WEBVTT

00:00:00.000 --> 00:00:02.160 Funding for Yale Cancer Answers is

NOTE Confidence: 0.896560937272727

00:00:02.160 --> 00:00:04.200 provided by Smilow Cancer Hospital.

NOTE Confidence: 0.846107055384615

00:00:06.420 --> 00:00:08.580 Welcome to Yale Cancer Answers with

NOTE Confidence: 0.846107055384615

00:00:08.580 --> 00:00:10.879 your host doctor Anees Chagpar.

NOTE Confidence: 0.846107055384615

00:00:10.880 --> 00:00:12.750 Yale Cancer Answers features the

NOTE Confidence: 0.846107055384615

00:00:12.750 --> 00:00:15.045 latest information on cancer care by

NOTE Confidence: 0.846107055384615

00:00:15.045 --> 00:00:16.517 welcoming oncologists and specialists

NOTE Confidence: 0.846107055384615

00:00:16.517 --> 00:00:18.963 who are on the forefront of the

NOTE Confidence: 0.846107055384615

00:00:18.963 --> 00:00:20.820 battle to fight cancer. This week,

NOTE Confidence: 0.846107055384615

00:00:20.820 --> 00:00:22.720 it's a conversation about radiation

NOTE Confidence: 0.846107055384615

00:00:22.720 --> 00:00:24.679 therapy for breast cancer patients

NOTE Confidence: 0.846107055384615

00:00:24.679 --> 00:00:26.199 with Doctor Meena Moran.

NOTE Confidence: 0.846107055384615

00:00:26.200 --> 00:00:28.198 Doctor Moran is a professor of

NOTE Confidence: 0.846107055384615

00:00:28.198 --> 00:00:29.530 therapeutic radiology at the

NOTE Confidence: 0.846107055384615

00:00:29.593 --> 00:00:30.949 Yale School of Medicine,

NOTE Confidence: 0.846107055384615

00:00:30.950 --> 00:00:32.805 where Doctor Chagpar is a

NOTE Confidence: 0.846107055384615

00:00:32.805 --> 00:00:34.289 professor of surgical oncology.

NOTE Confidence: 0.920128631578947

00:00:36.410 --> 00:00:37.808 Maybe you can start off

NOTE Confidence: 0.920128631578947

00:00:37.808 --> 00:00:39.532 by telling us a little bit about

NOTE Confidence: 0.920128631578947

00:00:39.532 --> 00:00:41.014 yourself and what it is you do?

NOTE Confidence: 0.936764716666667

00:00:41.030 --> 00:00:43.550 I wear many hats.

NOTE Confidence: 0.936764716666667

00:00:43.550 --> 00:00:45.728 But first and foremost I identify

NOTE Confidence: 0.936764716666667

00:00:45.728 --> 00:00:48.110 myself as a radiation oncologist who

NOTE Confidence: 0.936764716666667

00:00:48.110 --> 00:00:50.684 takes care of breast cancer patients.

NOTE Confidence: 0.936764716666667

00:00:50.690 --> 00:00:54.698 And then I hold a lot of different

NOTE Confidence: 0.936764716666667

00:00:54.698 --> 00:00:57.661 administrative and roles on committees

NOTE Confidence: 0.936764716666667

00:00:57.661 --> 00:01:01.330 and and organizations that basically

NOTE Confidence: 0.936764716666667

00:01:01.330 --> 00:01:06.478 are organizing standards and policies.

NOTE Confidence: 0.936764716666667

00:01:06.478 --> 00:01:09.046 For breast care across the country,

NOTE Confidence: 0.881431213333333

00:01:09.430 --> 00:01:12.020 so let's start with what I think

NOTE Confidence: 0.881431213333333

00:01:12.020 --> 00:01:14.197 is oftentimes a confusing issue

NOTE Confidence: 0.881431213333333

00:01:14.197 --> 00:01:17.892 for many people, and that is what's

NOTE Confidence: 0.881431213333333

00:01:17.892 --> 00:01:20.104 the difference between radiology

NOTE Confidence: 0.881431213333333

00:01:20.104 --> 00:01:23.706 like a radiologist and therapeutic

NOTE Confidence: 0.881431213333333

00:01:23.706 --> 00:01:26.398 radiology or radiation oncologist.

NOTE Confidence: 0.881431213333333

00:01:26.400 --> 00:01:27.900 I find that sometimes people

NOTE Confidence: 0.881431213333333

00:01:27.900 --> 00:01:29.400 get those two terms confused.

NOTE Confidence: 0.881431213333333

00:01:29.400 --> 00:01:31.997 Can you help to help us to

NOTE Confidence: 0.881431213333333

00:01:31.997 --> 00:01:33.110 understand the differences?

NOTE Confidence: 0.813387604

00:01:33.440 --> 00:01:35.080 Sure, that's an excellent question,

NOTE Confidence: 0.813387604

00:01:35.080 --> 00:01:37.126 actually, and it is true that.

NOTE Confidence: 0.813387604

00:01:37.130 --> 00:01:40.088 Even my patients will say radiology

NOTE Confidence: 0.813387604

00:01:40.088 --> 00:01:42.530 oncologists or variations of that.

NOTE Confidence: 0.813387604

00:01:42.530 --> 00:01:47.282 So a radiologist is someone who

NOTE Confidence: 0.813387604

00:01:47.282 --> 00:01:50.520 does diagnostic imaging and that

NOTE Confidence: 0.813387604

00:01:50.520 --> 00:01:52.850 can include mammograms, Mris,

NOTE Confidence: 0.813387604

00:01:52.850 --> 00:01:56.256 CAT scans, PET CT's bone scans,

NOTE Confidence: 0.813387604

00:01:56.256 --> 00:01:57.628 that kind of thing.

NOTE Confidence: 0.813387604

00:01:57.630 --> 00:02:00.830 A radiation oncologist is actually

NOTE Confidence: 0.813387604

00:02:00.830 --> 00:02:04.030 someone who delivers high energy

NOTE Confidence: 0.813387604

00:02:04.129 --> 00:02:06.709 X rays which are radiation,

NOTE Confidence: 0.813387604

00:02:06.710 --> 00:02:08.010 but they're at a much.

NOTE Confidence: 0.813387604

00:02:08.010 --> 00:02:12.070 Higher level of radiation than

NOTE Confidence: 0.813387604

00:02:12.070 --> 00:02:14.254 with the the diagnostic levels of

NOTE Confidence: 0.813387604

00:02:14.254 --> 00:02:17.688 X rays and and what we do is we

NOTE Confidence: 0.813387604

00:02:17.688 --> 00:02:19.583 use that for therapeutic purposes

NOTE Confidence: 0.813387604

00:02:19.667 --> 00:02:21.907 and treat primarily cancer but

NOTE Confidence: 0.813387604

00:02:21.907 --> 00:02:24.400 also some benign diseases as well.

NOTE Confidence: 0.936264834210526

00:02:24.900 --> 00:02:27.388 So the other question that I want to

NOTE Confidence: 0.936264834210526

00:02:27.388 --> 00:02:29.966 kind of get off the table right at

NOTE Confidence: 0.936264834210526

00:02:29.966 --> 00:02:33.226 the outset is many patients also are

NOTE Confidence: 0.936264834210526

00:02:33.226 --> 00:02:36.121 confused about the differences between

NOTE Confidence: 0.936264834210526

00:02:36.121 --> 00:02:38.659 radiation and chemotherapy often.

NOTE Confidence: 0.936264834210526

00:02:38.660 --> 00:02:40.820 Thinking that these are the same,

NOTE Confidence: 0.936264834210526

00:02:40.820 --> 00:02:43.124 can you clarify the differences between

NOTE Confidence: 0.936264834210526

00:02:43.124 --> 00:02:46.482 the two and maybe a little bit about how

NOTE Confidence: 0.936264834210526

00:02:46.482 --> 00:02:49.530 they're different in terms of first of all,

NOTE Confidence: 0.936264834210526

00:02:49.530 --> 00:02:52.540 what the objective of the modality is,

NOTE Confidence: 0.936264834210526

00:02:52.540 --> 00:02:55.249 and 2nd the side effects that each of them

NOTE Confidence: 0.8239666175

00:02:55.260 --> 00:03:00.448 carry? Sure, so chemotherapy.

NOTE Confidence: 0.8239666175

00:03:00.450 --> 00:03:03.540 Or systemic therapy, generally speaking,

NOTE Confidence: 0.8239666175

00:03:03.540 --> 00:03:06.360 is when when something is administered

NOTE Confidence: 0.8239666175

00:03:06.360 --> 00:03:10.107 either by mouth or through the vein and

NOTE Confidence: 0.8239666175

00:03:10.107 --> 00:03:12.849 actually goes throughout your whole body,

NOTE Confidence: 0.8239666175

00:03:12.850 --> 00:03:14.095 your whole system.

NOTE Confidence: 0.8239666175

00:03:14.095 --> 00:03:16.585 And that's why it's called systemic

NOTE Confidence: 0.8239666175

00:03:16.585 --> 00:03:18.308 chemotherapy or systemic therapy.

NOTE Confidence: 0.8239666175

00:03:18.310 --> 00:03:20.620 It also includes the broader

NOTE Confidence: 0.8239666175

00:03:20.620 --> 00:03:22.930 umbrella of these targeted agents

NOTE Confidence: 0.8239666175

00:03:23.012 --> 00:03:25.550 and and endocrine therapy as well.

NOTE Confidence: 0.8239666175

00:03:25.550 --> 00:03:28.926 All of them have the ability of of

NOTE Confidence: 0.8239666175

00:03:28.926 --> 00:03:31.110 circulating throughout your bloodstream.

NOTE Confidence: 0.8239666175

00:03:31.110 --> 00:03:36.682 And affecting any cells that might be

NOTE Confidence: 0.8239666175

00:03:36.682 --> 00:03:39.916 anywhere where blood transverses in the body,

NOTE Confidence: 0.8239666175

00:03:39.920 --> 00:03:41.430 which is pretty much you

NOTE Confidence: 0.8239666175

00:03:41.430 --> 00:03:42.638 know throughout the body.

NOTE Confidence: 0.8239666175

00:03:42.640 --> 00:03:45.992 Radiation, on the other hand is a very

NOTE Confidence: 0.8239666175

00:03:45.992 --> 00:03:49.386 focused high energy X ray beam and the

NOTE Confidence: 0.8239666175

00:03:49.386 --> 00:03:52.598 purpose of the radiation is really just to,

NOTE Confidence: 0.8239666175

00:03:52.600 --> 00:03:56.758 uh, primarily eradicate or to kill

NOTE Confidence: 0.8239666175

00:03:56.758 --> 00:04:01.110 off any microscopic or macroscopic.

NOTE Confidence: 0.8239666175

00:04:01.110 --> 00:04:03.282 Disease in the area where the

NOTE Confidence: 0.8239666175

00:04:03.282 --> 00:04:04.368 beam is targeted.

NOTE Confidence: 0.8239666175

00:04:04.370 --> 00:04:06.218 So, for example,

NOTE Confidence: 0.8239666175

00:04:06.218 --> 00:04:08.420 for breast radiation after,

NOTE Confidence: 0.8239666175

00:04:08.420 --> 00:04:09.120 for example,

NOTE Confidence: 0.8239666175

00:04:09.120 --> 00:04:11.220 when someone has a lumpectomy or

NOTE Confidence: 0.8239666175

00:04:11.220 --> 00:04:13.032 breast conserving surgery and their

NOTE Confidence: 0.8239666175

00:04:13.032 --> 00:04:15.670 primary tumor in the breast is removed,

NOTE Confidence: 0.8239666175

00:04:15.670 --> 00:04:18.766 we will target the whole breast

NOTE Confidence: 0.8239666175

00:04:18.770 --> 00:04:23.150 area so that the radiation can

NOTE Confidence: 0.8239666175

00:04:23.150 --> 00:04:25.783 eradicate any microscopic cells that

NOTE Confidence: 0.8239666175

00:04:25.783 --> 00:04:28.129 might be left behind after surgery.

NOTE Confidence: 0.8239666175

00:04:28.130 --> 00:04:31.906 And that has been shown to diminish the.

NOTE Confidence: 0.8239666175

00:04:31.910 --> 00:04:33.860 The chances of the cancer coming

NOTE Confidence: 0.8239666175

00:04:33.860 --> 00:04:35.160 back within the breast.

NOTE Confidence: 0.8655085324

00:04:36.580 --> 00:04:39.270 So so that leads us to this whole for a

NOTE Confidence: 0.8655085324

00:04:39.340 --> 00:04:41.988 of of the discussion that we'll have in

NOTE Confidence: 0.8655085324

00:04:41.988 --> 00:04:44.790 terms of radiation oncology as it plays

NOTE Confidence: 0.954637094

00:04:44.800 --> 00:04:46.180 a role in breast cancer.

NOTE Confidence: 0.890393947407407

00:04:46.900 --> 00:04:49.329 So one of the areas in which

NOTE Confidence: 0.890393947407407

00:04:49.329 --> 00:04:51.210 radiation plays prominently in the

NOTE Confidence: 0.890393947407407

00:04:51.210 --> 00:04:53.135 treatment of breast cancer patients

NOTE Confidence: 0.890393947407407

00:04:53.135 --> 00:04:55.169 is after lumpectomy or breast

NOTE Confidence: 0.890393947407407

00:04:55.169 --> 00:04:57.209 conserving surgery as you mentioned.

NOTE Confidence: 0.890393947407407

00:04:57.210 --> 00:04:59.394 And I find that another question that

NOTE Confidence: 0.890393947407407

00:04:59.394 --> 00:05:02.134 often comes up for patients, is this.

NOTE Confidence: 0.890393947407407

00:05:02.134 --> 00:05:04.544 Why do I need radiation?

NOTE Confidence: 0.890393947407407

00:05:04.550 --> 00:05:06.625 If the surgeon already removed

NOTE Confidence: 0.890393947407407

00:05:06.625 --> 00:05:09.582 the cancer and got a nice clean

NOTE Confidence: 0.890393947407407

00:05:09.582 --> 00:05:12.368 rim of tissue all the way around,

NOTE Confidence: 0.890393947407407

00:05:12.370 --> 00:05:13.610 isn't the cancer gone?

NOTE Confidence: 0.890393947407407

00:05:13.610 --> 00:05:15.160 Why would I need radiation

NOTE Confidence: 0.890393947407407

00:05:15.160 --> 00:05:17.030 to presumably normal tissue?

NOTE Confidence: 0.902270658

00:05:17.640 --> 00:05:19.140 Yeah, that's that's a very,

NOTE Confidence: 0.902270658

00:05:19.140 --> 00:05:21.312 very good question that patients do

NOTE Confidence: 0.902270658

00:05:21.312 --> 00:05:25.180 ask a lot, and so it's not intuitive.

NOTE Confidence: 0.902270658

00:05:25.180 --> 00:05:28.645 But despite the fact that the primary

NOTE Confidence: 0.902270658

00:05:28.645 --> 00:05:32.892 tumor has been removed with a 3

NOTE Confidence: 0.902270658

00:05:32.892 --> 00:05:35.556 dimensional circumference of normal

NOTE Confidence: 0.902270658

00:05:35.556 --> 00:05:38.419 unaffected breast tissue as well.

NOTE Confidence: 0.902270658

00:05:38.420 --> 00:05:42.711 What we know from looking at mastectomy

NOTE Confidence: 0.902270658

00:05:42.711 --> 00:05:45.225 specimens from patients years ago that

NOTE Confidence: 0.902270658

00:05:45.225 --> 00:05:47.680 have passed away of breast cancer.

NOTE Confidence: 0.902270658

00:05:47.680 --> 00:05:50.080 Is that the primary tumor?

NOTE Confidence: 0.902270658

00:05:50.080 --> 00:05:53.040 Has little tiny microscopic tentacles of

NOTE Confidence: 0.902270658

00:05:53.040 --> 00:05:57.174 disease that can extend as far as 3/4

NOTE Confidence: 0.902270658

00:05:57.174 --> 00:06:00.138 centimeters away from the primary tumor.

NOTE Confidence: 0.902270658

00:06:00.140 --> 00:06:03.038 So despite the fact that the surgeon

NOTE Confidence: 0.902270658

00:06:03.038 --> 00:06:05.220 is removing the primary tumor

NOTE Confidence: 0.902270658

00:06:05.220 --> 00:06:07.176 with a margin there,

NOTE Confidence: 0.902270658

00:06:07.176 --> 00:06:11.838 there is a high chance of having

NOTE Confidence: 0.902270658

00:06:11.838 --> 00:06:14.911 microscopic disease in about 30 to

NOTE Confidence: 0.902270658

00:06:14.911 --> 00:06:17.400 40% of all breast cancer patients,

NOTE Confidence: 0.902270658

00:06:17.400 --> 00:06:19.100 and that's what the radiation.

NOTE Confidence: 0.902270658

00:06:19.100 --> 00:06:20.228 Is actually targeting.

NOTE Confidence: 0.936399211666667

00:06:20.940 --> 00:06:23.418 Which then brings up the question.

NOTE Confidence: 0.936399211666667

00:06:23.420 --> 00:06:27.660 Well, if there are these tentacles of

NOTE Confidence: 0.936399211666667

00:06:27.660 --> 00:06:29.735 disease or the possibility of microscopic

NOTE Confidence: 0.936399211666667

00:06:29.735 --> 00:06:32.160 disease in the rest of the breast,

NOTE Confidence: 0.936399211666667

00:06:32.160 --> 00:06:33.700 wouldn't I just be better

NOTE Confidence: 0.936399211666667

00:06:33.700 --> 00:06:35.240 off to have a mastectomy?

NOTE Confidence: 0.936399211666667

00:06:35.240 --> 00:06:38.993 I mean, how can it be that breast conserving,

NOTE Confidence: 0.936399211666667

00:06:39.000 --> 00:06:41.772 surgery and mastectomy are

NOTE Confidence: 0.936399211666667

00:06:41.772 --> 00:06:45.237 equivalent in terms of survival?

NOTE Confidence: 0.936399211666667

00:06:45.240 --> 00:06:48.410 When there still is potential

NOTE Confidence: 0.936399211666667

00:06:48.410 --> 00:06:50.440 for disease, right?

NOTE Confidence: 0.936399211666667

00:06:50.440 --> 00:06:52.968 So, uhm, so they've done.

NOTE Confidence: 0.902484122727273

00:06:54.020 --> 00:06:57.535 You know several large randomized

NOTE Confidence: 0.902484122727273

00:06:57.535 --> 00:07:01.050 studies where they've taken women

NOTE Confidence: 0.902484122727273

00:07:01.160 --> 00:07:03.690 with breast cancer with early stage

NOTE Confidence: 0.902484122727273

00:07:03.690 --> 00:07:05.800 breast cancer and randomize them

NOTE Confidence: 0.902484122727273

00:07:05.869 --> 00:07:08.077 to either a lumpectomy or breast,

NOTE Confidence: 0.902484122727273

00:07:08.080 --> 00:07:11.520 conserving surgery or lumpectomy,

NOTE Confidence: 0.902484122727273

00:07:11.520 --> 00:07:15.492 plus radiation versus mastectomy. And.

NOTE Confidence: 0.902484122727273

00:07:15.492 --> 00:07:18.152 What you consistently see throughout

NOTE Confidence: 0.902484122727273

00:07:18.152 --> 00:07:21.760 all of these studies is that the

NOTE Confidence: 0.902484122727273

00:07:21.760 --> 00:07:24.070 survival outcomes are the same,

NOTE Confidence: 0.902484122727273

00:07:24.070 --> 00:07:26.959 but that when you do the lumpectomy alone,

NOTE Confidence: 0.902484122727273

00:07:26.959 --> 00:07:30.312 that the risk of the cancer coming

NOTE Confidence: 0.902484122727273

00:07:30.312 --> 00:07:34.052 back is significantly greater, so.

NOTE Confidence: 0.902484122727273

00:07:34.052 --> 00:07:37.706 Whether you choose to do a mastectomy

NOTE Confidence: 0.902484122727273

00:07:37.706 --> 00:07:39.851 or breast conservation really is

NOTE Confidence: 0.902484122727273

00:07:39.851 --> 00:07:42.420 just it is a personal choice and

NOTE Confidence: 0.902484122727273

00:07:42.496 --> 00:07:44.770 it's up to the individual patient,

NOTE Confidence: 0.902484122727273

00:07:44.770 --> 00:07:46.406 but a lot of women think it's

NOTE Confidence: 0.902484122727273

00:07:46.406 --> 00:07:48.186 better to do a mastectomy,

NOTE Confidence: 0.902484122727273

00:07:48.190 --> 00:07:50.128 and that's just not the case.

NOTE Confidence: 0.902484122727273

00:07:50.130 --> 00:07:52.395 Outcomes ultimately are are the

NOTE Confidence: 0.902484122727273

00:07:52.395 --> 00:07:55.550 same in terms of of survival,

NOTE Confidence: 0.902484122727273

00:07:55.550 --> 00:07:57.920 and the issue for an individual

NOTE Confidence: 0.902484122727273

00:07:57.920 --> 00:07:59.435 patient would be do.

NOTE Confidence: 0.902484122727273

00:07:59.435 --> 00:08:01.385 I want to conserve my breast.

NOTE Confidence: 0.902484122727273

00:08:01.390 --> 00:08:03.469 Do I want to keep my breast

NOTE Confidence: 0.902484122727273

00:08:03.469 --> 00:08:05.078 doing a mastectomy is a much.

NOTE Confidence: 0.902484122727273

00:08:05.080 --> 00:08:07.720 Larger surgery there's the issue of

NOTE Confidence: 0.902484122727273

00:08:07.720 --> 00:08:10.699 asymmetry and and then thinking about,

NOTE Confidence: 0.902484122727273

00:08:10.700 --> 00:08:12.214 you know,

NOTE Confidence: 0.902484122727273

00:08:12.214 --> 00:08:14.485 reconstruction and contralateral

NOTE Confidence: 0.902484122727273

00:08:14.485 --> 00:08:15.999 prophylactic mastectomy.

NOTE Confidence: 0.902484122727273

00:08:16.000 --> 00:08:17.812 So there's a lot of additional

NOTE Confidence: 0.902484122727273

00:08:17.812 --> 00:08:19.796 issues that need to be thought

NOTE Confidence: 0.902484122727273

00:08:19.796 --> 00:08:21.566 about in the mastectomy realm,

NOTE Confidence: 0.902484122727273

00:08:21.570 --> 00:08:23.976 and I think that that's something

NOTE Confidence: 0.902484122727273

00:08:23.976 --> 00:08:25.588 that patients struggle with,

NOTE Confidence: 0.902484122727273

00:08:25.588 --> 00:08:28.012 especially when they're in given a

NOTE Confidence: 0.902484122727273

00:08:28.012 --> 00:08:30.110 new diagnosis of a breast cancer.

NOTE Confidence: 0.902484122727273

00:08:30.110 --> 00:08:32.114 So I think it's just important

NOTE Confidence: 0.902484122727273

00:08:32.114 --> 00:08:33.949 that patients know that the

NOTE Confidence: 0.902484122727273

00:08:33.949 --> 00:08:35.248 ultimate survival rates.

NOTE Confidence: 0.902484122727273

00:08:35.250 --> 00:08:38.197 Are the same whether you have the

NOTE Confidence: 0.902484122727273

00:08:38.197 --> 00:08:40.384 entire breast removed or whether

NOTE Confidence: 0.902484122727273

00:08:40.384 --> 00:08:43.331 you have the tumor removed and then

NOTE Confidence: 0.902484122727273

00:08:43.331 --> 00:08:45.832 received the radiation to the breast.

NOTE Confidence: 0.902484122727273

00:08:45.832 --> 00:08:48.170 The difference being that if you just

NOTE Confidence: 0.902484122727273

00:08:48.238 --> 00:08:50.807 remove the tumor and don't do radiation,

NOTE Confidence: 0.902484122727273

00:08:50.810 --> 00:08:52.196 then your risk of it coming

NOTE Confidence: 0.902484122727273

00:08:52.196 --> 00:08:53.680 back in the breast is higher,

NOTE Confidence: 0.85478886

00:08:54.580 --> 00:08:57.706 which then leads us to OK.

NOTE Confidence: 0.85478886

00:08:57.710 --> 00:09:00.806 So tell me about the radiation.

NOTE Confidence: 0.85478886

00:09:00.810 --> 00:09:02.930 How how is it delivered?

NOTE Confidence: 0.85478886

00:09:02.930 --> 00:09:03.870 How much is it?

NOTE Confidence: 0.85478886

00:09:03.870 --> 00:09:05.280 How often do I have to

NOTE Confidence: 0.85478886

00:09:05.344 --> 00:09:06.828 come for the treatments?

NOTE Confidence: 0.85478886

00:09:06.830 --> 00:09:08.590 How long are the treatments?

NOTE Confidence: 0.85478886

00:09:08.590 --> 00:09:09.988 And what are the side effects?

NOTE Confidence: 0.85478886

00:09:09.990 --> 00:09:12.110 So oftentimes people will ask,

NOTE Confidence: 0.85478886

00:09:12.110 --> 00:09:13.748 you know, will my hair fall out?

NOTE Confidence: 0.85478886

00:09:13.750 --> 00:09:15.062 Will I get sick?

NOTE Confidence: 0.85478886

00:09:15.062 --> 00:09:17.030 What about all of those questions?

NOTE Confidence: 0.85478886

00:09:17.030 --> 00:09:17.680 Sure,

NOTE Confidence: 0.8490356775

00:09:17.710 --> 00:09:19.098 sure. So uhm again,

NOTE Confidence: 0.8490356775

00:09:19.098 --> 00:09:21.910 radiation is a high energy X ray beam.

NOTE Confidence: 0.8490356775

00:09:21.910 --> 00:09:23.750 Not only do we use it in the

NOTE Confidence: 0.8490356775

00:09:23.750 --> 00:09:24.650 breast conservation setting,

NOTE Confidence: 0.8490356775

00:09:24.650 --> 00:09:26.636 but we also use it after

NOTE Confidence: 0.8490356775

00:09:26.636 --> 00:09:28.630 mastectomy in higher risk patients.

NOTE Confidence: 0.8490356775

00:09:28.630 --> 00:09:32.502 For example those that have involved lymph

NOTE Confidence: 0.8490356775

00:09:32.502 --> 00:09:35.298 nodes to eradicate microscopic disease.

NOTE Confidence: 0.8490356775

00:09:35.298 --> 00:09:38.160 It you know along the chest

NOTE Confidence: 0.8490356775

00:09:38.242 --> 00:09:40.588 wall and in the nodal regions.

NOTE Confidence: 0.8490356775

00:09:40.590 --> 00:09:43.873 So what it does is it affects

NOTE Confidence: 0.8490356775

00:09:43.873 --> 00:09:46.887 the rapidly dividing cells or the

NOTE Confidence: 0.8490356775

00:09:46.887 --> 00:09:49.407 DNA of rapidly dividing cells,

NOTE Confidence: 0.8490356775

00:09:49.410 --> 00:09:50.958 and that's what cancer cells are.

NOTE Confidence: 0.8490356775

00:09:50.960 --> 00:09:52.396 They're they're rapidly dividing,

NOTE Confidence: 0.8490356775

00:09:52.396 --> 00:09:55.540 and so it has the ability to affect the

NOTE Confidence: 0.8490356775

00:09:55.540 --> 00:09:58.200 cancer cells more than it does normal tissue,

NOTE Confidence: 0.8490356775

00:09:58.200 --> 00:10:00.930 and that and that's how it works.

NOTE Confidence: 0.8490356775

00:10:00.930 --> 00:10:02.645 I like to tell patients that it's

NOTE Confidence: 0.8490356775

00:10:02.645 --> 00:10:04.499 kind of like taking a jackhammer,

NOTE Confidence: 0.8490356775

00:10:04.500 --> 00:10:07.158 opening up a perfect looking car,

NOTE Confidence: 0.8490356775

00:10:07.160 --> 00:10:10.470 and just basically, you know.

NOTE Confidence: 0.8490356775

00:10:10.470 --> 00:10:12.584 Kind of trashing it and the engine

NOTE Confidence: 0.8490356775

00:10:12.584 --> 00:10:14.872 and you know you wouldn't notice and

NOTE Confidence: 0.8490356775

00:10:14.872 --> 00:10:17.680 then if you close close the the the

NOTE Confidence: 0.8490356775

00:10:17.680 --> 00:10:19.610 engine up you wouldn't necessarily

NOTE Confidence: 0.8490356775

00:10:19.610 --> 00:10:21.986 know that there's an issue with the

NOTE Confidence: 0.8490356775

00:10:21.986 --> 00:10:24.309 car until you try to turn it on.

NOTE Confidence: 0.8490356775

00:10:24.310 --> 00:10:25.920 And that's basically what happens

NOTE Confidence: 0.8490356775

00:10:25.920 --> 00:10:26.886 with the radiation.

NOTE Confidence: 0.8490356775

00:10:26.890 --> 00:10:29.578 It affects the DNA of the cancer cells

NOTE Confidence: 0.8490356775

00:10:29.578 --> 00:10:32.070 more than it does the normal cells,

NOTE Confidence: 0.8490356775

00:10:32.070 --> 00:10:35.349 and so if the cells try to reproduce

NOTE Confidence: 0.8490356775

00:10:35.349 --> 00:10:38.061 at any point down the road you realize

NOTE Confidence: 0.8490356775

00:10:38.061 --> 00:10:40.690 the engine is damaged and they're not.

NOTE Confidence: 0.8490356775

00:10:40.690 --> 00:10:42.014 Able to do that,

NOTE Confidence: 0.8490356775

00:10:42.014 --> 00:10:43.973 and that's how the radiation decreases

NOTE Confidence: 0.8490356775

00:10:43.973 --> 00:10:46.094 the chance of the cancer coming back.

NOTE Confidence: 0.915864652142857

00:10:47.190 --> 00:10:49.390 So just to clarify, are you saying that

NOTE Confidence: 0.915864652142857

00:10:49.390 --> 00:10:51.948 if a patient gets radiation therapy,

NOTE Confidence: 0.915864652142857

00:10:51.950 --> 00:10:54.848 they can never get a recurrence?

NOTE Confidence: 0.915864652142857

00:10:54.850 --> 00:10:56.938 Well, there's always. There are always

NOTE Confidence: 0.89220581

00:10:56.950 --> 00:10:58.760 ways in which you know.

NOTE Confidence: 0.935141428

00:11:01.340 --> 00:11:03.180 It's never 100% in terms

NOTE Confidence: 0.935141428

00:11:03.180 --> 00:11:05.020 of how efficacious it is,

NOTE Confidence: 0.935141428

00:11:05.020 --> 00:11:08.268 but it but it it does diminish the

NOTE Confidence: 0.935141428

00:11:08.268 --> 00:11:10.310 recurrence rate significantly.

NOTE Confidence: 0.935141428

00:11:10.310 --> 00:11:12.885 And and particularly these days

NOTE Confidence: 0.935141428

00:11:12.885 --> 00:11:16.124 with the use of additional agents

NOTE Confidence: 0.935141428

00:11:16.124 --> 00:11:18.790 such as endocrine therapy and

NOTE Confidence: 0.935141428

00:11:18.790 --> 00:11:20.740 some patients that are getting

NOTE Confidence: 0.935141428

00:11:20.740 --> 00:11:21.876 hormone getting chemotherapy,

NOTE Confidence: 0.935141428

00:11:21.876 --> 00:11:24.368 we see that the that the recurrence

NOTE Confidence: 0.935141428

00:11:24.368 --> 00:11:26.418 rates are in the single digits,

NOTE Confidence: 0.935141428

00:11:26.420 --> 00:11:28.710 so it's it's pretty low.

NOTE Confidence: 0.823399491666667

00:11:29.700 --> 00:11:32.238 So tell us about what there's.

NOTE Confidence: 0.823399491666667

00:11:32.240 --> 00:11:34.172 There's always a price to pay in

NOTE Confidence: 0.823399491666667

00:11:34.172 --> 00:11:35.739 terms of getting any benefit,

NOTE Confidence: 0.823399491666667

00:11:35.740 --> 00:11:37.596 and I think all of us know that

NOTE Confidence: 0.823399491666667

00:11:37.596 --> 00:11:39.738 just in terms of not just medicine,

NOTE Confidence: 0.823399491666667

00:11:39.740 --> 00:11:41.720 but but life in general.

NOTE Confidence: 0.823399491666667

00:11:41.720 --> 00:11:44.597 So tell us about the side effects

NOTE Confidence: 0.823399491666667

00:11:44.597 --> 00:11:46.528 of radiation. How often do you

NOTE Confidence: 0.823399491666667

00:11:46.528 --> 00:11:47.913 need to get these treatments?

NOTE Confidence: 0.823399491666667

00:11:47.920 --> 00:11:50.500 How many treatments are there?

NOTE Confidence: 0.823399491666667

00:11:50.500 --> 00:11:53.660 Is it painful? Do I lose my hair?

NOTE Confidence: 0.823399491666667

00:11:53.660 --> 00:11:55.252 Do I get sick?

NOTE Confidence: 0.823399491666667

00:11:55.252 --> 00:11:56.844 What can I expect?

NOTE Confidence: 0.84483255

00:11:57.220 --> 00:11:59.430 Sure, so as far as.

NOTE Confidence: 0.84483255

00:11:59.430 --> 00:12:02.720 The way radiation is delivered,

NOTE Confidence: 0.84483255

00:12:02.720 --> 00:12:04.826 it's delivered on a daily basis.

NOTE Confidence: 0.84483255

00:12:04.830 --> 00:12:05.638 It's fractionated,

NOTE Confidence: 0.84483255

00:12:05.638 --> 00:12:08.466 so it's delivered on a daily basis

NOTE Confidence: 0.84483255

00:12:08.466 --> 00:12:11.280 over a period of time and the the

NOTE Confidence: 0.84483255

00:12:11.280 --> 00:12:13.442 biology behind that is that it

NOTE Confidence: 0.84483255

00:12:13.442 --> 00:12:15.252 allows the normal tissue cells

NOTE Confidence: 0.84483255

00:12:15.252 --> 00:12:17.572 to recover and the cancer cells

NOTE Confidence: 0.84483255

00:12:17.572 --> 00:12:19.960 don't have the ability to recover,

NOTE Confidence: 0.84483255

00:12:19.960 --> 00:12:24.770 so it's given over a period of days or weeks.

NOTE Confidence: 0.84483255

00:12:24.770 --> 00:12:26.440 Now, typically in the breast

NOTE Confidence: 0.84483255

00:12:26.440 --> 00:12:27.776 conservation setting it's given

NOTE Confidence: 0.84483255

00:12:27.776 --> 00:12:29.608 over 5 weeks to the whole breast,

NOTE Confidence: 0.84483255

00:12:29.610 --> 00:12:31.180 and then sometimes we deliver.

NOTE Confidence: 0.84483255

00:12:31.180 --> 00:12:33.588 A what we call a boost a smaller

NOTE Confidence: 0.84483255

00:12:33.588 --> 00:12:38.470 area to where the lump was removed.

NOTE Confidence: 0.84483255

00:12:38.470 --> 00:12:38.997 Nowadays,

NOTE Confidence: 0.84483255

00:12:38.997 --> 00:12:42.159 with the newer studies that are

NOTE Confidence: 0.84483255

00:12:42.159 --> 00:12:46.661 being done in in an effort to try to

NOTE Confidence: 0.84483255

00:12:46.661 --> 00:12:49.500 reduce treatment burden on patients,

NOTE Confidence: 0.84483255

00:12:49.500 --> 00:12:52.846 we are actually shortening that and they're.

NOTE Confidence: 0.84483255

00:12:52.850 --> 00:12:54.858 They're ongoing investigations to

NOTE Confidence: 0.84483255

00:12:54.858 --> 00:12:57.368 shorten that course of radiation

NOTE Confidence: 0.84483255

00:12:57.368 --> 00:13:00.046 from 5 to 6 1/2 weeks down to,

NOTE Confidence: 0.84483255

00:13:00.046 --> 00:13:01.012 you know,

NOTE Confidence: 0.84483255

00:13:01.012 --> 00:13:03.648 anywhere from 2 to 3-4 weeks

NOTE Confidence: 0.84483255

00:13:03.648 --> 00:13:06.091 and and also down to one week

NOTE Confidence: 0.84483255

00:13:06.091 --> 00:13:07.580 depending on the patient.

NOTE Confidence: 0.84483255

00:13:07.580 --> 00:13:09.099 So you have to qualify for it.

NOTE Confidence: 0.84483255

00:13:09.100 --> 00:13:11.676 But but there is some promising data that

NOTE Confidence: 0.84483255

00:13:11.676 --> 00:13:14.739 we can even do it in as short as one week.

NOTE Confidence: 0.84483255

00:13:14.740 --> 00:13:16.156 So as far as side effects,

NOTE Confidence: 0.84483255

00:13:16.160 --> 00:13:18.100 generally the side effects are

NOTE Confidence: 0.84483255

00:13:18.100 --> 00:13:20.040 related to where we're targeting.

NOTE Confidence: 0.84483255

00:13:20.040 --> 00:13:23.160 So for the breast or the chest wall,

NOTE Confidence: 0.84483255

00:13:23.160 --> 00:13:25.060 it's primarily just that

NOTE Confidence: 0.84483255

00:13:25.060 --> 00:13:27.910 localized area and they will have.

NOTE Confidence: 0.84483255

00:13:27.910 --> 00:13:30.025 Patients will have most commonly

NOTE Confidence: 0.84483255

00:13:30.025 --> 00:13:31.717 fatigue and skin reaction,

NOTE Confidence: 0.84483255

00:13:31.720 --> 00:13:33.706 and the skin reaction is kind

NOTE Confidence: 0.84483255

00:13:33.706 --> 00:13:36.170 of like a sunburn as turn as as

NOTE Confidence: 0.84483255

00:13:36.170 --> 00:13:37.880 far as long term side effects.

NOTE Confidence: 0.84483255

00:13:37.880 --> 00:13:41.240 Again, it's related to where the beam.

NOTE Confidence: 0.84483255

00:13:41.240 --> 00:13:42.880 Actually intersects with the

NOTE Confidence: 0.84483255

00:13:42.880 --> 00:13:44.930 body in the normal tissue,

NOTE Confidence: 0.84483255

00:13:44.930 --> 00:13:45.932 and so,

NOTE Confidence: 0.84483255

00:13:45.932 --> 00:13:48.437 besides having chronic changes in

NOTE Confidence: 0.84483255

00:13:48.437 --> 00:13:51.784 the skin or scar tissue there are,

NOTE Confidence: 0.84483255

00:13:51.784 --> 00:13:54.600 there is a small chance that they can

NOTE Confidence: 0.84483255

00:13:54.681 --> 00:13:57.399 have problems with their wound there.

NOTE Confidence: 0.84483255

00:13:57.400 --> 00:13:59.926 There's a small chance of having

NOTE Confidence: 0.84483255

00:13:59.926 --> 00:14:01.189 a lung issues.

NOTE Confidence: 0.84483255

00:14:01.190 --> 00:14:04.214 Most commonly it's something

NOTE Confidence: 0.84483255

00:14:04.214 --> 00:14:05.726 called pneumonitis,

NOTE Confidence: 0.84483255

00:14:05.730 --> 00:14:08.201 where the lung can get a little

NOTE Confidence: 0.84483255

00:14:08.201 --> 00:14:10.440 inflamed just in the area where

NOTE Confidence: 0.84483255

00:14:10.440 --> 00:14:13.758 that portion of Lung sees radiation,

NOTE Confidence: 0.84483255

00:14:13.760 --> 00:14:15.086 not life threatening,

NOTE Confidence: 0.84483255

00:14:15.086 --> 00:14:17.296 usually treated with a short

NOTE Confidence: 0.84483255

00:14:17.296 --> 00:14:18.920 course of steroids,

NOTE Confidence: 0.84483255

00:14:18.920 --> 00:14:22.640 often asymptomatic and then the heart.

NOTE Confidence: 0.84483255

00:14:22.640 --> 00:14:24.920 Obviously for left sided patients

NOTE Confidence: 0.84483255

00:14:24.920 --> 00:14:26.641 in particular is sometimes

NOTE Confidence: 0.84483255

00:14:26.641 --> 00:14:28.747 in the path of the beam,

NOTE Confidence: 0.84483255

00:14:28.750 --> 00:14:31.054 and so we have to be very careful

NOTE Confidence: 0.84483255

00:14:31.054 --> 00:14:33.563 to make sure that we minimize the

NOTE Confidence: 0.84483255

00:14:33.563 --> 00:14:35.841 radiation dose to the heart and

NOTE Confidence: 0.84483255

00:14:35.841 --> 00:14:37.887 we have techniques to do that,

NOTE Confidence: 0.84483255

00:14:37.890 --> 00:14:40.865 and so the long term heart issues.

NOTE Confidence: 0.84483255

00:14:40.870 --> 00:14:42.013 Have significantly diminished

NOTE Confidence: 0.84483255

00:14:42.013 --> 00:14:43.918 over the last several decades.

NOTE Confidence: 0.930827104

00:14:44.470 --> 00:14:46.745 Alright, well we're gonna pick up

NOTE Confidence: 0.930827104

00:14:46.745 --> 00:14:48.528 this conversation right after we take

NOTE Confidence: 0.930827104

00:14:48.528 --> 00:14:50.292 a short break for a medical minute.

NOTE Confidence: 0.930827104

00:14:50.300 --> 00:14:52.379 Please stay tuned to learn more about

NOTE Confidence: 0.930827104

00:14:52.379 --> 00:14:53.901 radiation therapy for breast cancer

NOTE Confidence: 0.930827104

00:14:53.901 --> 00:14:55.635 with my guest doctor Meena Moran.

NOTE Confidence: 0.863870014

00:14:56.230 --> 00:14:58.135 Funding for Yale Cancer Answers

NOTE Confidence: 0.863870014

00:14:58.135 --> 00:15:00.040 comes from Smilow Cancer Hospital,

NOTE Confidence: 0.863870014

00:15:00.040 --> 00:15:02.254 where a wide spectrum of advanced

NOTE Confidence: 0.863870014

00:15:02.254 --> 00:15:04.660 strategies for the diagnosis and treatment

NOTE Confidence: 0.863870014

00:15:04.660 --> 00:15:06.830 of gynecological cancers are offered.

NOTE Confidence: 0.863870014

00:15:06.830 --> 00:15:11.605 To learn more, visit yalecancercenter.org.

NOTE Confidence: 0.863870014

00:15:11.605 --> 00:15:15.952 The American Cancer Society

NOTE Confidence: 0.863870014

00:15:15.952 --> 00:15:18.288 estimates that nearly 150,000 people

NOTE Confidence: 0.863870014

00:15:18.288 --> 00:15:20.906 in the US will be diagnosed with

NOTE Confidence: 0.863870014

00:15:20.906 --> 00:15:22.837 colorectal cancer this year alone.

NOTE Confidence: 0.863870014

00:15:22.840 --> 00:15:24.990 When detected, early colorectal cancer

NOTE Confidence: 0.863870014

00:15:24.990 --> 00:15:27.720 is easily treated and highly curable,

NOTE Confidence: 0.863870014

00:15:27.720 --> 00:15:29.784 and men and women over the age of

NOTE Confidence: 0.863870014

00:15:29.784 --> 00:15:31.551 45 should have regular colonoscopies

NOTE Confidence: 0.863870014

00:15:31.551 --> 00:15:33.536 to screen for the disease.

NOTE Confidence: 0.863870014

00:15:33.540 --> 00:15:34.996 Patients with colorectal cancer

NOTE Confidence: 0.863870014

00:15:34.996 --> 00:15:37.180 have more hope than ever before,

NOTE Confidence: 0.863870014

00:15:37.180 --> 00:15:40.012 thanks to increased access to advanced

NOTE Confidence: 0.863870014

00:15:40.012 --> 00:15:41.900 therapies and specialized care.

NOTE Confidence: 0.863870014

00:15:41.900 --> 00:15:43.752 Clinical trials are currently

NOTE Confidence: 0.863870014

00:15:43.752 --> 00:15:45.604 underway at federally designated

NOTE Confidence: 0.863870014

00:15:45.604 --> 00:15:47.040 Comprehensive Cancer Centers.

NOTE Confidence: 0.863870014

00:15:47.040 --> 00:15:49.920 Such as Yale Cancer Center and Smilow

NOTE Confidence: 0.863870014

00:15:49.920 --> 00:15:52.513 Cancer Hospital to test innovative new

NOTE Confidence: 0.863870014

00:15:52.513 --> 00:15:54.785 treatments for colorectal cancer tumor.

NOTE Confidence: 0.863870014

00:15:54.785 --> 00:15:57.110 Gene analysis has helped improve

NOTE Confidence: 0.863870014

00:15:57.110 --> 00:15:58.970 management of colorectal cancer

NOTE Confidence: 0.863870014

00:15:59.037 --> 00:16:01.262 by identifying the patients most

NOTE Confidence: 0.863870014

00:16:01.262 --> 00:16:03.487 likely to benefit from chemotherapy

NOTE Confidence: 0.863870014

00:16:03.557 --> 00:16:05.257 and newer targeted agents,

NOTE Confidence: 0.863870014

00:16:05.260 --> 00:16:08.098 resulting in more patient specific treatment.

NOTE Confidence: 0.863870014

00:16:08.100 --> 00:16:11.160 More information is available at

NOTE Confidence: 0.863870014

00:16:11.160 --> 00:16:12.456 yalecancercenter.org you're listening

NOTE Confidence: 0.863870014

00:16:12.456 --> 00:16:14.184 to Connecticut Public Radio.

NOTE Confidence: 0.866724558333333

00:16:15.020 --> 00:16:17.096 Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.866724558333333

00:16:17.100 --> 00:16:18.372 This is doctor Anees Chagpar

NOTE Confidence: 0.866724558333333

00:16:18.372 --> 00:16:20.280 and I'm joined tonight

NOTE Confidence: 0.866724558333333

00:16:20.344 --> 00:16:22.180 by my guest doctor Meena Moran.

NOTE Confidence: 0.866724558333333

00:16:22.180 --> 00:16:23.840 We're talking about radiation

NOTE Confidence: 0.866724558333333

00:16:23.840 --> 00:16:25.915 therapy for breast cancer patients

NOTE Confidence: 0.866724558333333

00:16:25.915 --> 00:16:28.096 and right before the break Meena,

NOTE Confidence: 0.866724558333333

00:16:28.100 --> 00:16:30.711 you had mentioned some of the side

NOTE Confidence: 0.866724558333333

00:16:30.711 --> 00:16:32.980 effects that people can get with

NOTE Confidence: 0.866724558333333

00:16:32.980 --> 00:16:36.450 radiation in terms of skin toxicities.

NOTE Confidence: 0.866724558333333

00:16:36.450 --> 00:16:37.940 A little bit of dryness,

NOTE Confidence: 0.866724558333333

00:16:37.940 --> 00:16:40.176 a little bit of redness, it might

NOTE Confidence: 0.866724558333333

00:16:40.176 --> 00:16:43.452 interfere with the wound a little bit.

NOTE Confidence: 0.866724558333333

00:16:43.460 --> 00:16:46.180 You had mentioned things.

NOTE Confidence: 0.866724558333333

00:16:46.180 --> 00:16:49.464 Like pneumonitis, and avoiding the heart,

NOTE Confidence: 0.866724558333333

00:16:49.464 --> 00:16:52.840 some of those sound not so bad.

NOTE Confidence: 0.866724558333333

00:16:52.840 --> 00:16:55.584 Some of those sound a little scary.

NOTE Confidence: 0.866724558333333

00:16:55.590 --> 00:16:59.166 Tell us about how you as

NOTE Confidence: 0.866724558333333

00:16:59.166 --> 00:17:01.152 radiation oncologists try to

NOTE Confidence: 0.866724558333333

00:17:01.152 --> 00:17:02.736 minimize those side effects,

NOTE Confidence: 0.866724558333333

00:17:02.740 --> 00:17:04.356 particularly in terms of

NOTE Confidence: 0.866724558333333

00:17:04.356 --> 00:17:06.376 avoiding the the lung in

NOTE Confidence: 0.86096917

00:17:06.390 --> 00:17:07.990 the heart and so on.

NOTE Confidence: 0.86096917

00:17:07.990 --> 00:17:10.825 Sure, so we've actually come

NOTE Confidence: 0.86096917

00:17:10.825 --> 00:17:14.820 a really long way in terms of.

NOTE Confidence: 0.86096917

00:17:14.820 --> 00:17:16.452 Minimizing the amount of heart and

NOTE Confidence: 0.86096917

00:17:16.452 --> 00:17:18.430 lung in the field years ago when

NOTE Confidence: 0.86096917

00:17:18.430 --> 00:17:20.092 when patients were treated it was

NOTE Confidence: 0.86096917

00:17:20.092 --> 00:17:22.093 just a tangential beam that kind of

NOTE Confidence: 0.86096917

00:17:22.093 --> 00:17:23.553 skimmed the chest wall encompassed

NOTE Confidence: 0.86096917

00:17:23.553 --> 00:17:25.954 the whole breast or the chest wall

NOTE Confidence: 0.86096917

00:17:25.954 --> 00:17:27.930 and and whatever was underneath

NOTE Confidence: 0.86096917

00:17:27.930 --> 00:17:29.960 was inevitably in the beam.

NOTE Confidence: 0.86096917

00:17:29.960 --> 00:17:33.770 Now we have the ability to.

NOTE Confidence: 0.86096917

00:17:33.770 --> 00:17:35.730 Actually plan and modulate the

NOTE Confidence: 0.86096917

00:17:35.730 --> 00:17:38.890 beam so that it is tailored for

NOTE Confidence: 0.86096917

00:17:38.890 --> 00:17:40.610 each individual patient's body.

NOTE Confidence: 0.86096917

00:17:40.610 --> 00:17:43.679 So what we do is we get a CAT scan

NOTE Confidence: 0.86096917

00:17:43.680 --> 00:17:45.330 at the time of treatment planning

NOTE Confidence: 0.86096917

00:17:45.330 --> 00:17:47.087 and we call that a treatment

NOTE Confidence: 0.86096917

00:17:47.087 --> 00:17:48.869 planning CAT scan and the whole

NOTE Confidence: 0.86096917

00:17:48.869 --> 00:17:50.628 process is called a simulation.

NOTE Confidence: 0.86096917

00:17:50.630 --> 00:17:52.190 We have the patient come in,

NOTE Confidence: 0.86096917

00:17:52.190 --> 00:17:54.150 we kind of outline the areas that

NOTE Confidence: 0.86096917

00:17:54.150 --> 00:17:56.555 we we want to cover and the patient

NOTE Confidence: 0.86096917

00:17:56.555 --> 00:17:58.949 will put their arms up on the table,

NOTE Confidence: 0.86096917

00:17:58.950 --> 00:18:00.390 which will be exactly how they'll

NOTE Confidence: 0.86096917

00:18:00.390 --> 00:18:01.810 be in the treatment position,

NOTE Confidence: 0.86096917

00:18:01.810 --> 00:18:03.778 will put them through the scanner.

NOTE Confidence: 0.86096917

00:18:03.780 --> 00:18:06.420 And then we use that scan,

NOTE Confidence: 0.86096917

00:18:06.420 --> 00:18:08.640 which is not a diagnostic scan,

NOTE Confidence: 0.86096917

00:18:08.640 --> 00:18:11.336 but is is purely just for treatment planning.

NOTE Confidence: 0.86096917

00:18:11.340 --> 00:18:11.911 Well,

NOTE Confidence: 0.86096917

00:18:11.911 --> 00:18:15.337 actually outline the the breast tissue

NOTE Confidence: 0.86096917

00:18:15.337 --> 00:18:19.659 or the chest wall and the lymph nodes.

NOTE Confidence: 0.86096917

00:18:19.660 --> 00:18:23.590 Every incremental 3 millimeter slice

NOTE Confidence: 0.86096917

00:18:23.590 --> 00:18:28.650 in order to then change the the.

NOTE Confidence: 0.86096917

00:18:28.650 --> 00:18:30.942 Way the beam actually intersects with

NOTE Confidence: 0.86096917

00:18:30.942 --> 00:18:33.328 normal tissue so that we're blocking

NOTE Confidence: 0.86096917

00:18:33.328 --> 00:18:35.704 as much normal tissue as possible,

NOTE Confidence: 0.86096917

00:18:35.710 --> 00:18:37.420 so that's one thing that has

NOTE Confidence: 0.86096917

00:18:37.420 --> 00:18:38.990 been a major advancement for us.

NOTE Confidence: 0.86096917

00:18:38.990 --> 00:18:40.740 Is 3 dimensional treatment planning

NOTE Confidence: 0.86096917

00:18:40.740 --> 00:18:43.260 and the use of beam modulation.

NOTE Confidence: 0.86096917

00:18:43.260 --> 00:18:45.956 The second thing is that we use deep

NOTE Confidence: 0.86096917

00:18:45.956 --> 00:18:47.609 inspiration breath hold technique,

NOTE Confidence: 0.86096917

00:18:47.610 --> 00:18:49.118 which is a very,

NOTE Confidence: 0.86096917

00:18:49.118 --> 00:18:52.295 very precise way of for us to have

NOTE Confidence: 0.86096917

00:18:52.295 --> 00:18:54.767 the patient take a deep breath

NOTE Confidence: 0.86096917

00:18:54.767 --> 00:18:57.347 when you take a deep breath.

NOTE Confidence: 0.86096917

00:18:57.350 --> 00:18:59.120 What happens is that your chest.

NOTE Confidence: 0.86096917

00:18:59.120 --> 00:19:01.444 Ball moves away from your heart and

NOTE Confidence: 0.86096917

00:19:01.444 --> 00:19:03.572 that creates a space between the

NOTE Confidence: 0.86096917

00:19:03.572 --> 00:19:06.443 heart and the chest wall and allows us

NOTE Confidence: 0.86096917

00:19:06.443 --> 00:19:08.767 to get those tangential beams to go

NOTE Confidence: 0.86096917

00:19:08.767 --> 00:19:11.456 through and minimize the dose to the heart.

NOTE Confidence: 0.86096917

00:19:11.460 --> 00:19:15.160 The machine only turns on when the

NOTE Confidence: 0.86096917

00:19:15.160 --> 00:19:17.909 patient is in that breath hold position,

NOTE Confidence: 0.86096917

00:19:17.910 --> 00:19:21.040 and there are multiple multiple

NOTE Confidence: 0.86096917

00:19:21.040 --> 00:19:24.525 lasers on the patient's skin 3

NOTE Confidence: 0.86096917

00:19:24.525 --> 00:19:26.665 dimensionally that monitor exactly

NOTE Confidence: 0.86096917

00:19:26.665 --> 00:19:29.749 when that patient is in the precise.

NOTE Confidence: 0.86096917

00:19:29.750 --> 00:19:31.898 Breath hold position which has to

NOTE Confidence: 0.86096917

00:19:31.898 --> 00:19:34.935 be within a 3 millimeters of of the

NOTE Confidence: 0.86096917

00:19:34.935 --> 00:19:37.590 position they were in at the time

NOTE Confidence: 0.86096917

00:19:37.590 --> 00:19:40.690 of the CT scan so it takes longer

NOTE Confidence: 0.86096917

00:19:40.690 --> 00:19:42.081 to deliver that treatment because

NOTE Confidence: 0.86096917

00:19:42.081 --> 00:19:43.587 the patient can only hold their

NOTE Confidence: 0.86096917

00:19:43.587 --> 00:19:45.224 breath for 20 seconds at a time

NOTE Confidence: 0.86096917

00:19:45.224 --> 00:19:47.041 and then they take a break and then

NOTE Confidence: 0.86096917

00:19:47.041 --> 00:19:48.326 they hold their breath again,

NOTE Confidence: 0.86096917

00:19:48.330 --> 00:19:51.886 but it ensures that the that the

NOTE Confidence: 0.86096917

00:19:51.890 --> 00:19:53.840 radiation is delivered in such a

NOTE Confidence: 0.86096917

00:19:53.840 --> 00:19:56.085 way that that the heart is away

NOTE Confidence: 0.86096917

00:19:56.085 --> 00:19:58.129 from the chest wall and then we

NOTE Confidence: 0.86096917

00:19:58.203 --> 00:19:59.959 have other techniques also.

NOTE Confidence: 0.86096917

00:19:59.960 --> 00:20:01.548 That we've been using,

NOTE Confidence: 0.86096917

00:20:01.548 --> 00:20:04.880 such as cardiac blocks and prone positioning.

NOTE Confidence: 0.86096917

00:20:04.880 --> 00:20:08.126 Those are other kind of technical

NOTE Confidence: 0.86096917

00:20:08.130 --> 00:20:10.932 tricks that we've used to also

NOTE Confidence: 0.86096917

00:20:10.932 --> 00:20:13.690 minimize the amount of heart dose

NOTE Confidence: 0.86096917

00:20:13.690 --> 00:20:16.469 and the good news from all of

NOTE Confidence: 0.86096917

00:20:16.469 --> 00:20:19.247 that is that based on our data,

NOTE Confidence: 0.92431504

00:20:19.250 --> 00:20:21.959 the the progress that we've made from

NOTE Confidence: 0.92431504

00:20:21.959 --> 00:20:23.824 a technical standpoint in minimizing

NOTE Confidence: 0.92431504

00:20:23.824 --> 00:20:26.036 the amount of heart and lung in

NOTE Confidence: 0.92431504

00:20:26.036 --> 00:20:28.648 the field has really benefited in

NOTE Confidence: 0.92431504

00:20:28.648 --> 00:20:30.428 decreasing the cardiac toxicity.

NOTE Confidence: 0.92431504

00:20:30.430 --> 00:20:32.992 In the long toxicity that breast cancer

NOTE Confidence: 0.92431504

00:20:32.992 --> 00:20:34.978 patients experience in the long term,

NOTE Confidence: 0.92431504

00:20:34.980 --> 00:20:37.238 so that is data that is, you know,

NOTE Confidence: 0.92431504

00:20:37.238 --> 00:20:39.856 a well known and has been established

NOTE Confidence: 0.913583413333333

00:20:40.700 --> 00:20:41.741 so mean a.

NOTE Confidence: 0.913583413333333

00:20:41.741 --> 00:20:43.823 I mean that really sounds incredible.

NOTE Confidence: 0.913583413333333

00:20:43.830 --> 00:20:46.746 And for people who are listening,

NOTE Confidence: 0.913583413333333

00:20:46.750 --> 00:20:49.025 it may sound really technologically

NOTE Confidence: 0.913583413333333

00:20:49.025 --> 00:20:51.754 quite advanced in terms of how

NOTE Confidence: 0.913583413333333

00:20:51.754 --> 00:20:54.372 you can plan this and have lasers

NOTE Confidence: 0.913583413333333

00:20:54.372 --> 00:20:56.138 that identify precise landmarks

NOTE Confidence: 0.913583413333333

00:20:56.138 --> 00:20:58.946 on a patient within 3 millimeters

NOTE Confidence: 0.913583413333333

00:20:58.950 --> 00:21:00.538 and delivered the dose precisely.

NOTE Confidence: 0.913583413333333

00:21:00.538 --> 00:21:03.506 One question that people who may be

NOTE Confidence: 0.913583413333333

00:21:03.506 --> 00:21:05.466 listening may be asking themselves

NOTE Confidence: 0.913583413333333

00:21:05.466 --> 00:21:07.440 is is that widely available?

NOTE Confidence: 0.913583413333333

00:21:07.440 --> 00:21:09.260 I, I can't say that it's.

NOTE Confidence: 0.873773615714286

00:21:10.000 --> 00:21:14.158 Available at small remote centers that are,

NOTE Confidence: 0.873773615714286

00:21:14.160 --> 00:21:16.188 you know, private, necessarily.

NOTE Confidence: 0.873773615714286

00:21:16.188 --> 00:21:19.540 I think most academic centers have it,

NOTE Confidence: 0.873773615714286

00:21:19.540 --> 00:21:22.036 and especially now that so many

NOTE Confidence: 0.873773615714286

00:21:22.036 --> 00:21:23.700 institutions are requiring smaller

NOTE Confidence: 0.873773615714286

00:21:23.763 --> 00:21:25.779 hospitals and smaller practices.

NOTE Confidence: 0.873773615714286

00:21:25.780 --> 00:21:27.528 It's being standardized so

NOTE Confidence: 0.873773615714286

00:21:27.528 --> 00:21:29.713 that it it is recommended,

NOTE Confidence: 0.873773615714286

00:21:29.720 --> 00:21:33.311 for example by the NCCN as a

NOTE Confidence: 0.873773615714286

00:21:33.311 --> 00:21:36.280 method to strongly consider for

NOTE Confidence: 0.873773615714286

00:21:36.280 --> 00:21:37.312 decreasing the cardiac dose.

NOTE Confidence: 0.873773615714286

00:21:37.312 --> 00:21:39.270 So I think it it is becoming

NOTE Confidence: 0.873773615714286

00:21:39.270 --> 00:21:40.690 more and more prevalent.

NOTE Confidence: 0.940231618333333

00:21:40.940 --> 00:21:43.845 OK, so patients should ask their radiation

NOTE Confidence: 0.940231618333333

00:21:43.845 --> 00:21:45.980 oncologist wherever they're being treated.

NOTE Confidence: 0.940231618333333

00:21:45.980 --> 00:21:48.030 Whether these techniques are available

NOTE Confidence: 0.98186203

00:21:48.040 --> 00:21:49.790 to them is that right? Sure,

NOTE Confidence: 0.939549514285714

00:21:50.040 --> 00:21:52.693 so the other question that I have

NOTE Confidence: 0.939549514285714

00:21:52.693 --> 00:21:56.294 for you is before the break you were

NOTE Confidence: 0.939549514285714

00:21:56.294 --> 00:21:59.620 mentioning that the dosage of radiation,

NOTE Confidence: 0.939549514285714

00:21:59.620 --> 00:22:02.362 how it's delivered, how long that

NOTE Confidence: 0.939549514285714

00:22:02.362 --> 00:22:05.639 treatment is has really morphed overtime,

NOTE Confidence: 0.939549514285714

00:22:05.640 --> 00:22:08.961 and what used to be 5 and a half six weeks

NOTE Confidence: 0.939549514285714

00:22:08.961 --> 00:22:12.200 can now be as little as. Even one week,

NOTE Confidence: 0.939549514285714

00:22:12.200 --> 00:22:14.930 so a couple of questions on that.

NOTE Confidence: 0.939549514285714

00:22:14.930 --> 00:22:17.450 First of all, can you tell us a little bit

NOTE Confidence: 0.939549514285714

00:22:17.513 --> 00:22:19.781 more about the different the different

NOTE Confidence: 0.939549514285714

00:22:19.781 --> 00:22:22.605 treatment plans in terms of the one week

NOTE Confidence: 0.939549514285714

00:22:22.605 --> 00:22:24.477 versus three weeks versus six weeks?

NOTE Confidence: 0.939549514285714

00:22:24.480 --> 00:22:25.824 Are these equivalent,

NOTE Confidence: 0.939549514285714

00:22:25.824 --> 00:22:28.512 and are there specific patients who

NOTE Confidence: 0.939549514285714

00:22:28.512 --> 00:22:30.889 benefit more from one or the other?

NOTE Confidence: 0.939549514285714

00:22:30.890 --> 00:22:32.660 I mean, because patients might

NOTE Confidence: 0.939549514285714

00:22:32.660 --> 00:22:34.430 be listening to this thinking.

NOTE Confidence: 0.939549514285714

00:22:34.430 --> 00:22:36.250 Why on Earth wouldn't anybody

NOTE Confidence: 0.939549514285714

00:22:36.250 --> 00:22:37.706 just do one week?

NOTE Confidence: 0.939549514285714

00:22:37.710 --> 00:22:42.520 If it was as good as six weeks so?

NOTE Confidence: 0.916058892

00:22:42.520 --> 00:22:44.180 So as I mentioned earlier,

NOTE Confidence: 0.916058892

00:22:44.180 --> 00:22:46.938 the standard you know for the breast

NOTE Confidence: 0.916058892

00:22:46.938 --> 00:22:49.220 conservation trials and for the post

NOTE Confidence: 0.916058892

00:22:49.220 --> 00:22:51.272 mastectomy trials was five weeks to

NOTE Confidence: 0.916058892

00:22:51.272 --> 00:22:53.915 the whole breast or to the chest wall,

NOTE Confidence: 0.916058892

00:22:53.920 --> 00:22:55.964 followed by a boost plus or minus

NOTE Confidence: 0.916058892

00:22:55.964 --> 00:22:58.866 a boost to the localized area and

NOTE Confidence: 0.916058892

00:22:58.866 --> 00:23:04.158 subsequent to that there have now been.

NOTE Confidence: 0.916058892

00:23:04.160 --> 00:23:06.330 More than four randomized trials

NOTE Confidence: 0.916058892

00:23:06.330 --> 00:23:09.780 that have looked at using what we

NOTE Confidence: 0.916058892

00:23:09.780 --> 00:23:11.577 call hypofractionated radiation,

NOTE Confidence: 0.916058892

00:23:11.580 --> 00:23:15.689 which means giving a larger daily dose.

NOTE Confidence: 0.916058892

00:23:15.690 --> 00:23:18.063 So it then shortens the amount of

NOTE Confidence: 0.916058892

00:23:18.063 --> 00:23:20.778 time the total dose is actually lower,

NOTE Confidence: 0.916058892

00:23:20.780 --> 00:23:22.204 but because you're delivering

NOTE Confidence: 0.916058892

00:23:22.204 --> 00:23:23.628 a higher daily dose,

NOTE Confidence: 0.916058892

00:23:23.630 --> 00:23:26.540 you're able to shorten the

NOTE Confidence: 0.916058892

00:23:26.540 --> 00:23:28.286 overall treatment duration,

NOTE Confidence: 0.916058892

00:23:28.290 --> 00:23:31.068 and that those studies all looked

NOTE Confidence: 0.916058892

00:23:31.068 --> 00:23:33.990 at three weeks and have found.

NOTE Confidence: 0.916058892

00:23:33.990 --> 00:23:35.346 Now we have long term data,

NOTE Confidence: 0.916058892

00:23:35.350 --> 00:23:38.850 showing that three weeks is just as

NOTE Confidence: 0.916058892

00:23:38.850 --> 00:23:42.318 efficacious as the five weeks in terms

NOTE Confidence: 0.916058892

00:23:42.318 --> 00:23:45.636 not just of breast cancer control and.

NOTE Confidence: 0.916058892

00:23:45.640 --> 00:23:47.640 The ability to eradicate

NOTE Confidence: 0.916058892

00:23:47.640 --> 00:23:49.140 those microscopic cells,

NOTE Confidence: 0.916058892

00:23:49.140 --> 00:23:50.160 but also more,

NOTE Confidence: 0.916058892

00:23:50.160 --> 00:23:53.220 just as importantly in terms of the toxicity,

NOTE Confidence: 0.916058892

00:23:53.220 --> 00:23:55.122 because the major concern is always

NOTE Confidence: 0.916058892

00:23:55.122 --> 00:23:57.239 been the toxicity of the treatment.

NOTE Confidence: 0.916058892

00:23:57.240 --> 00:23:59.304 We don't want to do harm to the

NOTE Confidence: 0.916058892

00:23:59.304 --> 00:23:59.820 normal tissue.

NOTE Confidence: 0.916058892

00:23:59.820 --> 00:24:01.916 And if we're giving a higher daily dose,

NOTE Confidence: 0.916058892

00:24:01.920 --> 00:24:04.450 are we?

NOTE Confidence: 0.916058892

00:24:04.450 --> 00:24:06.094 Going to damage the normal tissue

NOTE Confidence: 0.916058892

00:24:06.094 --> 00:24:08.089 to the point where we're not there.

NOTE Confidence: 0.916058892

00:24:08.090 --> 00:24:10.146 It's not going to be able to recover,

NOTE Confidence: 0.916058892

00:24:10.150 --> 00:24:12.262 and so these studies have shown

NOTE Confidence: 0.916058892

00:24:12.262 --> 00:24:15.266 us that we can deliver the dose

NOTE Confidence: 0.916058892

00:24:15.266 --> 00:24:17.706 in three weeks very safely.

NOTE Confidence: 0.916058892

00:24:17.710 --> 00:24:20.398 Now the in terms of the the

NOTE Confidence: 0.916058892

00:24:20.398 --> 00:24:21.550 slightly faster regimens,

NOTE Confidence: 0.916058892

00:24:21.550 --> 00:24:23.890 and they're ironically called the

NOTE Confidence: 0.916058892

00:24:23.890 --> 00:24:26.230 faster the Fast forward regimens.

NOTE Confidence: 0.916058892

00:24:26.230 --> 00:24:27.390 There are two of them,

NOTE Confidence: 0.916058892

00:24:27.390 --> 00:24:30.054 one of them is 5 fractions that is

NOTE Confidence: 0.916058892

00:24:30.054 --> 00:24:32.288 delivered once a week for five weeks,

NOTE Confidence: 0.916058892

00:24:32.290 --> 00:24:34.778 and then the other one is 5 fractions.

NOTE Confidence: 0.916058892

00:24:34.780 --> 00:24:37.810 Delivered every day for one

NOTE Confidence: 0.916058892

00:24:37.810 --> 00:24:40.460 week and those also look very,

NOTE Confidence: 0.916058892

00:24:40.460 --> 00:24:41.572 very promising.

NOTE Confidence: 0.916058892

00:24:41.572 --> 00:24:45.360 We are using them at Yale and

NOTE Confidence: 0.916058892

00:24:45.360 --> 00:24:47.440 other institutions and places

NOTE Confidence: 0.916058892

00:24:47.440 --> 00:24:50.299 are also using them as well,

NOTE Confidence: 0.916058892

00:24:50.300 --> 00:24:51.648 particularly with COVID and

NOTE Confidence: 0.916058892

00:24:51.648 --> 00:24:53.670 wanting to minimize the number of

NOTE Confidence: 0.916058892

00:24:53.725 --> 00:24:55.426 times that patient has to come in

NOTE Confidence: 0.916058892

00:24:55.426 --> 00:24:57.260 and out of a medical facility.

NOTE Confidence: 0.916058892

00:24:57.260 --> 00:25:00.074 But the the one week regimen

NOTE Confidence: 0.916058892

00:25:00.074 --> 00:25:02.550 only has five year data,

NOTE Confidence: 0.916058892

00:25:02.550 --> 00:25:04.475 and so that's one of the limitations.

NOTE Confidence: 0.916058892

00:25:04.480 --> 00:25:05.965 The other thing.

NOTE Confidence: 0.916058892

00:25:05.965 --> 00:25:08.935 As you asked about was was,

NOTE Confidence: 0.916058892

00:25:08.940 --> 00:25:10.800 why wouldn't every patient quality,

NOTE Confidence: 0.916058892

00:25:10.800 --> 00:25:11.676 you know want to do this?

NOTE Confidence: 0.916058892

00:25:11.680 --> 00:25:12.280 If they qualified?

NOTE Confidence: 0.916058892

00:25:12.280 --> 00:25:12.680 Well, look.

NOTE Confidence: 0.916058892

00:25:12.680 --> 00:25:14.696 The issue is that they have to qualify,

NOTE Confidence: 0.916058892

00:25:14.700 --> 00:25:17.450 and so because the daily

NOTE Confidence: 0.916058892

00:25:17.450 --> 00:25:19.600 dose is so much higher,

NOTE Confidence: 0.916058892

00:25:19.600 --> 00:25:21.238 we have to do it safely.

NOTE Confidence: 0.916058892

00:25:21.240 --> 00:25:24.643 And there are pretty stringent dose

NOTE Confidence: 0.916058892

00:25:24.643 --> 00:25:26.834 constraints that we have to follow for

NOTE Confidence: 0.916058892

00:25:26.834 --> 00:25:29.150 the normal tissue in terms of the lung,

NOTE Confidence: 0.916058892

00:25:29.150 --> 00:25:29.934 the heart,

NOTE Confidence: 0.916058892

00:25:29.934 --> 00:25:31.110 the chest wall,

NOTE Confidence: 0.916058892

00:25:31.110 --> 00:25:33.060 all those things end up,

NOTE Confidence: 0.916058892

00:25:33.060 --> 00:25:34.885 particularly in the setting of

NOTE Confidence: 0.916058892

00:25:34.885 --> 00:25:36.345 postmastectomy or when there's

NOTE Confidence: 0.916058892

00:25:36.345 --> 00:25:38.078 nodes involved those patients.

NOTE Confidence: 0.916058892

00:25:38.080 --> 00:25:40.408 Don't qualify because those studies didn't

NOTE Confidence: 0.916058892

00:25:40.408 --> 00:25:43.139 really include a lot of those patients,

NOTE Confidence: 0.916058892

00:25:43.140 --> 00:25:45.516 so right now it's primarily for whole breast,

NOTE Confidence: 0.916058892

00:25:45.520 --> 00:25:48.550 but if you qualify, there's really

NOTE Confidence: 0.916058892

00:25:48.550 --> 00:25:52.266 no reason to not consider it as,

NOTE Confidence: 0.916058892

00:25:52.266 --> 00:25:54.796 as you know, an alternative.

NOTE Confidence: 0.916058892

00:25:54.800 --> 00:25:55.478 But again,

NOTE Confidence: 0.916058892

00:25:55.478 --> 00:25:56.156 the data,

NOTE Confidence: 0.916058892

00:25:56.156 --> 00:25:59.058 the amount of data that we have is is,

NOTE Confidence: 0.916058892

00:25:59.060 --> 00:26:00.096 you know,

NOTE Confidence: 0.916058892

00:26:00.096 --> 00:26:04.240 less robust than we do for the traditional

NOTE Confidence: 0.834731423

00:26:04.240 --> 00:26:05.665 three weeks or the five

NOTE Confidence: 0.834731423

00:26:05.665 --> 00:26:07.090 week regimens that we have.

NOTE Confidence: 0.870698359166667

00:26:07.860 --> 00:26:10.292 So let me just. To make sure that

NOTE Confidence: 0.870698359166667

00:26:10.292 --> 00:26:11.960 I understand this correctly,

NOTE Confidence: 0.870698359166667

00:26:11.960 --> 00:26:14.288 we have long term data that the three

NOTE Confidence: 0.870698359166667

00:26:14.288 --> 00:26:16.459 weeks is equivalent to six weeks.

NOTE Confidence: 0.870698359166667

00:26:16.460 --> 00:26:19.548 So is it safe to say that essentially

NOTE Confidence: 0.870698359166667

00:26:19.548 --> 00:26:21.530 everybody should be treated now

NOTE Confidence: 0.870698359166667

00:26:21.530 --> 00:26:23.804 with the three week regimen as

NOTE Confidence: 0.870698359166667

00:26:23.804 --> 00:26:26.430 opposed to the six weeks? So

NOTE Confidence: 0.9621826

00:26:26.470 --> 00:26:28.820 that that's that's excellent question,

NOTE Confidence: 0.9621826

00:26:28.820 --> 00:26:32.552 because yes, in terms of breast

NOTE Confidence: 0.9621826

00:26:32.552 --> 00:26:36.300 conservation in terms of the mastectomy,

NOTE Confidence: 0.9621826

00:26:36.300 --> 00:26:39.004 they can be treated with the three week.

NOTE Confidence: 0.9621826

00:26:39.010 --> 00:26:41.866 Course, the issue being that if

NOTE Confidence: 0.9621826

00:26:41.866 --> 00:26:45.210 they're going to have reconstruction,

NOTE Confidence: 0.9621826

00:26:45.210 --> 00:26:46.778 there's very little data,

NOTE Confidence: 0.9621826

00:26:46.778 --> 00:26:48.738 and there's ongoing studies now

NOTE Confidence: 0.9621826

00:26:48.738 --> 00:26:51.421 looking at how these higher daily

NOTE Confidence: 0.9621826

00:26:51.421 --> 00:26:52.759 fractions and hypofractionated

NOTE Confidence: 0.9621826

00:26:52.759 --> 00:26:54.620 radiation effects reconstruction,

NOTE Confidence: 0.9621826

00:26:54.620 --> 00:26:56.606 so that's a big question mark,

NOTE Confidence: 0.9621826

00:26:56.610 --> 00:26:58.858 and that's why it hasn't become the standard

NOTE Confidence: 0.9621826

00:26:58.858 --> 00:27:01.107 of care in the postmastectomy setting.

NOTE Confidence: 0.9621826

00:27:01.110 --> 00:27:02.310 The other area where we

NOTE Confidence: 0.9621826

00:27:02.310 --> 00:27:03.780 don't have a lot of data,

NOTE Confidence: 0.9621826

00:27:03.780 --> 00:27:05.868 but I think you know enough that

NOTE Confidence: 0.9621826

00:27:05.868 --> 00:27:08.004 if the situation calls for it,

NOTE Confidence: 0.9621826

00:27:08.010 --> 00:27:10.098 we would do the three weeks.

NOTE Confidence: 0.9621826

00:27:10.100 --> 00:27:13.180 Is is when we're including regional nodes,

NOTE Confidence: 0.9621826

00:27:13.180 --> 00:27:14.776 so that's just a discussion with

NOTE Confidence: 0.9621826

00:27:14.776 --> 00:27:16.420 between the patient and the doctor.

NOTE Confidence: 0.9621826

00:27:16.420 --> 00:27:17.928 It's not the standard,

NOTE Confidence: 0.9621826

00:27:17.928 --> 00:27:20.286 it can be done it it is

NOTE Confidence: 0.9621826

00:27:20.286 --> 00:27:21.696 likely to be very safe,

NOTE Confidence: 0.9621826

00:27:21.700 --> 00:27:23.728 but there there's a lot of

NOTE Confidence: 0.9621826

00:27:23.728 --> 00:27:25.740 variation in the practice for that,

NOTE Confidence: 0.9621826

00:27:25.740 --> 00:27:26.608 if that makes sense.

NOTE Confidence: 0.885835170625

00:27:26.980 --> 00:27:28.168 OK, so essentially,

NOTE Confidence: 0.885835170625

00:27:28.168 --> 00:27:30.940 if you're a patient and you had

NOTE Confidence: 0.885835170625

00:27:31.026 --> 00:27:33.750 lumpectomy and you are no negative.

NOTE Confidence: 0.885835170625

00:27:33.750 --> 00:27:35.418 You should be doing three weeks

NOTE Confidence: 0.885835170625

00:27:35.418 --> 00:27:37.090 of radiation instead of six weeks.

NOTE Confidence: 0.885835170625

00:27:37.090 --> 00:27:37.798 Is that fair?

NOTE Confidence: 0.921023732222222

00:27:38.830 --> 00:27:40.218 Yes, absolutely. And then

NOTE Confidence: 0.921023732222222

00:27:40.218 --> 00:27:41.953 followed by a boost absolutely

NOTE Confidence: 0.914868623076923

00:27:42.600 --> 00:27:45.744 and so and the one week we don't

NOTE Confidence: 0.914868623076923

00:27:45.744 --> 00:27:47.839 have sufficient long term data.

NOTE Confidence: 0.914868623076923

00:27:47.840 --> 00:27:50.736 So are people being treated with the one

NOTE Confidence: 0.914868623076923

00:27:50.736 --> 00:27:53.448 week regimen as part of standard of care,

NOTE Confidence: 0.914868623076923

00:27:53.450 --> 00:27:55.370 or are there still clinical trials

NOTE Confidence: 0.914868623076923

00:27:55.370 --> 00:27:56.993 ongoing that patient should be

NOTE Confidence: 0.914868623076923

00:27:56.993 --> 00:27:58.934 asking their doctor about if they

NOTE Confidence: 0.914868623076923

00:27:58.934 --> 00:28:00.818 want to participate in that one

NOTE Confidence: 0.795659338

00:28:00.830 --> 00:28:04.080 week regimen so very quickly.

NOTE Confidence: 0.795659338

00:28:04.080 --> 00:28:06.952 The NCCN has said it can be considered

NOTE Confidence: 0.795659338

00:28:06.952 --> 00:28:09.678 as a modality for treatment.

NOTE Confidence: 0.795659338

00:28:09.680 --> 00:28:12.361 Right now it really we're using it

NOTE Confidence: 0.795659338

00:28:12.361 --> 00:28:14.150 selectively in patients who really

NOTE Confidence: 0.795659338

00:28:14.150 --> 00:28:16.802 need to have it done in one week more

NOTE Confidence: 0.795659338

00:28:16.802 --> 00:28:19.282 often than we're using the once a week

NOTE Confidence: 0.795659338

00:28:19.282 --> 00:28:23.100 for five weeks with just just as easy,

NOTE Confidence: 0.795659338

00:28:23.100 --> 00:28:25.158 because that has 10 year data.

NOTE Confidence: 0.795659338

00:28:25.160 --> 00:28:27.776 So I think that they're both going to

NOTE Confidence: 0.795659338

00:28:27.776 --> 00:28:29.797 ultimately show to be very promising,

NOTE Confidence: 0.795659338

00:28:29.800 --> 00:28:31.174 but it's just about waiting for

NOTE Confidence: 0.795659338

00:28:31.174 --> 00:28:32.729 that data to mature a little bit.

NOTE Confidence: 0.814760803571429

00:28:33.440 --> 00:28:35.340 Doctor Meena Moran is professor

NOTE Confidence: 0.814760803571429

00:28:35.340 --> 00:28:36.860 of therapeutic radiology at

NOTE Confidence: 0.814760803571429

00:28:36.860 --> 00:28:38.779 the Yale School of Medicine.

NOTE Confidence: 0.814760803571429

00:28:38.780 --> 00:28:40.904 If you have questions,

NOTE Confidence: 0.814760803571429

00:28:40.904 --> 00:28:42.955 the address is canceranswers@yale.edu

NOTE Confidence: 0.814760803571429

00:28:42.955 --> 00:28:45.685 and past editions of the program

NOTE Confidence: 0.814760803571429

00:28:45.685 --> 00:28:48.066 are available in audio and written

NOTE Confidence: 0.814760803571429

00:28:48.066 --> 00:28:49.019 form at yalecancercenter.org.

NOTE Confidence: 0.814760803571429

00:28:49.019 --> 00:28:51.571 We hope you'll join us next week to

NOTE Confidence: 0.814760803571429

00:28:51.571 --> 00:28:53.518 learn more about the fight against

NOTE Confidence: 0.814760803571429

00:28:53.518 --> 00:28:55.445 cancer here on Connecticut Public radio

NOTE Confidence: 0.814760803571429

00:28:55.445 --> 00:28:57.239 funding for Yale Cancer Answers is

NOTE Confidence: 0.814760803571429

00:28:57.239 --> 00:29:00.000 provided by Smilow Cancer Hospital.