

WEBVTT

NOTE duration:"01:02:46"

NOTE recognizability:0.861

NOTE language:en-us

NOTE Confidence: 0.94688492875

00:00:03.510 --> 00:00:05.550 This is the outline of my talk tonight.

NOTE Confidence: 0.94688492875

00:00:05.550 --> 00:00:09.526 I'll go over the statistics from there.

NOTE Confidence: 0.94688492875

00:00:09.526 --> 00:00:11.320 Eric Cancer Society.

NOTE Confidence: 0.94688492875

00:00:11.320 --> 00:00:13.714 I'll talk about how often a woman

NOTE Confidence: 0.94688492875

00:00:13.714 --> 00:00:15.750 is diagnosed with breast cancer.

NOTE Confidence: 0.94688492875

00:00:15.750 --> 00:00:17.760 Then I'll move on to screening.

NOTE Confidence: 0.94688492875

00:00:17.760 --> 00:00:19.860 There are three ways to look for

NOTE Confidence: 0.94688492875

00:00:19.860 --> 00:00:21.378 breast cancer in the breast,

NOTE Confidence: 0.94688492875

00:00:21.378 --> 00:00:22.296 and that's mammography.

NOTE Confidence: 0.94688492875

00:00:22.300 --> 00:00:25.070 Breast ultrasound and breast MRI.

NOTE Confidence: 0.94688492875

00:00:25.070 --> 00:00:27.338 And then I'll talk about a very

NOTE Confidence: 0.94688492875

00:00:27.338 --> 00:00:29.309 important part of breast cancer.

NOTE Confidence: 0.94688492875

00:00:29.310 --> 00:00:31.926 And that's the sub for major

NOTE Confidence: 0.94688492875

00:00:31.926 --> 00:00:33.670 subtypes of breast cancer.  
NOTE Confidence: 0.94688492875

00:00:33.670 --> 00:00:35.650 How those subtypes are determined  
NOTE Confidence: 0.94688492875

00:00:35.650 --> 00:00:37.630 and how this impacts treatment.  
NOTE Confidence: 0.94688492875

00:00:37.630 --> 00:00:38.904 And lastly,  
NOTE Confidence: 0.94688492875

00:00:38.904 --> 00:00:43.363 I'll go over breast cancer surgery options.  
NOTE Confidence: 0.94688492875

00:00:43.370 --> 00:00:45.482 Is that effects are from the  
NOTE Confidence: 0.94688492875

00:00:45.482 --> 00:00:47.578 American Cancer Society and you can  
NOTE Confidence: 0.94688492875

00:00:47.578 --> 00:00:49.734 see along the top nearly 2 million  
NOTE Confidence: 0.94688492875

00:00:49.734 --> 00:00:51.748 people in the United States will  
NOTE Confidence: 0.94688492875

00:00:51.748 --> 00:00:53.776 receive a new diagnosis of cancer.  
NOTE Confidence: 0.94688492875

00:00:53.776 --> 00:00:56.092 So about a million women will  
NOTE Confidence: 0.94688492875

00:00:56.092 --> 00:00:58.310 be diagnosed with breast cancer,  
NOTE Confidence: 0.94688492875

00:00:58.310 --> 00:01:00.508 and you can see breast cancer really  
NOTE Confidence: 0.94688492875

00:01:00.508 --> 00:01:02.266 remains the most common cancer  
NOTE Confidence: 0.94688492875

00:01:02.266 --> 00:01:04.136 diagnosed accounting for about a  
NOTE Confidence: 0.94688492875

00:01:04.136 --> 00:01:06.449 third of cancers diagnosed in women.

NOTE Confidence: 0.94688492875

00:01:06.450 --> 00:01:08.316 And this is followed by lung

NOTE Confidence: 0.94688492875

00:01:08.316 --> 00:01:09.560 cancer and colon cancer.

NOTE Confidence: 0.867917173333333

00:01:12.910 --> 00:01:15.451 At the bottom is, some are the

NOTE Confidence: 0.867917173333333

00:01:15.451 --> 00:01:17.469 statistics for death from cancer.

NOTE Confidence: 0.867917173333333

00:01:17.470 --> 00:01:20.494 Breast cancer is the second leading

NOTE Confidence: 0.867917173333333

00:01:20.494 --> 00:01:23.544 cause of cancer death and this

NOTE Confidence: 0.867917173333333

00:01:23.544 --> 00:01:25.612 year approximately 43,000 women

NOTE Confidence: 0.867917173333333

00:01:25.612 --> 00:01:28.360 will die from breast cancer.

NOTE Confidence: 0.887922558

00:01:33.200 --> 00:01:35.360 We know that incidence of breast

NOTE Confidence: 0.887922558

00:01:35.360 --> 00:01:36.800 cancer increases with age,

NOTE Confidence: 0.887922558

00:01:36.800 --> 00:01:38.830 so increasing age increases one's

NOTE Confidence: 0.887922558

00:01:38.830 --> 00:01:40.860 risk of developing breast cancer.

NOTE Confidence: 0.887922558

00:01:40.860 --> 00:01:43.803 So a woman in her 70s has the highest

NOTE Confidence: 0.887922558

00:01:43.803 --> 00:01:46.389 risk of developing breast cancer.

NOTE Confidence: 0.887922558

00:01:46.390 --> 00:01:48.874 But overall, the lifetime risk of

NOTE Confidence: 0.887922558

00:01:48.874 --> 00:01:50.870 developing breast cancer is 12%,  
NOTE Confidence: 0.887922558

00:01:50.870 --> 00:01:53.198 with one in eight women in the United  
NOTE Confidence: 0.887922558

00:01:53.198 --> 00:01:55.529 States being diagnosed with breast cancer.  
NOTE Confidence: 0.867233002727273

00:01:58.470 --> 00:02:01.011 We know that there are also geographic  
NOTE Confidence: 0.867233002727273

00:02:01.011 --> 00:02:02.570 variabilities for breast cancer.  
NOTE Confidence: 0.867233002727273

00:02:02.570 --> 00:02:04.866 The states that are colored dark blue,  
NOTE Confidence: 0.867233002727273

00:02:04.870 --> 00:02:06.658 or the states with the highest  
NOTE Confidence: 0.867233002727273

00:02:06.658 --> 00:02:07.850 rates of breast cancer,  
NOTE Confidence: 0.867233002727273

00:02:07.850 --> 00:02:09.663 and you can see New York and  
NOTE Confidence: 0.867233002727273

00:02:09.663 --> 00:02:11.336 Connecticut have one of the highest  
NOTE Confidence: 0.867233002727273

00:02:11.336 --> 00:02:13.296 rates of breast cancer in the country.  
NOTE Confidence: 0.859610298125

00:02:16.620 --> 00:02:19.721 This graph is showing each line representing  
NOTE Confidence: 0.859610298125

00:02:19.721 --> 00:02:23.198 a cancer from a certain part of the body,  
NOTE Confidence: 0.859610298125

00:02:23.200 --> 00:02:26.280 and the Red Arrows pointing to the light  
NOTE Confidence: 0.859610298125

00:02:26.280 --> 00:02:28.830 Gray line that represents mortality  
NOTE Confidence: 0.859610298125

00:02:28.830 --> 00:02:32.385 from breast cancer and you can see from

NOTE Confidence: 0.859610298125

00:02:32.385 --> 00:02:36.360 about 1989 to 2018 there has been a 40%

NOTE Confidence: 0.859610298125

00:02:36.360 --> 00:02:39.670 reduction in breast cancer mortality,

NOTE Confidence: 0.859610298125

00:02:39.670 --> 00:02:41.880 most likely attributed to earlier

NOTE Confidence: 0.859610298125

00:02:41.880 --> 00:02:43.648 detection and better treatment.

NOTE Confidence: 0.756698838

00:02:45.940 --> 00:02:47.649 In fact, there are over 3.8

NOTE Confidence: 0.756698838

00:02:47.649 --> 00:02:49.045 million breast cancer survivors

NOTE Confidence: 0.756698838

00:02:49.045 --> 00:02:50.790 living in the United States.

NOTE Confidence: 0.90016023

00:02:55.150 --> 00:02:57.066 So screening is important for for

NOTE Confidence: 0.90016023

00:02:57.066 --> 00:02:58.770 breast cancer, early detection,

NOTE Confidence: 0.90016023

00:02:58.770 --> 00:03:01.410 typically breast cancer has no symptoms,

NOTE Confidence: 0.90016023

00:03:01.410 --> 00:03:04.404 and most women diagnosed with breast

NOTE Confidence: 0.90016023

00:03:04.404 --> 00:03:07.490 cancer are diagnosed on mammography.

NOTE Confidence: 0.90016023

00:03:07.490 --> 00:03:10.941 Tumors that are detected earlier tend to

NOTE Confidence: 0.90016023

00:03:10.941 --> 00:03:14.937 be smaller and more easily easily treated.

NOTE Confidence: 0.90016023

00:03:14.940 --> 00:03:17.292 Three ways that we imaged the

NOTE Confidence: 0.90016023

00:03:17.292 --> 00:03:18.788 Brester mammography, breast,  
NOTE Confidence: 0.90016023

00:03:18.788 --> 00:03:21.620 ultrasound, and breast MRI.  
NOTE Confidence: 0.90016023

00:03:21.620 --> 00:03:24.476 The technology for mammography has improved.  
NOTE Confidence: 0.90016023

00:03:24.480 --> 00:03:26.632 Initially, mammography used a  
NOTE Confidence: 0.90016023

00:03:26.632 --> 00:03:29.702 technique using film and then digital.  
NOTE Confidence: 0.90016023

00:03:29.702 --> 00:03:32.192 Mammography was developed first 2D  
NOTE Confidence: 0.90016023

00:03:32.192 --> 00:03:36.056 mammography and now we we do mammography  
NOTE Confidence: 0.90016023

00:03:36.060 --> 00:03:39.237 with using 3 dimensional images and  
NOTE Confidence: 0.90016023

00:03:39.237 --> 00:03:41.979 this is known as Tomo synthesis.  
NOTE Confidence: 0.90016023

00:03:41.980 --> 00:03:43.438 Tomosynthesis involves taking  
NOTE Confidence: 0.90016023

00:03:43.438 --> 00:03:45.868 serial images of the breast.  
NOTE Confidence: 0.871467085

00:03:48.220 --> 00:03:52.404 And a woman should begin start should begin  
NOTE Confidence: 0.871467085

00:03:52.410 --> 00:03:56.775 having my map mammograms at the age of 40.  
NOTE Confidence: 0.871467085

00:03:56.780 --> 00:03:58.796 A woman, when she turns 40,  
NOTE Confidence: 0.871467085

00:03:58.800 --> 00:04:00.914 should speak to her primary care doctor.  
NOTE Confidence: 0.871467085

00:04:00.920 --> 00:04:04.024 Her gynecologist about starting

NOTE Confidence: 0.871467085

00:04:04.024 --> 00:04:07.128 to undergo annual mammograms.

NOTE Confidence: 0.871467085

00:04:07.130 --> 00:04:09.388 There are some women who need to start

NOTE Confidence: 0.871467085

00:04:09.388 --> 00:04:11.038 having mammograms at an earlier age.

NOTE Confidence: 0.871467085

00:04:11.040 --> 00:04:14.310 So if a woman has a first degree relative,

NOTE Confidence: 0.871467085

00:04:14.310 --> 00:04:16.140 such as a mother or sister

NOTE Confidence: 0.871467085

00:04:16.204 --> 00:04:17.940 diagnosed with breast cancer,

NOTE Confidence: 0.871467085

00:04:17.940 --> 00:04:19.790 she should start having mammograms.

NOTE Confidence: 0.871467085

00:04:19.790 --> 00:04:22.667 10 years before the age of diagnosis.

NOTE Confidence: 0.871467085

00:04:22.670 --> 00:04:24.344 So the example on the screen

NOTE Confidence: 0.871467085

00:04:24.344 --> 00:04:26.623 is a woman who has a mother

NOTE Confidence: 0.871467085

00:04:26.623 --> 00:04:28.448 diagnosed with breast cancer 42.

NOTE Confidence: 0.871467085

00:04:28.450 --> 00:04:30.405 That person should start having

NOTE Confidence: 0.871467085

00:04:30.405 --> 00:04:32.640 mammograms at the age of 32.

NOTE Confidence: 0.884855524545454

00:04:36.000 --> 00:04:38.544 The addition of breast ultrasound can

NOTE Confidence: 0.884855524545454

00:04:38.544 --> 00:04:41.040 improve the sensitivity of mammography

NOTE Confidence: 0.884855524545454

00:04:41.040 --> 00:04:44.368 and ultrasound can be added to imaging,  
NOTE Confidence: 0.884855524545454

00:04:44.368 --> 00:04:46.576 and a woman can undergo annual  
NOTE Confidence: 0.884855524545454

00:04:46.576 --> 00:04:48.590 ultrasound along with her mammogram.  
NOTE Confidence: 0.802225405

00:04:50.260 --> 00:04:51.048 It was a study  
NOTE Confidence: 0.814596887142857

00:04:51.060 --> 00:04:53.988 by Doctor Brem that looked at  
NOTE Confidence: 0.814596887142857

00:04:53.988 --> 00:04:56.740 over 15,000 women who had both  
NOTE Confidence: 0.814596887142857

00:04:56.740 --> 00:04:58.096 mammography and ultrasound,  
NOTE Confidence: 0.814596887142857

00:04:58.100 --> 00:05:00.556 and the study showed that the  
NOTE Confidence: 0.814596887142857

00:05:00.556 --> 00:05:02.180 addition of ultrasound tomography  
NOTE Confidence: 0.814596887142857

00:05:02.180 --> 00:05:04.210 did detect more cancers in  
NOTE Confidence: 0.814596887142857

00:05:04.276 --> 00:05:05.989 women undergoing screening.  
NOTE Confidence: 0.8673781

00:05:10.270 --> 00:05:13.090 We use screening. Breast MRI women.  
NOTE Confidence: 0.8673781

00:05:13.090 --> 00:05:16.026 High risk of breast cancer when a woman's  
NOTE Confidence: 0.8673781

00:05:16.026 --> 00:05:18.498 lifetime risk is greater than 20%,  
NOTE Confidence: 0.8673781

00:05:18.500 --> 00:05:20.950 that woman should have an annual mammogram.  
NOTE Confidence: 0.8673781

00:05:20.950 --> 00:05:22.978 In addition to an annual MRI.



NOTE Confidence: 0.814898025

00:05:26.270 --> 00:05:28.670 When an abnormality is detected on

NOTE Confidence: 0.814898025

00:05:28.670 --> 00:05:30.678 a mammogram, breast, ultrasound,

NOTE Confidence: 0.814898025

00:05:30.678 --> 00:05:34.906 or breast MRI and that abnormality appears

NOTE Confidence: 0.814898025

00:05:34.910 --> 00:05:38.417 suspicious or it's possibly a breast cancer,

NOTE Confidence: 0.814898025

00:05:38.420 --> 00:05:40.770 that woman typically will will

NOTE Confidence: 0.814898025

00:05:40.770 --> 00:05:43.120 undergo a needle biopsy performed

NOTE Confidence: 0.814898025

00:05:43.195 --> 00:05:45.840 by radiologists using that modality.

NOTE Confidence: 0.814898025

00:05:45.840 --> 00:05:48.656 So along the top row you can see

NOTE Confidence: 0.814898025

00:05:48.660 --> 00:05:50.710 an abnormality on a mammogram,

NOTE Confidence: 0.814898025

00:05:50.710 --> 00:05:53.069 and the woman on the top right

NOTE Confidence: 0.814898025

00:05:53.069 --> 00:05:56.134 picture is undergoing a biopsy.

NOTE Confidence: 0.814898025

00:05:56.134 --> 00:05:58.858 Using a specialized mammogram

NOTE Confidence: 0.814898025

00:05:58.858 --> 00:06:02.746 machine to target the area,

NOTE Confidence: 0.814898025

00:06:02.746 --> 00:06:04.430 that's abnormal.

NOTE Confidence: 0.814898025

00:06:04.430 --> 00:06:06.040 In the middle of the screen you

NOTE Confidence: 0.814898025

00:06:06.040 --> 00:06:08.053 can see a typical appearance of a  
NOTE Confidence: 0.814898025

00:06:08.053 --> 00:06:09.943 tumor or breast cancer on breast  
NOTE Confidence: 0.814898025

00:06:10.000 --> 00:06:11.722 ultrasound and to the right of  
NOTE Confidence: 0.814898025

00:06:11.722 --> 00:06:14.493 that picture you can see a woman  
NOTE Confidence: 0.814898025

00:06:14.493 --> 00:06:16.657 undergoing an ultrasound biopsy.  
NOTE Confidence: 0.814898025

00:06:16.660 --> 00:06:18.736 If a woman has an abnormality  
NOTE Confidence: 0.814898025

00:06:18.736 --> 00:06:20.120 seen on her MRI,  
NOTE Confidence: 0.814898025

00:06:20.120 --> 00:06:22.521 she may need to undergo a MRI  
NOTE Confidence: 0.814898025

00:06:22.521 --> 00:06:25.180 guided biopsy so the woman in the  
NOTE Confidence: 0.814898025

00:06:25.180 --> 00:06:27.120 bottom right corner is undergoing  
NOTE Confidence: 0.814898025

00:06:27.120 --> 00:06:29.449 a MRI biopsy of the breast.  
NOTE Confidence: 0.9490576

00:06:32.230 --> 00:06:35.065 In the past, women diagnosed with breast  
NOTE Confidence: 0.9490576

00:06:35.065 --> 00:06:37.330 cancer received similar treatment,  
NOTE Confidence: 0.9490576

00:06:37.330 --> 00:06:40.430 but currently the treatment for  
NOTE Confidence: 0.9490576

00:06:40.430 --> 00:06:42.454 patients diagnosed with breast  
NOTE Confidence: 0.9490576

00:06:42.454 --> 00:06:44.478 cancer is very individualized.

NOTE Confidence: 0.9490576

00:06:44.480 --> 00:06:45.750 Over the next couple slides,

NOTE Confidence: 0.9490576

00:06:45.750 --> 00:06:47.775 I hope to show you a little bit of

NOTE Confidence: 0.9490576

00:06:47.775 --> 00:06:49.355 that evolution because currently

NOTE Confidence: 0.9490576

00:06:49.355 --> 00:06:53.132 in 2021 we do provide our patients

NOTE Confidence: 0.9490576

00:06:53.132 --> 00:06:55.360 with personalized targeted therapy.

NOTE Confidence: 0.9490576

00:06:55.360 --> 00:06:58.690 And this is known as precision

NOTE Confidence: 0.9490576

00:06:58.690 --> 00:07:00.355 or personalized medicine.

NOTE Confidence: 0.9490576

00:07:00.360 --> 00:07:02.616 And this is the picture of William Halsted,

NOTE Confidence: 0.9490576

00:07:02.620 --> 00:07:05.870 who is a surgeon who performed

NOTE Confidence: 0.9490576

00:07:05.870 --> 00:07:07.350 the first radical mastectomy

NOTE Confidence: 0.9490576

00:07:07.350 --> 00:07:11.230 in the United States in 1882.

NOTE Confidence: 0.9490576

00:07:11.230 --> 00:07:14.542 And you'll see that over the next 100 years,

NOTE Confidence: 0.9490576

00:07:14.550 --> 00:07:17.316 radical mastectomy was the main treatment

NOTE Confidence: 0.9490576

00:07:17.316 --> 00:07:20.558 for most women diagnosed with breast cancer.

NOTE Confidence: 0.9490576

00:07:20.560 --> 00:07:23.640 I mammography was invented in the 1930s,

NOTE Confidence: 0.9490576

00:07:23.640 --> 00:07:27.808 also in the 1930s we started to use  
NOTE Confidence: 0.9490576

00:07:27.808 --> 00:07:29.718 radiation to treat breast cancer,  
NOTE Confidence: 0.9490576

00:07:29.720 --> 00:07:31.904 and there were early developments and  
NOTE Confidence: 0.9490576

00:07:31.904 --> 00:07:36.488 chemotherapy between the 1930s and the 1960s.  
NOTE Confidence: 0.9490576

00:07:36.490 --> 00:07:38.176 Mark Seven is a medication used  
NOTE Confidence: 0.9490576

00:07:38.176 --> 00:07:40.169 not only to treat breast cancer,  
NOTE Confidence: 0.9490576

00:07:40.170 --> 00:07:42.552 but also to prevent breast cancer  
NOTE Confidence: 0.9490576

00:07:42.552 --> 00:07:44.810 and tamoxifen received FDA approval.  
NOTE Confidence: 0.9490576

00:07:44.810 --> 00:07:46.650 In 1977,  
NOTE Confidence: 0.9490576

00:07:46.650 --> 00:07:49.813 surgeons began performing lumpectomy's.  
NOTE Confidence: 0.9490576

00:07:49.813 --> 00:07:51.022 In the 1980s,  
NOTE Confidence: 0.9490576

00:07:51.022 --> 00:07:53.925 a lumpectomy is a surgery which involves  
NOTE Confidence: 0.9490576

00:07:53.925 --> 00:07:57.205 removal of the cancers portion of the breast,  
NOTE Confidence: 0.9490576

00:07:57.210 --> 00:07:59.306 and so you can see from the time  
NOTE Confidence: 0.9490576

00:07:59.306 --> 00:08:01.480 hosted the first mastectomy in 1882  
NOTE Confidence: 0.9490576

00:08:01.480 --> 00:08:03.630 to one surgeons began performing

NOTE Confidence: 0.9490576

00:08:03.630 --> 00:08:05.098 lumpectomy's in the 1980s,

NOTE Confidence: 0.9490576

00:08:05.098 --> 00:08:06.566 bisected me really became.

NOTE Confidence: 0.9490576

00:08:06.570 --> 00:08:08.880 The mainstay firm for the treatment

NOTE Confidence: 0.9490576

00:08:08.880 --> 00:08:10.035 of breast cancer.

NOTE Confidence: 0.908625527777778

00:08:12.420 --> 00:08:14.910 A relationship between a genetic

NOTE Confidence: 0.908625527777778

00:08:14.910 --> 00:08:17.893 abnormality and the development of breast

NOTE Confidence: 0.908625527777778

00:08:17.893 --> 00:08:20.756 cancer was discovered in the mid 90s.

NOTE Confidence: 0.908625527777778

00:08:20.760 --> 00:08:23.688 And throughout the last 50 years

NOTE Confidence: 0.908625527777778

00:08:23.688 --> 00:08:26.750 there have been huge advances in

NOTE Confidence: 0.908625527777778

00:08:26.750 --> 00:08:29.042 the treatment of breast cancer with

NOTE Confidence: 0.908625527777778

00:08:29.042 --> 00:08:31.070 the approval of multiple medications

NOTE Confidence: 0.908625527777778

00:08:31.070 --> 00:08:33.638 for the treatment of breast cancer,

NOTE Confidence: 0.908625527777778

00:08:33.640 --> 00:08:36.420 such as anastrozole and trastuzumab.

NOTE Confidence: 0.906162300833333

00:08:39.080 --> 00:08:41.530 Uhm, before we talk about the different

NOTE Confidence: 0.906162300833333

00:08:41.530 --> 00:08:43.449 treatment options for breast cancer,

NOTE Confidence: 0.906162300833333

00:08:43.450 --> 00:08:46.410 I think it's really important to go over  
NOTE Confidence: 0.906162300833333

00:08:46.410 --> 00:08:49.190 the main subtypes of breast cancer.  
NOTE Confidence: 0.906162300833333

00:08:49.190 --> 00:08:51.150 From tumor receptors are what  
NOTE Confidence: 0.906162300833333

00:08:51.150 --> 00:08:53.110 determines a breast cancer subtype,  
NOTE Confidence: 0.906162300833333

00:08:53.110 --> 00:08:55.728 and after a patient undergoes a biopsy,  
NOTE Confidence: 0.906162300833333

00:08:55.730 --> 00:08:58.586 we can determine which subtype of breast  
NOTE Confidence: 0.906162300833333

00:08:58.586 --> 00:09:01.220 cancer a woman is diagnosed with.  
NOTE Confidence: 0.84372849

00:09:03.350 --> 00:09:05.926 On the screen you can see the four  
NOTE Confidence: 0.84372849

00:09:05.926 --> 00:09:08.539 main groups of breast cancer subtypes.  
NOTE Confidence: 0.84372849

00:09:08.539 --> 00:09:10.477 The four main groups are luminal,  
NOTE Confidence: 0.84372849

00:09:10.480 --> 00:09:14.190 a luminal B. Her two positive and  
NOTE Confidence: 0.84372849

00:09:14.190 --> 00:09:16.640 triple negative breast cancers.  
NOTE Confidence: 0.84372849

00:09:16.640 --> 00:09:20.544 UM the UM subtypes luminal A and luminal  
NOTE Confidence: 0.84372849

00:09:20.544 --> 00:09:24.220 B tend to have better prognosis,  
NOTE Confidence: 0.84372849

00:09:24.220 --> 00:09:26.218 whereas the her two positive and  
NOTE Confidence: 0.84372849

00:09:26.218 --> 00:09:27.908 the triple negative breast cancers

NOTE Confidence: 0.84372849

00:09:27.908 --> 00:09:29.696 and the yellow and the orange

NOTE Confidence: 0.84372849

00:09:29.700 --> 00:09:31.788 tend to have a worse prognosis.

NOTE Confidence: 0.929978143

00:09:33.950 --> 00:09:35.890 Approximately 75% of breast

NOTE Confidence: 0.929978143

00:09:35.890 --> 00:09:38.800 cancers diagnosed or on the left.

NOTE Confidence: 0.929978143

00:09:38.800 --> 00:09:41.677 In this and the luminal being luminal

NOTE Confidence: 0.929978143

00:09:41.677 --> 00:09:44.688 B alumina and luminal B categories?

NOTE Confidence: 0.929978143

00:09:44.690 --> 00:09:48.267 And thankfully, most cancers are that are

NOTE Confidence: 0.929978143

00:09:48.267 --> 00:09:52.626 diagnosed are on this end of the spectrum.

NOTE Confidence: 0.929978143

00:09:52.630 --> 00:09:55.871 Luminal A luminal B cancerous are typically

NOTE Confidence: 0.929978143

00:09:55.871 --> 00:09:59.237 treated in addition to surgery with any

NOTE Confidence: 0.929978143

00:09:59.237 --> 00:10:01.607 estrogen therapy and hormonal therapy,

NOTE Confidence: 0.929978143

00:10:01.610 --> 00:10:03.818 and the center of the her

NOTE Confidence: 0.929978143

00:10:03.818 --> 00:10:05.290 two positive cancers and,

NOTE Confidence: 0.929978143

00:10:05.290 --> 00:10:06.914 in addition to surgery,

NOTE Confidence: 0.929978143

00:10:06.914 --> 00:10:08.944 most her two breast cancers,

NOTE Confidence: 0.929978143

00:10:08.950 --> 00:10:10.378 unless they're small,  
NOTE Confidence: 0.929978143

00:10:10.378 --> 00:10:12.758 are treated with a combination  
NOTE Confidence: 0.929978143

00:10:12.758 --> 00:10:14.627 of chemotherapy and targeted  
NOTE Confidence: 0.929978143

00:10:14.627 --> 00:10:16.638 her therapy and more and more.  
NOTE Confidence: 0.929978143

00:10:16.638 --> 00:10:18.499 Often, treatment begins with  
NOTE Confidence: 0.929978143

00:10:18.499 --> 00:10:21.114 the chemotherapy and her two  
NOTE Confidence: 0.929978143

00:10:21.114 --> 00:10:23.150 therapy prior to surgery.  
NOTE Confidence: 0.929978143

00:10:23.150 --> 00:10:25.174 The purple negative subtypes  
NOTE Confidence: 0.929978143

00:10:25.174 --> 00:10:27.198 have the worst prognosis.  
NOTE Confidence: 0.929978143

00:10:27.200 --> 00:10:29.180 There are also sometimes referred  
NOTE Confidence: 0.929978143

00:10:29.180 --> 00:10:31.790 to as basal like breast cancers.  
NOTE Confidence: 0.929978143

00:10:31.790 --> 00:10:34.681 This is a study just showing those  
NOTE Confidence: 0.929978143

00:10:34.681 --> 00:10:36.785 four subtypes again with the  
NOTE Confidence: 0.929978143

00:10:36.785 --> 00:10:38.735 better prognosis and the luminal  
NOTE Confidence: 0.929978143

00:10:38.735 --> 00:10:41.370 A and the luminal B cancers.  
NOTE Confidence: 0.929978143

00:10:41.370 --> 00:10:42.970 This is another study that



NOTE Confidence: 0.929978143  
00:10:42.970 --> 00:10:44.570 looked at the survival of  
NOTE Confidence: 0.929978143  
00:10:44.633 --> 00:10:46.477 those four different subtypes.  
NOTE Confidence: 0.914250353333333  
00:10:50.630 --> 00:10:53.180 But how are the subtypes determined?  
NOTE Confidence: 0.914250353333333  
00:10:53.180 --> 00:10:55.680 Uhm, so upon a biopsy.  
NOTE Confidence: 0.914250353333333  
00:10:55.680 --> 00:10:57.395 Upon getting a biopsy of the breast,  
NOTE Confidence: 0.914250353333333  
00:10:57.400 --> 00:10:59.080 the cells are examined,  
NOTE Confidence: 0.914250353333333  
00:10:59.080 --> 00:11:01.016 and the tissue that's retrieved  
NOTE Confidence: 0.914250353333333  
00:11:01.016 --> 00:11:02.938 from the breast is examined  
NOTE Confidence: 0.914250353333333  
00:11:02.938 --> 00:11:05.332 through a process called IHC which  
NOTE Confidence: 0.914250353333333  
00:11:05.332 --> 00:11:07.670 stands for immunohistochemistry.  
NOTE Confidence: 0.89549657875  
00:11:09.710 --> 00:11:13.270 The slides that are highlighted on the left,  
NOTE Confidence: 0.89549657875  
00:11:13.270 --> 00:11:15.135 or estrogen and progesterone receptor  
NOTE Confidence: 0.89549657875  
00:11:15.135 --> 00:11:17.827 negative and then on the right are  
NOTE Confidence: 0.89549657875  
00:11:17.827 --> 00:11:20.101 the cells that are estrogen and  
NOTE Confidence: 0.89549657875  
00:11:20.101 --> 00:11:21.470 progesterone receptor positive.  
NOTE Confidence: 0.89549657875

00:11:21.470 --> 00:11:25.676 You can see there staining brown.  
NOTE Confidence: 0.89549657875

00:11:25.680 --> 00:11:27.300 Immunohistochemistry is also the  
NOTE Confidence: 0.89549657875

00:11:27.300 --> 00:11:29.325 process in which we determined  
NOTE Confidence: 0.89549657875

00:11:29.325 --> 00:11:31.768 the her two status of the tumor.  
NOTE Confidence: 0.850691102

00:11:35.370 --> 00:11:36.760 And I want to surgery.  
NOTE Confidence: 0.894401075

00:11:39.500 --> 00:11:41.710 Some patients diagnosed with breast  
NOTE Confidence: 0.894401075

00:11:41.710 --> 00:11:43.920 cancer can undergo a lumpectomy,  
NOTE Confidence: 0.894401075

00:11:43.920 --> 00:11:47.976 while other women undergo a mastectomy.  
NOTE Confidence: 0.894401075

00:11:47.980 --> 00:11:50.164 And the decision to undergo a  
NOTE Confidence: 0.894401075

00:11:50.164 --> 00:11:52.304 partial mastectomy or a mastectomy  
NOTE Confidence: 0.894401075

00:11:52.304 --> 00:11:55.160 did it determined by many factors,  
NOTE Confidence: 0.894401075

00:11:55.160 --> 00:11:56.925 and these factors include how  
NOTE Confidence: 0.894401075

00:11:56.925 --> 00:11:58.690 much diseases in the breast,  
NOTE Confidence: 0.894401075

00:11:58.690 --> 00:12:00.418 the size of the cancer relative  
NOTE Confidence: 0.894401075

00:12:00.418 --> 00:12:02.330 to the size of the breast,  
NOTE Confidence: 0.894401075

00:12:02.330 --> 00:12:04.283 the number of the tumors in the

NOTE Confidence: 0.894401075

00:12:04.283 --> 00:12:05.939 breast and location of the tumors,

NOTE Confidence: 0.894401075

00:12:05.940 --> 00:12:08.106 as well as other medical conditions.

NOTE Confidence: 0.781740315

00:12:10.140 --> 00:12:13.108 So on the screen is a mammogram image

NOTE Confidence: 0.781740315

00:12:13.108 --> 00:12:17.220 of ductal carcinoma insight two DCIS

NOTE Confidence: 0.781740315

00:12:17.220 --> 00:12:19.344 and ductal carcinoma site inside two

NOTE Confidence: 0.781740315

00:12:19.344 --> 00:12:21.970 is an early form of breast cancer.

NOTE Confidence: 0.781740315

00:12:21.970 --> 00:12:23.866 On the left you can see

NOTE Confidence: 0.781740315

00:12:23.866 --> 00:12:24.814 ductal carcinoma insight.

NOTE Confidence: 0.781740315

00:12:24.820 --> 00:12:27.340 Two is confined to a small area of the

NOTE Confidence: 0.781740315

00:12:27.340 --> 00:12:29.725 breast and a woman with this type of

NOTE Confidence: 0.781740315

00:12:29.725 --> 00:12:31.450 mammogram can undergo a lumpectomy,

NOTE Confidence: 0.781740315

00:12:31.450 --> 00:12:33.310 which is removal of just part

NOTE Confidence: 0.781740315

00:12:33.310 --> 00:12:35.092 of the breast on the right,

NOTE Confidence: 0.781740315

00:12:35.092 --> 00:12:36.796 even though it's an early cancer.

NOTE Confidence: 0.781740315

00:12:36.800 --> 00:12:38.612 The DCIS is spread out over

NOTE Confidence: 0.781740315

00:12:38.612 --> 00:12:40.650 a larger area of the breast.

NOTE Confidence: 0.781740315

00:12:40.650 --> 00:12:42.630 And a woman who's DCIS presents

NOTE Confidence: 0.781740315

00:12:42.630 --> 00:12:45.850 such as the image on the right

NOTE Confidence: 0.781740315

00:12:45.943 --> 00:12:48.979 may need to undergo a mastectomy.

NOTE Confidence: 0.781740315

00:12:48.980 --> 00:12:51.674 Tumor size is also an important

NOTE Confidence: 0.781740315

00:12:51.674 --> 00:12:54.406 criteria when determining if a patient

NOTE Confidence: 0.781740315

00:12:54.406 --> 00:12:56.986 can have a lumpectomy or mastectomy.

NOTE Confidence: 0.781740315

00:12:56.990 --> 00:12:59.300 And sometimes a woman has more than

NOTE Confidence: 0.781740315

00:12:59.300 --> 00:13:01.908 one area of disease in the breast,

NOTE Confidence: 0.781740315

00:13:01.910 --> 00:13:05.000 or more than one tumor.

NOTE Confidence: 0.781740315

00:13:05.000 --> 00:13:09.324 Multifocal disease is two or more

NOTE Confidence: 0.781740315

00:13:09.324 --> 00:13:11.776 cancers in the same quadrant or

NOTE Confidence: 0.781740315

00:13:11.776 --> 00:13:13.894 location or area of the breast,

NOTE Confidence: 0.781740315

00:13:13.900 --> 00:13:17.252 whereas the multicentric involves disease

NOTE Confidence: 0.781740315

00:13:17.252 --> 00:13:20.378 in another quadrant of the breast.

NOTE Confidence: 0.781740315

00:13:20.380 --> 00:13:22.605 A woman with multifocal disease

NOTE Confidence: 0.781740315

00:13:22.605 --> 00:13:24.830 can possibly undergo a lumpectomy,

NOTE Confidence: 0.781740315

00:13:24.830 --> 00:13:27.698 while a woman with multicentric disease

NOTE Confidence: 0.781740315

00:13:27.698 --> 00:13:30.750 may need to undergo a mastectomy.

NOTE Confidence: 0.781740315

00:13:30.750 --> 00:13:33.738 Women who are found to carry a

NOTE Confidence: 0.781740315

00:13:33.738 --> 00:13:35.958 gene mutation and are diagnosed

NOTE Confidence: 0.781740315

00:13:35.958 --> 00:13:38.469 with breast cancer are typically

NOTE Confidence: 0.781740315

00:13:38.469 --> 00:13:41.204 recommended to undergo a mastectomy.

NOTE Confidence: 0.781740315

00:13:41.210 --> 00:13:43.166 For women who undergo a mastectomy,

NOTE Confidence: 0.781740315

00:13:43.170 --> 00:13:44.950 some have no reconstruction,

NOTE Confidence: 0.781740315

00:13:44.950 --> 00:13:48.938 and so that the chest is flat with a

NOTE Confidence: 0.781740315

00:13:48.938 --> 00:13:52.090 scar going across the chest and some

NOTE Confidence: 0.781740315

00:13:52.090 --> 00:13:54.840 other women may undergo reconstruction.

NOTE Confidence: 0.781740315

00:13:54.840 --> 00:13:57.598 There are two main forms of reconstruction.

NOTE Confidence: 0.781740315

00:13:57.600 --> 00:14:00.024 The first main type of reconstruction

NOTE Confidence: 0.781740315

00:14:00.024 --> 00:14:02.613 is the use involves the use of

NOTE Confidence: 0.781740315

00:14:02.613 --> 00:14:06.045 an implant and the second type of  
NOTE Confidence: 0.781740315

00:14:06.045 --> 00:14:08.656 reconstruction is using one body  
NOTE Confidence: 0.781740315

00:14:08.656 --> 00:14:11.827 fat from one part of the body.  
NOTE Confidence: 0.781740315

00:14:11.830 --> 00:14:14.557 To build a new breast and this is called  
NOTE Confidence: 0.781740315

00:14:14.557 --> 00:14:16.239 autologous tissue reconstruction.  
NOTE Confidence: 0.926440199166667

00:14:20.380 --> 00:14:22.762 So, in summary, breast cancer remains  
NOTE Confidence: 0.926440199166667

00:14:22.762 --> 00:14:25.019 the most common cancer in women.  
NOTE Confidence: 0.926440199166667

00:14:25.020 --> 00:14:27.043 You can see there have been promising  
NOTE Confidence: 0.926440199166667

00:14:27.043 --> 00:14:28.604 developments of both the diagnosis  
NOTE Confidence: 0.926440199166667

00:14:28.604 --> 00:14:30.204 and treatment of breast cancer.  
NOTE Confidence: 0.926440199166667

00:14:30.210 --> 00:14:32.210 Women should have yearly  
NOTE Confidence: 0.926440199166667

00:14:32.210 --> 00:14:33.710 mammograms supplemented with  
NOTE Confidence: 0.926440199166667

00:14:33.710 --> 00:14:35.830 a yearly ultrasound defence.  
NOTE Confidence: 0.926440199166667

00:14:35.830 --> 00:14:37.774 Breast cancer subtype is critical in  
NOTE Confidence: 0.926440199166667

00:14:37.774 --> 00:14:39.469 determining treatment approach and breast  
NOTE Confidence: 0.926440199166667

00:14:39.469 --> 00:14:41.219 cancer has evolved into individualized,

NOTE Confidence: 0.926440199166667

00:14:41.220 --> 00:14:42.985 patient centered treatment that is

NOTE Confidence: 0.926440199166667

00:14:42.985 --> 00:14:45.150 unique and specific to each woman.

NOTE Confidence: 0.82023696

00:14:48.170 --> 00:14:52.198 Uhm, the next part of. Uhm,

NOTE Confidence: 0.82023696

00:14:52.198 --> 00:14:54.946 the webinar will be Doctor Drucker.

NOTE Confidence: 0.799887752

00:15:00.370 --> 00:15:02.880 Think you're you're on mute? Thank

NOTE Confidence: 0.901413368888889

00:15:02.890 --> 00:15:07.327 you. Hi everyone, I'm going to focus on so.

NOTE Confidence: 0.901413368888889

00:15:07.330 --> 00:15:09.660 I'm a medical oncologist here

NOTE Confidence: 0.901413368888889

00:15:09.660 --> 00:15:12.165 at Greenwich and give treatments

NOTE Confidence: 0.901413368888889

00:15:12.165 --> 00:15:14.790 you know for breast cancer.

NOTE Confidence: 0.901413368888889

00:15:14.790 --> 00:15:16.660 And so my talk is going to focus on how

NOTE Confidence: 0.901413368888889

00:15:16.714 --> 00:15:18.586 we determine what those treatments are,

NOTE Confidence: 0.901413368888889

00:15:18.590 --> 00:15:20.365 again giving attention to what

NOTE Confidence: 0.901413368888889

00:15:20.365 --> 00:15:21.785 Doctor Gallego spoke about.

NOTE Confidence: 0.901413368888889

00:15:21.790 --> 00:15:25.030 How treatment is individualized?

NOTE Confidence: 0.901413368888889

00:15:25.030 --> 00:15:28.366 Uhm, so let me bring up my slides.

NOTE Confidence: 0.901413368888889

00:15:28.370 --> 00:15:29.280 Hold it.  
NOTE Confidence: 0.89303116

00:15:31.800 --> 00:15:34.230 Nope, sorry, there we go.  
NOTE Confidence: 0.22484416

00:15:39.250 --> 00:15:43.268 OK, here we go. Are they up?  
NOTE Confidence: 0.917216207692308

00:15:45.720 --> 00:15:49.400 Hello so so this is going to explore  
NOTE Confidence: 0.917216207692308

00:15:49.400 --> 00:15:52.720 treatment options for breast cancer. Uhm?  
NOTE Confidence: 0.8768062633333333

00:15:55.580 --> 00:15:57.236 So just took a quick overview  
NOTE Confidence: 0.8768062633333333

00:15:57.236 --> 00:15:58.750 of the statistics, very similar  
NOTE Confidence: 0.8768062633333333

00:15:58.750 --> 00:16:00.450 to what Doctor Gallego said,  
NOTE Confidence: 0.8768062633333333

00:16:00.450 --> 00:16:02.405 that breast cancer is very  
NOTE Confidence: 0.8768062633333333

00:16:02.405 --> 00:16:03.969 common of all cancers.  
NOTE Confidence: 0.8768062633333333

00:16:03.970 --> 00:16:06.616 It's about 25 percent, 30% in women,  
NOTE Confidence: 0.8768062633333333

00:16:06.616 --> 00:16:08.702 and again the statistic we always get  
NOTE Confidence: 0.8768062633333333

00:16:08.702 --> 00:16:11.102 back to is one in eight women will  
NOTE Confidence: 0.8768062633333333

00:16:11.102 --> 00:16:13.070 develop breast cancer in their lifetime,  
NOTE Confidence: 0.8768062633333333

00:16:13.070 --> 00:16:15.018 with that risk increasing  
NOTE Confidence: 0.8768062633333333

00:16:15.018 --> 00:16:16.966 the longer they live.



NOTE Confidence: 0.8768062633333333

00:16:16.970 --> 00:16:21.996 The majority of breast cancers are actually

NOTE Confidence: 0.8768062633333333

00:16:22.000 --> 00:16:24.680 not related to inherited mutations.

NOTE Confidence: 0.8768062633333333

00:16:24.680 --> 00:16:26.549 Even though we we talk a lot

NOTE Confidence: 0.8768062633333333

00:16:26.549 --> 00:16:28.019 and we screened for those,

NOTE Confidence: 0.8768062633333333

00:16:28.020 --> 00:16:31.961 so 90% are thought to be either

NOTE Confidence: 0.8768062633333333

00:16:31.961 --> 00:16:34.520 due to environmental issues.

NOTE Confidence: 0.8768062633333333

00:16:34.520 --> 00:16:36.980 Most breast cancers because of screening,

NOTE Confidence: 0.8768062633333333

00:16:36.980 --> 00:16:39.248 are caught at an early stage when

NOTE Confidence: 0.8768062633333333

00:16:39.248 --> 00:16:41.311 they're curatives and the majority do

NOTE Confidence: 0.8768062633333333

00:16:41.311 --> 00:16:43.357 fall into the good prognostic range.

NOTE Confidence: 0.8768062633333333

00:16:43.360 --> 00:16:45.670 A category where they are both

NOTE Confidence: 0.8768062633333333

00:16:45.670 --> 00:16:47.210 estrogen and progesterone positive,

NOTE Confidence: 0.8768062633333333

00:16:47.210 --> 00:16:50.164 and her two negative, that being said.

NOTE Confidence: 0.9164594661111111

00:16:52.260 --> 00:16:55.802 What we consider early stage disease is

NOTE Confidence: 0.9164594661111111

00:16:55.802 --> 00:16:58.403 anything potentially curable by surgery

NOTE Confidence: 0.9164594661111111

00:16:58.403 --> 00:17:00.913 and various amounts of additional  
NOTE Confidence: 0.9164594661111111

00:17:00.913 --> 00:17:03.900 therapies and but 30% will recur,  
NOTE Confidence: 0.9164594661111111

00:17:03.900 --> 00:17:06.048 though that's usually more  
NOTE Confidence: 0.9164594661111111

00:17:06.048 --> 00:17:08.733 in the more advanced stage.  
NOTE Confidence: 0.9164594661111111

00:17:08.740 --> 00:17:10.060 And when we talk about  
NOTE Confidence: 0.9164594661111111

00:17:10.060 --> 00:17:11.116 what increases the risk,  
NOTE Confidence: 0.9164594661111111

00:17:11.120 --> 00:17:12.616 there are many things that increase the risk.  
NOTE Confidence: 0.9164594661111111

00:17:12.620 --> 00:17:13.535 But of course,  
NOTE Confidence: 0.9164594661111111

00:17:13.535 --> 00:17:16.075 being a woman is one of them and  
NOTE Confidence: 0.9164594661111111

00:17:16.075 --> 00:17:18.739 and living longer and a lot of times  
NOTE Confidence: 0.9164594661111111

00:17:18.739 --> 00:17:21.158 people talk about how there's more  
NOTE Confidence: 0.9164594661111111

00:17:21.158 --> 00:17:22.880 cancer now than there used to be.  
NOTE Confidence: 0.9164594661111111

00:17:22.880 --> 00:17:25.050 And part of that is because of  
NOTE Confidence: 0.9164594661111111

00:17:25.050 --> 00:17:26.406 the improving prognosis people  
NOTE Confidence: 0.9164594661111111

00:17:26.406 --> 00:17:27.854 cardiologists have done their  
NOTE Confidence: 0.9164594661111111

00:17:27.854 --> 00:17:30.052 jobs and people are living longer

NOTE Confidence: 0.916459466111111

00:17:30.052 --> 00:17:32.334 and therefore get at more risk of

NOTE Confidence: 0.916459466111111

00:17:32.334 --> 00:17:34.315 developing cancers in general and for

NOTE Confidence: 0.916459466111111

00:17:34.315 --> 00:17:35.970 women breast cancer in particular.

NOTE Confidence: 0.853597873333333

00:17:38.910 --> 00:17:40.919 So what we always like to stress

NOTE Confidence: 0.853597873333333

00:17:40.919 --> 00:17:42.939 just as doctor Gallego mentioned,

NOTE Confidence: 0.853597873333333

00:17:42.940 --> 00:17:45.100 is the individualized approach

NOTE Confidence: 0.853597873333333

00:17:45.100 --> 00:17:47.260 to breast cancer treatment.

NOTE Confidence: 0.853597873333333

00:17:47.260 --> 00:17:49.276 Breast cancer is not one disease,

NOTE Confidence: 0.853597873333333

00:17:49.280 --> 00:17:53.895 it's many, and we there are various

NOTE Confidence: 0.853597873333333

00:17:53.895 --> 00:17:57.060 different ways you can categorize cancers,

NOTE Confidence: 0.853597873333333

00:17:57.060 --> 00:17:59.036 so one of the first things that decides

NOTE Confidence: 0.853597873333333

00:17:59.036 --> 00:18:01.021 how we're going to treat breast cancer

NOTE Confidence: 0.853597873333333

00:18:01.021 --> 00:18:02.920 either before or after their surgery,

NOTE Confidence: 0.853597873333333

00:18:02.920 --> 00:18:04.736 is the stage stages.

NOTE Confidence: 0.853597873333333

00:18:04.736 --> 00:18:06.552 One through three are

NOTE Confidence: 0.853597873333333

00:18:06.552 --> 00:18:08.190 considered curable stage.  
NOTE Confidence: 0.8535978733333333

00:18:08.190 --> 00:18:10.380 Or is not?  
NOTE Confidence: 0.8535978733333333

00:18:10.380 --> 00:18:12.508 Other factors that go into deciding how  
NOTE Confidence: 0.8535978733333333

00:18:12.508 --> 00:18:15.009 we're going to treat a patient is the age  
NOTE Confidence: 0.8535978733333333

00:18:15.009 --> 00:18:17.209 of the patient and their comorbidities.  
NOTE Confidence: 0.8535978733333333

00:18:17.210 --> 00:18:18.382 Usually, younger,  
NOTE Confidence: 0.8535978733333333

00:18:18.382 --> 00:18:20.726 healthier patients are treated  
NOTE Confidence: 0.8535978733333333

00:18:20.726 --> 00:18:22.838 with more aggressively because  
NOTE Confidence: 0.8535978733333333

00:18:22.838 --> 00:18:24.926 there are more years at stake,  
NOTE Confidence: 0.8535978733333333

00:18:24.930 --> 00:18:27.366 and also we think they can handle  
NOTE Confidence: 0.8535978733333333

00:18:27.366 --> 00:18:29.199 treatments a little bit better.  
NOTE Confidence: 0.8535978733333333

00:18:29.200 --> 00:18:31.202 And then of course some of the  
NOTE Confidence: 0.8535978733333333

00:18:31.202 --> 00:18:33.327 treatment is also determined by the  
NOTE Confidence: 0.8535978733333333

00:18:33.327 --> 00:18:35.337 unique characteristics of the tumor.  
NOTE Confidence: 0.8535978733333333

00:18:35.340 --> 00:18:37.455 There are different options available  
NOTE Confidence: 0.8535978733333333

00:18:37.455 --> 00:18:40.222 if the tumor is, ER, positive.

NOTE Confidence: 0.8535978733333333  
00:18:40.222 --> 00:18:42.366 Such as hormone therapies.  
NOTE Confidence: 0.8535978733333333  
00:18:42.370 --> 00:18:44.554 If the tumor is her two positive,  
NOTE Confidence: 0.8535978733333333  
00:18:44.560 --> 00:18:46.968 there are therapies specifically  
NOTE Confidence: 0.8535978733333333  
00:18:46.968 --> 00:18:49.978 targeted to that and want  
NOTE Confidence: 0.8535978733333333  
00:18:49.978 --> 00:18:52.948 to tumors triple negative.  
NOTE Confidence: 0.8535978733333333  
00:18:52.950 --> 00:18:56.275 That we tend to focus on chemotherapy  
NOTE Confidence: 0.8535978733333333  
00:18:56.275 --> 00:18:58.870 so so our treatment decisions are  
NOTE Confidence: 0.8535978733333333  
00:18:58.870 --> 00:19:01.646 based on a combination of the  
NOTE Confidence: 0.8535978733333333  
00:19:01.646 --> 00:19:03.950 patient and their characteristics,  
NOTE Confidence: 0.8535978733333333  
00:19:03.950 --> 00:19:05.609 what the stage of the tumor is,  
NOTE Confidence: 0.8535978733333333  
00:19:05.610 --> 00:19:06.602 and what the characteristics  
NOTE Confidence: 0.8535978733333333  
00:19:06.602 --> 00:19:07.594 of the tumor are.  
NOTE Confidence: 0.8725985  
00:19:11.220 --> 00:19:13.594 So the most common, uh,  
NOTE Confidence: 0.8725985  
00:19:13.594 --> 00:19:15.824 early stage breast cancer or  
NOTE Confidence: 0.8725985  
00:19:15.824 --> 00:19:18.348 estrogen receptor positive cancers.  
NOTE Confidence: 0.936676245

00:19:20.610 --> 00:19:24.162 Hormonally targeted agents are actually the  
NOTE Confidence: 0.936676245

00:19:24.162 --> 00:19:27.810 most potent treatments for these cancers,  
NOTE Confidence: 0.936676245

00:19:27.810 --> 00:19:29.943 and there are a variety that we can use,  
NOTE Confidence: 0.936676245

00:19:29.950 --> 00:19:32.485 and again, which we pick  
NOTE Confidence: 0.936676245

00:19:32.485 --> 00:19:35.020 depends on on the patient.  
NOTE Confidence: 0.936676245

00:19:35.020 --> 00:19:37.576 Tamoxifen came out in the 1970s.  
NOTE Confidence: 0.936676245

00:19:37.580 --> 00:19:40.356 It is the oldest of the hormone treatments  
NOTE Confidence: 0.936676245

00:19:40.356 --> 00:19:44.100 and it used to be used for everyone and  
NOTE Confidence: 0.936676245

00:19:44.186 --> 00:19:47.595 now mostly used for pre menopausal women.  
NOTE Confidence: 0.936676245

00:19:47.600 --> 00:19:50.039 If we feel the need to be more aggressive,  
NOTE Confidence: 0.936676245

00:19:50.040 --> 00:19:52.872 we will sometimes give LHRH agonists  
NOTE Confidence: 0.936676245

00:19:52.872 --> 00:19:56.208 those work by lowering estrogen and are  
NOTE Confidence: 0.936676245

00:19:56.208 --> 00:19:58.944 often given to premenopausal women as  
NOTE Confidence: 0.936676245

00:19:58.944 --> 00:20:02.160 an additional sort of more aggressive  
NOTE Confidence: 0.936676245

00:20:02.160 --> 00:20:04.840 way of treating them hormonally.  
NOTE Confidence: 0.936676245

00:20:04.840 --> 00:20:06.080 If the tumor is small,

NOTE Confidence: 0.936676245

00:20:06.080 --> 00:20:08.450 we might go with tamoxifen only

NOTE Confidence: 0.936676245

00:20:08.450 --> 00:20:10.620 if we think the tumor.

NOTE Confidence: 0.936676245

00:20:10.620 --> 00:20:12.440 Or as has higher risk,

NOTE Confidence: 0.936676245

00:20:12.440 --> 00:20:14.625 will use a continent tamoxifen

NOTE Confidence: 0.936676245

00:20:14.625 --> 00:20:15.936 and LHRH agonists.

NOTE Confidence: 0.936676245

00:20:15.940 --> 00:20:17.750 The big difference between tamoxifen

NOTE Confidence: 0.936676245

00:20:17.750 --> 00:20:20.349 and the drugs we use for post

NOTE Confidence: 0.936676245

00:20:20.349 --> 00:20:22.159 menopausal women is tamoxifen mostly

NOTE Confidence: 0.936676245

00:20:22.159 --> 00:20:24.390 works as an estrogen blocker.

NOTE Confidence: 0.936676245

00:20:24.390 --> 00:20:26.015 Drugs that we use for

NOTE Confidence: 0.936676245

00:20:26.015 --> 00:20:27.640 menopausal women such as Rome.

NOTE Confidence: 0.936676245

00:20:27.640 --> 00:20:30.868 Taste inhibitors work by lowering estrogen,

NOTE Confidence: 0.936676245

00:20:30.870 --> 00:20:32.838 so again looking at the patient.

NOTE Confidence: 0.936676245

00:20:32.840 --> 00:20:34.898 We have to determine if the

NOTE Confidence: 0.936676245

00:20:34.898 --> 00:20:37.150 patient pre or post menopausal.

NOTE Confidence: 0.936676245

00:20:37.150 --> 00:20:39.928 Figure out what their other medical  
NOTE Confidence: 0.936676245

00:20:39.928 --> 00:20:43.226 conditions are and decide which of these  
NOTE Confidence: 0.936676245

00:20:43.226 --> 00:20:46.411 endocrine therapies are best for the patient.  
NOTE Confidence: 0.936676245

00:20:46.420 --> 00:20:49.140 If we think the tumor is higher risk,  
NOTE Confidence: 0.936676245

00:20:49.140 --> 00:20:52.940 then we will not only use endocrine therapy,  
NOTE Confidence: 0.936676245

00:20:52.940 --> 00:20:55.880 but we will use a combination of  
NOTE Confidence: 0.936676245

00:20:55.880 --> 00:20:57.790 chemotherapy and endocrine therapy.  
NOTE Confidence: 0.936676245

00:20:57.790 --> 00:20:58.398 Very often,  
NOTE Confidence: 0.936676245

00:20:58.398 --> 00:21:00.222 when patients have a are newly  
NOTE Confidence: 0.936676245

00:21:00.222 --> 00:21:01.639 diagnosed with breast cancer,  
NOTE Confidence: 0.936676245

00:21:01.640 --> 00:21:04.712 you know their question is will I get  
NOTE Confidence: 0.936676245

00:21:04.712 --> 00:21:07.657 chemotherapy or will I get entrepren therapy?  
NOTE Confidence: 0.936676245

00:21:07.660 --> 00:21:10.570 And again it's for an estrogen  
NOTE Confidence: 0.936676245

00:21:10.570 --> 00:21:12.025 receptor positive cancer.  
NOTE Confidence: 0.936676245

00:21:12.030 --> 00:21:15.900 We will always offer endocrine therapy.  
NOTE Confidence: 0.936676245

00:21:15.900 --> 00:21:18.777 Work in therapy actually is more effective



NOTE Confidence: 0.936676245

00:21:18.777 --> 00:21:21.928 therapy with less toxicity than chemotherapy.

NOTE Confidence: 0.936676245

00:21:21.930 --> 00:21:24.207 But if we think we need to use everything

NOTE Confidence: 0.936676245

00:21:24.207 --> 00:21:26.475 in our war chest to treat the cancer,

NOTE Confidence: 0.936676245

00:21:26.480 --> 00:21:28.028 we will use both.

NOTE Confidence: 0.936676245

00:21:28.028 --> 00:21:30.917 Some of the newer advances that have

NOTE Confidence: 0.936676245

00:21:30.917 --> 00:21:33.827 occurred in making these decisions is.

NOTE Confidence: 0.936676245

00:21:33.830 --> 00:21:37.484 The use of the Oncotype DX test,

NOTE Confidence: 0.936676245

00:21:37.490 --> 00:21:40.530 which is a molecular assessment

NOTE Confidence: 0.936676245

00:21:40.530 --> 00:21:43.816 of how likely the tumor is to

NOTE Confidence: 0.936676245

00:21:43.816 --> 00:21:46.390 respond well to hormonal therapy.

NOTE Confidence: 0.936676245

00:21:46.390 --> 00:21:48.558 So when first presented with a with a

NOTE Confidence: 0.936676245

00:21:48.558 --> 00:21:52.160 patient who has an ER, positive cancer.

NOTE Confidence: 0.936676245

00:21:52.160 --> 00:21:55.100 Again trying to figure out her risk,

NOTE Confidence: 0.936676245

00:21:55.100 --> 00:21:57.146 we will look at tumor size.

NOTE Confidence: 0.936676245

00:21:57.150 --> 00:21:59.635 We will look at lymph node involvement.

NOTE Confidence: 0.936676245

00:21:59.640 --> 00:22:01.050 The grade of the tumor,  
NOTE Confidence: 0.936676245

00:22:01.050 --> 00:22:03.290 which is an assessment of how abnormal  
NOTE Confidence: 0.936676245

00:22:03.290 --> 00:22:05.219 it looks under the microscope.  
NOTE Confidence: 0.936676245

00:22:05.220 --> 00:22:05.574 Uhm,  
NOTE Confidence: 0.936676245

00:22:05.574 --> 00:22:08.406 we will look at the tumor itself and  
NOTE Confidence: 0.936676245

00:22:08.406 --> 00:22:11.990 see if we see cancer cells within either  
NOTE Confidence: 0.936676245

00:22:11.990 --> 00:22:14.758 lymphatic vessels or or blood vessels.  
NOTE Confidence: 0.936676245

00:22:14.760 --> 00:22:15.374 To see,  
NOTE Confidence: 0.936676245

00:22:15.374 --> 00:22:17.216 does this cancer have a chance  
NOTE Confidence: 0.936676245

00:22:17.216 --> 00:22:18.540 to spread elsewhere?  
NOTE Confidence: 0.936676245

00:22:18.540 --> 00:22:19.904 The larger the tumor,  
NOTE Confidence: 0.936676245

00:22:19.904 --> 00:22:21.950 the greater the odds that the  
NOTE Confidence: 0.936676245

00:22:22.026 --> 00:22:24.438 cancer can have left before surgery.  
NOTE Confidence: 0.936676245

00:22:24.440 --> 00:22:26.092 Kind of left and spread to elsewhere  
NOTE Confidence: 0.936676245

00:22:26.092 --> 00:22:28.040 in the body before surgery was done.  
NOTE Confidence: 0.936676245

00:22:28.040 --> 00:22:29.834 If we see lymph node involvement

NOTE Confidence: 0.936676245

00:22:29.834 --> 00:22:31.620 that already tells us cancer cells

NOTE Confidence: 0.936676245

00:22:31.620 --> 00:22:33.482 have left the site of the tumor

NOTE Confidence: 0.936676245

00:22:33.482 --> 00:22:35.299 and gone elsewhere in the body.

NOTE Confidence: 0.936676245

00:22:35.300 --> 00:22:39.120 Before surgery was accomplished,

NOTE Confidence: 0.936676245

00:22:39.120 --> 00:22:39.826 tumor grade,

NOTE Confidence: 0.936676245

00:22:39.826 --> 00:22:42.297 which again is a sort of value

NOTE Confidence: 0.936676245

00:22:42.297 --> 00:22:44.206 judgment by the pathologist of

NOTE Confidence: 0.936676245

00:22:44.206 --> 00:22:46.056 how abnormal it looks often

NOTE Confidence: 0.872578215

00:22:46.060 --> 00:22:47.895 correlate's with how aggressive the

NOTE Confidence: 0.872578215

00:22:47.895 --> 00:22:50.130 tumor will behave and how likely

NOTE Confidence: 0.872578215

00:22:50.130 --> 00:22:52.152 it is to spread and similarly

NOTE Confidence: 0.872578215

00:22:52.152 --> 00:22:54.032 seeing blood cancer cells within

NOTE Confidence: 0.872578215

00:22:54.032 --> 00:22:56.047 blood vessels or within lymphatic

NOTE Confidence: 0.872578215

00:22:56.047 --> 00:22:59.054 vessels does suggest that there's a

NOTE Confidence: 0.872578215

00:22:59.054 --> 00:23:02.642 possibility that the cancer has spread.

NOTE Confidence: 0.872578215

00:23:02.650 --> 00:23:03.721 Before surgery happened,  
NOTE Confidence: 0.872578215

00:23:03.721 --> 00:23:05.863 even if when the lymph nodes  
NOTE Confidence: 0.872578215

00:23:05.863 --> 00:23:07.789 are assessed their negative.  
NOTE Confidence: 0.872578215

00:23:07.790 --> 00:23:09.221 That being said,  
NOTE Confidence: 0.872578215

00:23:09.221 --> 00:23:11.606 that sort of those components,  
NOTE Confidence: 0.872578215

00:23:11.610 --> 00:23:13.550 tumor size, lymph node involvement,  
NOTE Confidence: 0.872578215

00:23:13.550 --> 00:23:14.912 lymphovascular involvement will  
NOTE Confidence: 0.872578215

00:23:14.912 --> 00:23:17.636 tell us what is the likelihood  
NOTE Confidence: 0.872578215

00:23:17.636 --> 00:23:19.849 that the cancer could have left  
NOTE Confidence: 0.872578215

00:23:19.849 --> 00:23:22.032 the breast and gonna be hiding  
NOTE Confidence: 0.872578215

00:23:22.032 --> 00:23:24.528 somewhere in the body after surgery.  
NOTE Confidence: 0.872578215

00:23:24.530 --> 00:23:26.684 But it doesn't necessarily tell us  
NOTE Confidence: 0.872578215

00:23:26.684 --> 00:23:29.362 how likely it is that hormone therapy  
NOTE Confidence: 0.872578215

00:23:29.362 --> 00:23:32.360 will kill off any cells that might be.  
NOTE Confidence: 0.872578215

00:23:32.360 --> 00:23:32.821 Working,  
NOTE Confidence: 0.872578215

00:23:32.821 --> 00:23:36.048 and that's what the Oncotype DX says.

NOTE Confidence: 0.872578215

00:23:36.050 --> 00:23:37.298 And what that does.

NOTE Confidence: 0.872578215

00:23:37.298 --> 00:23:39.890 That was a test that was generated

NOTE Confidence: 0.872578215

00:23:39.890 --> 00:23:43.030 by looking at historical controls.

NOTE Confidence: 0.872578215

00:23:43.030 --> 00:23:45.052 Women who were diagnosed in the

NOTE Confidence: 0.872578215

00:23:45.052 --> 00:23:47.925 70s and 80s who were treated with

NOTE Confidence: 0.872578215

00:23:47.925 --> 00:23:50.030 tamoxifen that was awhile ago.

NOTE Confidence: 0.872578215

00:23:50.030 --> 00:23:52.460 We know what their outcome was.

NOTE Confidence: 0.872578215

00:23:52.460 --> 00:23:53.044 Their tumors,

NOTE Confidence: 0.872578215

00:23:53.044 --> 00:23:55.088 if they were involved in clinical trials,

NOTE Confidence: 0.872578215

00:23:55.090 --> 00:23:59.042 were kept in pathology banks and the

NOTE Confidence: 0.872578215

00:23:59.042 --> 00:24:01.604 people who devised the Oncotype DX test,

NOTE Confidence: 0.872578215

00:24:01.610 --> 00:24:02.086 actually.

NOTE Confidence: 0.872578215

00:24:02.086 --> 00:24:04.942 Wanted to know if the cancer

NOTE Confidence: 0.872578215

00:24:04.942 --> 00:24:08.062 patients who they knew were cured

NOTE Confidence: 0.872578215

00:24:08.062 --> 00:24:10.202 with tamoxifen were different

NOTE Confidence: 0.872578215

00:24:10.202 --> 00:24:12.920 than the patients who weren't,  
NOTE Confidence: 0.872578215

00:24:12.920 --> 00:24:15.856 so they went back to the pathology labs,  
NOTE Confidence: 0.872578215

00:24:15.860 --> 00:24:17.950 looked at the molecular expression  
NOTE Confidence: 0.872578215

00:24:17.950 --> 00:24:20.876 patterns of the cancers of those who  
NOTE Confidence: 0.872578215

00:24:20.876 --> 00:24:23.174 were cured with hormonal therapy and  
NOTE Confidence: 0.872578215

00:24:23.174 --> 00:24:25.832 those who were not and found that  
NOTE Confidence: 0.872578215

00:24:25.832 --> 00:24:28.147 there was a different pattern of  
NOTE Confidence: 0.872578215

00:24:28.147 --> 00:24:30.632 protein expression in the cancers  
NOTE Confidence: 0.872578215

00:24:30.632 --> 00:24:33.330 that responded well to hormonal therapy.  
NOTE Confidence: 0.872578215

00:24:33.330 --> 00:24:35.526 Versus the cancers that did not.  
NOTE Confidence: 0.872578215

00:24:35.530 --> 00:24:39.097 They then sort of made and sort of as  
NOTE Confidence: 0.872578215

00:24:39.097 --> 00:24:42.450 a way to assess a newly diagnosed cancer.  
NOTE Confidence: 0.872578215

00:24:42.450 --> 00:24:44.396 Which was it more like the good  
NOTE Confidence: 0.872578215

00:24:44.396 --> 00:24:46.099 behaviors or the bad behaviors?  
NOTE Confidence: 0.872578215

00:24:46.100 --> 00:24:47.976 And then came up with the tool  
NOTE Confidence: 0.872578215

00:24:47.976 --> 00:24:49.801 that we have before we start

NOTE Confidence: 0.872578215

00:24:49.801 --> 00:24:52.027 treatment to to get a better sense.

NOTE Confidence: 0.872578215

00:24:52.030 --> 00:24:55.066 Will this persons tumor respond well

NOTE Confidence: 0.872578215

00:24:55.066 --> 00:24:58.916 to hormonal therapy and do we need to

NOTE Confidence: 0.872578215

00:24:58.916 --> 00:25:01.075 give them chemotherapy and and therefore

NOTE Confidence: 0.872578215

00:25:01.075 --> 00:25:03.390 actually the benefit of this test is that?

NOTE Confidence: 0.872578215

00:25:03.390 --> 00:25:05.772 We give a lot less chemotherapy

NOTE Confidence: 0.872578215

00:25:05.772 --> 00:25:07.360 than we used to.

NOTE Confidence: 0.872578215

00:25:07.360 --> 00:25:09.200 Some of the newer developments

NOTE Confidence: 0.872578215

00:25:09.200 --> 00:25:10.672 with this test strips.

NOTE Confidence: 0.872578215

00:25:10.680 --> 00:25:11.880 I went the wrong way.

NOTE Confidence: 0.872578215

00:25:11.880 --> 00:25:14.820 A is there has been re

NOTE Confidence: 0.872578215

00:25:14.820 --> 00:25:16.780 assessment of that data.

NOTE Confidence: 0.872578215

00:25:16.780 --> 00:25:19.846 The test was originally only validated for

NOTE Confidence: 0.872578215

00:25:19.846 --> 00:25:23.139 people with small tumors and no lymph nodes.

NOTE Confidence: 0.872578215

00:25:23.140 --> 00:25:25.856 We knew there was a group that.

NOTE Confidence: 0.872578215

00:25:25.860 --> 00:25:27.600 Based on the test prediction would  
NOTE Confidence: 0.872578215

00:25:27.600 --> 00:25:29.770 do very well with hormonal therapy.  
NOTE Confidence: 0.872578215

00:25:29.770 --> 00:25:31.792 We knew there was a group  
NOTE Confidence: 0.872578215

00:25:31.792 --> 00:25:33.690 that based on the tests.  
NOTE Confidence: 0.872578215

00:25:33.690 --> 00:25:35.503 The score would do very poorly if  
NOTE Confidence: 0.872578215

00:25:35.503 --> 00:25:37.530 all we did was hormone therapy,  
NOTE Confidence: 0.872578215

00:25:37.530 --> 00:25:39.322 so those we gave chemo to and  
NOTE Confidence: 0.872578215

00:25:39.322 --> 00:25:41.139 when the test first came out  
NOTE Confidence: 0.872578215

00:25:41.139 --> 00:25:42.779 there was this intermediate zone  
NOTE Confidence: 0.872578215

00:25:42.779 --> 00:25:44.630 that we really didn't know.  
NOTE Confidence: 0.872578215

00:25:44.630 --> 00:25:47.438 There were some on the edge and we  
NOTE Confidence: 0.872578215

00:25:47.438 --> 00:25:50.384 didn't know if giving chemotherapy to  
NOTE Confidence: 0.872578215

00:25:50.384 --> 00:25:53.094 those patients would prove beneficial.  
NOTE Confidence: 0.872578215

00:25:53.100 --> 00:25:54.090 More actually published,  
NOTE Confidence: 0.872578215

00:25:54.090 --> 00:25:56.400 I think two years ago was the  
NOTE Confidence: 0.872578215

00:25:56.465 --> 00:25:58.295 result of the Taylor RX trial,



NOTE Confidence: 0.872578215

00:25:58.300 --> 00:26:00.360 which specifically looked at

NOTE Confidence: 0.872578215

00:26:00.360 --> 00:26:02.935 whether or not giving chemotherapy

NOTE Confidence: 0.872578215

00:26:02.935 --> 00:26:05.799 to women whose tumors scored in

NOTE Confidence: 0.872578215

00:26:05.799 --> 00:26:08.064 the intermediate zone had any

NOTE Confidence: 0.941653504545455

00:26:08.143 --> 00:26:10.508 added value. And interestingly,

NOTE Confidence: 0.941653504545455

00:26:10.508 --> 00:26:14.078 if you were over 50.

NOTE Confidence: 0.941653504545455

00:26:14.080 --> 00:26:16.635 There was no value to giving chemotherapy

NOTE Confidence: 0.941653504545455

00:26:16.635 --> 00:26:19.289 to people in the intermediate zone,

NOTE Confidence: 0.941653504545455

00:26:19.290 --> 00:26:20.940 but if you were under 50,

NOTE Confidence: 0.941653504545455

00:26:20.940 --> 00:26:23.180 there was a small benefit,

NOTE Confidence: 0.941653504545455

00:26:23.180 --> 00:26:25.004 so that allowed us to give

NOTE Confidence: 0.941653504545455

00:26:25.004 --> 00:26:26.800 chemotherapy to even fewer patients.

NOTE Confidence: 0.941653504545455

00:26:26.800 --> 00:26:28.492 More recently,

NOTE Confidence: 0.941653504545455

00:26:28.492 --> 00:26:32.708 the tests you know the verification

NOTE Confidence: 0.941653504545455

00:26:32.708 --> 00:26:35.606 has been expanded to women who have

NOTE Confidence: 0.941653504545455

00:26:35.606 --> 00:26:37.666 involved nodes and generally are  
NOTE Confidence: 0.941653504545455

00:26:37.666 --> 00:26:39.668 thought to have higher risk of disease.  
NOTE Confidence: 0.912945275555556

00:26:41.730 --> 00:26:44.547 In the past, if we saw lymph nodes involved,  
NOTE Confidence: 0.912945275555556

00:26:44.550 --> 00:26:46.804 we were much more concerned that they  
NOTE Confidence: 0.912945275555556

00:26:46.804 --> 00:26:48.829 that the patient would involve lymph  
NOTE Confidence: 0.912945275555556

00:26:48.829 --> 00:26:51.160 nodes was going to have their cancer  
NOTE Confidence: 0.912945275555556

00:26:51.229 --> 00:26:53.315 come back and we would almost need  
NOTE Confidence: 0.912945275555556

00:26:53.315 --> 00:26:55.220 you give those patients chemotherapy.  
NOTE Confidence: 0.912945275555556

00:26:55.220 --> 00:26:57.745 But further evaluation of patients  
NOTE Confidence: 0.912945275555556

00:26:57.745 --> 00:27:00.898 using the Oncotype test and going back  
NOTE Confidence: 0.912945275555556

00:27:00.898 --> 00:27:03.250 and looking at historical control shows  
NOTE Confidence: 0.912945275555556

00:27:03.319 --> 00:27:05.692 that even women who have anywhere from  
NOTE Confidence: 0.912945275555556

00:27:05.692 --> 00:27:08.818 one to three involve lymph nodes might  
NOTE Confidence: 0.912945275555556

00:27:08.818 --> 00:27:11.980 do just fine with hormone therapy.  
NOTE Confidence: 0.912945275555556

00:27:11.980 --> 00:27:14.730 Provided that their cancer expresses  
NOTE Confidence: 0.912945275555556

00:27:14.730 --> 00:27:18.042 the protein pattern that suggests that

NOTE Confidence: 0.912945275555556

00:27:18.042 --> 00:27:20.934 hormone therapy will work really well.

NOTE Confidence: 0.912945275555556

00:27:20.940 --> 00:27:22.928 So whereas in the past any woman

NOTE Confidence: 0.912945275555556

00:27:22.928 --> 00:27:24.786 with lymph node involvement would

NOTE Confidence: 0.912945275555556

00:27:24.786 --> 00:27:26.678 have been giving chemotherapy.

NOTE Confidence: 0.912945275555556

00:27:26.680 --> 00:27:30.054 Now if their recurrence score is low,

NOTE Confidence: 0.912945275555556

00:27:30.060 --> 00:27:32.979 if the characteristics of their tumor suggest

NOTE Confidence: 0.912945275555556

00:27:32.979 --> 00:27:35.478 an excellent response to hormone therapy,

NOTE Confidence: 0.912945275555556

00:27:35.480 --> 00:27:38.570 we won't give them chemotherapy and

NOTE Confidence: 0.912945275555556

00:27:38.570 --> 00:27:42.280 and similar to the tailor X trial.

NOTE Confidence: 0.912945275555556

00:27:42.280 --> 00:27:43.040 Older women.

NOTE Confidence: 0.912945275555556

00:27:43.040 --> 00:27:46.080 Are less likely to get a benefit from

NOTE Confidence: 0.912945275555556

00:27:46.163 --> 00:27:48.599 chemotherapy than younger woman,

NOTE Confidence: 0.912945275555556

00:27:48.600 --> 00:27:50.077 and in that trial they looked at.

NOTE Confidence: 0.912945275555556

00:27:50.080 --> 00:27:51.704 They made the division.

NOTE Confidence: 0.912945275555556

00:27:51.704 --> 00:27:54.140 If you were already in menopause,

NOTE Confidence: 0.912945275555556

00:27:54.140 --> 00:27:57.350 you actually got less benefit than if  
NOTE Confidence: 0.912945275555556

00:27:57.350 --> 00:28:00.350 you were pre menopausal and some of that  
NOTE Confidence: 0.912945275555556

00:28:00.429 --> 00:28:03.189 is thought that the post menopausal  
NOTE Confidence: 0.912945275555556

00:28:03.189 --> 00:28:06.475 has less estrogen and more likely  
NOTE Confidence: 0.912945275555556

00:28:06.475 --> 00:28:09.650 to respond to hormone manipulation,  
NOTE Confidence: 0.912945275555556

00:28:09.650 --> 00:28:12.149 but again the the wonders of the  
NOTE Confidence: 0.912945275555556

00:28:12.149 --> 00:28:14.470 appetite DX test is it allows us.  
NOTE Confidence: 0.912945275555556

00:28:14.470 --> 00:28:17.382 Or or helps us prevent us from over  
NOTE Confidence: 0.912945275555556

00:28:17.382 --> 00:28:19.420 treating patients with chemotherapy.  
NOTE Confidence: 0.912945275555556

00:28:19.420 --> 00:28:21.012 They don't need so,  
NOTE Confidence: 0.912945275555556

00:28:21.012 --> 00:28:25.296 so this is sort of when we talk about  
NOTE Confidence: 0.912945275555556

00:28:25.296 --> 00:28:27.118 personalized care and everyone's  
NOTE Confidence: 0.912945275555556

00:28:27.118 --> 00:28:28.336 cancer being different.  
NOTE Confidence: 0.912945275555556

00:28:28.340 --> 00:28:30.956 This is assessing it on a molecular level,  
NOTE Confidence: 0.912945275555556

00:28:30.960 --> 00:28:33.378 allowing us to correctly treat patients  
NOTE Confidence: 0.912945275555556

00:28:33.378 --> 00:28:35.865 with hormone therapy who only need

NOTE Confidence: 0.912945275555556

00:28:35.865 --> 00:28:37.880 hormone therapy and reserve chemotherapy

NOTE Confidence: 0.912945275555556

00:28:37.880 --> 00:28:41.019 to people who are both at higher risk

NOTE Confidence: 0.912945275555556

00:28:41.019 --> 00:28:43.496 based on characteristics like tumor size,

NOTE Confidence: 0.912945275555556

00:28:43.496 --> 00:28:45.344 lymph node status.

NOTE Confidence: 0.912945275555556

00:28:45.344 --> 00:28:48.998 But also the molecular aspect of their tumor.

NOTE Confidence: 0.852554318

00:28:51.960 --> 00:28:54.900 So, so something that Doctor Gallego had

NOTE Confidence: 0.852554318

00:28:54.900 --> 00:28:58.077 talked about was the four types of cancer,

NOTE Confidence: 0.852554318

00:28:58.080 --> 00:29:01.880 a luminal a the luminal B which are.

NOTE Confidence: 0.852554318

00:29:01.880 --> 00:29:06.830 ER positive her two negative cancers.

NOTE Confidence: 0.852554318

00:29:06.830 --> 00:29:08.690 Presumably with the archetypes,

NOTE Confidence: 0.852554318

00:29:08.690 --> 00:29:12.234 sort of compliments in that is that you

NOTE Confidence: 0.852554318

00:29:12.234 --> 00:29:14.930 know luminal a are more likely to be

NOTE Confidence: 0.852554318

00:29:15.013 --> 00:29:18.165 patients treated with hormone therapy only,

NOTE Confidence: 0.852554318

00:29:18.165 --> 00:29:21.020 and that can help is better

NOTE Confidence: 0.852554318

00:29:21.020 --> 00:29:22.895 determined by the Oncotype test

NOTE Confidence: 0.852554318

00:29:22.895 --> 00:29:25.251 luminal be those patients who have  
NOTE Confidence: 0.852554318

00:29:25.251 --> 00:29:27.579 ER positive her two negative cancer,  
NOTE Confidence: 0.852554318

00:29:27.580 --> 00:29:30.547 but are still at high risk. Again,  
NOTE Confidence: 0.852554318

00:29:30.547 --> 00:29:34.236 can be identified by the archetype test,  
NOTE Confidence: 0.852554318

00:29:34.240 --> 00:29:36.172 but she had talked about how the  
NOTE Confidence: 0.852554318

00:29:36.172 --> 00:29:37.510 her two positive cancers.  
NOTE Confidence: 0.852554318

00:29:37.510 --> 00:29:40.774 For poorer prognosis cancers,  
NOTE Confidence: 0.852554318

00:29:40.774 --> 00:29:44.038 which historically was true.  
NOTE Confidence: 0.852554318

00:29:44.040 --> 00:29:46.483 Though that has changed because of new  
NOTE Confidence: 0.852554318

00:29:46.483 --> 00:29:48.896 drugs that have been developed that  
NOTE Confidence: 0.852554318

00:29:48.896 --> 00:29:51.482 specifically target the her two protein,  
NOTE Confidence: 0.852554318

00:29:51.490 --> 00:29:54.210 you can see her two is a protein  
NOTE Confidence: 0.852554318

00:29:54.210 --> 00:29:57.200 that is involved with cell growth.  
NOTE Confidence: 0.852554318

00:29:57.200 --> 00:30:01.835 It is one of a family of of cancers,  
NOTE Confidence: 0.852554318

00:30:01.840 --> 00:30:04.110 not cancers of proteins that  
NOTE Confidence: 0.852554318

00:30:04.110 --> 00:30:06.882 help regulate cell growth and in

NOTE Confidence: 0.852554318

00:30:06.882 --> 00:30:09.787 about 1/3 of breast cancers it is

NOTE Confidence: 0.852554318

00:30:09.787 --> 00:30:12.057 overexpressed so you have more of

NOTE Confidence: 0.852554318

00:30:12.057 --> 00:30:14.468 these pro proteins that help cells.

NOTE Confidence: 0.852554318

00:30:14.468 --> 00:30:17.060 To grow then should be there,

NOTE Confidence: 0.852554318

00:30:17.060 --> 00:30:19.136 and these cells grow very quickly

NOTE Confidence: 0.852554318

00:30:19.136 --> 00:30:22.154 and they spread very quickly the the

NOTE Confidence: 0.852554318

00:30:22.154 --> 00:30:24.939 because of this aggressive nature.

NOTE Confidence: 0.852554318

00:30:24.940 --> 00:30:28.756 When we see her two positive breast cancers,

NOTE Confidence: 0.852554318

00:30:28.760 --> 00:30:31.960 chemotherapy is almost always recommended.

NOTE Confidence: 0.852554318

00:30:31.960 --> 00:30:33.214 Unless of course,

NOTE Confidence: 0.852554318

00:30:33.214 --> 00:30:35.304 the patient is extremely elderly

NOTE Confidence: 0.852554318

00:30:35.304 --> 00:30:38.836 or we don't think they can tolerate

NOTE Confidence: 0.852554318

00:30:38.836 --> 00:30:39.682 chemotherapy historically.

NOTE Confidence: 0.852554318

00:30:39.682 --> 00:30:41.292 The reason these were thought

NOTE Confidence: 0.852554318

00:30:41.292 --> 00:30:43.180 to be such poor prognosis.

NOTE Confidence: 0.852554318

00:30:43.180 --> 00:30:44.878 High risk cancers is even if  
NOTE Confidence: 0.852554318

00:30:44.878 --> 00:30:46.010 you gave these patients.  
NOTE Confidence: 0.852554318

00:30:46.010 --> 00:30:47.910 Chemotherapy and if they were,  
NOTE Confidence: 0.852554318

00:30:47.910 --> 00:30:48.654 they were positive.  
NOTE Confidence: 0.852554318

00:30:48.654 --> 00:30:50.390 Even if you gave them hormonal therapy,  
NOTE Confidence: 0.852554318

00:30:50.390 --> 00:30:52.230 they would come back.  
NOTE Confidence: 0.852554318

00:30:52.230 --> 00:30:52.690 However,  
NOTE Confidence: 0.852554318

00:30:52.690 --> 00:30:56.614 in 1998 Herceptin was FDA approved  
NOTE Confidence: 0.852554318

00:30:56.614 --> 00:31:00.116 initially for the treatment of  
NOTE Confidence: 0.852554318

00:31:00.116 --> 00:31:03.236 only widespread metastatic cancer,  
NOTE Confidence: 0.852554318

00:31:03.240 --> 00:31:05.599 but in 2006 it was shown that  
NOTE Confidence: 0.852554318

00:31:05.599 --> 00:31:08.390 if you use the Herceptin early,  
NOTE Confidence: 0.852554318

00:31:08.390 --> 00:31:10.710 you could have a significant  
NOTE Confidence: 0.852554318

00:31:10.710 --> 00:31:12.566 impact on these cancers,  
NOTE Confidence: 0.852554318

00:31:12.570 --> 00:31:16.356 so that small cancers that are.  
NOTE Confidence: 0.852554318

00:31:16.360 --> 00:31:17.676 Don't involve lymph nodes.



NOTE Confidence: 0.852554318

00:31:17.676 --> 00:31:20.634 The If you treat them with a combination

NOTE Confidence: 0.852554318

00:31:20.634 --> 00:31:22.939 of chemotherapy and Herceptin therapy.

NOTE Confidence: 0.852554318

00:31:22.940 --> 00:31:25.870 You can get cure rates of up to 9598%.

NOTE Confidence: 0.896354170357143

00:31:28.110 --> 00:31:30.198 Drug manufacturers have really

NOTE Confidence: 0.896354170357143

00:31:30.198 --> 00:31:33.330 focused on this really very impressive

NOTE Confidence: 0.896354170357143

00:31:33.409 --> 00:31:36.553 change in how we view these her two

NOTE Confidence: 0.896354170357143

00:31:36.553 --> 00:31:38.754 positive cancers and have developed

NOTE Confidence: 0.896354170357143

00:31:38.754 --> 00:31:41.848 additional drugs in the past 20 years.

NOTE Confidence: 0.896354170357143

00:31:41.848 --> 00:31:44.886 At least five drugs have come out,

NOTE Confidence: 0.896354170357143

00:31:44.890 --> 00:31:47.054 possibly more to treat

NOTE Confidence: 0.896354170357143

00:31:47.054 --> 00:31:49.218 her two positive disease.

NOTE Confidence: 0.896354170357143

00:31:49.220 --> 00:31:50.805 Many are still only used

NOTE Confidence: 0.896354170357143

00:31:50.805 --> 00:31:52.073 in the metastatic setting,

NOTE Confidence: 0.896354170357143

00:31:52.080 --> 00:31:54.104 but would have been added to the early

NOTE Confidence: 0.896354170357143

00:31:54.104 --> 00:31:56.166 setting where we're looking at cure patients.

NOTE Confidence: 0.896354170357143

00:31:56.170 --> 00:31:57.358 There is now another.  
NOTE Confidence: 0.896354170357143

00:31:57.358 --> 00:31:58.843 Her two targeted drug called.  
NOTE Confidence: 0.896354170357143

00:31:58.850 --> 00:32:01.741 Perjeta, which came out in 2017,  
NOTE Confidence: 0.896354170357143

00:32:01.741 --> 00:32:06.580 and then there's a third drug, Kadcyla.  
NOTE Confidence: 0.896354170357143

00:32:06.580 --> 00:32:09.254 First came out in 2013 for the  
NOTE Confidence: 0.896354170357143

00:32:09.254 --> 00:32:11.040 treatment of metastatic disease,  
NOTE Confidence: 0.896354170357143

00:32:11.040 --> 00:32:16.260 but in 2019 was shown to.  
NOTE Confidence: 0.896354170357143

00:32:16.260 --> 00:32:20.306 Improved cure rates for patients who had,  
NOTE Confidence: 0.896354170357143

00:32:20.310 --> 00:32:22.487 if they were treated first with Herceptin,  
NOTE Confidence: 0.896354170357143

00:32:22.490 --> 00:32:23.696 and at the time of surgery,  
NOTE Confidence: 0.896354170357143

00:32:23.700 --> 00:32:26.856 were found to have persistent disease.  
NOTE Confidence: 0.896354170357143

00:32:26.860 --> 00:32:28.420 So something that has changed.  
NOTE Confidence: 0.896354170357143

00:32:28.420 --> 00:32:30.735 Also how we incorporate chemotherapy  
NOTE Confidence: 0.896354170357143

00:32:30.735 --> 00:32:33.050 and surgery for early stage.  
NOTE Confidence: 0.896354170357143

00:32:33.050 --> 00:32:34.834 Her two positive disease.  
NOTE Confidence: 0.896354170357143

00:32:34.834 --> 00:32:35.280 Historically,

NOTE Confidence: 0.896354170357143

00:32:35.280 --> 00:32:38.046 we would always give chemotherapy afterwards,

NOTE Confidence: 0.896354170357143

00:32:38.050 --> 00:32:40.970 but now because of the studies that have

NOTE Confidence: 0.896354170357143

00:32:40.970 --> 00:32:43.707 shown that if you can't make all the

NOTE Confidence: 0.896354170357143

00:32:43.707 --> 00:32:46.860 cancer go away with treatment before surgery.

NOTE Confidence: 0.896354170357143

00:32:46.860 --> 00:32:48.988 Changing therapy to Kadcyla

NOTE Confidence: 0.896354170357143

00:32:48.988 --> 00:32:51.116 also improves cure rates.

NOTE Confidence: 0.896354170357143

00:32:51.120 --> 00:32:53.928 This has really changed when we

NOTE Confidence: 0.896354170357143

00:32:53.928 --> 00:32:55.800 introduce chemotherapy now sometimes,

NOTE Confidence: 0.896354170357143

00:32:55.800 --> 00:32:58.208 specially for her two positive disease will

NOTE Confidence: 0.896354170357143

00:32:58.208 --> 00:33:00.898 do it before surgery rather than after.

NOTE Confidence: 0.896354170357143

00:33:00.900 --> 00:33:02.670 Uhm,

NOTE Confidence: 0.896354170357143

00:33:02.670 --> 00:33:03.540 and then lastly,

NOTE Confidence: 0.896354170357143

00:33:03.540 --> 00:33:05.280 we get to triple negative disease,

NOTE Confidence: 0.896354170357143

00:33:05.280 --> 00:33:08.970 which is very high risk.

NOTE Confidence: 0.896354170357143

00:33:08.970 --> 00:33:11.762 Partially 'cause we don't have targets up.

NOTE Confidence: 0.896354170357143

00:33:11.762 --> 00:33:14.222 Hormone therapy with either tamoxifen  
NOTE Confidence: 0.896354170357143

00:33:14.222 --> 00:33:16.808 or Roman taste inhibitors won't  
NOTE Confidence: 0.896354170357143

00:33:16.808 --> 00:33:19.523 work because there's no estrogen  
NOTE Confidence: 0.896354170357143

00:33:19.523 --> 00:33:21.695 receptor controlling cancer growth.  
NOTE Confidence: 0.896354170357143

00:33:21.700 --> 00:33:23.668 Her two targeting agents won't work  
NOTE Confidence: 0.896354170357143

00:33:23.668 --> 00:33:26.202 because the her two protein is not  
NOTE Confidence: 0.896354170357143

00:33:26.202 --> 00:33:27.363 overexpressed and chemotherapy  
NOTE Confidence: 0.896354170357143

00:33:27.363 --> 00:33:28.911 is the only option.  
NOTE Confidence: 0.865409537142857

00:33:31.320 --> 00:33:34.099 Things that have a new approaches that  
NOTE Confidence: 0.865409537142857

00:33:34.099 --> 00:33:37.172 have come in the past few years and  
NOTE Confidence: 0.865409537142857

00:33:37.172 --> 00:33:39.916 things that are currently under study are  
NOTE Confidence: 0.865409537142857

00:33:39.916 --> 00:33:42.699 the ideas of adding yet another drug.  
NOTE Confidence: 0.865409537142857

00:33:42.700 --> 00:33:44.920 Often we will treat triple negative  
NOTE Confidence: 0.865409537142857

00:33:44.920 --> 00:33:47.310 disease with a combination of three  
NOTE Confidence: 0.865409537142857

00:33:47.310 --> 00:33:49.430 different chemotherapy agents and what's  
NOTE Confidence: 0.865409537142857

00:33:49.430 --> 00:33:51.821 being actively looked at now is the

NOTE Confidence: 0.865409537142857  
00:33:51.821 --> 00:33:53.856 benefit of adding a fourth and perhaps  
NOTE Confidence: 0.865409537142857  
00:33:53.856 --> 00:33:56.327 one of the more exciting changes that  
NOTE Confidence: 0.865409537142857  
00:33:56.327 --> 00:33:58.791 has also occurred with triple negative  
NOTE Confidence: 0.865409537142857  
00:33:58.791 --> 00:34:01.830 disease is the addition of immunotherapy.  
NOTE Confidence: 0.865409537142857  
00:34:01.830 --> 00:34:04.630 Trying to get the immune system involved  
NOTE Confidence: 0.865409537142857  
00:34:04.630 --> 00:34:08.103 in trying to kill cancer cells in addition  
NOTE Confidence: 0.865409537142857  
00:34:08.103 --> 00:34:11.130 to the chemotherapy and just this year,  
NOTE Confidence: 0.865409537142857  
00:34:11.130 --> 00:34:14.370 the FDA approved an immunotherapy drug  
NOTE Confidence: 0.865409537142857  
00:34:14.370 --> 00:34:18.114 for high risk but curable triple negative  
NOTE Confidence: 0.865409537142857  
00:34:18.114 --> 00:34:20.769 disease in combination with chemotherapy,  
NOTE Confidence: 0.865409537142857  
00:34:20.770 --> 00:34:23.326 which is again been shown to  
NOTE Confidence: 0.865409537142857  
00:34:23.326 --> 00:34:25.045 improve cure rates. Uhm?  
NOTE Confidence: 0.865409537142857  
00:34:25.045 --> 00:34:27.655 Here at Greenwich we are continuing  
NOTE Confidence: 0.865409537142857  
00:34:27.655 --> 00:34:30.239 to participate in clinical trials,  
NOTE Confidence: 0.865409537142857  
00:34:30.240 --> 00:34:32.178 hoping again to add more options  
NOTE Confidence: 0.865409537142857

00:34:32.178 --> 00:34:34.357 to our patients who are diagnosed  
NOTE Confidence: 0.865409537142857

00:34:34.357 --> 00:34:35.587 with breast cancer.  
NOTE Confidence: 0.865409537142857

00:34:35.590 --> 00:34:38.416 One trial is the DARE trial,  
NOTE Confidence: 0.865409537142857

00:34:38.420 --> 00:34:41.024 which is looking at women who are  
NOTE Confidence: 0.865409537142857

00:34:41.024 --> 00:34:43.320 who have potentially curable disease,  
NOTE Confidence: 0.865409537142857

00:34:43.320 --> 00:34:45.096 but high risk because the tumors  
NOTE Confidence: 0.865409537142857

00:34:45.096 --> 00:34:46.840 were either large or involved.  
NOTE Confidence: 0.865409537142857

00:34:46.840 --> 00:34:49.180 A lot of lymph nodes and looking  
NOTE Confidence: 0.865409537142857

00:34:49.180 --> 00:34:51.330 for evidence of circulating tumor  
NOTE Confidence: 0.865409537142857

00:34:51.330 --> 00:34:53.140 cells in the blood.  
NOTE Confidence: 0.865409537142857

00:34:53.140 --> 00:34:56.297 If those are found, the clinical trial.  
NOTE Confidence: 0.865409537142857

00:34:56.300 --> 00:35:00.918 Will a rant randomize them to going  
NOTE Confidence: 0.865409537142857

00:35:00.918 --> 00:35:02.908 to different hormone therapies to  
NOTE Confidence: 0.865409537142857

00:35:02.908 --> 00:35:04.989 treat their cancer in combination  
NOTE Confidence: 0.865409537142857

00:35:04.989 --> 00:35:07.915 with some oral drugs that can make  
NOTE Confidence: 0.865409537142857

00:35:07.915 --> 00:35:10.189 hormone therapies more effective versus

NOTE Confidence: 0.865409537142857  
00:35:10.190 --> 00:35:12.650 continuing as we normally would with  
NOTE Confidence: 0.865409537142857  
00:35:12.650 --> 00:35:14.880 just continuing on hormone therapy.  
NOTE Confidence: 0.865409537142857  
00:35:14.880 --> 00:35:17.067 And this is a trial to look at one.  
NOTE Confidence: 0.865409537142857  
00:35:17.070 --> 00:35:20.610 Are there better hormone combinations  
NOTE Confidence: 0.865409537142857  
00:35:20.610 --> 00:35:23.692 for women with estrogen receptor  
NOTE Confidence: 0.865409537142857  
00:35:23.692 --> 00:35:24.644 positive disease?  
NOTE Confidence: 0.865409537142857  
00:35:24.644 --> 00:35:27.500 And is this tool looking at?  
NOTE Confidence: 0.865409537142857  
00:35:27.500 --> 00:35:30.278 Circulating cancer cells in the blood.  
NOTE Confidence: 0.865409537142857  
00:35:30.280 --> 00:35:33.360 An effective tool to guide our treatments.  
NOTE Confidence: 0.865409537142857  
00:35:33.360 --> 00:35:36.312 We also have some studies for  
NOTE Confidence: 0.865409537142857  
00:35:36.312 --> 00:35:37.788 triple negative disease.  
NOTE Confidence: 0.865409537142857  
00:35:37.790 --> 00:35:40.652 One referring to regarding adding  
NOTE Confidence: 0.865409537142857  
00:35:40.652 --> 00:35:44.030 a fourth drug, two chemotherapy.  
NOTE Confidence: 0.865409537142857  
00:35:44.030 --> 00:35:45.200 We, our standard of care,  
NOTE Confidence: 0.865409537142857  
00:35:45.200 --> 00:35:48.256 is using three drugs and checking to see  
NOTE Confidence: 0.865409537142857

00:35:48.256 --> 00:35:51.157 if adding a fourth will have benefit,  
NOTE Confidence: 0.865409537142857

00:35:51.160 --> 00:35:54.009 and then we have another study here,  
NOTE Confidence: 0.865409537142857

00:35:54.010 --> 00:35:54.543 again,  
NOTE Confidence: 0.865409537142857

00:35:54.543 --> 00:35:58.274 looking at for patients who don't get  
NOTE Confidence: 0.865409537142857

00:35:58.274 --> 00:36:00.639 immunotherapy upfront if they still  
NOTE Confidence: 0.865409537142857

00:36:00.639 --> 00:36:03.467 have disease at the time of surgery,  
NOTE Confidence: 0.865409537142857

00:36:03.470 --> 00:36:07.023 will adding immune therapy help so?  
NOTE Confidence: 0.865409537142857

00:36:07.023 --> 00:36:07.776 Again,  
NOTE Confidence: 0.865409537142857

00:36:07.776 --> 00:36:11.958 the major things to the major points of  
NOTE Confidence: 0.865409537142857

00:36:11.958 --> 00:36:14.457 what I'm trying to say here tonight is  
NOTE Confidence: 0.865409537142857

00:36:14.457 --> 00:36:16.830 that breast cancer is not one disease.  
NOTE Confidence: 0.865409537142857

00:36:16.830 --> 00:36:20.206 It is many and is very important to  
NOTE Confidence: 0.865409537142857

00:36:20.206 --> 00:36:22.154 personalize treatment to both the  
NOTE Confidence: 0.865409537142857

00:36:22.154 --> 00:36:24.541 patient who has the cancer and the  
NOTE Confidence: 0.865409537142857

00:36:24.616 --> 00:36:27.210 characteristics of their tumor and  
NOTE Confidence: 0.865409537142857

00:36:27.210 --> 00:36:29.800 then things are improving all the time.



NOTE Confidence: 0.865409537142857

00:36:29.800 --> 00:36:33.202 So as I always like to look to the

NOTE Confidence: 0.865409537142857

00:36:33.202 --> 00:36:35.550 future and participate in clinical trials,

NOTE Confidence: 0.865409537142857

00:36:35.550 --> 00:36:37.867 it's the way we get answers and

NOTE Confidence: 0.865409537142857

00:36:37.867 --> 00:36:38.529 better treatments.

NOTE Confidence: 0.865409537142857

00:36:38.530 --> 00:36:40.399 And then thank you for your time.

NOTE Confidence: 0.85876065

00:36:42.720 --> 00:36:45.422 Thank you Doctor Drucker. Uhm?

NOTE Confidence: 0.85876065

00:36:45.422 --> 00:36:48.437 Now for Doctor Alison Campbell

NOTE Confidence: 0.85876065

00:36:48.437 --> 00:36:53.060 from radiation oncology. OK. Just

NOTE Confidence: 0.900141185

00:36:53.070 --> 00:36:54.966 trying to share my screen here.

NOTE Confidence: 0.923379566666667

00:36:59.850 --> 00:37:03.150 Can you guys see my slides?

NOTE Confidence: 0.923379566666667

00:37:03.150 --> 00:37:06.896 OK great so thank you so much for

NOTE Confidence: 0.923379566666667

00:37:06.896 --> 00:37:09.888 inviting me to be part of this panel.

NOTE Confidence: 0.923379566666667

00:37:09.890 --> 00:37:12.290 My name is Allison Campbell and

NOTE Confidence: 0.923379566666667

00:37:12.290 --> 00:37:14.290 I'm are radiation oncologist here.

NOTE Confidence: 0.923379566666667

00:37:14.290 --> 00:37:16.656 So Dr, Gallego and Doctor Drucker have

NOTE Confidence: 0.923379566666667

00:37:16.656 --> 00:37:19.224 given a great overview into sort of  
NOTE Confidence: 0.923379566666667

00:37:19.224 --> 00:37:22.062 the statistics of breast cancer and how  
NOTE Confidence: 0.923379566666667

00:37:22.062 --> 00:37:24.246 important individualized treatment is.  
NOTE Confidence: 0.923379566666667

00:37:24.250 --> 00:37:26.202 So I'm going to shift gears a little  
NOTE Confidence: 0.923379566666667

00:37:26.202 --> 00:37:28.264 bit and talk about radiation because  
NOTE Confidence: 0.923379566666667

00:37:28.264 --> 00:37:30.688 a lot of times people haven't  
NOTE Confidence: 0.923379566666667

00:37:30.688 --> 00:37:32.250 really encountered radiation in  
NOTE Confidence: 0.923379566666667

00:37:32.250 --> 00:37:33.675 sort of their daily life.  
NOTE Confidence: 0.923379566666667

00:37:33.680 --> 00:37:38.035 So radiation is a part of cancer care in  
NOTE Confidence: 0.923379566666667

00:37:38.035 --> 00:37:40.795 that it's very good at killing cancer cells,  
NOTE Confidence: 0.923379566666667

00:37:40.800 --> 00:37:42.408 but not healthy cells.  
NOTE Confidence: 0.923379566666667

00:37:42.408 --> 00:37:45.647 So what we say is that radiation  
NOTE Confidence: 0.923379566666667

00:37:45.647 --> 00:37:48.579 selectively kills cancer cells,  
NOTE Confidence: 0.923379566666667

00:37:48.580 --> 00:37:51.380 so we use beams of high energy particles.  
NOTE Confidence: 0.923379566666667

00:37:51.380 --> 00:37:53.240 Usually these are photons.  
NOTE Confidence: 0.923379566666667

00:37:53.240 --> 00:37:55.565 Sometimes these can be electrons

NOTE Confidence: 0.923379566666667

00:37:55.565 --> 00:37:59.140 or protons and we target the breast

NOTE Confidence: 0.923379566666667

00:37:59.140 --> 00:38:01.650 and these high energy particles

NOTE Confidence: 0.923379566666667

00:38:01.740 --> 00:38:04.248 damage the DNA in the cells.

NOTE Confidence: 0.923379566666667

00:38:04.250 --> 00:38:05.730 That they fall on,

NOTE Confidence: 0.923379566666667

00:38:05.730 --> 00:38:08.424 but normal healthy cells are able to

NOTE Confidence: 0.923379566666667

00:38:08.424 --> 00:38:10.812 repair their DNA while cancer cells

NOTE Confidence: 0.923379566666667

00:38:10.812 --> 00:38:13.332 are dividing very quickly and cannot

NOTE Confidence: 0.923379566666667

00:38:13.332 --> 00:38:15.885 repair their DNA and so when they go

NOTE Confidence: 0.923379566666667

00:38:15.885 --> 00:38:18.433 and try to divide, they actually die.

NOTE Confidence: 0.923379566666667

00:38:18.433 --> 00:38:20.938 And so that's how radiation

NOTE Confidence: 0.923379566666667

00:38:20.938 --> 00:38:23.560 kills cancer cells selectively.

NOTE Confidence: 0.923379566666667

00:38:23.560 --> 00:38:24.435 Generally speaking,

NOTE Confidence: 0.923379566666667

00:38:24.435 --> 00:38:26.360 when we are using radiation,

NOTE Confidence: 0.923379566666667

00:38:26.360 --> 00:38:27.860 it's coming in after surgery.

NOTE Confidence: 0.923379566666667

00:38:27.860 --> 00:38:28.790 But as Doctor,

NOTE Confidence: 0.923379566666667

00:38:28.790 --> 00:38:30.340 Gallego and Doctor Drucker said,  
NOTE Confidence: 0.923379566666667

00:38:30.340 --> 00:38:32.048 every patient's journey through  
NOTE Confidence: 0.923379566666667

00:38:32.048 --> 00:38:34.183 breast cancer is different and  
NOTE Confidence: 0.923379566666667

00:38:34.183 --> 00:38:36.536 depends on their stage and their  
NOTE Confidence: 0.923379566666667

00:38:36.536 --> 00:38:37.655 hormone receptor status.  
NOTE Confidence: 0.923379566666667

00:38:37.660 --> 00:38:40.028 But a lot of times people ask me,  
NOTE Confidence: 0.923379566666667

00:38:40.030 --> 00:38:41.835 you know if margins are  
NOTE Confidence: 0.923379566666667

00:38:41.835 --> 00:38:42.918 negative after surgery.  
NOTE Confidence: 0.923379566666667

00:38:42.920 --> 00:38:45.062 Why come in with radiation and  
NOTE Confidence: 0.923379566666667

00:38:45.062 --> 00:38:46.959 give that as another treatment  
NOTE Confidence: 0.923379566666667

00:38:46.959 --> 00:38:49.353 when everything that we can see  
NOTE Confidence: 0.923379566666667

00:38:49.353 --> 00:38:50.900 has been gotten out.  
NOTE Confidence: 0.923379566666667

00:38:50.900 --> 00:38:53.030 But we know that occasionally.  
NOTE Confidence: 0.923379566666667

00:38:53.030 --> 00:38:55.526 Even single cells that are cancerous,  
NOTE Confidence: 0.923379566666667

00:38:55.530 --> 00:38:58.038 or precancerous that are left behind,  
NOTE Confidence: 0.923379566666667

00:38:58.040 --> 00:39:00.640 can go on to divide and cause the

NOTE Confidence: 0.923379566666667

00:39:00.640 --> 00:39:03.040 tumor to come back so radiation

NOTE Confidence: 0.923379566666667

00:39:03.040 --> 00:39:05.548 can kill these cells and reduce

NOTE Confidence: 0.923379566666667

00:39:05.625 --> 00:39:07.870 the risk of cancer recurring,

NOTE Confidence: 0.923379566666667

00:39:07.870 --> 00:39:09.844 and to put some numbers to this.

NOTE Confidence: 0.923379566666667

00:39:09.850 --> 00:39:13.450 So in older clinical trials,

NOTE Confidence: 0.923379566666667

00:39:13.450 --> 00:39:16.145 we know from many, many studies that,

NOTE Confidence: 0.923379566666667

00:39:16.150 --> 00:39:17.060 generally speaking,

NOTE Confidence: 0.923379566666667

00:39:17.060 --> 00:39:19.790 the benefit of radiation is to

NOTE Confidence: 0.923379566666667

00:39:19.790 --> 00:39:22.747 reduce the risk of local recurrence

NOTE Confidence: 0.923379566666667

00:39:22.747 --> 00:39:24.220 by approximately 50%.

NOTE Confidence: 0.923379566666667

00:39:24.220 --> 00:39:26.560 In early stage breast cancer for

NOTE Confidence: 0.923379566666667

00:39:26.560 --> 00:39:28.920 patients who've had a lumpectomy

NOTE Confidence: 0.923379566666667

00:39:28.920 --> 00:39:31.938 and that this reduction in local

NOTE Confidence: 0.923379566666667

00:39:31.938 --> 00:39:33.950 recurrence actually also translates

NOTE Confidence: 0.923379566666667

00:39:34.027 --> 00:39:36.469 to a benefit in overall survival.

NOTE Confidence: 0.923379566666667

00:39:36.470 --> 00:39:38.451 So the numbers that have come out  
NOTE Confidence: 0.923379566666667

00:39:38.451 --> 00:39:40.818 of these really big studies are for  
NOTE Confidence: 0.923379566666667

00:39:40.818 --> 00:39:42.643 every four are occurrences prevented.  
NOTE Confidence: 0.923379566666667

00:39:42.650 --> 00:39:45.891 We save one life for late stage  
NOTE Confidence: 0.923379566666667

00:39:45.891 --> 00:39:46.817 breast cancer.  
NOTE Confidence: 0.923379566666667

00:39:46.820 --> 00:39:49.016 The numbers are a little different.  
NOTE Confidence: 0.923379566666667

00:39:49.020 --> 00:39:51.426 It's usually a greater than 50% benefit,  
NOTE Confidence: 0.923379566666667

00:39:51.426 --> 00:39:53.474 but this depends a lot on some of  
NOTE Confidence: 0.923379566666667

00:39:53.474 --> 00:39:55.398 the characteristics of the tumor.  
NOTE Confidence: 0.923379566666667

00:39:55.400 --> 00:39:57.500 And whether there are any lymph  
NOTE Confidence: 0.923379566666667

00:39:57.500 --> 00:39:58.200 nodes involved.  
NOTE Confidence: 0.923379566666667

00:39:58.200 --> 00:40:00.775 But radiation can also confer  
NOTE Confidence: 0.923379566666667

00:40:00.775 --> 00:40:02.835 an overall survival benefit.  
NOTE Confidence: 0.923379566666667

00:40:02.840 --> 00:40:06.780 In advanced stage breast cancer.  
NOTE Confidence: 0.923379566666667

00:40:06.780 --> 00:40:09.998 So how do we give radiation if it is  
NOTE Confidence: 0.923379566666667

00:40:09.998 --> 00:40:12.234 part of a patient's treatment strategy?

NOTE Confidence: 0.923379566666667

00:40:12.234 --> 00:40:15.042 So we actually take great care

NOTE Confidence: 0.923379566666667

00:40:15.042 --> 00:40:17.169 when we plan the radiation,

NOTE Confidence: 0.923379566666667

00:40:17.170 --> 00:40:19.156 so I'm going to talk through

NOTE Confidence: 0.923379566666667

00:40:19.156 --> 00:40:20.480 exactly what we do.

NOTE Confidence: 0.923379566666667

00:40:20.480 --> 00:40:22.088 And and then we use a

NOTE Confidence: 0.923379566666667

00:40:22.088 --> 00:40:23.160 machine called a linear

NOTE Confidence: 0.899663915333333

00:40:23.224 --> 00:40:25.729 accelerator to actually deliver radiation,

NOTE Confidence: 0.899663915333333

00:40:25.730 --> 00:40:28.258 and it's a treatment that you get every

NOTE Confidence: 0.899663915333333

00:40:28.258 --> 00:40:30.773 day for a period of weeks depending

NOTE Confidence: 0.899663915333333

00:40:30.773 --> 00:40:33.002 again on your own personal stage

NOTE Confidence: 0.899663915333333

00:40:33.002 --> 00:40:35.886 and and risk factors that you have.

NOTE Confidence: 0.899663915333333

00:40:35.890 --> 00:40:39.094 So we'll talk about all of this in detail.

NOTE Confidence: 0.899663915333333

00:40:39.100 --> 00:40:42.564 So the first thing we do when we

NOTE Confidence: 0.899663915333333

00:40:42.564 --> 00:40:45.877 plan radiation is we do a simulation

NOTE Confidence: 0.899663915333333

00:40:45.877 --> 00:40:48.556 session or a planning session and

NOTE Confidence: 0.899663915333333

00:40:48.556 --> 00:40:50.838 we bring the patient in and have  
NOTE Confidence: 0.899663915333333

00:40:50.838 --> 00:40:53.153 them lie flat on their back and  
NOTE Confidence: 0.899663915333333

00:40:53.153 --> 00:40:55.672 they go through a cat scanner and  
NOTE Confidence: 0.899663915333333

00:40:55.672 --> 00:40:57.724 that's what you're looking at here.  
NOTE Confidence: 0.899663915333333

00:40:57.730 --> 00:41:01.760 This is a picture of a woman who is lying.  
NOTE Confidence: 0.899663915333333

00:41:01.760 --> 00:41:03.080 Her feet are toward us,  
NOTE Confidence: 0.899663915333333

00:41:03.080 --> 00:41:05.528 so the right hand side of the screen  
NOTE Confidence: 0.899663915333333

00:41:05.528 --> 00:41:08.136 is the left hand side of her body.  
NOTE Confidence: 0.899663915333333

00:41:08.140 --> 00:41:10.564 The two sort of.  
NOTE Confidence: 0.899663915333333

00:41:10.564 --> 00:41:13.578 Dark ovals in the middle of the lungs and  
NOTE Confidence: 0.899663915333333

00:41:13.578 --> 00:41:16.376 then in the center of that is the heart  
NOTE Confidence: 0.899663915333333

00:41:16.380 --> 00:41:19.872 and the breast tissue is over to the side.  
NOTE Confidence: 0.899663915333333

00:41:19.880 --> 00:41:22.112 So the first thing that I do after we  
NOTE Confidence: 0.899663915333333

00:41:22.112 --> 00:41:24.651 get this kind of scan is I actually go  
NOTE Confidence: 0.899663915333333

00:41:24.651 --> 00:41:26.881 through and map out both normal structures  
NOTE Confidence: 0.899663915333333

00:41:26.881 --> 00:41:29.510 and also the area that we want to target.



NOTE Confidence: 0.899663915333333  
00:41:29.510 --> 00:41:31.040 So here you can see the  
NOTE Confidence: 0.899663915333333  
00:41:31.109 --> 00:41:32.569 heart is circled in red.  
NOTE Confidence: 0.899663915333333  
00:41:32.570 --> 00:41:35.076 The lungs are circled in green and  
NOTE Confidence: 0.899663915333333  
00:41:35.076 --> 00:41:37.672 then on the left there you might  
NOTE Confidence: 0.899663915333333  
00:41:37.672 --> 00:41:39.327 think that that looks potentially.  
NOTE Confidence: 0.899663915333333  
00:41:39.330 --> 00:41:40.146 Like a tumor,  
NOTE Confidence: 0.899663915333333  
00:41:40.146 --> 00:41:42.050 but actually this is for a patient  
NOTE Confidence: 0.899663915333333  
00:41:42.113 --> 00:41:43.589 who's already had surgery.  
NOTE Confidence: 0.899663915333333  
00:41:43.590 --> 00:41:45.543 So what you can see there outlined  
NOTE Confidence: 0.899663915333333  
00:41:45.543 --> 00:41:48.050 in the pink is a very small fluid  
NOTE Confidence: 0.899663915333333  
00:41:48.050 --> 00:41:49.655 collection where the tumor used  
NOTE Confidence: 0.899663915333333  
00:41:49.725 --> 00:41:51.785 to be so a lot of times we can see  
NOTE Confidence: 0.899663915333333  
00:41:51.790 --> 00:41:53.842 surgical changes that we then go  
NOTE Confidence: 0.899663915333333  
00:41:53.842 --> 00:41:56.355 through and we map and we put a  
NOTE Confidence: 0.899663915333333  
00:41:56.355 --> 00:41:58.461 margin on to make sure that when  
NOTE Confidence: 0.899663915333333

00:41:58.461 --> 00:42:00.576 we're treating the breast were  
NOTE Confidence: 0.899663915333333  
00:42:00.576 --> 00:42:04.680 covering that surgical area very well.  
NOTE Confidence: 0.899663915333333  
00:42:04.680 --> 00:42:07.864 So then once we have our mapping done,  
NOTE Confidence: 0.899663915333333  
00:42:07.870 --> 00:42:10.498 we design our radiation fields and  
NOTE Confidence: 0.899663915333333  
00:42:10.498 --> 00:42:13.743 this is all done by computer right  
NOTE Confidence: 0.899663915333333  
00:42:13.743 --> 00:42:16.461 here you can see several different  
NOTE Confidence: 0.899663915333333  
00:42:16.461 --> 00:42:19.410 representations of how we arrange our beams,  
NOTE Confidence: 0.899663915333333  
00:42:19.410 --> 00:42:21.374 but generally speaking here,  
NOTE Confidence: 0.899663915333333  
00:42:21.374 --> 00:42:24.320 they're kind of shown as flashlights,  
NOTE Confidence: 0.899663915333333  
00:42:24.320 --> 00:42:26.882 even though in real life the  
NOTE Confidence: 0.899663915333333  
00:42:26.882 --> 00:42:28.163 beams are invisible.  
NOTE Confidence: 0.899663915333333  
00:42:28.170 --> 00:42:29.982 You can see that one beam  
NOTE Confidence: 0.899663915333333  
00:42:29.982 --> 00:42:32.300 comes in on the top left here,  
NOTE Confidence: 0.899663915333333  
00:42:32.300 --> 00:42:34.076 sort of from the middle of the chest.  
NOTE Confidence: 0.899663915333333  
00:42:34.080 --> 00:42:36.696 Pointing toward the armpit on the  
NOTE Confidence: 0.899663915333333  
00:42:36.696 --> 00:42:39.569 other below right below here you can

NOTE Confidence: 0.899663915333333  
00:42:39.569 --> 00:42:42.450 see we have our other beam coming in  
NOTE Confidence: 0.899663915333333  
00:42:42.450 --> 00:42:45.162 from sort of the back into this side.  
NOTE Confidence: 0.899663915333333  
00:42:45.170 --> 00:42:47.550 So what you get if you look on the top  
NOTE Confidence: 0.899663915333333  
00:42:47.613 --> 00:42:49.935 right here is you get this targeting  
NOTE Confidence: 0.899663915333333  
00:42:49.935 --> 00:42:52.426 of all of the breast tissue with  
NOTE Confidence: 0.899663915333333  
00:42:52.426 --> 00:42:54.946 a tiny little slice of the lung.  
NOTE Confidence: 0.899663915333333  
00:42:54.950 --> 00:42:57.946 Because of the curvature of the chest  
NOTE Confidence: 0.899663915333333  
00:42:57.946 --> 00:43:01.028 wall and what you can see down here in  
NOTE Confidence: 0.899663915333333  
00:43:01.028 --> 00:43:04.592 the bottom right hand corner is an actual.  
NOTE Confidence: 0.899663915333333  
00:43:04.592 --> 00:43:07.676 Representation of those beams so you  
NOTE Confidence: 0.899663915333333  
00:43:07.676 --> 00:43:11.621 can see that the radiation is coming in  
NOTE Confidence: 0.899663915333333  
00:43:11.621 --> 00:43:14.968 from two sides and then we're getting  
NOTE Confidence: 0.899663915333333  
00:43:14.968 --> 00:43:18.039 excellent coverage of our surgical bed.  
NOTE Confidence: 0.899663915333333  
00:43:18.040 --> 00:43:20.356 So a lot of mathematics goes  
NOTE Confidence: 0.899663915333333  
00:43:20.356 --> 00:43:22.929 into the planning of all of this.  
NOTE Confidence: 0.899663915333333

00:43:22.930 --> 00:43:26.254 But then you know one thing  
NOTE Confidence: 0.899663915333333

00:43:26.254 --> 00:43:27.760 that we do when we're putting  
NOTE Confidence: 0.937907014285714

00:43:27.814 --> 00:43:30.280 all of this together is not only are we  
NOTE Confidence: 0.937907014285714

00:43:30.280 --> 00:43:32.074 making sure that we're targeting the  
NOTE Confidence: 0.937907014285714

00:43:32.074 --> 00:43:33.940 breast tissue and the surgical bed,  
NOTE Confidence: 0.937907014285714

00:43:33.940 --> 00:43:35.830 but we want to do.  
NOTE Confidence: 0.937907014285714

00:43:35.830 --> 00:43:37.852 Everything that we can to protect  
NOTE Confidence: 0.937907014285714

00:43:37.852 --> 00:43:40.184 and a normal structures from getting  
NOTE Confidence: 0.937907014285714

00:43:40.184 --> 00:43:41.567 any significant radiation.  
NOTE Confidence: 0.937907014285714

00:43:41.570 --> 00:43:43.676 So for right sided cases this  
NOTE Confidence: 0.937907014285714

00:43:43.676 --> 00:43:44.729 is more straightforward,  
NOTE Confidence: 0.937907014285714

00:43:44.730 --> 00:43:47.439 but on the left side the heart is very  
NOTE Confidence: 0.937907014285714

00:43:47.439 --> 00:43:49.728 close right underneath the breast,  
NOTE Confidence: 0.937907014285714

00:43:49.730 --> 00:43:51.920 so we have two different strategies  
NOTE Confidence: 0.937907014285714

00:43:51.920 --> 00:43:54.959 that we can use to protect the heart.  
NOTE Confidence: 0.937907014285714

00:43:54.960 --> 00:43:57.298 The first strategy is to have the

NOTE Confidence: 0.937907014285714

00:43:57.298 --> 00:43:59.272 patient actually lie on their stomach

NOTE Confidence: 0.937907014285714

00:43:59.272 --> 00:44:01.393 and we have a special table with

NOTE Confidence: 0.937907014285714

00:44:01.456 --> 00:44:03.619 a cat scanner so the breast can

NOTE Confidence: 0.937907014285714

00:44:03.619 --> 00:44:05.686 actually hang down away from the body.

NOTE Confidence: 0.937907014285714

00:44:05.686 --> 00:44:07.720 So that's what you're looking at here.

NOTE Confidence: 0.937907014285714

00:44:07.720 --> 00:44:09.785 This is a person who's lying on

NOTE Confidence: 0.937907014285714

00:44:09.785 --> 00:44:10.375 their stomach.

NOTE Confidence: 0.937907014285714

00:44:10.380 --> 00:44:12.298 This is the heart here and then.

NOTE Confidence: 0.937907014285714

00:44:12.300 --> 00:44:14.050 In blue is the breast tissue and

NOTE Confidence: 0.937907014285714

00:44:14.050 --> 00:44:16.499 yellow is the border of the radiation field.

NOTE Confidence: 0.937907014285714

00:44:16.500 --> 00:44:18.636 So you can see that we're able to

NOTE Confidence: 0.937907014285714

00:44:18.636 --> 00:44:20.908 treat the breast which is hanging down

NOTE Confidence: 0.937907014285714

00:44:20.908 --> 00:44:23.269 in a way without treating the heart.

NOTE Confidence: 0.937907014285714

00:44:23.270 --> 00:44:25.058 Sometimes this technique isn't

NOTE Confidence: 0.937907014285714

00:44:25.058 --> 00:44:27.293 the right one to choose.

NOTE Confidence: 0.937907014285714

00:44:27.300 --> 00:44:29.477 Sometimes people can't lie on their stomach,

NOTE Confidence: 0.937907014285714

00:44:29.480 --> 00:44:31.550 and sometimes we really need

NOTE Confidence: 0.937907014285714

00:44:31.550 --> 00:44:33.140 to treat this area.

NOTE Confidence: 0.937907014285714

00:44:33.140 --> 00:44:35.800 That's that's a lateral to the breast,

NOTE Confidence: 0.937907014285714

00:44:35.800 --> 00:44:37.438 sort of in the armpit where

NOTE Confidence: 0.937907014285714

00:44:37.438 --> 00:44:38.530 the lymph nodes are,

NOTE Confidence: 0.937907014285714

00:44:38.530 --> 00:44:40.095 and this technique doesn't give

NOTE Confidence: 0.937907014285714

00:44:40.095 --> 00:44:41.660 us great coverage for that.

NOTE Confidence: 0.937907014285714

00:44:41.660 --> 00:44:44.084 So my favorite way to protect

NOTE Confidence: 0.937907014285714

00:44:44.084 --> 00:44:47.131 the heart is actually to use a

NOTE Confidence: 0.937907014285714

00:44:47.131 --> 00:44:48.478 breath holding technique.

NOTE Confidence: 0.937907014285714

00:44:48.480 --> 00:44:50.125 So when you take a deep breath,

NOTE Confidence: 0.937907014285714

00:44:50.130 --> 00:44:51.675 your lungs inflate and it

NOTE Confidence: 0.937907014285714

00:44:51.675 --> 00:44:53.650 pushes your heart down in a way.

NOTE Confidence: 0.937907014285714

00:44:53.650 --> 00:44:55.834 From your chest wall and we're actually

NOTE Confidence: 0.937907014285714

00:44:55.834 --> 00:44:58.150 able to come in with radiation beams

NOTE Confidence: 0.937907014285714  
00:44:58.150 --> 00:45:00.490 between the heart and the chest wall.  
NOTE Confidence: 0.937907014285714  
00:45:00.490 --> 00:45:02.536 So we're blocking the heart from  
NOTE Confidence: 0.937907014285714  
00:45:02.536 --> 00:45:04.314 getting any radiation while still  
NOTE Confidence: 0.937907014285714  
00:45:04.314 --> 00:45:06.069 giving radiation to the breast.  
NOTE Confidence: 0.937907014285714  
00:45:06.070 --> 00:45:08.392 And this also gives us really  
NOTE Confidence: 0.937907014285714  
00:45:08.392 --> 00:45:10.832 good coverage of those lymph node  
NOTE Confidence: 0.937907014285714  
00:45:10.832 --> 00:45:12.468 regions under the arm.  
NOTE Confidence: 0.937907014285714  
00:45:12.470 --> 00:45:14.814 So we have a lot of very special  
NOTE Confidence: 0.937907014285714  
00:45:14.814 --> 00:45:16.225 monitoring systems that allow us  
NOTE Confidence: 0.937907014285714  
00:45:16.225 --> 00:45:17.996 to see how the chest rises and  
NOTE Confidence: 0.937907014285714  
00:45:18.059 --> 00:45:19.925 falls in real time while people  
NOTE Confidence: 0.937907014285714  
00:45:19.925 --> 00:45:21.730 are taking and holding a breath.  
NOTE Confidence: 0.937907014285714  
00:45:21.730 --> 00:45:24.450 So when we ask patients to hold their breath,  
NOTE Confidence: 0.937907014285714  
00:45:24.450 --> 00:45:26.742 they're only holding it for about  
NOTE Confidence: 0.937907014285714  
00:45:26.742 --> 00:45:29.433 20 seconds and we're able to see  
NOTE Confidence: 0.937907014285714

00:45:29.433 --> 00:45:31.238 that there holding the correct  
NOTE Confidence: 0.937907014285714

00:45:31.238 --> 00:45:33.285 depth of breath by monitoring  
NOTE Confidence: 0.937907014285714

00:45:33.285 --> 00:45:35.365 the surface of their body.  
NOTE Confidence: 0.937907014285714

00:45:35.370 --> 00:45:36.885 If someone were to sneeze  
NOTE Confidence: 0.937907014285714

00:45:36.885 --> 00:45:38.097 or have the hiccups,  
NOTE Confidence: 0.937907014285714

00:45:38.100 --> 00:45:39.205 or you know anything that  
NOTE Confidence: 0.937907014285714

00:45:39.205 --> 00:45:40.620 got in the way of that,  
NOTE Confidence: 0.937907014285714

00:45:40.620 --> 00:45:42.840 our machines would shut off automatically.  
NOTE Confidence: 0.937907014285714

00:45:42.840 --> 00:45:45.696 Because we tell them exactly where the  
NOTE Confidence: 0.937907014285714

00:45:45.696 --> 00:45:48.564 chest wall should be to get the the  
NOTE Confidence: 0.937907014285714

00:45:48.564 --> 00:45:50.940 beam of radiation to come in safely,  
NOTE Confidence: 0.937907014285714

00:45:50.940 --> 00:45:52.188 keeping the heart blocked.  
NOTE Confidence: 0.925100136

00:45:54.340 --> 00:45:56.310 Once we've done our planning,  
NOTE Confidence: 0.925100136

00:45:56.310 --> 00:45:59.518 then we bring the patient in for treatment.  
NOTE Confidence: 0.925100136

00:45:59.520 --> 00:46:02.280 This is the treatment machine that we have.  
NOTE Confidence: 0.925100136

00:46:02.280 --> 00:46:05.312 It's called a linear accelerator and X rays



NOTE Confidence: 0.925100136

00:46:05.312 --> 00:46:08.490 come out of the circular part at the top.

NOTE Confidence: 0.925100136

00:46:08.490 --> 00:46:10.758 The patient lies on the table and the machine

NOTE Confidence: 0.925100136

00:46:10.758 --> 00:46:12.897 moves around them to deliver the radiation.

NOTE Confidence: 0.89281297

00:46:15.200 --> 00:46:17.488 A lot of patients want to know how we

NOTE Confidence: 0.89281297

00:46:17.488 --> 00:46:20.023 know that we're right on target and we

NOTE Confidence: 0.89281297

00:46:20.023 --> 00:46:21.849 have multiple mechanisms to do this.

NOTE Confidence: 0.89281297

00:46:21.850 --> 00:46:24.930 So at our planning session will make markings

NOTE Confidence: 0.89281297

00:46:24.930 --> 00:46:27.832 on the skin and then when we bring the

NOTE Confidence: 0.89281297

00:46:27.832 --> 00:46:30.059 patients back for their actual treatment,

NOTE Confidence: 0.89281297

00:46:30.060 --> 00:46:32.679 we use those markings to set up two to

NOTE Confidence: 0.89281297

00:46:32.679 --> 00:46:35.406 make sure that we're in the right place.

NOTE Confidence: 0.89281297

00:46:35.410 --> 00:46:37.685 We have a laser alignment system and

NOTE Confidence: 0.89281297

00:46:37.685 --> 00:46:40.484 we use those lasers to line up right at

NOTE Confidence: 0.89281297

00:46:40.484 --> 00:46:43.151 the center of the markings that we make

NOTE Confidence: 0.89281297

00:46:43.151 --> 00:46:45.836 it our planning scan, but we also do.

NOTE Confidence: 0.89281297

00:46:45.836 --> 00:46:46.778 Other things too.  
NOTE Confidence: 0.89281297

00:46:46.780 --> 00:46:49.433 We have X ray verification of internal  
NOTE Confidence: 0.89281297

00:46:49.433 --> 00:46:52.260 anatomy so that we know that even even  
NOTE Confidence: 0.89281297

00:46:52.260 --> 00:46:54.719 when we're right on the skin marks,  
NOTE Confidence: 0.89281297

00:46:54.720 --> 00:46:57.200 we also know that the bones are lining  
NOTE Confidence: 0.89281297

00:46:57.200 --> 00:46:59.323 up because we do an X ray before  
NOTE Confidence: 0.89281297

00:46:59.323 --> 00:47:01.678 the start of our first treatment and  
NOTE Confidence: 0.89281297

00:47:01.678 --> 00:47:04.324 then for almost all patients we use  
NOTE Confidence: 0.89281297

00:47:04.324 --> 00:47:06.458 surface monitoring of the skin so we  
NOTE Confidence: 0.89281297

00:47:06.458 --> 00:47:08.565 can see if there's any changes in  
NOTE Confidence: 0.89281297

00:47:08.565 --> 00:47:10.767 how they are setting update today,  
NOTE Confidence: 0.89281297

00:47:10.770 --> 00:47:12.360 how the breast is falling,  
NOTE Confidence: 0.89281297

00:47:12.360 --> 00:47:13.484 if there's any swelling.  
NOTE Confidence: 0.89281297

00:47:13.484 --> 00:47:15.170 All of these things can be  
NOTE Confidence: 0.89281297

00:47:15.230 --> 00:47:16.610 monitored by our systems.  
NOTE Confidence: 0.89281297

00:47:16.610 --> 00:47:18.654 So we know every time we're giving

NOTE Confidence: 0.89281297

00:47:18.654 --> 00:47:20.512 radiation that we're really right on

NOTE Confidence: 0.89281297

00:47:20.512 --> 00:47:22.354 target down to the millimeter level.

NOTE Confidence: 0.609799273333333

00:47:24.630 --> 00:47:27.370 Come and then. Finally,

NOTE Confidence: 0.609799273333333

00:47:27.370 --> 00:47:30.652 in as Doctor Drucker and Doctor

NOTE Confidence: 0.609799273333333

00:47:30.652 --> 00:47:32.542 Gallego explained everybody's breast

NOTE Confidence: 0.609799273333333

00:47:32.542 --> 00:47:34.522 cancer journey is different depending

NOTE Confidence: 0.609799273333333

00:47:34.522 --> 00:47:36.779 on their stage and their hormone,

NOTE Confidence: 0.609799273333333

00:47:36.780 --> 00:47:37.514 receptor status,

NOTE Confidence: 0.609799273333333

00:47:37.514 --> 00:47:40.083 and their age and their general health.

NOTE Confidence: 0.609799273333333

00:47:40.090 --> 00:47:42.386 So we don't give the same radiation

NOTE Confidence: 0.609799273333333

00:47:42.386 --> 00:47:44.547 regimen for every woman that we see.

NOTE Confidence: 0.609799273333333

00:47:44.550 --> 00:47:46.610 We have three major regimens

NOTE Confidence: 0.609799273333333

00:47:46.610 --> 00:47:48.258 that we choose from.

NOTE Confidence: 0.609799273333333

00:47:48.260 --> 00:47:50.195 The first is a standard

NOTE Confidence: 0.609799273333333

00:47:50.195 --> 00:47:50.969 fractionation regimen,

NOTE Confidence: 0.609799273333333

00:47:50.970 --> 00:47:53.070 so this is an older regimen,  
NOTE Confidence: 0.6097992733333333

00:47:53.070 --> 00:47:55.164 but we still use this for  
NOTE Confidence: 0.6097992733333333

00:47:55.164 --> 00:47:56.560 our high risk patients.  
NOTE Confidence: 0.6097992733333333

00:47:56.560 --> 00:47:59.787 Or for patients that have had a  
NOTE Confidence: 0.6097992733333333

00:47:59.787 --> 00:48:02.576 mastectomy or who have cancer in lymph  
NOTE Confidence: 0.6097992733333333

00:48:02.576 --> 00:48:05.409 nodes where we need to set up special  
NOTE Confidence: 0.6097992733333333

00:48:05.409 --> 00:48:08.299 fields specifically targeting those nodes,  
NOTE Confidence: 0.6097992733333333

00:48:08.300 --> 00:48:10.670 so for these patients it's five  
NOTE Confidence: 0.6097992733333333

00:48:10.670 --> 00:48:12.769 weeks of radiation to the whole  
NOTE Confidence: 0.6097992733333333

00:48:12.769 --> 00:48:14.890 breast or to the whole chest wall,  
NOTE Confidence: 0.6097992733333333

00:48:14.890 --> 00:48:17.830 followed by 5 treatments where  
NOTE Confidence: 0.6097992733333333

00:48:17.830 --> 00:48:20.770 we boost the surgical bed.  
NOTE Confidence: 0.6097992733333333

00:48:20.770 --> 00:48:23.176 For most early stage or lower  
NOTE Confidence: 0.6097992733333333

00:48:23.176 --> 00:48:24.780 risk breast cancer patients,  
NOTE Confidence: 0.6097992733333333

00:48:24.780 --> 00:48:27.030 we use what we call a  
NOTE Confidence: 0.6097992733333333

00:48:27.030 --> 00:48:27.780 hypofractionated regimen,

NOTE Confidence: 0.6097992733333333

00:48:27.780 --> 00:48:29.465 which just means it's a

NOTE Confidence: 0.6097992733333333

00:48:29.465 --> 00:48:30.813 fewer number of fractions.

NOTE Confidence: 0.6097992733333333

00:48:30.820 --> 00:48:33.352 So in that case it's treatment

NOTE Confidence: 0.6097992733333333

00:48:33.352 --> 00:48:35.570 for 15 treatments or three

NOTE Confidence: 0.6097992733333333

00:48:35.570 --> 00:48:37.775 weeks to the whole breast,

NOTE Confidence: 0.6097992733333333

00:48:37.780 --> 00:48:41.324 followed by 4 treatments to the surgical bed.

NOTE Confidence: 0.6097992733333333

00:48:41.330 --> 00:48:43.562 And then there's a special category

NOTE Confidence: 0.6097992733333333

00:48:43.562 --> 00:48:45.757 of women who have lower risk

NOTE Confidence: 0.6097992733333333

00:48:45.757 --> 00:48:47.969 cancer and who are over the age

NOTE Confidence: 0.6097992733333333

00:48:47.969 --> 00:48:50.716 of 70 where we can use a special

NOTE Confidence: 0.6097992733333333

00:48:50.716 --> 00:48:52.848 regimen called the fast regimen.

NOTE Confidence: 0.6097992733333333

00:48:52.848 --> 00:48:56.761 And this is 5 treatments total given

NOTE Confidence: 0.6097992733333333

00:48:56.761 --> 00:49:00.856 one treatment per week without a boost.

NOTE Confidence: 0.6097992733333333

00:49:00.856 --> 00:49:03.900 So again, this is a special regimen

NOTE Confidence: 0.6097992733333333

00:49:03.900 --> 00:49:05.900 for very low risk cases,

NOTE Confidence: 0.6097992733333333

00:49:05.900 --> 00:49:09.746 but those are our general paradigms.  
NOTE Confidence: 0.6097992733333333

00:49:09.750 --> 00:49:12.500 So to kind of tie everything together,  
NOTE Confidence: 0.6097992733333333

00:49:12.500 --> 00:49:13.272 you know.  
NOTE Confidence: 0.6097992733333333

00:49:13.272 --> 00:49:15.588 And as Doctor Gallego and Doctor  
NOTE Confidence: 0.6097992733333333

00:49:15.588 --> 00:49:16.790 Drucker have said,  
NOTE Confidence: 0.6097992733333333

00:49:16.790 --> 00:49:19.350 and as I've tried to emphasize as well,  
NOTE Confidence: 0.6097992733333333

00:49:19.350 --> 00:49:22.584 every patient that comes in gets sort  
NOTE Confidence: 0.6097992733333333

00:49:22.584 --> 00:49:27.858 of a a custom path through their treatment.  
NOTE Confidence: 0.6097992733333333

00:49:27.860 --> 00:49:30.772 Based on everything that we know about  
NOTE Confidence: 0.6097992733333333

00:49:30.772 --> 00:49:33.190 their risk factors that they have.  
NOTE Confidence: 0.6097992733333333

00:49:33.190 --> 00:49:34.522 Generally speaking,  
NOTE Confidence: 0.6097992733333333

00:49:34.522 --> 00:49:37.186 for early stage disease,  
NOTE Confidence: 0.6097992733333333

00:49:37.190 --> 00:49:39.422 patients will get surgery.  
NOTE Confidence: 0.6097992733333333

00:49:39.422 --> 00:49:40.850 Maybe, maybe chemotherapy  
NOTE Confidence: 0.6097992733333333

00:49:40.850 --> 00:49:43.025 if their Oncotype test does.  
NOTE Confidence: 0.6097992733333333

00:49:43.030 --> 00:49:45.286 Doctor Drucker was talking about returns

NOTE Confidence: 0.6097992733333333

00:49:45.286 --> 00:49:47.686 as high risk followed by radiation,

NOTE Confidence: 0.6097992733333333

00:49:47.686 --> 00:49:50.640 and then hormonal therapy if they have

NOTE Confidence: 0.6097992733333333

00:49:50.710 --> 00:49:53.104 hormone positive markers for disease,

NOTE Confidence: 0.6097992733333333

00:49:53.104 --> 00:49:54.572 that's more advanced when

NOTE Confidence: 0.6097992733333333

00:49:54.572 --> 00:49:56.500 the tumor is very large.

NOTE Confidence: 0.6097992733333333

00:49:56.500 --> 00:49:56.948 Initially,

NOTE Confidence: 0.6097992733333333

00:49:56.948 --> 00:50:00.532 a lot of patients may get chemotherapy first,

NOTE Confidence: 0.6097992733333333

00:50:00.540 --> 00:50:02.112 followed by surgery,

NOTE Confidence: 0.6097992733333333

00:50:02.112 --> 00:50:04.732 and then radiation therapy and

NOTE Confidence: 0.6097992733333333

00:50:04.732 --> 00:50:06.450 additional systemic therapy.

NOTE Confidence: 0.6097992733333333

00:50:06.450 --> 00:50:09.490 I think ultimately the the.

NOTE Confidence: 0.6097992733333333

00:50:09.490 --> 00:50:14.578 Message is that all of us work together.

NOTE Confidence: 0.6097992733333333

00:50:14.580 --> 00:50:17.877 Doctor Gallego and I have local therapies,

NOTE Confidence: 0.6097992733333333

00:50:17.880 --> 00:50:19.915 so surgery and radiation specifically

NOTE Confidence: 0.6097992733333333

00:50:19.915 --> 00:50:22.741 target the the tumor where it is

NOTE Confidence: 0.6097992733333333

00:50:22.741 --> 00:50:24.556 and the surrounding breast tissue,  
NOTE Confidence: 0.6097992733333333

00:50:24.560 --> 00:50:27.065 while Dr Drucker specializes in  
NOTE Confidence: 0.6097992733333333

00:50:27.065 --> 00:50:29.069 systemic therapies that work  
NOTE Confidence: 0.6097992733333333

00:50:29.069 --> 00:50:30.709 throughout the whole body,  
NOTE Confidence: 0.6097992733333333

00:50:30.710 --> 00:50:34.328 and so these kind of all go hand in  
NOTE Confidence: 0.6097992733333333

00:50:34.328 --> 00:50:38.646 hand to give people the best possible care.  
NOTE Confidence: 0.6097992733333333

00:50:38.650 --> 00:50:40.988 That is the end of my talk,  
NOTE Confidence: 0.6097992733333333

00:50:40.990 --> 00:50:43.202 so I think it's time for questions  
NOTE Confidence: 0.6097992733333333

00:50:43.202 --> 00:50:45.090 which I think Dr Gallego is  
NOTE Confidence: 0.6097992733333333

00:50:45.090 --> 00:50:47.080 going to moderate for us.  
NOTE Confidence: 0.89629436

00:50:52.320 --> 00:50:53.980 I'd like to thank the speakers,  
NOTE Confidence: 0.8703083588888889

00:50:53.980 --> 00:50:56.470 but most importantly I'd like to  
NOTE Confidence: 0.8703083588888889

00:50:56.470 --> 00:50:58.854 thank all the people who joined  
NOTE Confidence: 0.8703083588888889

00:50:58.854 --> 00:51:00.744 us tonight for the webinar.  
NOTE Confidence: 0.8703083588888889

00:51:00.750 --> 00:51:03.435 Thank you for taking the  
NOTE Confidence: 0.8703083588888889

00:51:03.435 --> 00:51:06.120 time to watch the talks.



NOTE Confidence: 0.870308358888889  
00:51:06.120 --> 00:51:07.638 And if you have any questions,  
NOTE Confidence: 0.870308358888889  
00:51:07.640 --> 00:51:10.514 you can type it into the  
NOTE Confidence: 0.870308358888889  
00:51:10.514 --> 00:51:12.430 question and answer section.  
NOTE Confidence: 0.870308358888889  
00:51:12.430 --> 00:51:14.038 I don't see any.  
NOTE Confidence: 0.767790858  
00:51:16.460 --> 00:51:18.330 I don't see any questions.  
NOTE Confidence: 0.9877567  
00:51:20.640 --> 00:51:21.490 Right now.  
NOTE Confidence: 0.711750724  
00:51:39.860 --> 00:51:41.480 I guess I'm not really.  
NOTE Confidence: 0.711750724  
00:51:41.480 --> 00:51:45.245 I'll ask a question, OK? Uhm?  
NOTE Confidence: 0.711750724  
00:51:45.245 --> 00:51:49.060 Some some women would like to know  
NOTE Confidence: 0.711750724  
00:51:49.060 --> 00:51:51.398 what they can do to decrease their  
NOTE Confidence: 0.711750724  
00:51:51.398 --> 00:51:53.409 risk of getting breast cancer.  
NOTE Confidence: 0.711750724  
00:51:53.410 --> 00:51:56.542 So in a woman who doesn't have breast cancer,  
NOTE Confidence: 0.711750724  
00:51:56.550 --> 00:51:58.701 what are some of the things that she can  
NOTE Confidence: 0.711750724  
00:51:58.701 --> 00:52:01.120 do to decrease her risk of developing the  
NOTE Confidence: 0.615589046666667  
00:52:01.130 --> 00:52:06.614 disease so so? Some of the  
NOTE Confidence: 0.615589046666667

00:52:06.614 --> 00:52:07.862 things that I've patient can do.  
NOTE Confidence: 0.615589046666667

00:52:07.870 --> 00:52:09.956 There have been studies that have shown  
NOTE Confidence: 0.615589046666667

00:52:09.956 --> 00:52:12.375 that women who exercise regularly  
NOTE Confidence: 0.615589046666667

00:52:12.375 --> 00:52:16.005 have lower rates of breast cancer.  
NOTE Confidence: 0.615589046666667

00:52:16.010 --> 00:52:18.178 Which is also just good for your heart  
NOTE Confidence: 0.615589046666667

00:52:18.178 --> 00:52:20.049 health and general overall health.  
NOTE Confidence: 0.615589046666667

00:52:20.050 --> 00:52:25.840 UM, you know, a set of a diet low in fats.  
NOTE Confidence: 0.615589046666667

00:52:25.840 --> 00:52:27.305 Again, all the normal things  
NOTE Confidence: 0.615589046666667

00:52:27.305 --> 00:52:28.477 we think are healthy.  
NOTE Confidence: 0.615589046666667

00:52:28.480 --> 00:52:29.840 You know there's a slight  
NOTE Confidence: 0.615589046666667

00:52:29.840 --> 00:52:30.928 increase risk with smoking.  
NOTE Confidence: 0.615589046666667

00:52:30.930 --> 00:52:33.240 There is potentially a slight  
NOTE Confidence: 0.615589046666667

00:52:33.240 --> 00:52:35.550 increase risk with alcohol use,  
NOTE Confidence: 0.615589046666667

00:52:35.550 --> 00:52:37.710 and so you know lifestyle.  
NOTE Confidence: 0.615589046666667

00:52:37.710 --> 00:52:40.488 Everything in moderation.  
NOTE Confidence: 0.615589046666667

00:52:40.490 --> 00:52:43.170 Sort of being health conscious.

NOTE Confidence: 0.615589046666667  
00:52:43.170 --> 00:52:45.726 UM, I sometimes hate to stress that because I  
NOTE Confidence: 0.615589046666667  
00:52:45.726 --> 00:52:48.184 don't like to blame people for their cancer.  
NOTE Confidence: 0.615589046666667  
00:52:48.190 --> 00:52:50.890 So I have people who are vegans and exercise  
NOTE Confidence: 0.615589046666667  
00:52:50.890 --> 00:52:53.829 all the time and can still get breast cancer,  
NOTE Confidence: 0.615589046666667  
00:52:53.830 --> 00:52:56.246 so I I always hate to like I  
NOTE Confidence: 0.615589046666667  
00:52:56.246 --> 00:52:58.990 don't want to think that you did  
NOTE Confidence: 0.615589046666667  
00:52:58.990 --> 00:53:01.045 something to get breast cancer.  
NOTE Confidence: 0.615589046666667  
00:53:01.050 --> 00:53:03.198 Being a woman puts you at  
NOTE Confidence: 0.615589046666667  
00:53:03.198 --> 00:53:04.630 risk for breast cancer,  
NOTE Confidence: 0.615589046666667  
00:53:04.630 --> 00:53:08.086 but certainly you know to be mindful of,  
NOTE Confidence: 0.615589046666667  
00:53:08.090 --> 00:53:09.870 you know our our weights,  
NOTE Confidence: 0.615589046666667  
00:53:09.870 --> 00:53:10.905 what we eat.  
NOTE Confidence: 0.615589046666667  
00:53:10.905 --> 00:53:14.920 And what sort of I hate to say common sense.  
NOTE Confidence: 0.615589046666667  
00:53:14.920 --> 00:53:16.504 Approach to keeping healthy.  
NOTE Confidence: 0.615589046666667  
00:53:16.504 --> 00:53:19.869 The other thing that I like to stress is,  
NOTE Confidence: 0.615589046666667

00:53:19.870 --> 00:53:20.496 you know,  
NOTE Confidence: 0.615589046666667

00:53:20.496 --> 00:53:22.374 sometimes you know bad stuff happens.  
NOTE Confidence: 0.615589046666667

00:53:22.380 --> 00:53:24.840 People are diagnosed with cancer,  
NOTE Confidence: 0.615589046666667

00:53:24.840 --> 00:53:27.420 but early detection is really key.  
NOTE Confidence: 0.615589046666667

00:53:27.420 --> 00:53:30.731 So I spent my whole talk focusing  
NOTE Confidence: 0.615589046666667

00:53:30.731 --> 00:53:34.458 on early stage breast cancers.  
NOTE Confidence: 0.615589046666667

00:53:34.460 --> 00:53:37.044 It is so important to go for your  
NOTE Confidence: 0.615589046666667

00:53:37.044 --> 00:53:38.700 mammograms because when we catch  
NOTE Confidence: 0.615589046666667

00:53:38.700 --> 00:53:40.912 breast cancer early when we catch it,  
NOTE Confidence: 0.615589046666667

00:53:40.920 --> 00:53:41.946 when it's small,  
NOTE Confidence: 0.615589046666667

00:53:41.946 --> 00:53:44.340 that's when we can cure it and  
NOTE Confidence: 0.615589046666667

00:53:44.417 --> 00:53:46.529 that the earlier we catch it,  
NOTE Confidence: 0.615589046666667

00:53:46.530 --> 00:53:48.626 the less chance that I have to do  
NOTE Confidence: 0.615589046666667

00:53:48.626 --> 00:53:49.859 something like give chemotherapy  
NOTE Confidence: 0.615589046666667

00:53:49.859 --> 00:53:52.148 and something I I didn't stress when  
NOTE Confidence: 0.615589046666667

00:53:52.148 --> 00:53:53.899 going through the archetype is,

NOTE Confidence: 0.615589046666667

00:53:53.900 --> 00:53:54.712 you know,

NOTE Confidence: 0.615589046666667

00:53:54.712 --> 00:53:56.742 originally Oncotype this ability to

NOTE Confidence: 0.615589046666667

00:53:56.742 --> 00:53:59.546 better define who doesn't need to get

NOTE Confidence: 0.615589046666667

00:53:59.546 --> 00:54:01.446 chemotherapy was only for patients

NOTE Confidence: 0.615589046666667

00:54:01.446 --> 00:54:03.699 with lymph node negative disease.

NOTE Confidence: 0.615589046666667

00:54:03.700 --> 00:54:05.112 It is now been.

NOTE Confidence: 0.615589046666667

00:54:05.112 --> 00:54:06.877 Expanded to include more groups,

NOTE Confidence: 0.615589046666667

00:54:06.880 --> 00:54:11.770 but for for patients who come.

NOTE Confidence: 0.615589046666667

00:54:11.770 --> 00:54:14.192 You know our sort of not mindful

NOTE Confidence: 0.615589046666667

00:54:14.192 --> 00:54:16.140 of going from mammograms.

NOTE Confidence: 0.615589046666667

00:54:16.140 --> 00:54:18.750 If it the cancer is there

NOTE Confidence: 0.615589046666667

00:54:18.750 --> 00:54:20.490 and not detected early,

NOTE Confidence: 0.615589046666667

00:54:20.490 --> 00:54:22.303 we feel forced that the risk is

NOTE Confidence: 0.615589046666667

00:54:22.303 --> 00:54:24.240 higher and we have to give chemo.

NOTE Confidence: 0.615589046666667

00:54:24.240 --> 00:54:27.340 So certainly exercise quote.

NOTE Confidence: 0.615589046666667

00:54:27.340 --> 00:54:28.890 Eat right.  
NOTE Confidence: 0.615589046666667

00:54:28.890 --> 00:54:29.970 Everything in moderation,  
NOTE Confidence: 0.615589046666667

00:54:29.970 --> 00:54:32.390 you know, try to avoid fats.  
NOTE Confidence: 0.615589046666667

00:54:32.390 --> 00:54:36.129 Eat more complex carbs and less simple carbs,  
NOTE Confidence: 0.615589046666667

00:54:36.130 --> 00:54:38.250 but also can't stress enough.  
NOTE Confidence: 0.615589046666667

00:54:38.250 --> 00:54:39.258 Go for your mammograms.  
NOTE Confidence: 0.936713814

00:54:43.110 --> 00:54:46.510 Thank you and I have a question for  
NOTE Confidence: 0.936713814

00:54:46.510 --> 00:54:49.198 Doctor Campbell if you could go over.  
NOTE Confidence: 0.911852585

00:54:52.360 --> 00:54:54.510 You know women who undergo  
NOTE Confidence: 0.911852585

00:54:54.510 --> 00:54:56.680 a lumpectomy or surgical  
NOTE Confidence: 0.92704592125

00:54:56.690 --> 00:54:58.365 removal of the cancers portion  
NOTE Confidence: 0.92704592125

00:54:58.365 --> 00:55:00.658 of the breaths, or typically  
NOTE Confidence: 0.92704592125

00:55:00.658 --> 00:55:03.099 recommended to undergo radiation.  
NOTE Confidence: 0.92704592125

00:55:03.099 --> 00:55:06.153 But what are the indications in  
NOTE Confidence: 0.92704592125

00:55:06.153 --> 00:55:09.319 which a woman has a mastectomy,  
NOTE Confidence: 0.92704592125

00:55:09.320 --> 00:55:13.706 but then is recommended to have

NOTE Confidence: 0.92704592125

00:55:13.706 --> 00:55:16.320 radiation aftermath mastectomy? Yes,

NOTE Confidence: 0.915253098888889

00:55:16.330 --> 00:55:18.738 so that is there's some areas of that

NOTE Confidence: 0.915253098888889

00:55:18.738 --> 00:55:20.839 that are very straightforward and

NOTE Confidence: 0.915253098888889

00:55:20.839 --> 00:55:23.214 some that are more controversial.

NOTE Confidence: 0.915253098888889

00:55:23.220 --> 00:55:25.884 So after mastectomy,

NOTE Confidence: 0.915253098888889

00:55:25.884 --> 00:55:30.060 if there is lymph nodes that are involved,

NOTE Confidence: 0.915253098888889

00:55:30.060 --> 00:55:33.250 then depending on the number of nodes,

NOTE Confidence: 0.915253098888889

00:55:33.250 --> 00:55:35.959 the strength of the recommendation goes up.

NOTE Confidence: 0.915253098888889

00:55:35.960 --> 00:55:38.472 So the more lymph nodes that you have

NOTE Confidence: 0.915253098888889

00:55:38.472 --> 00:55:40.858 involved, the stronger the recommendation

NOTE Confidence: 0.915253098888889

00:55:40.858 --> 00:55:43.443 is for radiation after mastectomy,

NOTE Confidence: 0.915253098888889

00:55:43.450 --> 00:55:44.974 and we treat the lymph node

NOTE Confidence: 0.915253098888889

00:55:44.974 --> 00:55:46.884 region and the chest. Wall, uhm.

NOTE Confidence: 0.915253098888889

00:55:46.884 --> 00:55:49.566 In addition, even if you have

NOTE Confidence: 0.915253098888889

00:55:49.566 --> 00:55:52.739 only one to three positive nodes,

NOTE Confidence: 0.915253098888889

00:55:52.740 --> 00:55:54.445 there's still been shown to  
NOTE Confidence: 0.915253098888889

00:55:54.445 --> 00:55:56.150 be a benefit of radiation.  
NOTE Confidence: 0.915253098888889

00:55:56.150 --> 00:55:57.488 So right now,  
NOTE Confidence: 0.915253098888889

00:55:57.488 --> 00:55:59.718 the NCCN current guidelines recommend  
NOTE Confidence: 0.915253098888889

00:55:59.718 --> 00:56:02.511 that even in the setting of just  
NOTE Confidence: 0.915253098888889

00:56:02.511 --> 00:56:05.244 one to three nodes positive with a  
NOTE Confidence: 0.915253098888889

00:56:05.244 --> 00:56:07.720 dissection that women still consider at  
NOTE Confidence: 0.915253098888889

00:56:07.720 --> 00:56:10.360 least come see a radiation oncologist  
NOTE Confidence: 0.915253098888889

00:56:10.360 --> 00:56:12.885 to talk about post mastectomy  
NOTE Confidence: 0.915253098888889

00:56:12.885 --> 00:56:14.923 radiation and other things that  
NOTE Confidence: 0.915253098888889

00:56:14.923 --> 00:56:17.310 can can push us in the direction.  
NOTE Confidence: 0.915253098888889

00:56:17.310 --> 00:56:21.076 Of talking about radiation are large tumors,  
NOTE Confidence: 0.915253098888889

00:56:21.080 --> 00:56:23.330 so tumors that involve the  
NOTE Confidence: 0.915253098888889

00:56:23.330 --> 00:56:25.580 chest wall or the skin,  
NOTE Confidence: 0.915253098888889

00:56:25.580 --> 00:56:28.484 or where there's lymphovascular  
NOTE Confidence: 0.915253098888889

00:56:28.484 --> 00:56:31.766 invasion and and then always for young



NOTE Confidence: 0.915253098888889

00:56:31.766 --> 00:56:34.080 women with triple negative cancer,

NOTE Confidence: 0.915253098888889

00:56:34.080 --> 00:56:36.430 most of the time they've

NOTE Confidence: 0.915253098888889

00:56:36.430 --> 00:56:37.840 received chemotherapy upfront,

NOTE Confidence: 0.915253098888889

00:56:37.840 --> 00:56:40.102 and there are some ongoing clinical

NOTE Confidence: 0.915253098888889

00:56:40.102 --> 00:56:42.647 trials looking at whether we could maybe

NOTE Confidence: 0.915253098888889

00:56:42.647 --> 00:56:44.901 omit radiation for women who've had a

NOTE Confidence: 0.915253098888889

00:56:44.964 --> 00:56:47.379 complete response to that chemotherapy.

NOTE Confidence: 0.915253098888889

00:56:47.380 --> 00:56:49.916 Upfront followed by surgery,

NOTE Confidence: 0.915253098888889

00:56:49.916 --> 00:56:53.720 but even in those cases currently,

NOTE Confidence: 0.915253098888889

00:56:53.720 --> 00:56:56.510 before those clinical trials result

NOTE Confidence: 0.915253098888889

00:56:56.510 --> 00:56:59.990 back the standard of care is still

NOTE Confidence: 0.915253098888889

00:56:59.990 --> 00:57:02.960 to offer radiation based on that

NOTE Confidence: 0.915253098888889

00:57:02.960 --> 00:57:05.555 initial staging of the cancer.

NOTE Confidence: 0.91587633

00:57:06.550 --> 00:57:09.640 Thank you so a question just

NOTE Confidence: 0.91587633

00:57:09.640 --> 00:57:11.700 came in Doctor Campbell.

NOTE Confidence: 0.91587633

00:57:11.700 --> 00:57:15.964 If you can go over the side effects  
NOTE Confidence: 0.91587633

00:57:15.964 --> 00:57:19.801 during radiation for a patient who's had  
NOTE Confidence: 0.91587633

00:57:19.801 --> 00:57:24.127 a lumpectomy has early stage disease.  
NOTE Confidence: 0.91587633

00:57:24.130 --> 00:57:26.186 Are you able to say what kind of  
NOTE Confidence: 0.91587633

00:57:26.186 --> 00:57:28.214 treatment she would get and the most  
NOTE Confidence: 0.91587633

00:57:28.214 --> 00:57:30.340 common side effects she would experience?  
NOTE Confidence: 0.834370304285714

00:57:31.410 --> 00:57:35.029 Yeah, so uhm. So stage one disease.  
NOTE Confidence: 0.834370304285714

00:57:35.030 --> 00:57:38.838 Uhm, it's sorry. Did you say a  
NOTE Confidence: 0.834370304285714

00:57:38.838 --> 00:57:41.300 hormone receptor negative? UM  
NOTE Confidence: 0.799562695

00:57:41.830 --> 00:57:43.894 formal yes hormone receptor  
NOTE Confidence: 0.799562695

00:57:43.894 --> 00:57:45.958 negative her two positive.  
NOTE Confidence: 0.861867951428572

00:57:46.280 --> 00:57:49.025 OK so I think also we can loop doctor  
NOTE Confidence: 0.861867951428572

00:57:49.025 --> 00:57:51.198 Drucker in on this question too  
NOTE Confidence: 0.861867951428572

00:57:51.198 --> 00:57:53.340 because with her two positive ITI,  
NOTE Confidence: 0.861867951428572

00:57:53.340 --> 00:57:55.420 that's definitely something that needs  
NOTE Confidence: 0.861867951428572

00:57:55.420 --> 00:57:58.060 to be addressed with systemic therapy.

NOTE Confidence: 0.861867951428572  
00:57:58.060 --> 00:57:59.192 But to start with,  
NOTE Confidence: 0.861867951428572  
00:57:59.192 --> 00:58:00.607 the radiation side of things.  
NOTE Confidence: 0.861867951428572  
00:58:00.610 --> 00:58:03.256 So if there's no lymph node involvement,  
NOTE Confidence: 0.861867951428572  
00:58:03.260 --> 00:58:06.991 then you would be eligible for this  
NOTE Confidence: 0.861867951428572  
00:58:06.991 --> 00:58:10.003 three weeks course with a boost  
NOTE Confidence: 0.861867951428572  
00:58:10.003 --> 00:58:13.675 to the surgical bed for a total of  
NOTE Confidence: 0.861867951428572  
00:58:13.675 --> 00:58:16.062 19 treatments and the side effects  
NOTE Confidence: 0.861867951428572  
00:58:16.062 --> 00:58:17.727 for this treatment course are,  
NOTE Confidence: 0.861867951428572  
00:58:17.730 --> 00:58:19.522 generally speaking, relatively mild.  
NOTE Confidence: 0.861867951428572  
00:58:19.522 --> 00:58:23.150 So the things that I most of the time,  
NOTE Confidence: 0.861867951428572  
00:58:23.150 --> 00:58:27.614 CR, fatigue and skin irritation and the  
NOTE Confidence: 0.861867951428572  
00:58:27.614 --> 00:58:30.043 skin irritation can range from just a  
NOTE Confidence: 0.861867951428572  
00:58:30.043 --> 00:58:32.679 mild pinkness of the skin with maybe.  
NOTE Confidence: 0.861867951428572  
00:58:32.680 --> 00:58:35.879 Some dry peeling like a mild sunburn,  
NOTE Confidence: 0.861867951428572  
00:58:35.880 --> 00:58:38.808 mild to moderate sunburn.  
NOTE Confidence: 0.861867951428572

00:58:38.810 --> 00:58:40.553 All the way to an extreme cases  
NOTE Confidence: 0.861867951428572

00:58:40.553 --> 00:58:42.149 on this I don't expect,  
NOTE Confidence: 0.861867951428572

00:58:42.150 --> 00:58:44.730 but some blistering of the skin,  
NOTE Confidence: 0.861867951428572

00:58:44.730 --> 00:58:46.630 especially sort of along the  
NOTE Confidence: 0.861867951428572

00:58:46.630 --> 00:58:48.530 bra line underneath the breast.  
NOTE Confidence: 0.861867951428572

00:58:48.530 --> 00:58:50.706 I would say the vast majority of patients,  
NOTE Confidence: 0.861867951428572

00:58:50.710 --> 00:58:53.650 though, go through with just some,  
NOTE Confidence: 0.861867951428572

00:58:53.650 --> 00:58:56.254 some pinkness and some dry peeling  
NOTE Confidence: 0.861867951428572

00:58:56.254 --> 00:58:57.556 like a sunburn,  
NOTE Confidence: 0.861867951428572

00:58:57.560 --> 00:58:59.996 and that usually within 10 days after  
NOTE Confidence: 0.861867951428572

00:58:59.996 --> 00:59:02.188 radiation that's really started to heal up,  
NOTE Confidence: 0.861867951428572

00:59:02.190 --> 00:59:06.145 and by one month the side effects  
NOTE Confidence: 0.861867951428572

00:59:06.145 --> 00:59:08.580 are are much less.  
NOTE Confidence: 0.861867951428572

00:59:08.580 --> 00:59:10.755 Other things that are are  
NOTE Confidence: 0.861867951428572

00:59:10.755 --> 00:59:12.060 rare with radiation,  
NOTE Confidence: 0.861867951428572

00:59:12.060 --> 00:59:15.417 but that I always talk to patients about our.

NOTE Confidence: 0.861867951428572  
00:59:15.420 --> 00:59:17.420 There's a very tiny risk,  
NOTE Confidence: 0.861867951428572  
00:59:17.420 --> 00:59:20.960 less than 1% that radiation can  
NOTE Confidence: 0.861867951428572  
00:59:20.960 --> 00:59:23.670 cause inflammation of the lungs.  
NOTE Confidence: 0.861867951428572  
00:59:23.670 --> 00:59:25.790 Something called radiation pneumonitis,  
NOTE Confidence: 0.861867951428572  
00:59:25.790 --> 00:59:28.184 and that's something that we have  
NOTE Confidence: 0.861867951428572  
00:59:28.184 --> 00:59:30.670 to treat with steroids to cool  
NOTE Confidence: 0.861867951428572  
00:59:30.670 --> 00:59:32.705 down inflammation if it happens.  
NOTE Confidence: 0.861867951428572  
00:59:32.710 --> 00:59:35.475 So those are the main side effects.  
NOTE Confidence: 0.861867951428572  
00:59:35.480 --> 00:59:37.802 Usually that three week course is  
NOTE Confidence: 0.861867951428572  
00:59:37.802 --> 00:59:40.050 tolerated very well by patients,  
NOTE Confidence: 0.861867951428572  
00:59:40.050 --> 00:59:41.454 and then I'll let Doctor Drucker  
NOTE Confidence: 0.861867951428572  
00:59:41.454 --> 00:59:43.179 talk a little bit about the her  
NOTE Confidence: 0.861867951428572  
00:59:43.179 --> 00:59:44.409 two positive side of things.  
NOTE Confidence: 0.861867951428572  
00:59:45.130 --> 00:59:45.560 So  
NOTE Confidence: 0.839633406  
00:59:45.590 --> 00:59:48.482 so typically with an ER negative  
NOTE Confidence: 0.839633406

00:59:48.482 --> 00:59:50.410 her two positive cancer.  
NOTE Confidence: 0.839633406

00:59:50.410 --> 00:59:52.985 Once you recover from surgery  
NOTE Confidence: 0.839633406

00:59:52.985 --> 00:59:55.718 we would do chemotherapy prior  
NOTE Confidence: 0.839633406

00:59:55.718 --> 00:59:58.390 to receiving radiation therapy.  
NOTE Confidence: 0.839633406

00:59:58.390 --> 01:00:00.988 We keep those separate because chemotherapy  
NOTE Confidence: 0.839633406

01:00:00.988 --> 01:00:03.420 can interact with radiation and make  
NOTE Confidence: 0.839633406

01:00:03.420 --> 01:00:05.322 it more potent and therefore have  
NOTE Confidence: 0.839633406

01:00:05.322 --> 01:00:07.670 more side effects than we anticipate,  
NOTE Confidence: 0.839633406

01:00:07.670 --> 01:00:10.246 so we usually do the chemotherapy first,  
NOTE Confidence: 0.839633406

01:00:10.250 --> 01:00:13.994 and for a small tumor with no lymph nodes,  
NOTE Confidence: 0.839633406

01:00:14.000 --> 01:00:15.680 we've been able to cut.  
NOTE Confidence: 0.839633406

01:00:15.680 --> 01:00:17.680 Again, cut back on what we give the  
NOTE Confidence: 0.839633406

01:00:17.680 --> 01:00:19.237 most important part of the therapy.  
NOTE Confidence: 0.839633406

01:00:19.240 --> 01:00:22.124 There is the her two targeting agents,  
NOTE Confidence: 0.839633406

01:00:22.130 --> 01:00:25.056 so very common regimen for a tumor  
NOTE Confidence: 0.839633406

01:00:25.056 --> 01:00:28.892 such as yours would be 12 weeks of

NOTE Confidence: 0.839633406

01:00:28.892 --> 01:00:31.225 weekly chemotherapy followed then by

NOTE Confidence: 0.839633406

01:00:31.225 --> 01:00:33.895 a full year of Herceptin therapy.

NOTE Confidence: 0.839633406

01:00:33.900 --> 01:00:36.078 And I always like to distinguish

NOTE Confidence: 0.839633406

01:00:36.078 --> 01:00:38.513 Herceptin based therapy or her two

NOTE Confidence: 0.839633406

01:00:38.513 --> 01:00:40.357 targeted therapies from chemotherapy.

NOTE Confidence: 0.839633406

01:00:40.360 --> 01:00:41.620 People often hear, Oh my God,

NOTE Confidence: 0.839633406

01:00:41.620 --> 01:00:43.280 a year of therapy.

NOTE Confidence: 0.839633406

01:00:43.280 --> 01:00:45.770 Oh my God and the Herceptin.

NOTE Confidence: 0.839633406

01:00:45.770 --> 01:00:46.880 Is not chemotherapy?

NOTE Confidence: 0.839633406

01:00:46.880 --> 01:00:49.924 The only commonality is you have to come

NOTE Confidence: 0.839633406

01:00:49.924 --> 01:00:52.584 into the office and get it intravenously.

NOTE Confidence: 0.839633406

01:00:52.590 --> 01:00:54.090 However, whereas chemo we

NOTE Confidence: 0.839633406

01:00:54.090 --> 01:00:55.965 always worry about hair loss,

NOTE Confidence: 0.839633406

01:00:55.970 --> 01:00:58.094 there is no hair loss with

NOTE Confidence: 0.839633406

01:00:58.094 --> 01:00:59.602 Herceptin minimal fatigue,

NOTE Confidence: 0.839633406

01:00:59.602 --> 01:01:00.754 no nausea.  
NOTE Confidence: 0.839633406

01:01:00.754 --> 01:01:03.058 In proof of that,  
NOTE Confidence: 0.839633406

01:01:03.060 --> 01:01:05.664 you can start the radiation while  
NOTE Confidence: 0.839633406

01:01:05.664 --> 01:01:06.966 you're receiving chemotherapy  
NOTE Confidence: 0.839633406

01:01:06.966 --> 01:01:09.289 the the Herceptin because again,  
NOTE Confidence: 0.839633406

01:01:09.290 --> 01:01:12.041 it's not going to have the side  
NOTE Confidence: 0.839633406

01:01:12.041 --> 01:01:13.680 effects we associate with.  
NOTE Confidence: 0.839633406

01:01:13.680 --> 01:01:17.948 With chemotherapy and then this is  
NOTE Confidence: 0.839633406

01:01:17.948 --> 01:01:20.360 a commonality throughout all of our  
NOTE Confidence: 0.839633406

01:01:20.446 --> 01:01:23.076 treatment plans for breast cancer.  
NOTE Confidence: 0.839633406

01:01:23.080 --> 01:01:24.312 I don't know why it often works  
NOTE Confidence: 0.839633406

01:01:24.312 --> 01:01:25.357 out like this, but.  
NOTE Confidence: 0.839633406

01:01:25.357 --> 01:01:28.976 Surgery aside, 'cause you're asleep for that.  
NOTE Confidence: 0.839633406

01:01:28.980 --> 01:01:31.388 When we give our therapies after surgery,  
NOTE Confidence: 0.839633406

01:01:31.390 --> 01:01:33.644 we often start with the worst first.  
NOTE Confidence: 0.839633406

01:01:33.650 --> 01:01:35.228 So and I have to say,



NOTE Confidence: 0.839633406

01:01:35.230 --> 01:01:37.701 even though it is my job to

NOTE Confidence: 0.839633406

01:01:37.701 --> 01:01:39.560 make the chemotherapy tolerable,

NOTE Confidence: 0.839633406

01:01:39.560 --> 01:01:42.225 the chemotherapy is certainly worse

NOTE Confidence: 0.839633406

01:01:42.225 --> 01:01:44.890 than the radiation without question.

NOTE Confidence: 0.839633406

01:01:44.890 --> 01:01:47.258 So you get your chemo with Herceptin.

NOTE Confidence: 0.839633406

01:01:47.258 --> 01:01:48.896 And then you can take a deep

NOTE Confidence: 0.839633406

01:01:48.896 --> 01:01:49.870 breath when it's done,

NOTE Confidence: 0.839633406

01:01:49.870 --> 01:01:51.742 because the next phase,

NOTE Confidence: 0.839633406

01:01:51.742 --> 01:01:53.146 the radiation is,

NOTE Confidence: 0.839633406

01:01:53.150 --> 01:01:56.755 is nothing for anyone who's had chemotherapy.

NOTE Confidence: 0.839633406

01:01:56.760 --> 01:01:59.496 We actually do give you a break to

NOTE Confidence: 0.839633406

01:01:59.496 --> 01:02:02.612 recover so so usually if you haven't

NOTE Confidence: 0.839633406

01:02:02.612 --> 01:02:04.967 already already met Doctor Campbell,

NOTE Confidence: 0.839633406

01:02:04.970 --> 01:02:07.301 we set you up to meet her like your

NOTE Confidence: 0.839633406

01:02:07.301 --> 01:02:09.447 last week or two of chemotherapy.

NOTE Confidence: 0.839633406

01:02:09.450 --> 01:02:11.641 You then get about three to four  
NOTE Confidence: 0.839633406

01:02:11.641 --> 01:02:13.384 weeks to recover from chemotherapy  
NOTE Confidence: 0.839633406

01:02:13.384 --> 01:02:15.967 before you go on to the radiation,  
NOTE Confidence: 0.839633406

01:02:15.970 --> 01:02:17.016 but again,  
NOTE Confidence: 0.839633406

01:02:17.016 --> 01:02:20.154 since the Herceptin is really not  
NOTE Confidence: 0.839633406

01:02:20.154 --> 01:02:22.695 like chemotherapy that continues  
NOTE Confidence: 0.839633406

01:02:22.695 --> 01:02:24.408 throughout and then you just  
NOTE Confidence: 0.839633406

01:02:24.408 --> 01:02:26.290 get very used to our our site.  
NOTE Confidence: 0.97712296

01:02:28.390 --> 01:02:31.510 Thank you, but it's past the hour,  
NOTE Confidence: 0.929318917777778

01:02:31.510 --> 01:02:35.236 so I think that's the end of the webinar.  
NOTE Confidence: 0.929318917777778

01:02:35.240 --> 01:02:37.856 Thank you again to the panelists and thank  
NOTE Confidence: 0.929318917777778

01:02:37.856 --> 01:02:40.265 you, especially to all the participants  
NOTE Confidence: 0.929318917777778

01:02:40.265 --> 01:02:42.460 who joined us tonight. Thank you.  
NOTE Confidence: 0.940608875

01:02:44.480 --> 01:02:46.000 Thank you goodnight.