

WEBVTT

00:00:00.000 --> 00:00:01.960 Funding for Yale Cancer Answers

NOTE Confidence: 0.9596496

00:00:01.960 --> 00:00:03.920 is provided by Smilow Cancer

NOTE Confidence: 0.9596496

00:00:03.990 --> 00:00:05.690 Hospital and AstraZeneca.

NOTE Confidence: 0.9717902

00:00:07.760 --> 00:00:09.872 Welcome to Yale Cancer Answers with

NOTE Confidence: 0.9717902

00:00:09.872 --> 00:00:11.872 your host, doctor Anees Chagpar.

NOTE Confidence: 0.9717902

00:00:11.872 --> 00:00:13.487 Yale Cancer Answers features

NOTE Confidence: 0.9717902

00:00:13.487 --> 00:00:15.577 the latest information on cancer

NOTE Confidence: 0.9717902

00:00:15.577 --> 00:00:17.712 care by welcoming oncologists and

NOTE Confidence: 0.9717902

00:00:17.712 --> 00:00:19.667 specialists who are on the forefront of

NOTE Confidence: 0.9717902

00:00:19.667 --> 00:00:21.852 the battle to fight cancer. This week,

NOTE Confidence: 0.9717902

00:00:21.852 --> 00:00:23.632 it's a conversation about lung

NOTE Confidence: 0.9717902

00:00:23.632 --> 00:00:25.360 cancer with Doctor Anne Chiang.

NOTE Confidence: 0.9717902

00:00:25.360 --> 00:00:27.874 Doctor Chiang is an associate professor

NOTE Confidence: 0.9717902

00:00:27.874 --> 00:00:30.717 in medical oncology at the Yale School

NOTE Confidence: 0.9717902

00:00:30.717 --> 00:00:33.265 of Medicine where Doctor Chagpar is

NOTE Confidence: 0.9717902

00:00:33.340 --> 00:00:35.980 a professor of surgical oncology.  
NOTE Confidence: 0.9712131

00:00:35.980 --> 00:00:38.200 Let's start at the beginning.  
NOTE Confidence: 0.9712131

00:00:38.200 --> 00:00:40.594 I think a lot of  
NOTE Confidence: 0.9712131

00:00:40.594 --> 00:00:42.639 people know about lung cancer,  
NOTE Confidence: 0.9712131

00:00:42.640 --> 00:00:44.308 but this whole differentiation  
NOTE Confidence: 0.9712131

00:00:44.308 --> 00:00:46.810 between small cell, non small cell  
NOTE Confidence: 0.9712131

00:00:46.884 --> 00:00:49.300 tell us a little bit more about that.  
NOTE Confidence: 0.9712131

00:00:49.300 --> 00:00:51.150 What exactly is the difference?  
NOTE Confidence: 0.9712131

00:00:51.150 --> 00:00:53.740 How many people are affected by each?  
NOTE Confidence: 0.9712131

00:00:53.740 --> 00:00:55.960 And why should we care?  
NOTE Confidence: 0.9712131

00:00:55.960 --> 00:00:59.016 I think that the basics about  
NOTE Confidence: 0.9712131

00:00:59.016 --> 00:01:01.879 lung cancer are that they form in the lung.  
NOTE Confidence: 0.9712131

00:01:01.880 --> 00:01:03.730 There's mainly two different types,  
NOTE Confidence: 0.9712131

00:01:03.730 --> 00:01:05.998 small cell, that underneath the microscope  
NOTE Confidence: 0.9712131

00:01:06.000 --> 00:01:08.674 the pathologist looks at the cells and  
NOTE Confidence: 0.9712131

00:01:08.674 --> 00:01:11.566 they're very small and round and blue,

NOTE Confidence: 0.9712131

00:01:11.566 --> 00:01:14.050 and everything else which is non small cell.

NOTE Confidence: 0.9712131

00:01:14.050 --> 00:01:16.000 The small cell kind is typically

NOTE Confidence: 0.9712131

00:01:16.000 --> 00:01:18.080 a little bit more aggressive.

NOTE Confidence: 0.9712131

00:01:18.080 --> 00:01:19.544 It grows more quickly.

NOTE Confidence: 0.9712131

00:01:19.544 --> 00:01:21.008 It tends to spread.

NOTE Confidence: 0.9712131

00:01:21.010 --> 00:01:23.488 There are different types that I typically

NOTE Confidence: 0.9712131

00:01:23.488 --> 00:01:25.758 tell my patients are like chocolate,

NOTE Confidence: 0.9712131

00:01:25.760 --> 00:01:26.858 vanilla and pistachio.

NOTE Confidence: 0.9712131

00:01:26.858 --> 00:01:28.688 There is adenocarcinoma,

NOTE Confidence: 0.9712131

00:01:28.690 --> 00:01:29.785 squamous cell carcinoma,

NOTE Confidence: 0.9712131

00:01:29.785 --> 00:01:31.245 and other types,

NOTE Confidence: 0.9712131

00:01:31.250 --> 00:01:33.578 and they really are simply

NOTE Confidence: 0.9712131

00:01:33.578 --> 00:01:36.120 different types that act a little bit differently.

00:01:36.572 --> 00:01:39.736 They look a little bit different

NOTE Confidence: 0.9712131

00:01:39.736 --> 00:01:41.510 underneath the microscope,

NOTE Confidence: 0.9712131

00:01:41.510 --> 00:01:43.910 and sometimes there are molecular

NOTE Confidence: 0.9712131

00:01:43.910 --> 00:01:47.425 markers that can help us to understand

NOTE Confidence: 0.9712131

00:01:47.425 --> 00:01:49.990 a particular subtype that might

NOTE Confidence: 0.9712131

00:01:49.990 --> 00:01:52.778 be responsive to taking a pill,

NOTE Confidence: 0.9712131

00:01:52.780 --> 00:01:56.210 for example, instead of IV medication.

NOTE Confidence: 0.92404133

00:01:57.190 --> 00:02:00.130 Of all of these types the first

NOTE Confidence: 0.92404133

00:02:00.130 --> 00:02:02.090 question is which type are

NOTE Confidence: 0.92404133

00:02:02.090 --> 00:02:03.590 the most common.

00:02:07.090 --> 00:02:09.862 You say the small cells are a little bit

NOTE Confidence: 0.92404133

00:02:09.862 --> 00:02:12.254 more aggressive than the non small

NOTE Confidence: 0.92404133

00:02:12.254 --> 00:02:14.498 cells and even within that there's

NOTE Confidence: 0.92404133

00:02:14.498 --> 00:02:17.270 a whole bunch of different types.

NOTE Confidence: 0.92404133

00:02:17.270 --> 00:02:18.488 What type is most common?

00:02:19.651 --> 00:02:20.812 What's the distribution

NOTE Confidence: 0.95026827

00:02:20.812 --> 00:02:22.960 in terms of these cancers?

NOTE Confidence: 0.95026827

00:02:22.960 --> 00:02:25.634 The most common type is

NOTE Confidence: 0.95026827

00:02:25.634 --> 00:02:28.211 non small cell and pretty much

NOTE Confidence: 0.95026827

00:02:28.211 --> 00:02:29.779 80-85% of lung cancer  
NOTE Confidence: 0.95026827

00:02:29.779 --> 00:02:32.390 is non small cell and then  
NOTE Confidence: 0.95026827

00:02:32.473 --> 00:02:35.170 15-20% is small cell  
NOTE Confidence: 0.95026827

00:02:35.170 --> 00:02:37.610 and so we know that smoking  
NOTE Confidence: 0.95026827

00:02:37.610 --> 00:02:40.208 is related to lung cancer,  
NOTE Confidence: 0.95026827

00:02:40.210 --> 00:02:42.989 but are there specific risk factors for  
NOTE Confidence: 0.95026827

00:02:42.989 --> 00:02:45.839 getting each of these different types,  
NOTE Confidence: 0.95026827

00:02:45.840 --> 00:02:49.728 or is it kind of all just a mishmash  
NOTE Confidence: 0.9819167

00:02:49.730 --> 00:02:54.060 and which type you get is luck of the draw?  
NOTE Confidence: 0.9819167

00:02:54.060 --> 00:02:57.119 Smoking is definitely a risk factor for  
NOTE Confidence: 0.9819167

00:02:57.119 --> 00:03:00.127 both non small cell and small cell.  
NOTE Confidence: 0.9819167

00:03:00.130 --> 00:03:03.161 That being said, there are folks who  
NOTE Confidence: 0.9819167

00:03:03.161 --> 00:03:05.336 are never smokers, a small population  
NOTE Confidence: 0.9819167

00:03:05.336 --> 00:03:07.964 of never smokers or light smokers  
NOTE Confidence: 0.9819167

00:03:07.970 --> 00:03:12.458 who may develop mutations in specific  
NOTE Confidence: 0.9819167

00:03:12.458 --> 00:03:18.990 genes called EGFR or ALK ROS1.

NOTE Confidence: 0.9819167

00:03:18.990 --> 00:03:21.804 Some of these mutations are

NOTE Confidence: 0.9819167

00:03:21.804 --> 00:03:25.149 called oncogenes and these mutations

00:03:27.449 --> 00:03:30.167 tend to lead to lung cancer.

NOTE Confidence: 0.9819167

00:03:30.170 --> 00:03:33.194 A specific kind and because it's

NOTE Confidence: 0.9819167

00:03:33.194 --> 00:03:36.875 not sort of the same as the lung

NOTE Confidence: 0.9819167

00:03:36.875 --> 00:03:39.957 cancer that comes from smoking where

NOTE Confidence: 0.9819167

00:03:39.957 --> 00:03:43.442 repeated exposure and inflammation to

NOTE Confidence: 0.9819167

00:03:43.442 --> 00:03:47.520 carcinogens caused lung cancer,

NOTE Confidence: 0.9819167

00:03:47.520 --> 00:03:49.640 those patients with, for example,

NOTE Confidence: 0.9819167

00:03:49.640 --> 00:03:52.560 a mutation in EGFR can actually be treated

NOTE Confidence: 0.9819167

00:03:52.560 --> 00:03:55.979 with a targeted therapy that targets EGFR,

NOTE Confidence: 0.9819167

00:03:55.980 --> 00:03:58.518 and that, as I said before,

NOTE Confidence: 0.9819167

00:03:58.520 --> 00:04:01.648 is often in the shape of a

NOTE Confidence: 0.9819167

00:04:01.648 --> 00:04:04.438 pill that you can take daily.

NOTE Confidence: 0.9819167

00:04:04.440 --> 00:04:07.352 So it's really important when

NOTE Confidence: 0.9819167

00:04:07.352 --> 00:04:09.519 you're diagnosed with lung cancer

NOTE Confidence: 0.9819167

00:04:09.520 --> 00:04:11.630 to understand the pathology and

NOTE Confidence: 0.9819167

00:04:11.630 --> 00:04:13.318 specifically the molecular pathology.

NOTE Confidence: 0.9819167

00:04:13.320 --> 00:04:16.026 That means the kinds of mutations

NOTE Confidence: 0.9819167

00:04:16.026 --> 00:04:17.830 that might be available.

NOTE Confidence: 0.9819167

00:04:17.830 --> 00:04:19.480 Especially if

NOTE Confidence: 0.9819167

00:04:19.480 --> 00:04:20.612 you've never smoked,

NOTE Confidence: 0.9819167

00:04:20.612 --> 00:04:23.154 or if you have a very light history

NOTE Confidence: 0.9819167

00:04:23.154 --> 00:04:25.089 or remote history of smoking

00:04:26.410 --> 00:04:29.074 For the people who have never smoked or

NOTE Confidence: 0.89279914

00:04:29.074 --> 00:04:31.997 have a very light history of smoking,

NOTE Confidence: 0.89279914

00:04:32.000 --> 00:04:34.472 are they more likely to get one

NOTE Confidence: 0.89279914

00:04:34.472 --> 00:04:37.324 type of lung cancer in terms of small

NOTE Confidence: 0.89279914

00:04:37.324 --> 00:04:40.030 cell versus non small cell than others?

NOTE Confidence: 0.89279914

00:04:40.030 --> 00:04:41.422 And these mutations that

NOTE Confidence: 0.89279914

00:04:41.422 --> 00:04:42.466 you're talking about,

NOTE Confidence: 0.89279914

00:04:42.470 --> 00:04:44.498 are they more common in small

NOTE Confidence: 0.89279914

00:04:44.498 --> 00:04:47.009 cell or non small cell or does it

NOTE Confidence: 0.98069865

00:04:47.010 --> 00:04:48.750 make a difference at all?

NOTE Confidence: 0.98069865

00:04:48.750 --> 00:04:50.856 So these mutations that I spoke

NOTE Confidence: 0.98069865

00:04:50.856 --> 00:04:53.324 of are more common in non small

NOTE Confidence: 0.98069865

00:04:53.324 --> 00:04:55.634 cell and those folks who are light

NOTE Confidence: 0.98069865

00:04:55.707 --> 00:04:57.813 or never smokers are more likely

NOTE Confidence: 0.98069865

00:04:57.813 --> 00:05:00.522 to develop non small cell lung

NOTE Confidence: 0.98069865

00:05:00.522 --> 00:05:03.126 cancer than small cell lung cancer.

NOTE Confidence: 0.98069865

00:05:03.130 --> 00:05:05.506 Typically it has rarely happened

NOTE Confidence: 0.98069865

00:05:05.506 --> 00:05:07.906 that I've seen patients who never

NOTE Confidence: 0.98069865

00:05:07.906 --> 00:05:10.144 smoked develop small cell cancer,

NOTE Confidence: 0.98069865

00:05:10.150 --> 00:05:12.490 but typically there is a history

NOTE Confidence: 0.98069865

00:05:12.490 --> 00:05:13.660 of smoking.

NOTE Confidence: 0.9868976

00:05:13.660 --> 00:05:15.220 You mentioned earlier that

NOTE Confidence: 0.9868976

00:05:15.220 --> 00:05:17.170 small cell were more aggressive.

NOTE Confidence: 0.9868976



00:05:17.170 --> 00:05:19.120 Tell us about the prognosis.

NOTE Confidence: 0.9868976

00:05:19.120 --> 00:05:22.306 So it sounds to me like if you're going

NOTE Confidence: 0.9868976

00:05:22.306 --> 00:05:25.343 to have a choice you would prefer to

NOTE Confidence: 0.9868976

00:05:25.343 --> 00:05:28.477 have a non small cell lung cancer.

NOTE Confidence: 0.9868976

00:05:28.480 --> 00:05:31.600 But how bad is one versus the other?

NOTE Confidence: 0.98789674

00:05:32.500 --> 00:05:34.964 I think that the key thing to

NOTE Confidence: 0.98789674

00:05:34.964 --> 00:05:37.264 know for both is that there have

NOTE Confidence: 0.98789674

00:05:37.264 --> 00:05:39.937 really been a lot of advances such

NOTE Confidence: 0.98789674

00:05:39.937 --> 00:05:42.392 that we've actually seen improvements

NOTE Confidence: 0.98789674

00:05:42.392 --> 00:05:45.342 in the outcomes for both non small

NOTE Confidence: 0.98789674

00:05:45.342 --> 00:05:48.040 cell and small cell.

NOTE Confidence: 0.98789674

00:05:48.040 --> 00:05:50.483 And this was just published last year

NOTE Confidence: 0.98789674

00:05:50.483 --> 00:05:53.299 in the New England Journal of Medicine

NOTE Confidence: 0.98789674

00:05:53.299 --> 00:05:56.261 that the incidence of both

NOTE Confidence: 0.98789674

00:05:56.261 --> 00:05:58.704 these and the outcomes of both

NOTE Confidence: 0.98789674

00:05:58.704 --> 00:06:00.950 these types of cancers are improving.

NOTE Confidence: 0.98789674

00:06:00.950 --> 00:06:02.875 So I think that's a

NOTE Confidence: 0.98789674

00:06:02.880 --> 00:06:06.606 really important message to know.

NOTE Confidence: 0.98789674

00:06:06.610 --> 00:06:09.004 The other aspect of how

NOTE Confidence: 0.98789674

00:06:09.004 --> 00:06:11.280 you're going to do

NOTE Confidence: 0.98789674

00:06:11.280 --> 00:06:12.844 with this particular cancer

NOTE Confidence: 0.98789674

00:06:12.850 --> 00:06:15.046 has to do with staging,

NOTE Confidence: 0.98789674

00:06:15.050 --> 00:06:17.270 and that just means the geography

NOTE Confidence: 0.98789674

00:06:17.270 --> 00:06:20.249 of where the cancer is in your body

NOTE Confidence: 0.98789674

00:06:20.249 --> 00:06:22.385 when when you're diagnosed with it.

00:06:24.590 --> 00:06:26.872 If you have tumors that are just

NOTE Confidence: 0.98789674

00:06:26.872 --> 00:06:29.547 in the lung or have migrated

NOTE Confidence: 0.98789674

00:06:29.547 --> 00:06:31.567 into very nearby lymph nodes,

NOTE Confidence: 0.98789674

00:06:31.570 --> 00:06:34.153 then you maybe have a stage one

NOTE Confidence: 0.98789674

00:06:34.153 --> 00:06:36.518 or stage two cancer.

NOTE Confidence: 0.98789674

00:06:36.520 --> 00:06:39.054 You may be eligible for a local

NOTE Confidence: 0.98789674

00:06:39.054 --> 00:06:41.029 treatment like surgery or radiation

NOTE Confidence: 0.98789674

00:06:41.029 --> 00:06:43.483 in combination with chemotherapy to

NOTE Confidence: 0.98789674

00:06:43.483 --> 00:06:46.047 really try to remove that tumor,

NOTE Confidence: 0.98789674

00:06:46.050 --> 00:06:49.090 and that's when you have the best prognosis,

NOTE Confidence: 0.98789674

00:06:49.090 --> 00:06:51.334 regardless if it's non

NOTE Confidence: 0.98789674

00:06:51.334 --> 00:06:53.280 small cell or small cell.

NOTE Confidence: 0.98789674

00:06:53.280 --> 00:06:56.178 Overall, folks with non small cell

NOTE Confidence: 0.98789674

00:06:56.178 --> 00:06:59.234 do little bit better. But again,

NOTE Confidence: 0.98789674

00:06:59.234 --> 00:07:00.920 having lung cancer,

NOTE Confidence: 0.98789674

00:07:00.920 --> 00:07:03.158 it's definitely a treatable disease.

NOTE Confidence: 0.98789674

00:07:03.160 --> 00:07:05.398 If you have stage four cancer,

NOTE Confidence: 0.98789674

00:07:05.400 --> 00:07:08.028 which means that you've had disease

NOTE Confidence: 0.98789674

00:07:08.028 --> 00:07:10.492 that has traveled outside of the

NOTE Confidence: 0.98789674

00:07:10.492 --> 00:07:12.704 lung to a different organ such as

NOTE Confidence: 0.98789674

00:07:12.704 --> 00:07:15.469 the liver or the brain or your bones,

NOTE Confidence: 0.98789674

00:07:15.470 --> 00:07:18.074 then we take a different approach,

NOTE Confidence: 0.98789674

00:07:18.080 --> 00:07:20.684 which is then we need to use  
NOTE Confidence: 0.98789674

00:07:20.684 --> 00:07:21.428 systemic therapy.  
NOTE Confidence: 0.98789674

00:07:21.430 --> 00:07:23.525 That means something that gets  
NOTE Confidence: 0.98789674

00:07:23.525 --> 00:07:25.620 into your bloodstream because every  
NOTE Confidence: 0.98789674

00:07:25.693 --> 00:07:27.829 single cancer cell anywhere needs to  
NOTE Confidence: 0.98789674

00:07:27.829 --> 00:07:30.209 have a blood supply and therefore  
NOTE Confidence: 0.98789674

00:07:30.210 --> 00:07:31.430 administering chemotherapy,  
NOTE Confidence: 0.98789674

00:07:31.430 --> 00:07:33.260 or more recently,  
NOTE Confidence: 0.98789674

00:07:33.260 --> 00:07:36.610 all these advances in immunotherapy  
NOTE Confidence: 0.98789674

00:07:36.610 --> 00:07:41.370 through the blood into the bloodstream,  
NOTE Confidence: 0.98789674

00:07:41.370 --> 00:07:43.375 that way those therapeutic  
NOTE Confidence: 0.98789674

00:07:43.375 --> 00:07:46.178 drugs can reach all of the cancer  
NOTE Confidence: 0.98789674

00:07:46.178 --> 00:07:48.350 cells that are in your body,  
NOTE Confidence: 0.98789674

00:07:48.350 --> 00:07:49.910 wherever they may be.  
NOTE Confidence: 0.9845946

00:07:51.290 --> 00:07:52.845 Well, it's certainly good news  
NOTE Confidence: 0.9845946

00:07:52.845 --> 00:07:54.400 that lung cancer,

NOTE Confidence: 0.9845946

00:07:54.400 --> 00:07:56.500 which is something that I think a

NOTE Confidence: 0.9845946

00:07:56.500 --> 00:07:58.795 lot of people fear, is becoming

NOTE Confidence: 0.9845946

00:07:58.795 --> 00:08:00.787 a treatable disease and that

NOTE Confidence: 0.9845946

00:08:00.854 --> 00:08:02.576 there are all of these advances

NOTE Confidence: 0.9845946

00:08:02.576 --> 00:08:04.885 and I want to get into that.

NOTE Confidence: 0.9845946

00:08:04.885 --> 00:08:07.580 But first something that you said really

NOTE Confidence: 0.9845946

00:08:07.658 --> 00:08:10.122 struck a chord with me and has been

NOTE Confidence: 0.9845946

00:08:10.122 --> 00:08:13.199 the case with a lot of cancers and that is

NOTE Confidence: 0.9845946

00:08:13.200 --> 00:08:15.050 the earlier you find it,

NOTE Confidence: 0.9845946

00:08:15.050 --> 00:08:16.522 the lower the stage,

NOTE Confidence: 0.9845946

00:08:16.522 --> 00:08:18.362 the more treatable it is.

NOTE Confidence: 0.9845946

00:08:18.370 --> 00:08:21.650 So if you have a stage one lung cancer that's

NOTE Confidence: 0.9845946

00:08:21.726 --> 00:08:25.006 more treatable than a stage four lung cancer,

NOTE Confidence: 0.9845946

00:08:25.010 --> 00:08:27.642 and I was wondering if you could talk a

NOTE Confidence: 0.9845946

00:08:27.642 --> 00:08:30.019 little bit about advances that have

NOTE Confidence: 0.9845946

00:08:30.019 --> 00:08:32.479 been made in terms of screening  
NOTE Confidence: 0.9845946

00:08:32.553 --> 00:08:34.968 that have helped us to find these  
NOTE Confidence: 0.98480475

00:08:34.970 --> 00:08:37.998 lung cancers earlier?  
NOTE Confidence: 0.98480475

00:08:38.000 --> 00:08:40.499 Screening is a hot topic now because  
NOTE Confidence: 0.98480475

00:08:40.499 --> 00:08:42.590 the US Preventive Services  
NOTE Confidence: 0.98480475

00:08:42.590 --> 00:08:45.446 Task Force just issued a different  
NOTE Confidence: 0.98480475

00:08:45.446 --> 00:08:47.810 recommendation or it altered their  
NOTE Confidence: 0.98480475

00:08:47.810 --> 00:08:50.498 recommendation on screening for lung cancer.  
NOTE Confidence: 0.98480475

00:08:50.500 --> 00:08:54.379 So previously, if you were aged 55 or older,  
NOTE Confidence: 0.98480475

00:08:54.380 --> 00:08:57.566 or if you had a 30 pack year history  
NOTE Confidence: 0.98480475

00:08:57.566 --> 00:09:00.795 of smoking and that means smoking one  
NOTE Confidence: 0.98480475

00:09:00.795 --> 00:09:04.289 pack per day for roughly 30 years,  
NOTE Confidence: 0.98480475

00:09:04.290 --> 00:09:09.339 then you would be eligible for a low dose  
NOTE Confidence: 0.98480475

00:09:09.340 --> 00:09:12.460 CT scan because you had a higher  
NOTE Confidence: 0.98480475

00:09:12.460 --> 00:09:15.571 risk of lung cancer  
NOTE Confidence: 0.98480475

00:09:15.571 --> 00:09:18.747 and being able to have a screening CT

NOTE Confidence: 0.98480475

00:09:18.750 --> 00:09:21.446 scan allows us to pick up

NOTE Confidence: 0.98480475

00:09:21.446 --> 00:09:23.892 things when they're very small and

NOTE Confidence: 0.98480475

00:09:23.892 --> 00:09:26.911 you don't have any symptoms and often

NOTE Confidence: 0.98480475

00:09:26.911 --> 00:09:29.704 help us to detect lung cancers when

NOTE Confidence: 0.98480475

00:09:29.704 --> 00:09:32.470 they are in a very early stage.

NOTE Confidence: 0.98480475

00:09:32.470 --> 00:09:34.430 So recently in March

00:09:36.000 --> 00:09:38.130 the US Preventive Services Task

NOTE Confidence: 0.98480475

00:09:38.130 --> 00:09:39.834 Force changed that recommendation

NOTE Confidence: 0.98480475

00:09:39.840 --> 00:09:43.256 to drop the age to 50 and for

NOTE Confidence: 0.98480475

00:09:43.256 --> 00:09:45.678 the pack year history to 20.

NOTE Confidence: 0.98480475

00:09:45.680 --> 00:09:49.008 So the idea being, let's expand the

NOTE Confidence: 0.98480475

00:09:49.008 --> 00:09:52.406 population of people that are being screened.

00:09:53.553 --> 00:09:56.220 I think that our insurers

NOTE Confidence: 0.98480475

00:09:56.305 --> 00:10:00.218 are catching up with that but

NOTE Confidence: 0.98480475

00:10:00.218 --> 00:10:01.895 the recommendations

NOTE Confidence: 0.98480475

00:10:01.985 --> 00:10:04.708 have changed and I think that that's

NOTE Confidence: 0.98480475

00:10:04.708 --> 00:10:07.932 going to be very positive in terms  
NOTE Confidence: 0.98480475

00:10:07.932 --> 00:10:11.010 of again being able to detect  
NOTE Confidence: 0.98480475

00:10:11.010 --> 00:10:13.747 lung cancers in earlier stages where they  
NOTE Confidence: 0.98480475

00:10:13.747 --> 00:10:16.531 might be able to undergo local therapy  
NOTE Confidence: 0.98480475

00:10:16.531 --> 00:10:19.620 such as surgery or focused radiation.  
NOTE Confidence: 0.9743017

00:10:20.660 --> 00:10:23.300 So important for people to  
NOTE Confidence: 0.9743017

00:10:23.300 --> 00:10:25.942 get screened because there are so  
NOTE Confidence: 0.9743017

00:10:25.942 --> 00:10:28.348 many advances in terms of treatment.  
NOTE Confidence: 0.9743017

00:10:28.350 --> 00:10:30.480 Just one clarifying question though,  
NOTE Confidence: 0.9743017

00:10:30.480 --> 00:10:33.224 and the other thing that  
NOTE Confidence: 0.9743017

00:10:33.224 --> 00:10:36.458 a lot of people have now done,  
NOTE Confidence: 0.9743017

00:10:36.460 --> 00:10:38.200 especially because we've seen  
NOTE Confidence: 0.9743017

00:10:38.200 --> 00:10:40.810 advances in things like smoking  
NOTE Confidence: 0.9743017

00:10:40.886 --> 00:10:42.856 cessation is to quit smoking.  
NOTE Confidence: 0.9743017

00:10:42.860 --> 00:10:46.028 So let's suppose that you have a 20-25  
NOTE Confidence: 0.9743017

00:10:46.028 --> 00:10:48.837 or thirty pack year history of smoking,



NOTE Confidence: 0.9743017

00:10:48.840 --> 00:10:50.268 but you just quit.

NOTE Confidence: 0.9743017

00:10:50.268 --> 00:10:53.686 You made it a New Year's

NOTE Confidence: 0.9743017

00:10:53.686 --> 00:10:56.880 resolution and you quit maybe a year ago,

NOTE Confidence: 0.9743017

00:10:56.880 --> 00:10:58.336 maybe six months ago.

NOTE Confidence: 0.9743017

00:10:58.336 --> 00:11:00.520 Are you still eligible for screening?

NOTE Confidence: 0.9743017

00:11:00.520 --> 00:11:02.944 Should you still be screened even

NOTE Confidence: 0.9743017

00:11:02.944 --> 00:11:04.922 though now you're officially a

NOTE Confidence: 0.9743017

00:11:04.922 --> 00:11:06.704 non smoker or a former smoker?

NOTE Confidence: 0.98861456

00:11:06.710 --> 00:11:09.139 Yes, if you have a history of

NOTE Confidence: 0.98861456

00:11:09.139 --> 00:11:11.069 smoking that's 25 pack years,

NOTE Confidence: 0.98861456

00:11:11.070 --> 00:11:13.618 even if it was ten years ago,

NOTE Confidence: 0.98861456

00:11:13.620 --> 00:11:15.440 you can still be eligible

NOTE Confidence: 0.98861456

00:11:15.440 --> 00:11:17.260 for this screening.

NOTE Confidence: 0.98861456

00:11:17.260 --> 00:11:20.044 I think it's a really important

NOTE Confidence: 0.98861456

00:11:20.044 --> 00:11:21.900 message to folks that

NOTE Confidence: 0.98861456

00:11:21.900 --> 00:11:26.968 wherever you are in your course of

NOTE Confidence: 0.98861456

00:11:26.970 --> 00:11:28.625 stopping smoking and it's certainly

NOTE Confidence: 0.98861456

00:11:28.625 --> 00:11:30.670 one of the hardest things to do,

NOTE Confidence: 0.98861456

00:11:30.670 --> 00:11:32.265 it's always important to realize that

00:11:34.221 --> 00:11:36.003 stopping or quitting smoking is going

NOTE Confidence: 0.98861456

00:11:36.003 --> 00:11:38.057 to help you and help your lungs.

NOTE Confidence: 0.98861456

00:11:38.060 --> 00:11:41.798 It's going to help your overall

NOTE Confidence: 0.98861456

00:11:41.800 --> 00:11:43.865 health and you're going to do

NOTE Confidence: 0.98861456

00:11:43.865 --> 00:11:46.075 better than if you continue to smoke.

00:11:50.808 --> 00:11:53.159 There is data that even for folks who

NOTE Confidence: 0.98861456

00:11:53.864 --> 00:11:56.328 have smoked a lot over the course

NOTE Confidence: 0.98861456

00:11:56.328 --> 00:11:58.785 and maybe even 2 packs per day.

NOTE Confidence: 0.98861456

00:11:58.790 --> 00:12:00.550 We certainly had

NOTE Confidence: 0.98861456

00:12:00.550 --> 00:12:03.231 in our society a number of years

NOTE Confidence: 0.98861456

00:12:03.231 --> 00:12:05.060 where everybody smoked and that

NOTE Confidence: 0.98861456

00:12:05.060 --> 00:12:06.884 was really sort of run of the mill,

00:12:08.298 --> 00:12:10.410 that was a very common thing,

NOTE Confidence: 0.98861456

00:12:10.410 --> 00:12:12.534 so I think that it's really  
NOTE Confidence: 0.98861456

00:12:12.534 --> 00:12:14.280 important that wherever you are,  
NOTE Confidence: 0.98861456

00:12:14.280 --> 00:12:15.708 if you're a  
NOTE Confidence: 0.98861456

00:12:15.708 --> 00:12:20.015 one pack a day smoker, 2 pack a day  
00:12:21.720 --> 00:12:25.059 or you smoke a couple of cigarettes a week,  
NOTE Confidence: 0.98861456

00:12:25.060 --> 00:12:27.762 I think that stopping smoking  
NOTE Confidence: 0.98861456

00:12:27.762 --> 00:12:31.139 can really help you and we do have a  
NOTE Confidence: 0.98861456

00:12:31.139 --> 00:12:33.219 smoking cessation clinic here at Yale  
NOTE Confidence: 0.98861456

00:12:33.220 --> 00:12:34.522 that's incredibly successful.  
NOTE Confidence: 0.98861456

00:12:34.522 --> 00:12:37.560 There have been so many advances that  
NOTE Confidence: 0.98861456

00:12:37.630 --> 00:12:39.894 I can't even keep track.  
NOTE Confidence: 0.98861456

00:12:39.900 --> 00:12:43.239 It was just the patch and the lozenge.  
NOTE Confidence: 0.98861456

00:12:43.240 --> 00:12:45.586 And now there's so many different  
NOTE Confidence: 0.98861456

00:12:45.586 --> 00:12:47.812 options to help people stop and  
NOTE Confidence: 0.98861456

00:12:47.812 --> 00:12:50.156 and being able to do some of this  
NOTE Confidence: 0.98861456

00:12:50.232 --> 00:12:52.468 through Televisit consultation  
NOTE Confidence: 0.98861456

00:12:52.470 --> 00:12:54.750 either through video or phone,  
00:12:56.650 --> 00:12:59.405 can allow people to access this  
NOTE Confidence: 0.98861456  
00:12:59.405 --> 00:13:02.160 kind of help and support  
NOTE Confidence: 0.98861456  
00:13:02.160 --> 00:13:03.710 to really improve their health,  
00:13:04.320 --> 00:13:06.348 It is important to quit smoking and talk  
NOTE Confidence: 0.98372304  
00:13:06.348 --> 00:13:08.587 to your doctor or call a quit  
NOTE Confidence: 0.98372304  
00:13:08.587 --> 00:13:10.498 line to get the help you need.  
NOTE Confidence: 0.98372304  
00:13:10.500 --> 00:13:12.240 We're going to take a short  
NOTE Confidence: 0.98372304  
00:13:12.240 --> 00:13:13.900 break for a medical minute.  
NOTE Confidence: 0.98372304  
00:13:13.900 --> 00:13:16.014 Please stay tuned to learn more about  
NOTE Confidence: 0.98372304  
00:13:16.014 --> 00:13:18.229 small cell lung cancer with my guest  
NOTE Confidence: 0.98372304  
00:13:18.230 --> 00:13:19.160 Doctor Anne Chiang.  
NOTE Confidence: 0.8771455  
00:13:19.890 --> 00:13:22.475 Funding for Yale Cancer Answers  
NOTE Confidence: 0.8771455  
00:13:22.475 --> 00:13:25.563 comes from AstraZeneca, working to  
NOTE Confidence: 0.8771455  
00:13:25.563 --> 00:13:28.440 eliminate cancer as a cause of death.  
NOTE Confidence: 0.8771455  
00:13:28.440 --> 00:13:32.308 Learn more at [astrazeneca-us.com](http://astrazeneca-us.com).  
NOTE Confidence: 0.8771455  
00:13:32.310 --> 00:13:33.940 It's estimated that over 240,000

NOTE Confidence: 0.8771455

00:13:33.940 --> 00:13:36.440 men in the US will be diagnosed

NOTE Confidence: 0.8771455

00:13:36.440 --> 00:13:38.450 with prostate cancer this year,

NOTE Confidence: 0.8771455

00:13:38.450 --> 00:13:40.616 with over 3000 new cases being

NOTE Confidence: 0.8771455

00:13:40.616 --> 00:13:42.060 identified here in Connecticut,

NOTE Confidence: 0.8771455

00:13:42.060 --> 00:13:44.232 one in eight American men will

NOTE Confidence: 0.8771455

00:13:44.232 --> 00:13:45.680 develop prostate cancer in

NOTE Confidence: 0.8771455

00:13:45.752 --> 00:13:47.467 the course of his lifetime.

NOTE Confidence: 0.8771455

00:13:47.470 --> 00:13:49.350 Major advances in the detection

NOTE Confidence: 0.8771455

00:13:49.350 --> 00:13:51.230 and treatment of prostate cancer

NOTE Confidence: 0.8771455

00:13:51.296 --> 00:13:52.660 have dramatically decreased the

NOTE Confidence: 0.8771455

00:13:52.660 --> 00:13:55.121 number of men who die from the

NOTE Confidence: 0.8771455

00:13:55.121 --> 00:13:56.886 disease. Screening can be performed

NOTE Confidence: 0.8771455

00:13:56.886 --> 00:13:59.080 quickly and easily in a physician's

NOTE Confidence: 0.8771455

00:13:59.080 --> 00:14:01.030 office using two simple tests.

NOTE Confidence: 0.8771455

00:14:01.030 --> 00:14:04.019 A physical exam and a blood test.

NOTE Confidence: 0.8771455

00:14:04.020 --> 00:14:06.535 Clinical trials are currently underway  
NOTE Confidence: 0.8771455

00:14:06.535 --> 00:14:08.547 at federally designated Comprehensive  
NOTE Confidence: 0.8771455

00:14:08.547 --> 00:14:10.746 cancer centers such as Yale Cancer  
NOTE Confidence: 0.8771455

00:14:10.746 --> 00:14:12.990 Center and Smilow Cancer Hospital,  
NOTE Confidence: 0.8771455

00:14:12.990 --> 00:14:15.120 where doctors are also using  
NOTE Confidence: 0.8771455

00:14:15.120 --> 00:14:16.398 the Artemis machine,  
NOTE Confidence: 0.8771455

00:14:16.400 --> 00:14:18.108 which enables targeted biopsies  
NOTE Confidence: 0.8771455

00:14:18.108 --> 00:14:19.389 to be performed.  
NOTE Confidence: 0.8771455

00:14:19.390 --> 00:14:22.065 More information is available at  
NOTE Confidence: 0.8771455

00:14:22.065 --> 00:14:23.670 yalecancercenter.org. You're listening  
NOTE Confidence: 0.8771455

00:14:23.670 --> 00:14:25.629 to Connecticut Public Radio.  
NOTE Confidence: 0.8771455

00:14:25.630 --> 00:14:25.990 Welcome  
NOTE Confidence: 0.9778411

00:14:25.990 --> 00:14:27.770 back to Yale Cancer Answers.  
NOTE Confidence: 0.9778411

00:14:27.770 --> 00:14:30.641 This is doctor Anees Chagpar and I'm  
NOTE Confidence: 0.9778411

00:14:30.641 --> 00:14:33.455 joined tonight by my guest Doctor Anne Chiang.  
NOTE Confidence: 0.9778411

00:14:33.460 --> 00:14:35.072 We're discussing recent treatment

NOTE Confidence: 0.9778411

00:14:35.072 --> 00:14:37.490 advances in small cell lung cancer

NOTE Confidence: 0.9778411

00:14:37.554 --> 00:14:39.626 and right before the break you

NOTE Confidence: 0.9778411

00:14:39.626 --> 00:14:42.004 were telling us about the fact that

NOTE Confidence: 0.9778411

00:14:42.004 --> 00:14:43.784 there have been really exciting

NOTE Confidence: 0.9778411

00:14:43.784 --> 00:14:46.348 advances both in small cell as well

NOTE Confidence: 0.9778411

00:14:46.348 --> 00:14:49.408 as in non small cell lung cancer

NOTE Confidence: 0.9778411

00:14:49.410 --> 00:14:51.150 that have really affected outcomes

NOTE Confidence: 0.9778411

00:14:51.150 --> 00:14:52.890 for patients with these diseases.

NOTE Confidence: 0.9778411

00:14:52.890 --> 00:14:55.548 So tell us more about some

NOTE Confidence: 0.9778411

00:14:55.548 --> 00:14:57.320 of these exciting advances.

00:14:58.110 --> 00:15:00.480 I'd love to. This is a really exciting

NOTE Confidence: 0.9476049

00:15:00.480 --> 00:15:02.060 time for lung cancer.

NOTE Confidence: 0.9476049

00:15:02.060 --> 00:15:05.615 I remember back to when I started at Yale,

NOTE Confidence: 0.9476049

00:15:05.620 --> 00:15:07.990 which was almost 10 years ago,

NOTE Confidence: 0.9476049

00:15:07.990 --> 00:15:11.772 and I put my first patient or one of my first

NOTE Confidence: 0.9476049

00:15:11.772 --> 00:15:15.097 patients on a clinical trial and at that time

NOTE Confidence: 0.9476049

00:15:15.100 --> 00:15:17.858 the standard of care was chemotherapy,

NOTE Confidence: 0.9476049

00:15:17.860 --> 00:15:20.902 and in this case we were looking at treating

NOTE Confidence: 0.9476049

00:15:20.902 --> 00:15:23.114 this patient with immunotherapy

NOTE Confidence: 0.9476049

00:15:23.114 --> 00:15:26.160 and not doing chemotherapy first.

NOTE Confidence: 0.9476049

00:15:26.160 --> 00:15:28.220 And he did extremely well.

NOTE Confidence: 0.9476049

00:15:28.220 --> 00:15:31.172 And in fact, I saw him a couple of

NOTE Confidence: 0.9476049

00:15:31.172 --> 00:15:34.281 weeks ago and he has been off trial

NOTE Confidence: 0.9476049

00:15:34.281 --> 00:15:37.462 with no treatment for the past eight

NOTE Confidence: 0.9476049

00:15:37.462 --> 00:15:40.366 years and he is contemplating retirement

NOTE Confidence: 0.9476049

00:15:40.370 --> 00:15:42.800 and he's doing just incredibly well.

00:15:44.464 --> 00:15:47.829 And that still sends shivers down my spine and I

NOTE Confidence: 0.9476049

00:15:47.829 --> 00:15:50.580 know that it's not every single patient

NOTE Confidence: 0.9476049

00:15:50.580 --> 00:15:53.325 that has that kind of result.

NOTE Confidence: 0.9476049

00:15:53.330 --> 00:15:56.426 But I think the more that we can learn

NOTE Confidence: 0.9476049

00:15:56.426 --> 00:15:59.100 through studying and through biology,

NOTE Confidence: 0.9476049

00:15:59.100 --> 00:16:00.030 through clinical trials,



NOTE Confidence: 0.9476049

00:16:00.030 --> 00:16:02.825 our aim is really to do the best for

NOTE Confidence: 0.9476049

00:16:02.825 --> 00:16:05.065 our patients and push that edge as far

NOTE Confidence: 0.9476049

00:16:05.131 --> 00:16:07.331 as it can go in terms of how they do.

NOTE Confidence: 0.9476049

00:16:57.840 --> 00:17:02.952 One of the trials that I'm a national

NOTE Confidence: 0.9476049

00:17:02.960 --> 00:17:04.816 Investigator on spearheading

NOTE Confidence: 0.9476049

00:17:04.816 --> 00:17:08.140 is a trial called Insigna

NOTE Confidence: 0.9476049

00:17:08.140 --> 00:17:10.966 and it's run through our cooperative groups,

NOTE Confidence: 0.9476049

00:17:10.970 --> 00:17:14.458 that's groups that

NOTE Confidence: 0.9476049

00:17:14.460 --> 00:17:16.950 help to do research, clinical

NOTE Confidence: 0.9476049

00:17:16.950 --> 00:17:18.942 research in the communities.

NOTE Confidence: 0.9476049

00:17:18.950 --> 00:17:21.938 This trial is open at about

NOTE Confidence: 0.9476049

00:17:21.938 --> 00:17:23.432 850 different centers,

NOTE Confidence: 0.9476049

00:17:23.440 --> 00:17:26.896 we're looking for 850 patients to

NOTE Confidence: 0.9476049

00:17:26.896 --> 00:17:30.978 enroll on this trial and we're trying

NOTE Confidence: 0.9476049

00:17:30.978 --> 00:17:35.400 to understand for PD L1 positive or for

NOTE Confidence: 0.9476049

00:17:35.400 --> 00:17:38.202 patients who have this marker of  
NOTE Confidence: 0.9476049

00:17:38.202 --> 00:17:42.393 PDL one if they are treated with  
NOTE Confidence: 0.9476049

00:17:42.393 --> 00:17:45.353 either immunotherapy upfront or  
NOTE Confidence: 0.9476049

00:17:45.353 --> 00:17:48.940 immunotherapy combined with chemotherapy,  
NOTE Confidence: 0.9476049

00:17:48.940 --> 00:17:50.710 which group will do better  
NOTE Confidence: 0.9476049

00:17:50.710 --> 00:17:52.699 and then with those patients  
NOTE Confidence: 0.9476049

00:17:52.699 --> 00:17:54.559 who are treated with immunotherapy  
NOTE Confidence: 0.9476049

00:17:54.559 --> 00:17:56.270 alone if they progress,  
NOTE Confidence: 0.9476049

00:17:56.270 --> 00:17:58.950 can we then add chemo to the immunotherapy  
NOTE Confidence: 0.9476049

00:17:58.950 --> 00:18:01.500 to sort of boost the immune system?  
NOTE Confidence: 0.9476049

00:18:01.500 --> 00:18:03.593 And at the same time we're going  
NOTE Confidence: 0.9476049

00:18:03.593 --> 00:18:05.863 to be using the tissue and the  
NOTE Confidence: 0.9476049

00:18:05.863 --> 00:18:08.705 science that we can gather to try to  
NOTE Confidence: 0.9476049

00:18:08.705 --> 00:18:11.147 understand if there are biomarkers or  
NOTE Confidence: 0.9476049

00:18:11.147 --> 00:18:13.418 signatures that can help us understand  
NOTE Confidence: 0.9476049

00:18:13.418 --> 00:18:15.590 which people will benefit and which

NOTE Confidence: 0.9476049

00:18:15.654 --> 00:18:17.556 people have less of a benefit.

NOTE Confidence: 0.9476049

00:18:17.560 --> 00:18:20.409 that's a really exciting trial that is ongoing,

00:18:20.744 --> 00:18:23.750 we're about 40% of the way through on that,

NOTE Confidence: 0.9476049

00:18:23.750 --> 00:18:26.414 and I think that you know there are

NOTE Confidence: 0.9819967

00:18:26.420 --> 00:18:28.814 thousands of

NOTE Confidence: 0.9819967

00:18:28.814 --> 00:18:30.429 immunotherapy trials in cancer right now,

NOTE Confidence: 0.9819967

00:18:30.430 --> 00:18:32.902 but I think this is one that

NOTE Confidence: 0.9819967

00:18:32.902 --> 00:18:34.998 will really help us to understand

NOTE Confidence: 0.9819967

00:18:34.998 --> 00:18:37.104 what's the right thing to do

NOTE Confidence: 0.9819967

00:18:37.110 --> 00:18:40.116 up front.

NOTE Confidence: 0.9819967

00:18:40.120 --> 00:18:42.240 We talk on this show

NOTE Confidence: 0.9819967

00:18:42.240 --> 00:18:44.458 all the time about immunotherapy.

NOTE Confidence: 0.9819967

00:18:44.460 --> 00:18:46.335 And it sounds like particularly

NOTE Confidence: 0.9819967

00:18:46.335 --> 00:18:48.598 giving your anecdotal case with your

NOTE Confidence: 0.9819967

00:18:48.598 --> 00:18:50.536 patient who's now nine years out,

NOTE Confidence: 0.9819967

00:18:50.540 --> 00:18:52.072 it sounds like immunotherapy

NOTE Confidence: 0.9819967

00:18:52.072 --> 00:18:54.819 really does have a role or a

NOTE Confidence: 0.9819967

00:18:54.819 --> 00:18:56.679 potential role in lung cancer.

NOTE Confidence: 0.9819967

00:18:56.680 --> 00:18:57.751 With your trial,

NOTE Confidence: 0.9819967

00:18:57.751 --> 00:19:01.290 is it open to non small cell lung cancer,

NOTE Confidence: 0.9819967

00:19:01.290 --> 00:19:04.354 small cell lung cancer, or any lung cancer?

NOTE Confidence: 0.953572

00:19:05.200 --> 00:19:08.737 So that trial is open for non small cell

NOTE Confidence: 0.953572

00:19:08.737 --> 00:19:12.643 lung cancer and it's for patients who have

NOTE Confidence: 0.953572

00:19:12.643 --> 00:19:16.252 stage four disease and who have a tumor

NOTE Confidence: 0.953572

00:19:16.252 --> 00:19:19.687 that has a positive marker for PDL 1,

NOTE Confidence: 0.953572

00:19:19.687 --> 00:19:22.441 which is an important molecule

NOTE Confidence: 0.953572

00:19:22.441 --> 00:19:26.130 in the signaling for immunotherapy

NOTE Confidence: 0.953572

00:19:26.130 --> 00:19:29.567 in terms of small cell lung cancer,

NOTE Confidence: 0.953572

00:19:29.570 --> 00:19:32.216 we have a number of clinical

NOTE Confidence: 0.953572

00:19:32.216 --> 00:19:34.970 trials also that are available,

NOTE Confidence: 0.953572

00:19:34.970 --> 00:19:39.425 and I think that the story for

NOTE Confidence: 0.953572

00:19:39.425 --> 00:19:43.755 small cell is that chemo plus immunotherapy

NOTE Confidence: 0.953572

00:19:43.755 --> 00:19:47.928 has been

NOTE Confidence: 0.953572

00:19:47.930 --> 00:19:49.845 approved in

NOTE Confidence: 0.953572

00:19:49.845 --> 00:19:51.760 the past couple of years.

NOTE Confidence: 0.953572

00:19:51.760 --> 00:19:53.675 That's how the landscape

NOTE Confidence: 0.953572

00:19:53.675 --> 00:19:55.590 of small cell has changed.

NOTE Confidence: 0.953572

00:19:55.590 --> 00:19:58.062 It was just previously treated with

NOTE Confidence: 0.953572

00:19:58.062 --> 00:20:00.790 chemotherapy and just in the past couple

NOTE Confidence: 0.953572

00:20:00.790 --> 00:20:03.630 of years we now treat with chemo,

NOTE Confidence: 0.953572

00:20:03.630 --> 00:20:04.396 plus immunotherapy.

NOTE Confidence: 0.953572

00:20:04.396 --> 00:20:07.460 And then the question is what happens after?

NOTE Confidence: 0.953572

00:20:07.460 --> 00:20:09.380 If that doesn't work anymore?

NOTE Confidence: 0.953572

00:20:09.380 --> 00:20:12.584 And I think we have a number of different

NOTE Confidence: 0.953572

00:20:12.584 --> 00:20:15.505 clinical trials that are available for that,

NOTE Confidence: 0.953572

00:20:15.510 --> 00:20:17.845 and we're trying to really

NOTE Confidence: 0.953572

00:20:17.845 --> 00:20:19.713 understand the biology behind

00:20:20.486 --> 00:20:23.167 why people respond or why they

NOTE Confidence: 0.953572

00:20:23.167 --> 00:20:26.069 don't respond and in small cell it's

NOTE Confidence: 0.953572

00:20:26.069 --> 00:20:28.247 typically a tumor where there's

NOTE Confidence: 0.953572

00:20:28.247 --> 00:20:30.627 less tissue available to test,

NOTE Confidence: 0.953572

00:20:30.630 --> 00:20:32.700 and so we've put together

NOTE Confidence: 0.953572

00:20:32.700 --> 00:20:34.966 a really great team here for

NOTE Confidence: 0.953572

00:20:34.966 --> 00:20:36.996 studying the science that includes

00:20:39.170 --> 00:20:41.095 PhD scientists working

NOTE Confidence: 0.953572

00:20:41.095 --> 00:20:43.819 on lung cancer as well as myself.

NOTE Confidence: 0.953572

00:20:43.820 --> 00:20:45.017 And, you know,

NOTE Confidence: 0.953572

00:20:45.017 --> 00:20:49.054 I think it would be too hard to go into

NOTE Confidence: 0.953572

00:20:49.054 --> 00:20:52.280 all of the details here,

NOTE Confidence: 0.953572

00:20:52.280 --> 00:20:54.772 but I think we're going to learn

NOTE Confidence: 0.953572

00:20:54.772 --> 00:20:57.825 a lot about how we can explore the

NOTE Confidence: 0.953572

00:20:57.825 --> 00:21:00.274 biology of small cell in order

NOTE Confidence: 0.953572

00:21:00.274 --> 00:21:02.579 to find out vulnerabilities in

NOTE Confidence: 0.953572

00:21:02.579 --> 00:21:04.835 order to target this disease.

00:21:05.240 --> 00:21:07.265 It sounds like you

NOTE Confidence: 0.9855222

00:21:07.270 --> 00:21:10.098 know, across the board in lung cancer,

NOTE Confidence: 0.9855222

00:21:10.100 --> 00:21:12.494 whether you've got small cell or

NOTE Confidence: 0.9855222

00:21:12.494 --> 00:21:14.960 whether you've got non small cell.

NOTE Confidence: 0.9855222

00:21:14.960 --> 00:21:17.564 It sounds like immunotherapy is increasingly

NOTE Confidence: 0.9855222

00:21:17.564 --> 00:21:20.496 becoming part of the arsenal that your

NOTE Confidence: 0.9855222

00:21:20.496 --> 00:21:23.114 doctor may use to treat your disease.

NOTE Confidence: 0.9855222

00:21:23.120 --> 00:21:26.011 And that really has made a

NOTE Confidence: 0.9855222

00:21:26.011 --> 00:21:28.920 difference now, and is that the case

NOTE Confidence: 0.9855222

00:21:28.920 --> 00:21:31.789 only for people who express PDL one?

NOTE Confidence: 0.9855222

00:21:31.790 --> 00:21:35.006 We've talked on this show before

NOTE Confidence: 0.9855222

00:21:35.006 --> 00:21:37.577 about checkpoint inhibitors like PDL one.

NOTE Confidence: 0.9855222

00:21:37.580 --> 00:21:40.324 So is it the case that people who

NOTE Confidence: 0.9855222

00:21:40.324 --> 00:21:42.429 present with metastatic lung cancer,

NOTE Confidence: 0.9855222

00:21:42.429 --> 00:21:45.558 stage four, that they should be having

NOTE Confidence: 0.9855222

00:21:45.641 --> 00:21:48.233 their tumors checked for that marker  
NOTE Confidence: 0.9855222

00:21:48.233 --> 00:21:50.465 and then treated with immunotherapy  
NOTE Confidence: 0.9855222

00:21:50.465 --> 00:21:53.435 or is immunotherapy something that  
NOTE Confidence: 0.9855222

00:21:53.440 --> 00:21:56.597 your doctor may use regardless?  
NOTE Confidence: 0.95391256

00:21:56.600 --> 00:22:00.569 For non small cell lung cancer you  
NOTE Confidence: 0.95391256

00:22:00.569 --> 00:22:03.808 definitely need to have your tumor checked.  
NOTE Confidence: 0.95391256

00:22:03.810 --> 00:22:06.967 If you have high levels of PDL  
NOTE Confidence: 0.95391256

00:22:06.967 --> 00:22:09.990 one so greater than 50% then you  
NOTE Confidence: 0.95391256

00:22:09.990 --> 00:22:12.650 may be eligible to be treated  
NOTE Confidence: 0.95391256

00:22:12.650 --> 00:22:15.090 with just immunotherapy alone.  
NOTE Confidence: 0.95391256

00:22:15.090 --> 00:22:17.880 Otherwise you really need to be  
NOTE Confidence: 0.95391256

00:22:17.880 --> 00:22:20.790 treated with a combination of chemo  
NOTE Confidence: 0.95391256

00:22:20.790 --> 00:22:23.195 and immunotherapy. For small cell, it is different.  
00:22:24.595 --> 00:22:26.455 There's very little PDL one  
NOTE Confidence: 0.95391256

00:22:26.460 --> 00:22:29.226 expression to start with and  
NOTE Confidence: 0.95391256

00:22:29.226 --> 00:22:32.500 for the trials that have been done,  
NOTE Confidence: 0.95391256



00:22:32.500 --> 00:22:37.396 they've looked at all comers  
NOTE Confidence: 0.95391256

00:22:37.400 --> 00:22:39.983 so it doesn't matter if you have PDL one  
NOTE Confidence: 0.95391256

00:22:39.983 --> 00:22:42.244 expression or not because it's so low anyway,  
NOTE Confidence: 0.95391256

00:22:42.250 --> 00:22:44.168 but all of the small cell patients  
NOTE Confidence: 0.95391256

00:22:44.168 --> 00:22:45.634 that are diagnosed are treated  
NOTE Confidence: 0.95391256

00:22:45.634 --> 00:22:46.806 with chemo plus immuno.  
NOTE Confidence: 0.92563957

00:22:48.470 --> 00:22:51.302 It is interesting how that kind  
NOTE Confidence: 0.92563957

00:22:51.302 --> 00:22:54.000 of plays out between the  
NOTE Confidence: 0.92563957

00:22:54.000 --> 00:22:55.568 two disease types.  
NOTE Confidence: 0.92563957

00:22:55.568 --> 00:22:59.623 So tell us a little bit more about other  
NOTE Confidence: 0.92563957

00:22:59.623 --> 00:23:02.308 advances that have occurred?  
NOTE Confidence: 0.92563957

00:23:02.308 --> 00:23:05.651 Before the break you were telling us  
NOTE Confidence: 0.92563957

00:23:05.651 --> 00:23:08.291 about an alphabet soup of markers,  
NOTE Confidence: 0.92563957

00:23:08.291 --> 00:23:11.057 things like EGFR and others.  
NOTE Confidence: 0.92563957

00:23:11.060 --> 00:23:12.440 ALK, for example.  
NOTE Confidence: 0.92563957

00:23:12.440 --> 00:23:15.670 How have these really changed the landscape?

NOTE Confidence: 0.92563957

00:23:15.670 --> 00:23:17.656 Are oncologists

NOTE Confidence: 0.92563957

00:23:17.656 --> 00:23:21.387 using them to kind of target their

NOTE Confidence: 0.92563957

00:23:21.387 --> 00:23:24.937 therapies to personalize things as it were?

NOTE Confidence: 0.87697756

00:23:26.770 --> 00:23:29.110 Great question. So as I was

NOTE Confidence: 0.87697756

00:23:29.110 --> 00:23:31.200 talking about before the break,

NOTE Confidence: 0.87697756

00:23:31.200 --> 00:23:33.573 if you for example have an EGFR

NOTE Confidence: 0.87697756

00:23:33.573 --> 00:23:36.112 mutation which EGFR stands for

NOTE Confidence: 0.87697756

00:23:36.112 --> 00:23:38.048 epidermal growth factor receptor,

NOTE Confidence: 0.87697756

00:23:38.050 --> 00:23:40.826 I think that the key is that

NOTE Confidence: 0.87697756

00:23:40.826 --> 00:23:43.441 what we found over the years is

NOTE Confidence: 0.87697756

00:23:43.441 --> 00:23:46.312 that if you have a mutation in

NOTE Confidence: 0.87697756

00:23:46.312 --> 00:23:49.180 that you really respond to

NOTE Confidence: 0.87697756

00:23:49.180 --> 00:23:53.008 taking that EGFR directed therapy.

NOTE Confidence: 0.87697756

00:23:53.010 --> 00:23:54.183 In this case,

NOTE Confidence: 0.87697756

00:23:54.183 --> 00:23:56.529 it's a drug called osimertinib

00:23:58.875 --> 00:24:01.550 and you should do that off the bat

NOTE Confidence: 0.87697756

00:24:01.550 --> 00:24:03.704 if you have stage four disease.

NOTE Confidence: 0.87697756

00:24:03.710 --> 00:24:06.279 If you have stage one disease or

NOTE Confidence: 0.87697756

00:24:06.279 --> 00:24:09.013 stage two disease or you've had or

NOTE Confidence: 0.87697756

00:24:09.013 --> 00:24:11.347 stage three that you've had surgery,

NOTE Confidence: 0.87697756

00:24:11.350 --> 00:24:14.254 there has been a very new advance in

NOTE Confidence: 0.87697756

00:24:14.254 --> 00:24:17.040 the past year and it was

NOTE Confidence: 0.87697756

00:24:17.040 --> 00:24:19.750 led by Doctor Roy Herbst of Yale,

NOTE Confidence: 0.87697756

00:24:19.750 --> 00:24:21.695 our team that basically

NOTE Confidence: 0.87697756

00:24:21.695 --> 00:24:23.640 says that after you

NOTE Confidence: 0.87697756

00:24:23.640 --> 00:24:25.460 have that surgery,

NOTE Confidence: 0.87697756

00:24:25.460 --> 00:24:28.008 you benefit from taking that oral therapy.

NOTE Confidence: 0.87697756

00:24:32.380 --> 00:24:34.462 And I think it's important also

NOTE Confidence: 0.87697756

00:24:34.462 --> 00:24:36.380 to mention that these trials,

NOTE Confidence: 0.87697756

00:24:36.380 --> 00:24:38.200 such as the ADURO trial,

NOTE Confidence: 0.87697756

00:24:38.200 --> 00:24:40.370 were offered not only in

NOTE Confidence: 0.87697756

00:24:40.370 --> 00:24:42.929 our main academic campus,  
NOTE Confidence: 0.87697756

00:24:42.930 --> 00:24:43.881 in New Haven,  
NOTE Confidence: 0.87697756

00:24:43.881 --> 00:24:46.100 but also in all of our Smilow  
NOTE Confidence: 0.87697756

00:24:46.176 --> 00:24:48.386 care centers across the state.  
NOTE Confidence: 0.87697756

00:24:48.390 --> 00:24:51.294 And we have 15 of them,  
NOTE Confidence: 0.87697756

00:24:51.300 --> 00:24:53.826 so we've been able to  
NOTE Confidence: 0.87697756

00:24:53.830 --> 00:24:57.365 allow patients who are in  
NOTE Confidence: 0.87697756

00:24:57.370 --> 00:24:59.800 all parts of the state participate  
NOTE Confidence: 0.87697756

00:24:59.800 --> 00:25:01.996 in these types of clinical  
NOTE Confidence: 0.87697756

00:25:01.996 --> 00:25:03.988 trials that can really,  
NOTE Confidence: 0.87697756

00:25:03.990 --> 00:25:06.030 really give access to cutting  
NOTE Confidence: 0.87697756

00:25:06.030 --> 00:25:09.116 edge drugs or to help to advance  
NOTE Confidence: 0.87697756

00:25:09.116 --> 00:25:11.036 science for all patients.  
NOTE Confidence: 0.9865072

00:25:11.040 --> 00:25:14.127 And that's the case across the  
NOTE Confidence: 0.9865072

00:25:14.127 --> 00:25:16.605 country, that many of these  
NOTE Confidence: 0.9865072

00:25:16.605 --> 00:25:19.184 large trials are offered at

NOTE Confidence: 0.9865072

00:25:19.184 --> 00:25:21.992 academic centers that are offered at

NOTE Confidence: 0.9865072

00:25:21.992 --> 00:25:24.884 community centers and that really people

NOTE Confidence: 0.9865072

00:25:24.884 --> 00:25:27.698 should talk to their doctor because

NOTE Confidence: 0.9865072

00:25:27.700 --> 00:25:29.302 trials, whether they were led by

NOTE Confidence: 0.9865072

00:25:29.302 --> 00:25:31.587 Yale or led by investigators at

NOTE Confidence: 0.9865072

00:25:31.587 --> 00:25:33.507 other centers are often available

NOTE Confidence: 0.9865072

00:25:33.507 --> 00:25:35.380 for patients across the nation.

NOTE Confidence: 0.9865072

00:25:35.380 --> 00:25:36.382 Isn't that right?

NOTE Confidence: 0.9865072

00:25:36.382 --> 00:25:37.718 Absolutely, and I think

NOTE Confidence: 0.95784825

00:25:37.720 --> 00:25:39.953 that you know, in the past clinical

NOTE Confidence: 0.95784825

00:25:39.953 --> 00:25:42.066 trials you though, Gee,

NOTE Confidence: 0.95784825

00:25:42.066 --> 00:25:44.754 I will try a clinical trial if everything

NOTE Confidence: 0.95784825

00:25:44.754 --> 00:25:47.740 else has failed and it's not working for me,

NOTE Confidence: 0.95784825

00:25:47.740 --> 00:25:50.078 so I'm going to try something experimental.

NOTE Confidence: 0.95784825

00:25:50.080 --> 00:25:52.078 Now that paradigm is completely shifted,

NOTE Confidence: 0.95784825

00:25:52.080 --> 00:25:54.760 so it may be that you have your  
NOTE Confidence: 0.95784825

00:25:54.760 --> 00:25:56.275 first treatment that you're  
NOTE Confidence: 0.95784825

00:25:56.275 --> 00:25:58.210 going on a clinical trial.  
NOTE Confidence: 0.95784825

00:25:58.210 --> 00:26:00.466 And it really is to try and  
NOTE Confidence: 0.95784825

00:26:00.466 --> 00:26:02.714 better the outcomes for each of  
NOTE Confidence: 0.95784825

00:26:02.714 --> 00:26:04.729 the recommended treatments  
NOTE Confidence: 0.95784825

00:26:04.729 --> 00:26:07.019 that are recommended approaches,  
NOTE Confidence: 0.95784825

00:26:07.020 --> 00:26:09.318 standard approaches so that we can  
NOTE Confidence: 0.95784825

00:26:09.320 --> 00:26:11.516 push the envelope and  
NOTE Confidence: 0.95784825

00:26:11.516 --> 00:26:14.300 really do the best for our patients.  
NOTE Confidence: 0.8969215

00:26:15.600 --> 00:26:18.365 And in terms of these targeted therapies,  
NOTE Confidence: 0.8969215

00:26:18.370 --> 00:26:20.710 whether it's a  
NOTE Confidence: 0.8969215

00:26:20.710 --> 00:26:22.730 drug that's targeting an EGFR,  
NOTE Confidence: 0.8969215

00:26:22.730 --> 00:26:25.502 whether it's a drug targeting ALK or  
NOTE Confidence: 0.8969215

00:26:25.502 --> 00:26:27.880 whatever, this is across the board.  
NOTE Confidence: 0.8969215

00:26:27.880 --> 00:26:29.860 Is that right between small

NOTE Confidence: 0.8969215

00:26:29.860 --> 00:26:31.840 cell and non small cell?

NOTE Confidence: 0.8969215

00:26:31.840 --> 00:26:34.828 And so the question that I have is if

NOTE Confidence: 0.8969215

00:26:34.828 --> 00:26:37.574 that is the case then for everyone

NOTE Confidence: 0.8969215

00:26:37.574 --> 00:26:40.559 who has lung cancer it sounds like

NOTE Confidence: 0.8969215

00:26:40.559 --> 00:26:43.265 they should have their tumor profiled

NOTE Confidence: 0.8969215

00:26:43.265 --> 00:26:45.760 with regards to all of these

NOTE Confidence: 0.8969215

00:26:45.760 --> 00:26:48.178 mutations so that their doctor can

NOTE Confidence: 0.8969215

00:26:48.178 --> 00:26:50.562 better inform what might be the

NOTE Confidence: 0.8969215

00:26:50.562 --> 00:26:52.650 therapy that works best for them.

NOTE Confidence: 0.8969215

00:26:52.650 --> 00:26:53.802 Is that right?

NOTE Confidence: 0.8969215

00:26:53.802 --> 00:26:55.720 So the the mutations that

NOTE Confidence: 0.9292635

00:26:55.720 --> 00:26:58.680 I talked about EGFR and so forth are

NOTE Confidence: 0.9292635

00:26:58.680 --> 00:27:01.850 really much more common in non small cells.

NOTE Confidence: 0.9292635

00:27:01.850 --> 00:27:04.860 So we do as a matter of fact test all

NOTE Confidence: 0.9292635

00:27:04.947 --> 00:27:07.509 of our non small cell samples

NOTE Confidence: 0.9292635

00:27:07.509 --> 00:27:10.551 and look for  
NOTE Confidence: 0.9292635

00:27:10.551 --> 00:27:13.335 these mutations. For small  
NOTE Confidence: 0.9292635

00:27:13.340 --> 00:27:15.626 cell it's a little bit different.  
NOTE Confidence: 0.9292635

00:27:15.630 --> 00:27:19.760 We don't have typically  
NOTE Confidence: 0.9292635

00:27:19.760 --> 00:27:22.090 mutations in EGFR or ALK,  
NOTE Confidence: 0.9292635

00:27:22.090 --> 00:27:23.954 specifically for small cell.  
NOTE Confidence: 0.9292635

00:27:23.954 --> 00:27:26.248 However, because we still think  
NOTE Confidence: 0.9292635

00:27:26.248 --> 00:27:28.990 that it's important to test for  
NOTE Confidence: 0.9292635

00:27:29.083 --> 00:27:31.879 those and typically not up front,  
NOTE Confidence: 0.9292635

00:27:31.880 --> 00:27:35.135 in other words, when you're first diagnosed,  
NOTE Confidence: 0.9292635

00:27:35.140 --> 00:27:37.930 but if you are treated with  
NOTE Confidence: 0.9292635

00:27:37.930 --> 00:27:39.325 chemo and immunotherapy,  
NOTE Confidence: 0.9292635

00:27:39.330 --> 00:27:42.264 and perhaps it typically works very  
NOTE Confidence: 0.9292635

00:27:42.264 --> 00:27:46.492 well in 80 to 90% of the cases  
NOTE Confidence: 0.9292635

00:27:46.492 --> 00:27:50.160 you have a very good response  
NOTE Confidence: 0.9292635

00:27:50.160 --> 00:27:52.864 but that disease may come back when



NOTE Confidence: 0.9292635

00:27:52.864 --> 00:27:55.467 you have stage four disease,

NOTE Confidence: 0.9292635

00:27:55.470 --> 00:27:57.678 it's typically not something that you're

NOTE Confidence: 0.9292635

00:27:57.678 --> 00:28:00.085 going to cure because you

NOTE Confidence: 0.9292635

00:28:00.085 --> 00:28:02.122 don't have the option of cutting out

NOTE Confidence: 0.9292635

00:28:02.182 --> 00:28:04.317 or radiating every microscopic cell.

NOTE Confidence: 0.9292635

00:28:04.320 --> 00:28:06.090 So if the disease regrows,

NOTE Confidence: 0.9292635

00:28:06.090 --> 00:28:07.506 if and when,

NOTE Confidence: 0.9292635

00:28:07.506 --> 00:28:07.860 unfortunately,

NOTE Confidence: 0.9292635

00:28:07.860 --> 00:28:09.248 the disease regrows,

NOTE Confidence: 0.9292635

00:28:09.248 --> 00:28:11.733 we want to have options and

NOTE Confidence: 0.9292635

00:28:11.733 --> 00:28:13.393 really develop more tools is

NOTE Confidence: 0.9292635

00:28:13.393 --> 00:28:16.277 what I tell my patients to be

NOTE Confidence: 0.9292635

00:28:16.277 --> 00:28:18.122 able to manage their disease,

NOTE Confidence: 0.9292635

00:28:18.130 --> 00:28:20.320 and that's why we

NOTE Confidence: 0.9292635

00:28:20.320 --> 00:28:22.872 do work so much with clinical

NOTE Confidence: 0.9292635

00:28:22.872 --> 00:28:25.442 trials and feel that that's  
NOTE Confidence: 0.9292635

00:28:25.442 --> 00:28:27.787 incredibly important to be able to  
NOTE Confidence: 0.9292635

00:28:27.787 --> 00:28:29.837 advance outcomes for our patients.  
NOTE Confidence: 0.9292635

00:28:29.840 --> 00:28:30.570 Doctor Ann Chiang  
NOTE Confidence: 0.93609256

00:28:30.570 --> 00:28:33.083 is an associate professor and medical  
NOTE Confidence: 0.93609256

00:28:33.083 --> 00:28:35.687 oncologist at the Yale School of Medicine.  
NOTE Confidence: 0.93609256

00:28:35.690 --> 00:28:37.274 If you have questions,  
NOTE Confidence: 0.93609256

00:28:37.274 --> 00:28:39.254 the address is cancer answers at  
NOTE Confidence: 0.93609256

00:28:39.254 --> 00:28:41.440 yale.edu and past editions of the  
NOTE Confidence: 0.93609256

00:28:41.440 --> 00:28:43.574 program are available in audio and  
NOTE Confidence: 0.93609256

00:28:43.574 --> 00:28:45.940 written form at yalecancercenter.org.  
NOTE Confidence: 0.93609256

00:28:45.940 --> 00:28:48.883 We hope you'll join us next week to learn  
NOTE Confidence: 0.93609256

00:28:48.883 --> 00:28:51.500 more about the fight against cancer.  
NOTE Confidence: 0.93609256

00:28:51.500 --> 00:28:53.480 Here on Connecticut public radio.  
NOTE Confidence: 0.93609256

00:28:53.480 --> 00:28:55.750 Funding for Yale Cancer Answers  
NOTE Confidence: 0.93609256

00:28:55.750 --> 00:28:58.020 is provided by Smilow Cancer

NOTE Confidence: 0.93609256

00:28:58.102 --> 00:29:00.070 Hospital and AstraZeneca.