer Answers with

NOTE Confidence: 0.8569666

00:00:16.082 --> 00:00:18.462 your host doctor Anees Chappar.

NOTE Confidence: 0.8569666

 $00:00:18.462 \longrightarrow 00:00:20.277$ Yale Cancer Answers features the

NOTE Confidence: 0.8569666

00:00:20.277 --> 00:00:22.473 latest information on cancer care by

NOTE Confidence: 0.8569666

 $00{:}00{:}22.473 \dashrightarrow 00{:}00{:}23.881$ welcoming on cologists and specialists

NOTE Confidence: 0.8569666

 $00:00:23.881 \longrightarrow 00:00:26.290$ who are on the forefront of the

NOTE Confidence: 0.8569666

 $00:00:26.290 \longrightarrow 00:00:28.390$ battle to fight cancer. This week

NOTE Confidence: 0.8569666

 $00{:}00{:}28.390 \dashrightarrow 00{:}00{:}30.388$ it's a conversation about head and

NOTE Confidence: 0.8569666

 $00:00:30.388 \longrightarrow 00:00:32.542$ neck cancer with Doctor Aarti Bhatia.

NOTE Confidence: 0.8569666

 $00:00:32.542 \longrightarrow 00:00:34.352$ Doctor Bhatia is assistant professor

00:00:34.352 --> 00:00:36.169 of medicine and medical oncology

NOTE Confidence: 0.8569666

 $00:00:36.169 \longrightarrow 00:00:38.047$ at the Yale School of Medicine,

NOTE Confidence: 0.8569666

 $00:00:38.050 \longrightarrow 00:00:40.672$ where Doctor Chagpar is a

NOTE Confidence: 0.8569666

00:00:40.672 --> 00:00:42.420 professor of surgical oncology.

00:00:42.770 --> 00:00:45.704 Aarti, maybe you can start off by telling us a

NOTE Confidence: 0.81852335

 $00{:}00{:}45.704 \dashrightarrow 00{:}00{:}48.435$ little bit more about head neck cancers.

NOTE Confidence: 0.81852335

 $00:00:48.440 \longrightarrow 00:00:51.617$ It seems like there would be a lot of

NOTE Confidence: 0.81852335

 $00:00:51.620 \longrightarrow 00:00:52.972$ cancers in that bucket.

NOTE Confidence: 0.81852335

00:00:52.972 --> 00:00:55.520 It is actually a pretty wide bucket.

NOTE Confidence: 0.81852335

00:00:55.520 --> 00:00:57.998 You know if you think about it,

NOTE Confidence: 0.81852335

 $00:00:58.000 \longrightarrow 00:01:00.118$ the head and neck is a

NOTE Confidence: 0.81852335

00:01:00.118 --> 00:01:01.177 pretty concise structure,

NOTE Confidence: 0.81852335

 $00:01:01.180 \longrightarrow 00:01:02.620$ but diagnosis, treatment follows

NOTE Confidence: 0.81852335

 $00{:}01{:}02.620 \dashrightarrow 00{:}01{:}05.178$ like the site of origin of the

NOTE Confidence: 0.81852335

 $00:01:05.178 \longrightarrow 00:01:07.194$ tumor within the head neck region.

NOTE Confidence: 0.81852335

 $00:01:07.200 \longrightarrow 00:01:09.629$ So broadly it encompasses a lot

 $00:01:09.629 \longrightarrow 00:01:11.910$ of tumors which arise from the

NOTE Confidence: 0.81852335

 $00:01:11.910 \longrightarrow 00:01:14.226$ mucosa within the head and neck.

NOTE Confidence: 0.81852335

00:01:14.230 --> 00:01:17.083 But you know, they could arise in the mouth,

NOTE Confidence: 0.81852335

 $00:01:17.090 \longrightarrow 00:01:19.316$ so that would be oral cavity tumors.

NOTE Confidence: 0.81852335

00:01:19.320 --> 00:01:22.173 They could arise in the back of the throat,

NOTE Confidence: 0.81852335

 $00{:}01{:}22.180 \dashrightarrow 00{:}01{:}23.765$ so that would be orophary ngeal

NOTE Confidence: 0.81852335

 $00:01:23.765 \longrightarrow 00:01:25.033$ tumors or tonsillar tumors.

NOTE Confidence: 0.81852335

00:01:25.040 --> 00:01:26.944 They could arise in our voice box

NOTE Confidence: 0.81852335

 $00{:}01{:}26.944 \dashrightarrow 00{:}01{:}28.860$ that would be laryngeal tumors.

NOTE Confidence: 0.81852335

 $00:01:28.860 \longrightarrow 00:01:31.079$ The back of the nose is nasal

NOTE Confidence: 0.81852335

 $00:01:31.079 \longrightarrow 00:01:31.713$ pharyngeal tumors.

NOTE Confidence: 0.81852335

00:01:31.720 --> 00:01:33.946 You could also have salivary gland cancers,

NOTE Confidence: 0.81852335

 $00:01:33.950 \longrightarrow 00:01:36.568$ and each of those sites is treated

NOTE Confidence: 0.81852335

 $00:01:36.568 \longrightarrow 00:01:38.535$ differently in terms of how we

NOTE Confidence: 0.81852335

 $00:01:38.535 \longrightarrow 00:01:40.620$ work it up and how we manage it.

NOTE Confidence: 0.80153626

 $00:01:41.850 \longrightarrow 00:01:44.958$ And are they all lumped together?

 $00{:}01{:}44.960 \dashrightarrow 00{:}01{:}47.764$ Basically because they're all

NOTE Confidence: 0.80153626

00:01:47.764 --> 00:01:50.310 pretty rare, or I wouldn't say

NOTE Confidence: 0.85975343

00:01:50.310 --> 00:01:52.998 they are rare, together head neck

NOTE Confidence: 0.85975343

 $00:01:52.998 \longrightarrow 00:01:55.621$ cancers always come within the top 10

NOTE Confidence: 0.85975343

 $00:01:55.621 \longrightarrow 00:01:58.270$ most common cancers in the United States.

NOTE Confidence: 0.85975343

 $00:01:58.270 \longrightarrow 00:02:00.867$ You know there's also a much larger

NOTE Confidence: 0.85975343

 $00:02:00.867 \longrightarrow 00:02:02.812$ proportion of tumors that arise

NOTE Confidence: 0.85975343

 $00:02:02.812 \longrightarrow 00:02:04.707$ outside of the United States,

NOTE Confidence: 0.85975343

 $00:02:04.710 \longrightarrow 00:02:07.104$ so for instance, Asia has a very

NOTE Confidence: 0.85975343

 $00{:}02{:}07.104 \dashrightarrow 00{:}02{:}09.847$ large number of new head neck cancers

NOTE Confidence: 0.85975343

 $00{:}02{:}09.847 \dashrightarrow 00{:}02{:}13.300$ that are diagnosed every year, but

NOTE Confidence: 0.85975343

 $00:02:13.300 \longrightarrow 00:02:15.526$ the reason they are lumped together is

NOTE Confidence: 0.85975343

 $00{:}02{:}15.526 \dashrightarrow 00{:}02{:}17.598$ because they share a common Histology.

NOTE Confidence: 0.85975343

 $00:02:17.600 \longrightarrow 00:02:19.586$ So when we look at

NOTE Confidence: 0.85975343

 $00:02:19.590 \longrightarrow 00:02:21.038$ tumors under the microscope,

 $00:02:21.038 \longrightarrow 00:02:23.521$ most tumors arising from the head and

NOTE Confidence: 0.85975343

 $00{:}02{:}23.521 \dashrightarrow 00{:}02{:}25.529$ neck region tend to have what we call

NOTE Confidence: 0.85975343

00:02:25.529 --> 00:02:27.680 a squamous Histology and based off

NOTE Confidence: 0.85975343

 $00:02:27.680 \longrightarrow 00:02:30.180$ that they are clubbed together as one

NOTE Confidence: 0.8386756

 $00:02:30.180 \longrightarrow 00:02:32.280$ entity. But they are different in

NOTE Confidence: 0.8386756

 $00:02:32.280 \longrightarrow 00:02:34.607$ terms of how they're treated and we're

NOTE Confidence: 0.8386756

 $00:02:34.607 \longrightarrow 00:02:37.130$ going to get into that in a second,

NOTE Confidence: 0.8386756

 $00:02:37.130 \longrightarrow 00:02:40.418$ but just take one step back,

NOTE Confidence: 0.8386756

 $00{:}02{:}40.420 --> 00{:}02{:}42.250$ what is the etiology or the

NOTE Confidence: 0.8386756

 $00:02:42.250 \longrightarrow 00:02:44.380$ cause of these head neck cancers?

NOTE Confidence: 0.8386756

 $00{:}02{:}44.380 \dashrightarrow 00{:}02{:}46.228$ Why are they more common in

NOTE Confidence: 0.8386756

 $00:02:46.228 \longrightarrow 00:02:48.339$ Asia than they are for example,

NOTE Confidence: 0.8386756

 $00:02:48.340 \longrightarrow 00:02:50.044$ in the United States and what

NOTE Confidence: 0.8386756

 $00:02:50.044 \longrightarrow 00:02:52.384$ are some of the risk factors that

NOTE Confidence: 0.8386756

00:02:52.384 --> 00:02:54.279 people should be watching for?

NOTE Confidence: 0.83569247

 $00:02:55.220 \longrightarrow 00:02:57.770$ So the common etiologies worldwide is,

00:02:57.770 --> 00:02:59.470 you know, tobacco exposure,

NOTE Confidence: 0.83569247

00:02:59.470 --> 00:03:01.104 alcohol exposure. In Asia

NOTE Confidence: 0.83569247

 $00:03:01.104 \longrightarrow 00:03:03.848$ there are a couple additional risk factors

NOTE Confidence: 0.83569247

 $00:03:03.848 \longrightarrow 00:03:07.118$ that increase the incidence of these cancers.

NOTE Confidence: 0.83569247

 $00{:}03{:}07.120 \dashrightarrow 00{:}03{:}10.347$ So for instance, in Southeast Asia you

NOTE Confidence: 0.83569247

 $00:03:10.347 \longrightarrow 00:03:13.915$ know people tend to chew a lot of tobacco.

NOTE Confidence: 0.83569247

 $00:03:13.920 \longrightarrow 00:03:17.200$ They tend to chew betel nut and those

NOTE Confidence: 0.83569247

 $00{:}03{:}17.200 \dashrightarrow 00{:}03{:}19.711$ natural substances can also increase their

NOTE Confidence: 0.83569247

00:03:19.711 --> 00:03:22.673 risk of acquiring head and neck cancers

NOTE Confidence: 0.83569247

00:03:22.673 --> 00:03:25.436 in countries like China. In Hong Kong,

NOTE Confidence: 0.83569247

 $00:03:25.436 \longrightarrow 00:03:28.094$ there is an incidence of nasal,

NOTE Confidence: 0.83569247

 $00:03:28.100 \longrightarrow 00:03:30.602$ pharyngeal cancers which are caused by

NOTE Confidence: 0.83569247

 $00{:}03{:}30.602 \dashrightarrow 00{:}03{:}33.229$ the Epstein Barr virus or EBV virus.

NOTE Confidence: 0.83569247

00:03:33.230 --> 00:03:34.409 It's almost endemic,

NOTE Confidence: 0.83569247

00:03:34.409 --> 00:03:36.374 endemic proportions in those countries,

 $00:03:36.380 \longrightarrow 00:03:38.543$ so a lot of head neck cancers

NOTE Confidence: 0.83569247

 $00:03:38.543 \longrightarrow 00:03:40.710$ tend to be nasophary ngeal.

NOTE Confidence: 0.83569247

 $00:03:45.050 \longrightarrow 00:03:47.312$ In the United States and in

NOTE Confidence: 0.83569247

 $00:03:47.312 \longrightarrow 00:03:49.380$ the Western world at large,

NOTE Confidence: 0.83569247

 $00{:}03{:}49.380 \dashrightarrow 00{:}03{:}52.446$ we also see several head and neck cancers

NOTE Confidence: 0.83569247

 $00{:}03{:}52.446 \to 00{:}03{:}55.002$ arising in Association with the human

NOTE Confidence: 0.83569247

 $00{:}03{:}55.002 \dashrightarrow 00{:}03{:}57.336$ Papilloma virus or the HPV virus.

NOTE Confidence: 0.83569247

 $00:03:57.340 \longrightarrow 00:03:58.056$ Most commonly,

NOTE Confidence: 0.83569247

 $00{:}03{:}58.056 \dashrightarrow 00{:}03{:}59.488$ people associate that with

NOTE Confidence: 0.83569247

00:03:59.488 --> 00:04:00.920 cervical cancer in women,

NOTE Confidence: 0.83569247

 $00:04:00.920 \longrightarrow 00:04:03.384$ but there's a rising incidence of HPV

NOTE Confidence: 0.83569247

 $00:04:03.384 \longrightarrow 00:04:05.928$ head and neck cancers in the Western world.

NOTE Confidence: 0.8432901

 $00:04:07.530 \longrightarrow 00:04:10.624$ And so when we think about risk

NOTE Confidence: 0.8432901

 $00:04:10.624 \longrightarrow 00:04:13.180$ factors for developing these cancers,

NOTE Confidence: 0.8432901

00:04:13.180 --> 00:04:16.477 and we often think about primary prevention,

NOTE Confidence: 0.8432901

 $00:04:16.480 \longrightarrow 00:04:19.476$ so how can we reduce getting these

 $00:04:19.476 \longrightarrow 00:04:21.874$ risk factors and thereby reduce

NOTE Confidence: 0.8432901

 $00:04:21.874 \longrightarrow 00:04:24.958$ our risk of getting these cancers?

NOTE Confidence: 0.8432901

 $00:04:24.960 \longrightarrow 00:04:28.019$ It seems that the two that you've

NOTE Confidence: 0.8432901

 $00:04:28.019 \longrightarrow 00:04:31.402$ mentioned right off the top would be

NOTE Confidence: 0.8432901

 $00:04:31.402 \longrightarrow 00:04:34.372$ reduce your smoking or to bacco consumption,

NOTE Confidence: 0.8432901

 $00{:}04{:}34.380 \dashrightarrow 00{:}04{:}36.440$ whether that's chewing to bacco

NOTE Confidence: 0.8432901

 $00:04:36.440 \longrightarrow 00:04:37.985$ or smoking tobacco,

NOTE Confidence: 0.8432901

 $00:04:37.990 \longrightarrow 00:04:40.460$ and getting an HPV vaccine. Is that right?

NOTE Confidence: 0.85439324

 $00:04:40.460 \longrightarrow 00:04:42.924$ That is right, so you know,

NOTE Confidence: 0.85439324

 $00:04:42.930 \longrightarrow 00:04:44.700$ the HPV vaccine is something

NOTE Confidence: 0.85439324

 $00:04:44.700 \longrightarrow 00:04:46.882$ that still doesn't have a lot

NOTE Confidence: 0.85439324

 $00:04:46.882 \longrightarrow 00:04:48.577$ of uptake in the Community,

NOTE Confidence: 0.85439324

 $00:04:48.580 \longrightarrow 00:04:51.748$ and it's good to be aware

NOTE Confidence: 0.85439324

00:04:51.748 --> 00:04:54.574 that the sooner you get it in life,

NOTE Confidence: 0.85439324

 $00:04:54.580 \longrightarrow 00:04:56.668$ ideally in your preteen years before

00:04:56.668 --> 00:04:59.182 you have a chance of being exposed

NOTE Confidence: 0.85439324

 $00:04:59.182 \longrightarrow 00:05:01.288$ to the virus and the infection,

NOTE Confidence: 0.85439324

 $00:05:01.290 \longrightarrow 00:05:03.565$ the much better protection that the virus

NOTE Confidence: 0.85439324

 $00:05:03.565 \longrightarrow 00:05:05.520$ offers you against multiple cancers.

NOTE Confidence: 0.85439324

00:05:05.520 --> 00:05:07.638 So for women it protects you

NOTE Confidence: 0.85439324

00:05:07.638 --> 00:05:08.697 against cervical cancer,

NOTE Confidence: 0.85439324

 $00{:}05{:}08.700 \dashrightarrow 00{:}05{:}10.750$ head and neck cancer, an ogenital cancers.

NOTE Confidence: 0.85439324

 $00:05:10.750 \longrightarrow 00:05:13.792$ And for men it protects you from the head and

NOTE Confidence: 0.85439324

 $00{:}05{:}13.800 \dashrightarrow 00{:}05{:}15.840$ neck cancers and the anogenital cancers.

NOTE Confidence: 0.85439324

 $00:05:15.840 \longrightarrow 00:05:18.038$ So yes, and another thing

NOTE Confidence: 0.85439324

 $00:05:18.038 \longrightarrow 00:05:20.718$ to be aware of is that the FDA

NOTE Confidence: 0.85439324

 $00{:}05{:}20.718 \dashrightarrow 00{:}05{:}22.388$ has recently increased the age

NOTE Confidence: 0.85439324

00:05:22.461 --> 00:05:24.585 limit to which you could actually

NOTE Confidence: 0.85439324

 $00:05:24.585 \longrightarrow 00:05:26.660$ be eligible to get the vaccine.

NOTE Confidence: 0.85439324

 $00:05:26.660 \longrightarrow 00:05:29.730$ So previously it used to be about 26 years.

NOTE Confidence: 0.85439324

 $00{:}05{:}29.730 --> 00{:}05{:}32.074$ Now it's up to 45 years so you

 $00:05:32.074 \longrightarrow 00:05:34.517$ know people who did not meet the

NOTE Confidence: 0.85439324

 $00:05:34.517 \longrightarrow 00:05:36.732$ initial cutoff for the vaccine are

NOTE Confidence: 0.85439324

 $00:05:36.732 \longrightarrow 00:05:38.886$ now eligible to get the vaccine.

NOTE Confidence: 0.9003522

00:05:39.970 --> 00:05:41.951 And so why do you think that

NOTE Confidence: 0.9003522

 $00:05:41.951 \longrightarrow 00:05:43.783$ there is so much hesitancy

NOTE Confidence: 0.9003522

00:05:43.783 --> 00:05:46.058 about getting the HPV vaccine?

NOTE Confidence: 0.9003522

 $00:05:46.060 \longrightarrow 00:05:48.608$ I mean, it seems that it would

NOTE Confidence: 0.9003522

00:05:48.608 --> 00:05:52.339 be a no brainer if it can reduce

NOTE Confidence: 0.9003522

 $00:05:52.339 \longrightarrow 00:05:54.879$ your risk of getting cancer.

NOTE Confidence: 0.9003522

 $00:05:54.880 \longrightarrow 00:05:57.000$ Certainly HPV vaccines

NOTE Confidence: 0.9003522

 $00:05:57.000 \longrightarrow 00:05:59.621$ have been around for awhile and right

NOTE Confidence: 0.9003522

 $00{:}05{:}59.621 \dashrightarrow 00{:}06{:}02.165$ now during the covid epidemic

NOTE Confidence: 0.9003522

 $00:06:02.170 \longrightarrow 00:06:04.315$ we've seen some hesitancy with

NOTE Confidence: 0.9003522

00:06:04.315 --> 00:06:06.460 regards to vaccination for covid,

NOTE Confidence: 0.9003522

 $00:06:06.460 \longrightarrow 00:06:08.956$ based primarily off of the speed

 $00:06:08.956 \longrightarrow 00:06:11.258$ and the rapidity with which

NOTE Confidence: 0.9003522

 $00{:}06{:}11.258 \dashrightarrow 00{:}06{:}13.478$ those vaccines were developed.

NOTE Confidence: 0.9003522

 $00:06:13.480 \longrightarrow 00:06:15.810$ But the HPV vaccines have

NOTE Confidence: 0.9003522

 $00:06:15.810 \longrightarrow 00:06:18.140$ been around for a while,

NOTE Confidence: 0.9003522

00:06:18.140 --> 00:06:20.936 so why aren't people getting vaccinated?

NOTE Confidence: 0.9003522

00:06:20.940 --> 00:06:24.139 Is it that this isn't really something

NOTE Confidence: 0.9003522

 $00:06:24.139 \longrightarrow 00:06:26.989$ that's been established in school programs?

NOTE Confidence: 0.9003522

00:06:26.990 --> 00:06:29.786 When kids get their usual measles,

NOTE Confidence: 0.9003522

 $00{:}06{:}29.790 \dashrightarrow 00{:}06{:}31.654$ mumps, and rubella vaccine?

NOTE Confidence: 0.9003522

 $00:06:31.654 \longrightarrow 00:06:33.518$ Is it celebrity endorsement

NOTE Confidence: 0.9003522

 $00:06:33.518 \longrightarrow 00:06:34.450$ against vaccination?

NOTE Confidence: 0.9003522

 $00:06:34.450 \longrightarrow 00:06:37.705$ Why do you think that there is

NOTE Confidence: 0.9003522

 $00:06:37.705 \longrightarrow 00:06:38.635$ this hesitancy?

 $00:06:39.580 \longrightarrow 00:06:42.370$ I think it's a combination of factors.

NOTE Confidence: 0.8813195

 $00:06:42.370 \longrightarrow 00:06:45.450$ One is the lack of awareness.

NOTE Confidence: 0.8813195

 $00:06:45.450 \longrightarrow 00:06:47.606$ A lot of people do not know

 $00:06:49.700 \longrightarrow 00:06:53.088$ about the Association with HPV.

 $00:06:58.410 \longrightarrow 00:07:00.903$ The second is that it's not a part of

NOTE Confidence: 0.8813195

 $00{:}07{:}00.903 \dashrightarrow 00{:}07{:}03.349$ the national immunization schedule,

NOTE Confidence: 0.8813195

 $00{:}07{:}03.350 \dashrightarrow 00{:}07{:}05.342$ unlike the MMR vaccine, which then

NOTE Confidence: 0.8813195

 $00:07:05.342 \longrightarrow 00:07:07.909$ gets offered to all pediatric patients.

NOTE Confidence: 0.8813195

00:07:07.910 --> 00:07:09.430 But this one doesn't,

NOTE Confidence: 0.8813195

 $00:07:09.430 \longrightarrow 00:07:11.710$ and the third is, I think,

NOTE Confidence: 0.8813195

 $00:07:11.710 \longrightarrow 00:07:12.850$ a cultural hesitancy.

NOTE Confidence: 0.8813195

00:07:12.850 --> 00:07:15.104 You know, HPV is a sexually acquired

NOTE Confidence: 0.8813195

 $00:07:15.104 \longrightarrow 00:07:16.166$ infection,

NOTE Confidence: 0.8813195

00:07:16.166 --> 00:07:18.761 and I think people worry that getting

NOTE Confidence: 0.8813195

 $00{:}07{:}18.761 \dashrightarrow 00{:}07{:}21.209$ teenagers a vaccine against a sexually

NOTE Confidence: 0.8813195

 $00:07:21.210 \longrightarrow 00:07:23.550$ transmitted infection will in turn then

NOTE Confidence: 0.8813195

00:07:23.550 --> 00:07:24.918 promote promiscuity so

NOTE Confidence: 0.8813195

 $00:07:24.918 \longrightarrow 00:07:27.378$ I think a lot of people worry

NOTE Confidence: 0.8813195

 $00:07:27.378 \longrightarrow 00:07:29.068$ about that reason as well.

NOTE Confidence: 0.88113725

 $00:07:30.180 \longrightarrow 00:07:33.186$ And so is that why it's not part of

 $00:07:33.186 \longrightarrow 00:07:36.188$ the national vaccination schedule?

NOTE Confidence: 0.88113725

 $00{:}07{:}36.190 \dashrightarrow 00{:}07{:}39.241$ I mean, it seems as though if the

NOTE Confidence: 0.88113725

 $00:07:39.241 \longrightarrow 00:07:42.546$ CDC and other public health officials

NOTE Confidence: 0.88113725

00:07:42.546 --> 00:07:45.426 recommend getting the HPV vaccine,

NOTE Confidence: 0.88113725

 $00:07:45.430 \longrightarrow 00:07:48.657$ and certainly cervical cancers,

NOTE Confidence: 0.88113725

00:07:48.660 --> 00:07:49.941 head, neck cancers,

NOTE Confidence: 0.88113725

 $00:07:49.941 \longrightarrow 00:07:52.076$ anogenital cancers are significant in

NOTE Confidence: 0.88113725

 $00{:}07{:}52.076 \dashrightarrow 00{:}07{:}55.127$ terms of their public health consequences.

NOTE Confidence: 0.88113725

 $00:07:55.130 \longrightarrow 00:07:59.870$ Why isn't it part of the national schedule?

NOTE Confidence: 0.86312425

00:07:59.870 --> 00:08:01.838 I think one because it's

 $00{:}08{:}03.684 \dashrightarrow 00{:}08{:}05.286$ been may be within the last decade

NOTE Confidence: 0.86312425

 $00:08:05.286 \longrightarrow 00:08:07.712$ or so that we've started to see

NOTE Confidence: 0.86312425

 $00{:}08{:}07.712 \dashrightarrow 00{:}08{:}09.176$ results from clinical trials

NOTE Confidence: 0.86312425

 $00:08:09.176 \longrightarrow 00:08:10.962$ establishing the efficacy of the

NOTE Confidence: 0.86312425

 $00:08:10.962 \longrightarrow 00:08:12.326$ vaccine against these cancers.

NOTE Confidence: 0.86312425

00:08:12.330 --> 00:08:14.914 And two, I think just a cultural

00:08:14.914 --> 00:08:16.599 uptake hasn't been that much,

NOTE Confidence: 0.86312425

 $00:08:16.600 \longrightarrow 00:08:18.664$ but it would be great to see it

NOTE Confidence: 0.86312425

 $00:08:18.664 \longrightarrow 00:08:20.830$ become a part of the national

NOTE Confidence: 0.86312425

 $00{:}08{:}20.830 \dashrightarrow 00{:}08{:}22.800$ immunization schedule so

NOTE Confidence: 0.86312425

 $00:08:22.800 \longrightarrow 00:08:25.170$ people have to opt out of getting

NOTE Confidence: 0.86312425

 $00{:}08{:}25.170 \dashrightarrow 00{:}08{:}27.418$ the vaccine instead of opting in to get it.

NOTE Confidence: 0.86312425

 $00:08:27.420 \longrightarrow 00:08:30.579$ And so for the people who are

NOTE Confidence: 0.86312425

 $00{:}08{:}30.579 \dashrightarrow 00{:}08{:}33.177$ listening to this show and are thinking,

NOTE Confidence: 0.86312425

 $00:08:33.180 \longrightarrow 00:08:35.688$ it seems as though

NOTE Confidence: 0.86312425

 $00:08:35.688 \longrightarrow 00:08:37.360$ this vaccine is safe.

NOTE Confidence: 0.86312425

00:08:37.360 --> 00:08:40.286 It's highly efficacious as I understand it,

NOTE Confidence: 0.86312425

 $00:08:40.290 \longrightarrow 00:08:41.958$ can prevent over 90%,

NOTE Confidence: 0.86312425

 $00{:}08{:}41.958 \dashrightarrow 00{:}08{:}44.882$ maybe even higher, of these cancers,

NOTE Confidence: 0.86312425

 $00:08:44.882 \longrightarrow 00:08:46.136$ especially cervical cancer.

NOTE Confidence: 0.86312425

 $00:08:46.140 \longrightarrow 00:08:49.059$ But also other forms of cancer.

00:08:49.060 --> 00:08:51.150 Why wouldn't I get it?

NOTE Confidence: 0.86312425

 $00:08:51.150 \longrightarrow 00:08:54.076$ How do they go about doing that?

NOTE Confidence: 0.86312425

 $00:08:54.080 \longrightarrow 00:08:56.462$ Is that something that they can

NOTE Confidence: 0.86312425

00:08:56.462 --> 00:08:58.680 get through their doctors offices?

NOTE Confidence: 0.86312425

 $00:08:58.680 \longrightarrow 00:09:00.770$ Is it covered by insurance?

 $00:09:01.656 \longrightarrow 00:09:04.314$ What are the other potential barriers

NOTE Confidence: 0.86312425

 $00:09:04.320 \longrightarrow 00:09:06.570$ that people can address?

NOTE Confidence: 0.8819561

 $00:09:06.570 \longrightarrow 00:09:08.315$ It should be fairly straightforward to get

NOTE Confidence: 0.8819561

 $00:09:08.315 \longrightarrow 00:09:10.935$ it so it is covered by insurance

NOTE Confidence: 0.8819561

 $00{:}09{:}10.935 \dashrightarrow 00{:}09{:}12.950$ right from the preteen years.

NOTE Confidence: 0.8819561

 $00:09:12.950 \longrightarrow 00:09:15.022$ So age 9-10 until someone gets to

NOTE Confidence: 0.8819561

00:09:15.022 --> 00:09:18.289 the age of 45 years and it should be

NOTE Confidence: 0.8819561

 $00:09:18.289 \longrightarrow 00:09:20.355$ fairly straightforward to call your

NOTE Confidence: 0.8819561

 $00{:}09{:}20.355 \dashrightarrow 00{:}09{:}23.067$ pediatrician or your primary care doctor,

NOTE Confidence: 0.8819561

 $00:09:23.070 \longrightarrow 00:09:26.445$ and you know, go in and get the shot.

NOTE Confidence: 0.8819561

 $00:09:26.450 \longrightarrow 00:09:28.320$ Most clinics offer the vaccine.

 $00:09:29.950 \longrightarrow 00:09:31.822$ And really it's been efficacious

NOTE Confidence: 0.8328066

 $00{:}09{:}31.822 \dashrightarrow 00{:}09{:}33.381$ and minimal side effects, right?

NOTE Confidence: 0.8328066

 $00:09:33.381 \longrightarrow 00:09:35.570$ Well, there are some side effects. Nothing

NOTE Confidence: 0.8328066

 $00:09:35.570 \longrightarrow 00:09:36.814$ like the covid vaccine.

NOTE Confidence: 0.8328066

00:09:36.814 --> 00:09:39.000 So you know right off the bat,

NOTE Confidence: 0.8328066

 $00:09:39.000 \longrightarrow 00:09:41.004$ that's something a little bit better

NOTE Confidence: 0.8328066

 $00:09:41.004 \longrightarrow 00:09:42.964$ tolerated than the covid shot so

NOTE Confidence: 0.8328066

00:09:42.964 --> 00:09:44.924 if people could deal with the covid shot,

NOTE Confidence: 0.8328066

 $00{:}09{:}44.930 \dashrightarrow 00{:}09{:}46.490$ they can definitely deal with

NOTE Confidence: 0.8328066

00:09:46.490 --> 00:09:48.050 the HPV vaccine,

NOTE Confidence: 0.8328066

 $00:09:48.050 \longrightarrow 00:09:49.916$ but there are minimal side effects.

NOTE Confidence: 0.8328066

 $00:09:49.920 \longrightarrow 00:09:52.568$ Most of them are short term, they

NOTE Confidence: 0.8328066

 $00{:}09{:}52.568 \dashrightarrow 00{:}09{:}54.600$ dissipate within a day or two.

NOTE Confidence: 0.8735652

00:09:55.540 --> 00:10:00.104 OK, great so aside from getting the

NOTE Confidence: 0.8735652

 $00:10:00.110 \longrightarrow 00:10:02.160 \text{ HPV}$ vaccine the other risk

NOTE Confidence: 0.8735652

 $00:10:02.160 \longrightarrow 00:10:03.800$ factors are really to bacco,

00:10:03.800 --> 00:10:06.670 which has gone down in this country,

NOTE Confidence: 0.8735652

00:10:06.670 --> 00:10:09.130 at least in terms of smoking.

NOTE Confidence: 0.8735652

00:10:09.130 --> 00:10:11.572 The other question that people may

NOTE Confidence: 0.8735652

 $00:10:11.572 \longrightarrow 00:10:14.458$ have is with regards to E cigarettes.

NOTE Confidence: 0.8735652

 $00:10:14.460 \longrightarrow 00:10:16.510$ We found that

NOTE Confidence: 0.8735652

 $00:10:16.510 \longrightarrow 00:10:18.580$ as people's smoking in terms

NOTE Confidence: 0.8735652

 $00:10:18.580 \longrightarrow 00:10:20.650$ of smoking tobacco has gone

NOTE Confidence: 0.8735652

00:10:20.733 --> 00:10:22.658 down in the United States,

NOTE Confidence: 0.8735652

 $00{:}10{:}22.660 \to 00{:}10{:}25.530$ E-cigarettes seem to have gone up.

NOTE Confidence: 0.8735652

 $00:10:25.530 \longrightarrow 00:10:27.170$ Does that increase your

NOTE Confidence: 0.8735652

00:10:27.170 --> 00:10:29.220 risk of head and neck cancers?

NOTE Confidence: 0.86695015

 $00:10:30.590 \longrightarrow 00:10:32.036$ There isn't a lot of data

NOTE Confidence: 0.86695015

 $00{:}10{:}32.036 \dashrightarrow 00{:}10{:}33.519$ that's looked at that.

NOTE Confidence: 0.86695015

 $00:10:33.520 \longrightarrow 00:10:35.228$ Again, E cigarettes are a new phenomenon.

NOTE Confidence: 0.86695015

 $00:10:35.230 \longrightarrow 00:10:36.810$ It's really only been

 $00:10:36.810 \longrightarrow 00:10:38.785$ within the past few years.

NOTE Confidence: 0.86695015

 $00{:}10{:}38.790 \dashrightarrow 00{:}10{:}40.794$ It theoretically would have a lower

NOTE Confidence: 0.86695015

 $00:10:40.794 \longrightarrow 00:10:42.480$ risk than regular cigarettes and

NOTE Confidence: 0.86695015

00:10:42.480 --> 00:10:43.960 causing head and neck cancers,

NOTE Confidence: 0.86695015

 $00:10:43.960 \longrightarrow 00:10:45.976$ but I'm not sure that it totally

NOTE Confidence: 0.86695015

 $00{:}10{:}45.976 \dashrightarrow 00{:}10{:}47.510$ eliminates the risk altogether.

NOTE Confidence: 0.89426523

 $00:10:48.760 \longrightarrow 00:10:50.854$ And then the other

NOTE Confidence: 0.89426523

00:10:50.854 --> 00:10:52.724 thing that people often put

NOTE Confidence: 0.89426523

 $00{:}10{:}52.724 \dashrightarrow 00{:}10{:}54.739$ together is smoking and alcohol.

NOTE Confidence: 0.89426523

 $00:10:54.740 \longrightarrow 00:10:56.610$ What's the impact of alcohol

NOTE Confidence: 0.89426523

 $00:10:56.610 \longrightarrow 00:10:58.106$ on head and neck cancers?

NOTE Confidence: 0.85837954

 $00:10:59.850 \longrightarrow 00:11:01.830$ Almost the same as smoking,

NOTE Confidence: 0.85837954

 $00:11:01.830 \longrightarrow 00:11:05.138$ so you know smoking.

NOTE Confidence: 0.85837954

00:11:05.140 --> 00:11:07.387 when you inhale the smoke,

NOTE Confidence: 0.85837954

 $00:11:07.390 \longrightarrow 00:11:09.766$ it goes down all the way from your head

NOTE Confidence: 0.85837954

00:11:09.766 --> 00:11:12.419 and neck passages down to your lung

00:11:12.419 --> 00:11:14.336 passages and with alcohol, similarly it goes

NOTE Confidence: 0.85837954

 $00{:}11{:}14.336 \dashrightarrow 00{:}11{:}16.744$ down your mouth, the back of your

NOTE Confidence: 0.85837954

 $00:11:16.744 \longrightarrow 00:11:18.988$ throat and then into the food pipe.

NOTE Confidence: 0.85837954

00:11:18.990 --> 00:11:21.069 So we do see a significant proportion

NOTE Confidence: 0.85837954

 $00:11:21.069 \longrightarrow 00:11:23.053$ of patients who've never smoked but

NOTE Confidence: 0.85837954

 $00{:}11{:}23.053 \dashrightarrow 00{:}11{:}24.778$ have a significant alcohol history

NOTE Confidence: 0.85837954

 $00:11:24.780 \longrightarrow 00:11:27.678$ who then go on to develop head and neck cancers.

NOTE Confidence: 0.85837954

 $00{:}11{:}27.680 \dashrightarrow 00{:}11{:}30.900$ So I would say the risk is about the same.

NOTE Confidence: 0.85837954

00:11:30.900 --> 00:11:31.779 It's also cumulative,

NOTE Confidence: 0.85837954

00:11:31.779 --> 00:11:33.830 so the more the exposure to either

NOTE Confidence: 0.85837954

 $00:11:33.889 \longrightarrow 00:11:35.409$ substance or both substances,

NOTE Confidence: 0.85837954

 $00:11:35.410 \longrightarrow 00:11:37.474$ the higher your chance

NOTE Confidence: 0.85837954

 $00{:}11{:}37.474 \dashrightarrow 00{:}11{:}39.990$ of developing a cancer.

NOTE Confidence: 0.85641265

 $00:11:39.990 \longrightarrow 00:11:41.798$ The next question that

NOTE Confidence: 0.85641265

 $00:11:41.798 \longrightarrow 00:11:44.510$ everybody is going to ask is,

 $00:11:44.510 \longrightarrow 00:11:48.326$ is there a safe limit? Is it okay to have 1

NOTE Confidence: 0.85641265

 $00:11:48.326 \longrightarrow 00:11:51.739$ drink at dinner or is there

NOTE Confidence: 0.85641265

 $00:11:51.740 \longrightarrow 00:11:54.841$ a certain threshold at which

NOTE Confidence: 0.85641265

00:11:54.841 --> 00:11:57.170 people should really be cautious?

NOTE Confidence: 0.8611666

 $00:11:58.740 \longrightarrow 00:12:00.658$ Of course you want to avoid

NOTE Confidence: 0.8611666

00:12:00.658 --> 00:12:01.519 binge drinking,

NOTE Confidence: 0.8611666

 $00:12:01.519 \longrightarrow 00:12:03.682$ and there are these thresholds

NOTE Confidence: 0.8611666

 $00:12:03.682 \longrightarrow 00:12:05.585$ that are set by the CDC as well.

NOTE Confidence: 0.8611666

 $00:12:05.590 \longrightarrow 00:12:07.096$ and that

NOTE Confidence: 0.8611666

 $00:12:07.096 \longrightarrow 00:12:08.600$ needs to be double checked,

NOTE Confidence: 0.8611666

 $00{:}12{:}08.600 \dashrightarrow 00{:}12{:}11.705$ but maybe it's 2 drinks a day for women

NOTE Confidence: 0.8611666

 $00:12:11.705 \longrightarrow 00:12:14.630$ and three drinks at a time for men.

NOTE Confidence: 0.8611666

00:12:14.630 --> 00:12:16.496 The safest is to minimize though,

NOTE Confidence: 0.8611666

00:12:16.500 --> 00:12:18.523 'cause I think everyone has a personal

NOTE Confidence: 0.8611666

00:12:18.523 --> 00:12:19.920 body threshold that's different,

NOTE Confidence: 0.8611666

 $00:12:19.920 \longrightarrow 00:12:22.174$ we see some people

 $00:12:22.174 \longrightarrow 00:12:24.048$ who've smoked 100 pack years and

NOTE Confidence: 0.8611666

 $00:12:24.048 \longrightarrow 00:12:26.062$ do not get head and neck cancers,

NOTE Confidence: 0.8611666

 $00:12:26.062 \longrightarrow 00:12:28.162$ and then we see some people have

NOTE Confidence: 0.8611666

 $00:12:28.162 \longrightarrow 00:12:29.818$ smoked just ten years and then

NOTE Confidence: 0.8611666

 $00:12:29.818 \longrightarrow 00:12:31.812$ have a head and neck cancer

NOTE Confidence: 0.8611666

 $00:12:31.812 \longrightarrow 00:12:33.288$ that's not virus associated,

NOTE Confidence: 0.8611666

 $00:12:33.290 \longrightarrow 00:12:34.850$ so is presumably smoking associated.

NOTE Confidence: 0.8611666

 $00{:}12{:}34.850 \dashrightarrow 00{:}12{:}36.710$ So I think everyone just has

NOTE Confidence: 0.8611666

 $00:12:36.710 \longrightarrow 00:12:37.640$ a different threshold.

NOTE Confidence: 0.8611666

 $00:12:37.640 \longrightarrow 00:12:39.195$ Doing away with smoking altogether

NOTE Confidence: 0.8611666

 $00:12:39.195 \longrightarrow 00:12:40.439$ is healthy for everyone,

NOTE Confidence: 0.8611666

 $00{:}12{:}40.440 \dashrightarrow 00{:}12{:}41.980$ and minimizing how much alcohol

NOTE Confidence: 0.8611666

 $00{:}12{:}41.980 \dashrightarrow 00{:}12{:}44.193$ you drink is also the best thing

NOTE Confidence: 0.8611666

00:12:44.193 --> 00:12:45.728 you could do for yourself.

NOTE Confidence: 0.8806924

 $00:12:47.230 \longrightarrow 00:12:49.672$ And so when we move away

00:12:49.672 --> 00:12:51.300 from now primary prevention,

NOTE Confidence: 0.8806924

 $00{:}12{:}51.300 \dashrightarrow 00{:}12{:}54.724$ we've kind of talked about the risk factors

NOTE Confidence: 0.8806924

 $00:12:54.724 \longrightarrow 00:12:57.808$ and things we can do to minimize that.

NOTE Confidence: 0.8806924

 $00:12:57.810 \longrightarrow 00:13:00.365$ The next thing that people often talk

NOTE Confidence: 0.8806924

 $00:13:00.365 \longrightarrow 00:13:03.099$ about is secondary prevention or screening.

NOTE Confidence: 0.8806924

00:13:03.100 --> 00:13:05.949 Now, unlike a lot of other cancers,

NOTE Confidence: 0.8806924

 $00:13:05.950 \longrightarrow 00:13:07.562$ breast cancer, colon cancer,

NOTE Confidence: 0.8806924

 $00:13:07.562 \longrightarrow 00:13:10.430$ where we really have good screening tests,

NOTE Confidence: 0.8806924

 $00{:}13{:}10.430 \dashrightarrow 00{:}13{:}13.298$ do we have good screening tests

NOTE Confidence: 0.8806924

 $00:13:13.298 \longrightarrow 00:13:15.990$ for head and neck cancer?

NOTE Confidence: 0.8806924

 $00:13:15.990 \longrightarrow 00:13:17.878$ So screening hasn't shown to

NOTE Confidence: 0.85980976

 $00:13:17.880 \longrightarrow 00:13:20.034$ save lives for patients who

NOTE Confidence: 0.85980976

 $00:13:20.034 \longrightarrow 00:13:22.789$ go on to develop head neck cancer,

NOTE Confidence: 0.85980976

00:13:22.790 --> 00:13:24.680 but in our own experience,

NOTE Confidence: 0.85980976

 $00:13:24.680 \longrightarrow 00:13:27.074$ the way head neck cancer

NOTE Confidence: 0.85980976

00:13:27.074 --> 00:13:29.009 is most commonly diagnosed is

 $00:13:29.009 \longrightarrow 00:13:31.109$ when someone notices a lesion,

NOTE Confidence: 0.85980976

 $00{:}13{:}31.110 \dashrightarrow 00{:}13{:}34.134$ say in the oral cavity or in the back

NOTE Confidence: 0.85980976

 $00:13:34.134 \longrightarrow 00:13:37.159$ of the throat and is then referred

NOTE Confidence: 0.85980976

 $00:13:37.160 \longrightarrow 00:13:38.496$ to the oncology team.

NOTE Confidence: 0.85980976

 $00:13:38.496 \longrightarrow 00:13:41.497$ So that tends to be found

NOTE Confidence: 0.85980976

 $00:13:41.497 \longrightarrow 00:13:43.345$ serendipitously by somebody's doctor or

NOTE Confidence: 0.85980976

 $00:13:43.345 \longrightarrow 00:13:46.119$ dentist who looks in their mouth.

NOTE Confidence: 0.85980976

 $00:13:46.120 \longrightarrow 00:13:48.115$ Yes, but I hear that

NOTE Confidence: 0.85980976

 $00{:}13{:}48.115 \dashrightarrow 00{:}13{:}50.735$ you were about to say that you

NOTE Confidence: 0.85980976

 $00:13:50.735 \longrightarrow 00:13:52.007$ organize community screening

NOTE Confidence: 0.85980976

00:13:52.007 --> 00:13:54.080 programs that might be helpful,

NOTE Confidence: 0.85980976

 $00{:}13{:}54.080 \dashrightarrow 00{:}13{:}56.537$ and I'd love to delve a little

NOTE Confidence: 0.85980976

00:13:56.537 --> 00:13:58.070 bit more into that.

NOTE Confidence: 0.85980976

 $00{:}13{:}58.070 \dashrightarrow 00{:}14{:}01.319$ But first we need to take a medical minute,

NOTE Confidence: 0.85980976

 $00:14:01.320 \longrightarrow 00:14:03.492$ so please stay tuned to learn

 $00:14:03.492 \longrightarrow 00:14:05.310$ more about head and neck

NOTE Confidence: 0.8556028

 $00:14:05.310 \longrightarrow 00:14:07.120$ cancers with my guest doctor

NOTE Confidence: 0.8556028

00:14:07.120 --> 00:14:09.400 Aarti Bhatia.

NOTE Confidence: 0.8556028

 $00:14:09.400 \longrightarrow 00:14:11.659$ Support for Yale Cancer Answers comes from

AstraZeneca, working

NOTE Confidence: 0.8556028

00:14:11.659 --> 00:14:14.355 to eliminate cancer as a cause of death.

NOTE Confidence: 0.8556028

 $00{:}14{:}14.360 \dashrightarrow 00{:}14{:}17.420$ Learn more at a strazeneca-us.com.

NOTE Confidence: 0.8556028

 $00:14:17.420 \longrightarrow 00:14:20.668$ This is a medical minute about lung cancer.

NOTE Confidence: 0.8556028

00:14:20.670 --> 00:14:23.218 More than 85% of lung cancer diagnosis

NOTE Confidence: 0.8556028

00:14:23.218 --> 00:14:26.146 are related to smoking and quitting, even

NOTE Confidence: 0.8556028

 $00:14:26.146 \longrightarrow 00:14:28.786$ after decades of use can significantly

NOTE Confidence: 0.8556028

 $00{:}14{:}28.859 \dashrightarrow 00{:}14{:}31.253$ reduce your risk of developing lung

NOTE Confidence: 0.8556028

00:14:31.253 --> 00:14:33.231 cancer. For lung cancer patients,

NOTE Confidence: 0.8556028

00:14:33.231 --> 00:14:35.136 clinical trials are currently underway

NOTE Confidence: 0.8556028

 $00:14:35.136 \longrightarrow 00:14:37.310$ to test innovative new treatments.

NOTE Confidence: 0.8556028

 $00{:}14{:}37.310 \dashrightarrow 00{:}14{:}40.316$ Advances are being made by utilizing

 $00:14:40.316 \longrightarrow 00:14:42.320$ targeted therapies and immunotherapies.

NOTE Confidence: 0.8556028

 $00{:}14{:}42.396 \dashrightarrow 00{:}14{:}44.454$ The BATTLE II trial aims to learn

NOTE Confidence: 0.8556028

 $00:14:44.454 \longrightarrow 00:14:47.040$ if a drug or combination of drugs

NOTE Confidence: 0.8556028

 $00:14:47.040 \longrightarrow 00:14:49.488$ based on personal biomarkers can help

NOTE Confidence: 0.8556028

 $00:14:49.490 \longrightarrow 00:14:52.486$ to control non small cell lung cancer.

NOTE Confidence: 0.8556028

 $00:14:52.490 \longrightarrow 00:14:55.265$ More information is available

NOTE Confidence: 0.8556028

00:14:55.265 --> 00:14:56.375 at yalecancercenter.org.

NOTE Confidence: 0.8556028

 $00{:}14{:}56.380 \dashrightarrow 00{:}14{:}59.716$ You're listening to Connecticut Public Radio.

NOTE Confidence: 0.8413052

 $00:15:00.910 \longrightarrow 00:15:03.028$ Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.8413052

 $00:15:03.030 \longrightarrow 00:15:04.932$ This is doctor Anees Chappar

NOTE Confidence: 0.8413052

 $00:15:04.932 \longrightarrow 00:15:07.069$ and I'm joined to night by

NOTE Confidence: 0.8413052

 $00{:}15{:}07.069 \dashrightarrow 00{:}15{:}09.049$ my guest Doctor Aarti Bhatia.

NOTE Confidence: 0.8413052

 $00:15:09.050 \longrightarrow 00:15:11.192$ We're talking about head and neck

NOTE Confidence: 0.8413052

00:15:11.192 --> 00:15:13.300 cancers and right before the break,

NOTE Confidence: 0.8413052

 $00:15:13.300 \longrightarrow 00:15:15.424$ you made a comment that

NOTE Confidence: 0.8413052

 $00:15:15.424 \longrightarrow 00:15:16.840$ I found really interesting.

 $00:15:16.840 \longrightarrow 00:15:18.380$ You said that

NOTE Confidence: 0.8413052

 $00{:}15{:}18.380 \dashrightarrow 00{:}15{:}20.690$ screening for head neck cancers has

NOTE Confidence: 0.8413052

 $00:15:20.769 \longrightarrow 00:15:23.265$ not been shown to improve survival.

NOTE Confidence: 0.8413052

 $00:15:23.270 \longrightarrow 00:15:25.316$ That for many people,

NOTE Confidence: 0.8413052

 $00:15:25.320 \longrightarrow 00:15:27.030$ I think would seem counter

NOTE Confidence: 0.8413052

 $00:15:27.030 \longrightarrow 00:15:28.398$ intuitive for most cancers.

NOTE Confidence: 0.8413052

 $00:15:28.400 \longrightarrow 00:15:31.136$ We think if we pick it up early,

NOTE Confidence: 0.8413052

 $00:15:31.140 \longrightarrow 00:15:33.186$ the earlier we pick it up,

NOTE Confidence: 0.8413052

 $00:15:33.190 \longrightarrow 00:15:35.236$ the easier it is to treat,

NOTE Confidence: 0.8413052

 $00{:}15{:}35.240 \dashrightarrow 00{:}15{:}37.286$ the better the survival rate is.

NOTE Confidence: 0.8413052

 $00:15:37.290 \longrightarrow 00:15:39.666$ So why do you think that is that

NOTE Confidence: 0.8413052

 $00:15:39.666 \longrightarrow 00:15:41.121$ that screening really hasn't

NOTE Confidence: 0.8413052

 $00{:}15{:}41.121 \dashrightarrow 00{:}15{:}43.106$ been shown to affect survival?

NOTE Confidence: 0.87632143

 $00:15:44.330 \longrightarrow 00:15:46.562$ Well, I think a large part of that

NOTE Confidence: 0.87632143

00:15:46.562 --> 00:15:48.444 is because patients present with

 $00:15:48.444 \longrightarrow 00:15:50.539$ symptoms pretty early on.

NOTE Confidence: 0.87632143

 $00:15:50.540 \longrightarrow 00:15:53.148$ I mean, if you have a bleeding ulcer

NOTE Confidence: 0.87632143

00:15:53.148 --> 00:15:55.720 in the mouth, you have sore throat,

NOTE Confidence: 0.87632143

00:15:55.720 --> 00:15:57.790 you have trouble swallowing or chewing,

NOTE Confidence: 0.87632143

00:15:57.790 --> 00:15:59.510 you notice a neck lump,

NOTE Confidence: 0.87632143

 $00:15:59.510 \longrightarrow 00:16:01.220$ most people aren't going to

NOTE Confidence: 0.87632143

 $00:16:01.220 \longrightarrow 00:16:03.650$ sit on it for months or years.

NOTE Confidence: 0.87632143

 $00:16:03.650 \longrightarrow 00:16:05.953$ They're going to go see a doctor

NOTE Confidence: 0.87632143

 $00{:}16{:}05.953 \dashrightarrow 00{:}16{:}08.139$ and figure out what's going on.

NOTE Confidence: 0.87632143

 $00:16:08.140 \longrightarrow 00:16:10.066$ So because of the

NOTE Confidence: 0.87632143

 $00{:}16{:}10.066 \dashrightarrow 00{:}16{:}12.155$ location of these tumors and how

NOTE Confidence: 0.87632143

00:16:12.155 --> 00:16:14.000 early they present with symptoms,

NOTE Confidence: 0.87632143

00:16:14.000 --> 00:16:16.070 most people are diagnosed early on,

NOTE Confidence: 0.87632143

 $00:16:16.070 \longrightarrow 00:16:17.402$ and in early stages.

NOTE Confidence: 0.87632143

00:16:17.402 --> 00:16:19.917 So the vast majority of our patients

NOTE Confidence: 0.87632143

 $00{:}16{:}19.917 \dashrightarrow 00{:}16{:}22.117$ come in with curable cancers,

 $00:16:22.120 \longrightarrow 00:16:24.304$ so I think there isn't much

NOTE Confidence: 0.87632143

 $00:16:24.304 \longrightarrow 00:16:25.760$ more that screening does.

00:16:26.488 --> 00:16:28.308 Screening picks up early cancers,

NOTE Confidence: 0.87632143

 $00:16:28.310 \longrightarrow 00:16:30.125$ but then people come in

NOTE Confidence: 0.87632143

 $00:16:30.125 \longrightarrow 00:16:31.577$ with early cancers anyway,

NOTE Confidence: 0.87632143

 $00:16:31.580 \longrightarrow 00:16:33.584$ so for that reason it hasn't

NOTE Confidence: 0.87632143

 $00:16:33.584 \longrightarrow 00:16:35.590$ been shown to improve survival.

NOTE Confidence: 0.87632143

 $00:16:35.590 \longrightarrow 00:16:38.860$ But we still think it's helpful to

NOTE Confidence: 0.87632143

00:16:38.860 --> 00:16:41.050 engage in community wide screening efforts,

NOTE Confidence: 0.87632143

 $00:16:41.050 \longrightarrow 00:16:43.228$ especially in the high risk population.

NOTE Confidence: 0.87632143

00:16:43.230 --> 00:16:45.778 So in patients who have a significant

NOTE Confidence: 0.87632143

00:16:45.778 --> 00:16:47.238 smoking exposure, alcohol exposure,

NOTE Confidence: 0.87632143

 $00:16:47.238 \longrightarrow 00:16:48.330$ multiple partners,

NOTE Confidence: 0.87632143

 $00:16:48.330 \longrightarrow 00:16:50.610$ it makes sense to have them

 $00{:}16{:}51.568 {\:\dashrightarrow\:} 00{:}16{:}53.963$ engage with their dentist or

NOTE Confidence: 0.87632143

 $00:16:53.963 \longrightarrow 00:16:56.556$ oral surgeons, ENTs, to see if

 $00:16:56.556 \longrightarrow 00:16:59.055$ they have any lesions that can be

NOTE Confidence: 0.87632143

00:16:59.060 --> 00:17:00.725 intervened in an early

NOTE Confidence: 0.87632143

 $00:17:00.725 \longrightarrow 00:17:02.940$ course in the disease

NOTE Confidence: 0.84821457

 $00:17:02.940 \longrightarrow 00:17:05.708$ I think that's one of the

NOTE Confidence: 0.84821457

 $00:17:05.708 \longrightarrow 00:17:08.238$ beauties of head neck cancers is that

NOTE Confidence: 0.84821457

 $00:17:08.240 \longrightarrow 00:17:09.850$ because the lesions

NOTE Confidence: 0.84821457

 $00:17:09.850 \longrightarrow 00:17:12.304$ in the head and neck are such that

NOTE Confidence: 0.84821457

00:17:12.304 --> 00:17:14.239 they will present with symptoms,

NOTE Confidence: 0.84821457

 $00:17:14.240 \longrightarrow 00:17:16.358$ it can be found earlier than,

NOTE Confidence: 0.84821457

 $00:17:16.360 \longrightarrow 00:17:18.115$ for example, other cancers that

NOTE Confidence: 0.84821457

 $00{:}17{:}18.115 \dashrightarrow 00{:}17{:}20.240$ we've talked about on this show,

NOTE Confidence: 0.84821457

00:17:20.240 --> 00:17:23.320 which tend to be pretty silent and

NOTE Confidence: 0.84821457

 $00:17:23.320 \longrightarrow 00:17:25.610$ patients present quite late.

NOTE Confidence: 0.84821457

 $00:17:25.610 \longrightarrow 00:17:29.426$ So you mentioned a few of the symptoms that

NOTE Confidence: 0.84821457

00:17:29.426 --> 00:17:32.575 people should be looking out for, right?

NOTE Confidence: 0.84821457

00:17:32.575 --> 00:17:33.880 Bleeding, ulcer, nosebleeds,

 $00:17:33.880 \longrightarrow 00:17:35.620$ lump in the throat,

NOTE Confidence: 0.84821457

 $00:17:35.620 \longrightarrow 00:17:36.922$ losing your voice,

NOTE Confidence: 0.84821457

 $00:17:36.922 \longrightarrow 00:17:37.790$ hoarseness, cough.

NOTE Confidence: 0.84821457

 $00:17:37.790 \longrightarrow 00:17:40.424$ Are there other things that people

NOTE Confidence: 0.84821457

 $00:17:40.424 \longrightarrow 00:17:42.580$ should be looking out for?

NOTE Confidence: 0.84821457

00:17:42.580 --> 00:17:44.750 And seeing their doctor about?

NOTE Confidence: 0.8473764

00:17:47.490 --> 00:17:49.940 Sometimes you may even have

NOTE Confidence: 0.8473764

 $00:17:49.940 \longrightarrow 00:17:52.190$ oral lesions which tend not to bleed,

NOTE Confidence: 0.8473764

 $00:17:52.190 \longrightarrow 00:17:54.549$ but they've just been there for awhile.

NOTE Confidence: 0.8473764

 $00:17:54.550 \longrightarrow 00:17:57.172$ Some of those can be precancerous,

NOTE Confidence: 0.8473764

 $00:17:57.172 \longrightarrow 00:17:58.702$ some precancerous lesions will then

NOTE Confidence: 0.8473764

 $00:17:58.702 \longrightarrow 00:18:00.929$ go on to transform into cancer,

NOTE Confidence: 0.8473764

 $00{:}18{:}00.930 \dashrightarrow 00{:}18{:}03.945$ so even if it isn't a very bother some lesion,

NOTE Confidence: 0.8473764

00:18:03.950 --> 00:18:06.638 but just has been there around for awhile,

NOTE Confidence: 0.8473764

 $00:18:06.640 \longrightarrow 00:18:08.320$ you want to make sure

 $00:18:08.320 \longrightarrow 00:18:10.000$ you see someone about it

NOTE Confidence: 0.8473764

 $00:18:10.000 \longrightarrow 00:18:11.680$ and get it checked out.

NOTE Confidence: 0.8473764

00:18:11.680 --> 00:18:14.025 Yeah, and for many people,

NOTE Confidence: 0.8473764

 $00:18:14.030 \longrightarrow 00:18:16.466$ going to your doctor for

NOTE Confidence: 0.8473764

 $00:18:16.466 \longrightarrow 00:18:18.400$ a regular checkup once a year,

NOTE Confidence: 0.8473764

 $00{:}18{:}18.400 \dashrightarrow 00{:}18{:}21.703$ or seeing your dentist once or twice a year

NOTE Confidence: 0.8473764

 $00:18:21.710 \longrightarrow 00:18:23.480$ is a really good thing to

NOTE Confidence: 0.8473764

00:18:23.480 --> 00:18:25.420 do because as you mentioned,

NOTE Confidence: 0.8473764

 $00:18:25.420 \longrightarrow 00:18:27.786$ it's often on these visits that

NOTE Confidence: 0.8473764

 $00:18:27.786 \longrightarrow 00:18:30.464$ people can pick up on lesions that may

NOTE Confidence: 0.8473764

 $00{:}18{:}30.464 \dashrightarrow 00{:}18{:}32.829$ not have been bother some to you.

 $00{:}18{:}35.530 \dashrightarrow 00{:}18{:}38.056$ They can then see it as suspicious

NOTE Confidence: 0.8473764

 $00:18:38.056 \longrightarrow 00:18:41.118$ and move on to the next step.

NOTE Confidence: 0.8473764

 $00{:}18{:}41.120 \dashrightarrow 00{:}18{:}43.262$ So when you do go to your

NOTE Confidence: 0.8473764

00:18:43.262 --> 00:18:45.460 dentist or your doctor and they

NOTE Confidence: 0.8473764

 $00:18:45.460 \longrightarrow 00:18:47.798$ find something,

 $00:18:47.800 \longrightarrow 00:18:50.635$ what's the next step in terms of making a

NOTE Confidence: 0.8473764

 $00:18:50.635 \longrightarrow 00:18:52.806$ diagnosis and moving on with treatment?

NOTE Confidence: 0.8342621

 $00:18:54.380 \longrightarrow 00:18:56.360$ So if the dentist

NOTE Confidence: 0.8342621

 $00:18:56.360 \longrightarrow 00:18:57.680$ finds something that's suspicious,

NOTE Confidence: 0.8342621

 $00:18:57.680 \longrightarrow 00:18:59.714$ they will either refer you to

NOTE Confidence: 0.8342621

00:18:59.714 --> 00:19:01.639 an oral surgeon or an ENT,

NOTE Confidence: 0.8342621

 $00:19:01.640 \longrightarrow 00:19:03.650$ and both those kind of physicians

NOTE Confidence: 0.8342621

 $00:19:03.650 \longrightarrow 00:19:05.930$ can make a diagnosis with a biopsy,

NOTE Confidence: 0.8342621

 $00{:}19{:}05.930 \dashrightarrow 00{:}19{:}08.233$ so we need to typically get some

NOTE Confidence: 0.8342621

 $00:19:08.233 \dashrightarrow 00:19:10.550$ of that tissue out with a needle.

NOTE Confidence: 0.8342621

 $00{:}19{:}10.550 \longrightarrow 00{:}19{:}12.572$ Look at it under the microscope

NOTE Confidence: 0.8342621

 $00:19:12.572 \longrightarrow 00:19:14.180$ and see what's going on,

NOTE Confidence: 0.8342621

 $00{:}19{:}14.180 \dashrightarrow 00{:}19{:}15.830$ and if that diagnosis is cancer,

NOTE Confidence: 0.8342621

 $00:19:15.830 \longrightarrow 00:19:18.091$ the next step is usually

NOTE Confidence: 0.8342621

 $00:19:18.091 \longrightarrow 00:19:20.672$ scans where we try to find out to

NOTE Confidence: 0.8342621

 $00{:}19{:}20.672 \dashrightarrow 00{:}19{:}22.760$ what extent has this cancer spread.

00:19:22.760 --> 00:19:24.410 Is it involving adjacent structures?

NOTE Confidence: 0.8342621

00:19:24.410 --> 00:19:26.966 Is it involving some neck nodes?

NOTE Confidence: 0.8342621

 $00:19:26.970 \longrightarrow 00:19:29.514$ Is it a local tumor or has it

NOTE Confidence: 0.8342621

00:19:29.514 --> 00:19:31.763 spread and then from

NOTE Confidence: 0.8342621

00:19:31.763 --> 00:19:34.478 then on you get involved with the

NOTE Confidence: 0.8342621

 $00:19:34.478 \longrightarrow 00:19:36.872$ rest of the oncology team so you

NOTE Confidence: 0.8342621

 $00:19:36.872 \longrightarrow 00:19:38.264$ meet a radiation oncologist.

NOTE Confidence: 0.8342621

00:19:38.264 --> 00:19:40.024 You made a medical oncologist,

NOTE Confidence: 0.8342621

 $00:19:40.030 \longrightarrow 00:19:41.800$ which is someone like me,

NOTE Confidence: 0.8342621

00:19:41.800 --> 00:19:44.264 and usually treatment will then be planned,

NOTE Confidence: 0.8342621

 $00:19:44.270 \longrightarrow 00:19:46.030$ involving a course of radiation

NOTE Confidence: 0.8342621

 $00:19:46.030 \longrightarrow 00:19:47.438$ or chemotherapy or surgery,

NOTE Confidence: 0.8342621

 $00:19:47.440 \longrightarrow 00:19:49.666$ or a combination of these so

NOTE Confidence: 0.8342621

 $00:19:49.666 \longrightarrow 00:19:51.150$ multidisciplinary management is

NOTE Confidence: 0.8342621

 $00:19:51.213 \longrightarrow 00:19:52.948$ key to treating and formulating

00:19:52.948 --> 00:19:55.071 a good treatment plan for head

NOTE Confidence: 0.8342621

 $00{:}19{:}55.071 \dashrightarrow 00{:}19{:}57.039$ and neck cancer patients and in

NOTE Confidence: 0.8342621

00:19:57.039 --> 00:19:59.110 fact outcomes are tied to being

NOTE Confidence: 0.8342621

 $00:19:59.110 \longrightarrow 00:20:00.190$ treated at large

NOTE Confidence: 0.8342621

 $00:20:00.190 \longrightarrow 00:20:00.774$ volume centers,

NOTE Confidence: 0.8342621

 $00{:}20{:}00.774 \dashrightarrow 00{:}20{:}03.110$ so you want to make sure you see

NOTE Confidence: 0.8342621

 $00:20:03.176 \longrightarrow 00:20:05.186$ someone who has many

NOTE Confidence: 0.8342621

00:20:05.186 --> 00:20:06.943 head neck cancer patients and

NOTE Confidence: 0.8342621

 $00:20:06.943 \longrightarrow 00:20:08.718$ has dealt with their treatment.

NOTE Confidence: 0.8748267

 $00:20:09.770 \longrightarrow 00:20:12.623$ Yeah, and when

NOTE Confidence: 0.8748267

 $00{:}20{:}12.623 \dashrightarrow 00{:}20{:}15.430$ you talk about large volume centers,

NOTE Confidence: 0.8748267

 $00:20:15.430 \longrightarrow 00:20:18.157$ I think part of that may have to do

NOTE Confidence: 0.8748267

 $00:20:18.157 \longrightarrow 00:20:20.817$ with the expertise of the clinicians

NOTE Confidence: 0.8748267

 $00:20:20.817 \longrightarrow 00:20:23.884$ themselves and the fact that they

NOTE Confidence: 0.8748267

 $00:20:23.884 \longrightarrow 00:20:26.732$ see these cancers day in and day out.

NOTE Confidence: 0.8748267

 $00:20:26.740 \longrightarrow 00:20:28.938$ But the other might be some

 $00:20:28.938 \longrightarrow 00:20:31.380$ of the things that they have at

NOTE Confidence: 0.8748267

 $00:20:31.380 \longrightarrow 00:20:33.160$ large volume centers that may

NOTE Confidence: 0.8748267

 $00:20:33.160 \longrightarrow 00:20:35.410$ not be ubiquitously available.

NOTE Confidence: 0.8748267

 $00{:}20{:}35.410 \dashrightarrow 00{:}20{:}38.049$ So talk to us a little bit

NOTE Confidence: 0.8748267

 $00{:}20{:}38.049 \dashrightarrow 00{:}20{:}39.180$ about personalized medicine.

NOTE Confidence: 0.8748267

00:20:39.180 --> 00:20:42.644 We find that in so many cancers now,

NOTE Confidence: 0.8748267

 $00:20:42.650 \longrightarrow 00:20:44.865$ especially the large volume centers

NOTE Confidence: 0.8748267

 $00{:}20{:}44.865 \dashrightarrow 00{:}20{:}47.901$ really are tailoring care in terms of

NOTE Confidence: 0.8748267

 $00:20:47.901 \longrightarrow 00:20:50.519$ the genomics of a particular cancer and

NOTE Confidence: 0.8748267

 $00:20:50.519 \longrightarrow 00:20:53.011$ using that information, that molecular

NOTE Confidence: 0.8748267

00:20:53.011 --> 00:20:55.571 information, to really tailor their

NOTE Confidence: 0.8748267

 $00:20:55.571 \longrightarrow 00:20:58.568$ therapy in terms of that multi modality

NOTE Confidence: 0.8748267

 $00:20:58.568 \longrightarrow 00:21:01.469$ care that you were talking about.

NOTE Confidence: 0.8748267

 $00:21:01.470 \longrightarrow 00:21:04.146$ Can you talk more about that?

NOTE Confidence: 0.8439441

 $00:21:05.280 \longrightarrow 00:21:06.032$ Yes, absolutely.

 $00:21:06.032 \longrightarrow 00:21:08.664$ So you know that's valid for patients

NOTE Confidence: 0.8439441

 $00{:}21{:}08.664 {\:\raisebox{---}{\text{---}}}> 00{:}21{:}11.123$ who have more advanced disease or

NOTE Confidence: 0.8439441

00:21:11.123 --> 00:21:13.133 incurable disease at our center.

NOTE Confidence: 0.8439441

 $00:21:13.140 \longrightarrow 00:21:15.632$ And I'm sure at many other large

NOTE Confidence: 0.8439441

00:21:15.632 --> 00:21:17.460 volume centers with expertise,

NOTE Confidence: 0.8439441

 $00:21:17.460 \longrightarrow 00:21:19.728$ we do what we call molecular

NOTE Confidence: 0.8439441

00:21:19.728 --> 00:21:21.790 sequencing or profiling of tumors.

NOTE Confidence: 0.8439441

 $00:21:21.790 \longrightarrow 00:21:24.534$ So the biopsies are analyzed for their

NOTE Confidence: 0.8439441

 $00:21:24.540 \longrightarrow 00:21:26.455$ genes that are present

NOTE Confidence: 0.8439441

 $00:21:26.455 \longrightarrow 00:21:28.860$ in the tumor and

NOTE Confidence: 0.8439441

 $00{:}21{:}28.860 \longrightarrow 00{:}21{:}31.674$ we then determine is this gene something

NOTE Confidence: 0.8439441

00:21:31.674 --> 00:21:33.968 that was inherited by the patient,

NOTE Confidence: 0.8439441

 $00:21:33.970 \longrightarrow 00:21:36.140$ or is it something that

NOTE Confidence: 0.8439441

 $00{:}21{:}36.140 \dashrightarrow 00{:}21{:}38.989$ originated in the oral cavity

NOTE Confidence: 0.8439441

 $00:21:38.989 \longrightarrow 00:21:42.397$ or in the mucosa of the head neck

NOTE Confidence: 0.8439441

 $00:21:42.397 \longrightarrow 00:21:45.938$ and then went on to cause a tumor,

 $00:21:45.940 \longrightarrow 00:21:48.670$ and sometimes knowing what these genetic

NOTE Confidence: 0.8439441

00:21:48.670 --> 00:21:51.480 defects or mutations are in the tumor,

NOTE Confidence: 0.8439441

 $00:21:51.480 \longrightarrow 00:21:53.610$ help us identify drugs or

NOTE Confidence: 0.8439441

 $00:21:53.610 \longrightarrow 00:21:55.338$ targeted therapies,

NOTE Confidence: 0.8439441

 $00:21:55.338 \longrightarrow 00:21:57.930$ which then will specifically go and

NOTE Confidence: 0.8439441

 $00:21:58.007 \longrightarrow 00:22:00.137$ target or inhibit that aberrant

NOTE Confidence: 0.8439441

00:22:00.137 --> 00:22:02.732 protein or aberrant mutation so the

NOTE Confidence: 0.8439441

 $00:22:02.732 \longrightarrow 00:22:05.108$ cancer can come under better control.

NOTE Confidence: 0.8439441

 $00:22:05.110 \longrightarrow 00:22:07.330$ Some of these drugs are

NOTE Confidence: 0.8439441

 $00:22:07.330 \longrightarrow 00:22:09.358$ FDA approved in these settings and

NOTE Confidence: 0.8439441

00:22:09.358 --> 00:22:11.594 some of these drugs are available

NOTE Confidence: 0.8439441

 $00{:}22{:}11.594 \dashrightarrow 00{:}22{:}14.036$ on clinical trials and clearly more

NOTE Confidence: 0.8439441

00:22:14.036 --> 00:22:15.955 clinical trials will be available

NOTE Confidence: 0.8439441

 $00:22:15.955 \longrightarrow 00:22:18.025$ at the larger volume centers where

NOTE Confidence: 0.8439441

 $00:22:18.025 \longrightarrow 00:22:20.205$ we have the patient still offer

 $00:22:20.205 \longrightarrow 00:22:21.306$ these studies too,

NOTE Confidence: 0.8439441

 $00:22:21.310 \longrightarrow 00:22:23.518$ but even for patients who have

NOTE Confidence: 0.8439441

 $00:22:23.518 \longrightarrow 00:22:24.996$ curable disease,

NOTE Confidence: 0.8439441

 $00:22:24.996 \longrightarrow 00:22:26.100$ like we mentioned,

NOTE Confidence: 0.8439441

 $00:22:26.100 \longrightarrow 00:22:28.122$ head and neck cancers tend to present

NOTE Confidence: 0.8439441

00:22:28.122 --> 00:22:30.509 most often in the curative stage,

 $00{:}22{:}32.460 \dashrightarrow 00{:}22{:}34.056$ The rapeutic modalities like

NOTE Confidence: 0.8439441

 $00:22:34.056 \longrightarrow 00:22:35.120$ robotic surgeries,

NOTE Confidence: 0.8439441

 $00{:}22{:}35.120 {\:{\circ}{\circ}{\circ}}>00{:}22{:}37.340$ advanced radiation techniques are

NOTE Confidence: 0.8439441

 $00:22:37.340 \longrightarrow 00:22:40.115$ sometimes available only at the

NOTE Confidence: 0.8439441

00:22:40.115 --> 00:22:44.190 large volume centers and

 $00{:}22{:}45.180 \to 00{:}22{:}47.160$ along with improving your prognosis or

NOTE Confidence: 0.8439441

 $00:22:47.160 \longrightarrow 00:22:49.008$ outcomes for treating these cancers,

NOTE Confidence: 0.8439441

 $00{:}22{:}49.010 \dashrightarrow 00{:}22{:}51.140$ it also helps minimize the side

NOTE Confidence: 0.8439441

 $00:22:51.140 \longrightarrow 00:22:53.205$ effects that you have and you

NOTE Confidence: 0.8439441

 $00:22:53.205 \longrightarrow 00:22:55.221$ have to then live with for the

NOTE Confidence: 0.8439441

 $00{:}22{:}55.221 \dashrightarrow 00{:}22{:}57.827$ rest of your life as a result

 $00{:}22{:}57.827 \dashrightarrow 00{:}22{:}59.327$ of undergoing cancer treatment.

NOTE Confidence: 0.8439441

 $00:22:59.330 \longrightarrow 00:23:00.359$ So there are

NOTE Confidence: 0.8522464

 $00:23:00.360 \longrightarrow 00:23:01.732$ many advantages to being

NOTE Confidence: 0.8522464

 $00:23:01.732 \longrightarrow 00:23:03.447$ seen at large volume centers.

NOTE Confidence: 0.8522464

 $00{:}23{:}03.450 \dashrightarrow 00{:}23{:}05.914$ One of the things I think that

NOTE Confidence: 0.8522464

00:23:05.914 --> 00:23:07.645 you mentioned which many people

NOTE Confidence: 0.8522464

 $00:23:07.645 \longrightarrow 00:23:09.733$ might find curious is that

NOTE Confidence: 0.8522464

 $00:23:09.733 \longrightarrow 00:23:12.046$ when you talk about genomics,

NOTE Confidence: 0.8522464

 $00:23:12.050 \longrightarrow 00:23:13.770$ and tailored therapy,

NOTE Confidence: 0.8522464

 $00:23:13.770 \longrightarrow 00:23:15.924$ that's mainly for people who

NOTE Confidence: 0.8522464

 $00:23:15.924 \longrightarrow 00:23:17.360$ present with advanced cancers.

NOTE Confidence: 0.8522464

 $00:23:17.360 \longrightarrow 00:23:20.184$ So is it the case that in more

NOTE Confidence: 0.8522464

 $00{:}23{:}20.184 \dashrightarrow 00{:}23{:}22.519$ early stage cancers the systemic

NOTE Confidence: 0.8522464

 $00:23:22.519 \longrightarrow 00:23:25.084$ therapy or the chemotherapies tend

NOTE Confidence: 0.8522464

 $00:23:25.084 \longrightarrow 00:23:28.219$ to be uniform across patients?

 $00:23:29.990 \longrightarrow 00:23:31.990$ That is probably true for

NOTE Confidence: 0.8740899

 $00:23:31.990 \longrightarrow 00:23:33.590$ head and neck cancers.

NOTE Confidence: 0.8740899

 $00:23:33.590 \longrightarrow 00:23:36.390$ That might change in the

NOTE Confidence: 0.8740899

00:23:36.390 --> 00:23:38.321 future though, so for instance,

NOTE Confidence: 0.8740899

 $00:23:38.321 \longrightarrow 00:23:40.206$ immunotherapy is currently approved only

NOTE Confidence: 0.8740899

 $00:23:40.206 \longrightarrow 00:23:42.790$ in the treatment of advanced cancers.

NOTE Confidence: 0.8740899

 $00{:}23{:}42.790 \to 00{:}23{:}45.142$ But we now have many trials which

NOTE Confidence: 0.8740899

 $00:23:45.142 \longrightarrow 00:23:47.043$ are looking to move immunotherapy

NOTE Confidence: 0.8740899

 $00{:}23{:}47.043 \dashrightarrow 00{:}23{:}49.892$ into the curative setting and see if

NOTE Confidence: 0.8740899

 $00:23:49.892 \longrightarrow 00:23:53.021$ we can improve cure chances for our

NOTE Confidence: 0.8740899

 $00{:}23{:}53.021 \dashrightarrow 00{:}23{:}55.149$ patients with locally advanced disease.

NOTE Confidence: 0.8740899

 $00:23:55.149 \longrightarrow 00:23:57.303$ So there are biomarkers which we

NOTE Confidence: 0.8740899

00:23:57.303 --> 00:23:59.675 use to predict which patients

NOTE Confidence: 0.8740899

 $00:23:59.675 \longrightarrow 00:24:02.135$ will respond to immunotherapy in the

NOTE Confidence: 0.8740899

00:24:02.135 --> 00:24:04.373 advanced setting and that might become

NOTE Confidence: 0.8740899

 $00{:}24{:}04.373 \dashrightarrow 00{:}24{:}06.846$ standard of care for even patients who

 $00:24:06.846 \longrightarrow 00:24:08.964$ are in the locally advanced settings.

NOTE Confidence: 0.8740899

 $00:24:08.970 \longrightarrow 00:24:11.094$ So we're using chemo and

NOTE Confidence: 0.8740899

00:24:11.094 --> 00:24:12.510 standard radiation for cure,

NOTE Confidence: 0.8740899

 $00:24:12.510 \longrightarrow 00:24:14.806$ but we're maybe adding on a partner

NOTE Confidence: 0.8740899

 $00{:}24{:}14.806 \dashrightarrow 00{:}24{:}17.338$ drug like an immunotherapy drug based on

NOTE Confidence: 0.8740899

 $00:24:17.338 \longrightarrow 00:24:20.650$ what trials show us in the next few years.

NOTE Confidence: 0.8740899

 $00:24:20.650 \longrightarrow 00:24:23.090$ There is a chance that we may not

NOTE Confidence: 0.8740899

 $00:24:23.090 \longrightarrow 00:24:25.661$ be using that for everyone but

NOTE Confidence: 0.8740899

00:24:25.661 --> 00:24:27.549 personalizing it for patients

NOTE Confidence: 0.8740899

 $00:24:27.550 \longrightarrow 00:24:29.625$ who have these positive biomarkers

NOTE Confidence: 0.8740899

 $00:24:29.625 \longrightarrow 00:24:32.212$ which then predicts for a better

NOTE Confidence: 0.8740899

 $00:24:32.212 \longrightarrow 00:24:33.088$ outcome with

NOTE Confidence: 0.8735724

00:24:33.090 --> 00:24:34.790 immunotherapy.

NOTE Confidence: 0.8735724

 $00:24:34.790 \longrightarrow 00:24:36.891$ In general, what is the prognosis

NOTE Confidence: 0.8735724

 $00:24:36.891 \longrightarrow 00:24:38.976$ for patients who present with

 $00:24:38.976 \longrightarrow 00:24:41.178$ early stage head neck cancers?

NOTE Confidence: 0.8506493

 $00{:}24{:}42.050 \dashrightarrow 00{:}24{:}44.966$ So a large part of that depends on whether

NOTE Confidence: 0.8506493

00:24:44.966 --> 00:24:47.745 or not they are associated with HPV,

NOTE Confidence: 0.8506493

 $00:24:47.750 \longrightarrow 00:24:49.862$ so having the HPV virus associated

NOTE Confidence: 0.8506493

 $00:24:49.862 \longrightarrow 00:24:51.693$ cancer confers a much better

NOTE Confidence: 0.8506493

00:24:51.693 --> 00:24:53.799 prognosis and in the early stage,

NOTE Confidence: 0.8506493

 $00:24:53.800 \longrightarrow 00:24:56.280$ 80 to 90% of these patients can be

NOTE Confidence: 0.8506493

 $00:24:56.280 \longrightarrow 00:24:58.565$ cured five years out in patients

NOTE Confidence: 0.8506493

00:24:58.565 --> 00:25:00.555 who have HPV negative disease,

NOTE Confidence: 0.8506493

 $00:25:00.560 \longrightarrow 00:25:03.045$ that number is a little bit lower,

NOTE Confidence: 0.8506493

 $00:25:03.050 \longrightarrow 00:25:05.930$ but if you compare with a lot of other

NOTE Confidence: 0.8506493

00:25:05.930 --> 00:25:08.390 cancer types it's still pretty good.

NOTE Confidence: 0.8506493

 $00{:}25{:}08.390 \dashrightarrow 00{:}25{:}11.630$ You know we are able to cure about on

NOTE Confidence: 0.8506493

 $00{:}25{:}11.630 \dashrightarrow 00{:}25{:}13.778$ average 60% of HPV negative patients.

NOTE Confidence: 0.8506493

 $00:25:13.778 \longrightarrow 00:25:15.980$ Early stage with curative intent treatment.

NOTE Confidence: 0.8506493

00:25:15.980 --> 00:25:18.254 Of course, we're always trying to

 $00:25:18.254 \longrightarrow 00:25:20.367$ do research and clinical trials to

NOTE Confidence: 0.8506493

 $00:25:20.367 \longrightarrow 00:25:22.790$ see if we can move that bar up and,

NOTE Confidence: 0.8506493

00:25:22.790 --> 00:25:24.734 you know, get a higher proportion

NOTE Confidence: 0.8506493

 $00:25:24.734 \longrightarrow 00:25:26.030$ of our patients cured.

NOTE Confidence: 0.8506493

 $00:25:26.030 \longrightarrow 00:25:27.645$ And that's also the advantage

NOTE Confidence: 0.8506493

 $00:25:27.645 \longrightarrow 00:25:28.937$ of being seen at a

NOTE Confidence: 0.8506493

 $00:25:28.940 \longrightarrow 00:25:30.380$ larger centers that

NOTE Confidence: 0.8506493

 $00:25:30.380 \longrightarrow 00:25:32.280$ has these trials to maybe make

NOTE Confidence: 0.8506493

00:25:32.280 --> 00:25:33.477 treatment more aggressive.

NOTE Confidence: 0.8506493

 $00:25:33.480 \longrightarrow 00:25:35.790$ To intensify your treatment so we can

NOTE Confidence: 0.8506493

 $00:25:35.790 \longrightarrow 00:25:38.659$ move that bar up for our patients.

 $00{:}25{:}38.990 \dashrightarrow 00{:}25{:}41.897$ That was going to be one of my questions,

NOTE Confidence: 0.87188363

 $00:25:41.900 \longrightarrow 00:25:44.611$ which is, for many patients, they

NOTE Confidence: 0.87188363

 $00:25:44.611 \longrightarrow 00:25:47.698$ hear about clinical trials and they think

NOTE Confidence: 0.87188363

00:25:47.698 --> 00:25:51.420 I have a fairly early stage cancer,

NOTE Confidence: 0.87188363

00:25:51.420 --> 00:25:55.568 prognosis is reasonably good,

 $00:25:55.570 \longrightarrow 00:25:58.356$ clinical trials always sound a little scary.

NOTE Confidence: 0.87188363

 $00:25:58.360 \longrightarrow 00:26:00.866$ Do I really want to be a

NOTE Confidence: 0.87188363

 $00:26:00.866 \longrightarrow 00:26:03.549$ Guinea pig in the early stage?

NOTE Confidence: 0.87188363

 $00:26:03.550 \longrightarrow 00:26:06.166$ So what do you say to patients who

NOTE Confidence: 0.87188363

 $00:26:06.166 \longrightarrow 00:26:08.249$ might be contemplating whether they

NOTE Confidence: 0.87188363

00:26:08.249 --> 00:26:11.930 really ought to be in a clinical trial?

NOTE Confidence: 0.87188363

00:26:11.930 --> 00:26:14.335 If they have potentially curative

NOTE Confidence: 0.87188363

 $00:26:14.335 \longrightarrow 00:26:16.610$ cancer or not?

NOTE Confidence: 0.8836969

 $00:26:16.610 \longrightarrow 00:26:18.340$ Two things.

NOTE Confidence: 0.8836969

00:26:18.340 --> 00:26:20.344 One, it's always good to remember

NOTE Confidence: 0.8836969

 $00{:}26{:}20.344 \dashrightarrow 00{:}26{:}22.449$ that what is standard treatment today

NOTE Confidence: 0.8836969

00:26:22.449 --> 00:26:24.906 was a clinical trial some years ago,

NOTE Confidence: 0.8836969

 $00:26:24.910 \longrightarrow 00:26:27.798$ so we would have not gotten to the

NOTE Confidence: 0.8836969

00:26:27.798 --> 00:26:29.750 treatments that we are at today

NOTE Confidence: 0.8836969

 $00:26:29.750 \longrightarrow 00:26:31.826$ if we had not

 $00:26:31.830 \longrightarrow 00:26:33.560$ used some other patients in

NOTE Confidence: 0.8836969

 $00{:}26{:}33.560 \dashrightarrow 00{:}26{:}35.290$ the past on clinical trials.

NOTE Confidence: 0.8836969

00:26:35.290 --> 00:26:37.866 The second thing is that we always try

NOTE Confidence: 0.8836969

 $00:26:37.866 \longrightarrow 00:26:40.017$ to carefully match and screen patients

NOTE Confidence: 0.8836969

 $00:26:40.017 \longrightarrow 00:26:42.560$ to the available trials that we have.

NOTE Confidence: 0.8836969

 $00:26:42.560 \longrightarrow 00:26:44.630$ So we're always

NOTE Confidence: 0.8836969

 $00:26:44.630 \longrightarrow 00:26:46.540$ thinking about what benefit does

NOTE Confidence: 0.8836969

 $00:26:46.540 \longrightarrow 00:26:48.450$ it directly offer that patient.

NOTE Confidence: 0.8836969

 $00:26:48.450 \longrightarrow 00:26:50.508$ And even if there is a chance

NOTE Confidence: 0.8836969

 $00:26:50.508 \longrightarrow 00:26:51.390$ of some benefit,

NOTE Confidence: 0.8836969

 $00:26:51.390 \longrightarrow 00:26:53.441$ then that's the ideal patient

NOTE Confidence: 0.8836969

 $00:26:53.441 \longrightarrow 00:26:55.509$ to be matched to a clinical trial.

NOTE Confidence: 0.8836969

00:26:55.510 --> 00:26:56.239 So of course,

NOTE Confidence: 0.8836969

 $00:26:56.239 \longrightarrow 00:26:57.940$ if we think that there is no

NOTE Confidence: 0.8836969

00:26:57.999 --> 00:26:59.619 possible benefit to someone,

NOTE Confidence: 0.8836969

00:26:59.620 --> 00:27:02.266 we're not going to put them on a trial,

 $00:27:02.270 \longrightarrow 00:27:03.446$ so we're

NOTE Confidence: 0.8836969

 $00:27:03.446 \longrightarrow 00:27:04.328$ carefully screening patients.

NOTE Confidence: 0.8836969

00:27:04.330 --> 00:27:05.800 It's also a mutual decision,

NOTE Confidence: 0.8836969

 $00:27:05.800 \longrightarrow 00:27:07.190$ so it's not something that's

NOTE Confidence: 0.8836969

 $00:27:07.190 \longrightarrow 00:27:09.030$ going to be forced on anyone,

NOTE Confidence: 0.8836969

 $00:27:09.030 \longrightarrow 00:27:10.890$ but it's worth at least hearing

NOTE Confidence: 0.8836969

 $00:27:10.890 \longrightarrow 00:27:12.560$ out your options and then

NOTE Confidence: 0.8836969

 $00:27:12.560 \longrightarrow 00:27:14.036$ making an informed choice.

00:27:14.400 --> 00:27:16.920 And I think it's so important for

NOTE Confidence: 0.8887299

 $00:27:16.920 \longrightarrow 00:27:19.069$ people to realize that

NOTE Confidence: 0.8887299

 $00{:}27{:}19.070 \dashrightarrow 00{:}27{:}20.900$ on average patients who participate

NOTE Confidence: 0.8887299

 $00:27:20.900 \longrightarrow 00:27:23.133$ in clinical trials tend to do

NOTE Confidence: 0.8887299

00:27:23.133 --> 00:27:24.808 better than patients who don't.

NOTE Confidence: 0.8887299

00:27:24.810 --> 00:27:26.605 Because we're always testing what

NOTE Confidence: 0.8887299

 $00:27:26.605 \longrightarrow 00:27:28.400$ we think is tomorrow's therapy,

NOTE Confidence: 0.8887299

 $00:27:28.400 \longrightarrow 00:27:29.836$ the next great therapy,

 $00:27:29.836 \longrightarrow 00:27:31.990$ how we can move that bar,

NOTE Confidence: 0.8887299

 $00:27:31.990 \longrightarrow 00:27:33.800$ as you said to standard

NOTE Confidence: 0.8887299

 $00:27:33.800 \longrightarrow 00:27:35.940$ of care today and so on.

NOTE Confidence: 0.8887299

 $00:27:35.940 \longrightarrow 00:27:38.088$ Average people tend to do better.

NOTE Confidence: 0.8887299

 $00{:}27{:}38.090 \dashrightarrow 00{:}27{:}40.112$ The other question that I want

NOTE Confidence: 0.8887299

 $00:27:40.112 \longrightarrow 00:27:42.292$ to circle back to before the

NOTE Confidence: 0.8887299

00:27:42.292 --> 00:27:44.560 show closes is an important one,

NOTE Confidence: 0.8887299

 $00:27:44.560 \longrightarrow 00:27:45.688$ and that is,

NOTE Confidence: 0.8887299

00:27:45.688 --> 00:27:47.944 you mentioned that people who have

NOTE Confidence: 0.8887299

 $00{:}27{:}47.944 \dashrightarrow 00{:}27{:}50.430$ HPV positive cancers tend to do

NOTE Confidence: 0.8887299

 $00:27:50.430 \longrightarrow 00:27:52.830$ better than people who have HPV

NOTE Confidence: 0.8887299

 $00{:}27{:}52.830 \dashrightarrow 00{:}27{:}55.252$ negative cancers and I want you to

NOTE Confidence: 0.8887299

 $00{:}27{:}55.252 \dashrightarrow 00{:}27{:}57.656$ kind of dispel a misconception that

NOTE Confidence: 0.8887299

 $00:27:57.656 \longrightarrow 00:28:00.594$ some people might have then, which is,

NOTE Confidence: 0.8887299

 $00:28:00.594 \longrightarrow 00:28:03.303$ why should I get the HPV vaccine,

00:28:03.310 --> 00:28:05.732 if that then would prevent me from

NOTE Confidence: 0.8887299

 $00{:}28{:}05.732 \longrightarrow 00{:}28{:}07.970$ getting an HPV positive cancer.

NOTE Confidence: 0.8887299

 $00:28:07.970 \longrightarrow 00:28:10.682$ So then I would be more likely to

NOTE Confidence: 0.8887299

00:28:10.682 --> 00:28:13.397 get an HPV negative cancer and

NOTE Confidence: 0.86604726

 $00:28:13.400 \longrightarrow 00:28:15.860$ do worse.

NOTE Confidence: 0.86604726

 $00:28:15.860 \longrightarrow 00:28:18.632$ Getting the vaccine does not increase your risk of

getting

NOTE Confidence: 0.86604726

00:28:18.632 --> 00:28:21.190 the HPV negative cancer and HPV

NOTE Confidence: 0.86604726

00:28:21.190 --> 00:28:23.105 Positive cancers actually tend to

NOTE Confidence: 0.86604726

 $00:28:23.105 \longrightarrow 00:28:26.237$ occur earlier in life so where

NOTE Confidence: 0.86604726

 $00:28:26.237 \longrightarrow 00:28:28.535$ HPV negative cancers need a certain

NOTE Confidence: 0.86604726

 $00{:}28{:}28.535 \dashrightarrow 00{:}28{:}30.801$ degree of to bacco and alcohol exposure

NOTE Confidence: 0.86604726

 $00:28:30.801 \longrightarrow 00:28:33.382$ for them to develop and usually occur

NOTE Confidence: 0.86604726

 $00:28:33.382 \longrightarrow 00:28:36.430$ in the 6th or 7th decade of life.

NOTE Confidence: 0.86604726

 $00:28:36.430 \longrightarrow 00:28:38.335$ HPV positive cancers can occur

NOTE Confidence: 0.86604726

 $00:28:38.335 \longrightarrow 00:28:40.621$ as early as the third, fourth,

 $00:28:40.621 \longrightarrow 00:28:43.669$ fifth decades of life and think about it.

NOTE Confidence: 0.86604726

00:28:43.670 --> 00:28:46.337 Now you have a highly curable cancer,

NOTE Confidence: 0.86604726

 $00:28:46.340 \longrightarrow 00:28:46.990$ but the

NOTE Confidence: 0.86604726

 $00:28:46.990 \longrightarrow 00:28:48.940$ treatment is just as aggressive

NOTE Confidence: 0.86604726

 $00:28:48.940 \longrightarrow 00:28:51.216$ as HPV negative cancers by the

NOTE Confidence: 0.86604726

00:28:51.216 --> 00:28:52.776 current standard of care,

NOTE Confidence: 0.86604726

 $00:28:52.780 \longrightarrow 00:28:55.209$ so you're going to live out all

NOTE Confidence: 0.86604726

 $00:28:55.209 \longrightarrow 00:28:55.903$ these decades

NOTE Confidence: 0.86604726

 $00{:}28{:}55.910 \dashrightarrow 00{:}28{:}57.938$ dealing with the side effects of

NOTE Confidence: 0.86604726

 $00:28:57.938 \longrightarrow 00:29:00.069$ treatment and for anyone who's known

NOTE Confidence: 0.86604726

 $00:29:00.070 \longrightarrow 00:29:02.026$ someone going through head and neck cancer

NOTE Confidence: 0.86604726

 $00:29:02.026 \longrightarrow 00:29:04.579$ treatment or has gone through it themselves,

NOTE Confidence: 0.86604726

 $00:29:04.580 \longrightarrow 00:29:05.364$ it's probably

NOTE Confidence: 0.86604726

 $00:29:05.364 \longrightarrow 00:29:07.716$ a nightmare to live

NOTE Confidence: 0.86604726

00:29:07.716 --> 00:29:09.651 through and something that stays

NOTE Confidence: 0.86604726

 $00:29:09.651 \longrightarrow 00:29:12.580$ with you for the rest of your life.

 $00:29:12.580 \longrightarrow 00:29:14.270$ The side effects can be

NOTE Confidence: 0.8704625

00:29:14.270 --> 00:29:15.618 pretty disabling for many,

NOTE Confidence: 0.8704625

00:29:15.618 --> 00:29:16.629 many years afterwards.

NOTE Confidence: 0.8704625

00:29:16.630 --> 00:29:18.395 Doctor Aarti Bhatia is assistant

NOTE Confidence: 0.8704625

 $00:29:18.395 \longrightarrow 00:29:20.160$ professor of medicine and medical

NOTE Confidence: 0.8704625

00:29:20.218 --> 00:29:22.360 oncology at the Yale School of Medicine.

NOTE Confidence: 0.8704625

00:29:22.360 --> 00:29:23.676 If you have questions,

NOTE Confidence: 0.8704625

 $00:29:23.676 \longrightarrow 00:29:25.321$ the address is canceranswers@yale.edu

NOTE Confidence: 0.8704625

 $00:29:25.321 \longrightarrow 00:29:27.142$ and past editions of the

NOTE Confidence: 0.8704625

 $00:29:27.142 \longrightarrow 00:29:29.064$ program are available in audio and

NOTE Confidence: 0.8704625

 $00:29:29.064 \longrightarrow 00:29:30.776$ written form at yale cancercenter.org,

NOTE Confidence: 0.8704625

00:29:30.780 --> 00:29:33.116 we hope you'll join us next week to

NOTE Confidence: 0.8704625

00:29:33.116 --> 00:29:35.401 learn more about the fight against

NOTE Confidence: 0.8704625

 $00:29:35.401 \longrightarrow 00:29:37.843$ cancer here on Connecticut Public Radio.