So in terms of imaging, obviously mammography and ultrasound tend to be our main modalities and that is what we do at the shoreline MRI.

We, you know for good quality MRI it requires a special breast coil as well as the higher magnets. The 3T magnet is what we prefer to perform our MRI on.

So that’s why we only perform those down in New Haven or at Park Ave. So we’re not currently doing MRI at Shoreline,
patients do need to go downtown for that.

You know, I just want to talk a little bit about the 3D mammography because we, you know we’ve been using this for more than a decade now and it has really improved our outcomes.

Yale was one of the five original beta sites for the development of this technology.

So we were the first in Connecticut to obtain a commercial unit and the actual 13th unit in the whole United States. So we’ve had it for a long time.
We’ve always offered it to all patients at no cost and it’s really permitted us to have a really invaluable research database that we have been able to publish and do a lot of good studies with. So basically you know a lot of these studies have shown, I think you know very well that the 3D mammography is. Very. Advantageous over treating mammography. Multiple sites now throughout the world, in North America, Europe, Asia have repeatedly shown that
00:01:42.185 --> 00:01:45.020 it results in lower recall rates
NOTE Confidence: 0.882699470666667
00:01:45.020 --> 00:01:46.896 and increased cancer detection,
NOTE Confidence: 0.882699470666667
00:01:46.900 --> 00:01:48.568 particularly for invasive cancers.
NOTE Confidence: 0.882699470666667
00:01:48.568 --> 00:01:51.776 And for those of you who might not
NOTE Confidence: 0.882699470666667
00:01:51.776 --> 00:01:53.974 have seen how it how it works,
NOTE Confidence: 0.882699470666667
00:01:53.980 --> 00:01:57.382 you can see here’s the 2D portion
NOTE Confidence: 0.882699470666667
00:01:57.382 --> 00:01:59.920 of the screening mammogram.
NOTE Confidence: 0.882699470666667
00:01:59.920 --> 00:02:01.584 And in the tomosynthesis,
NOTE Confidence: 0.882699470666667
00:02:01.584 --> 00:02:04.540 you can see the images moving here.
NOTE Confidence: 0.882699470666667
00:02:04.540 --> 00:02:07.382 We look at these in one millimeter
NOTE Confidence: 0.882699470666667
00:02:07.382 --> 00:02:10.017 slices through the breast and the
NOTE Confidence: 0.882699470666667
00:02:10.017 --> 00:02:12.687 cancers really can pop out beautifully
NOTE Confidence: 0.882699470666667
00:02:12.687 --> 00:02:15.738 that otherwise would have been hiding.
NOTE Confidence: 0.882699470666667
00:02:15.740 --> 00:02:18.062 So it’s easy to understand how
NOTE Confidence: 0.882699470666667
00:02:18.062 --> 00:02:20.360 we can find more cancers,
NOTE Confidence: 0.882699470666667
00:02:20.360 --> 00:02:24.920 reduce the recalls for false positives,
prove the outcomes for patients.

All right.

Here's just another example of a patient.

This is, it's the screening mammogram and

there's a questionable asymmetry in the breast and that's on the 2D portion when you look at the 3D.

Not only does it tell us exactly where it is in the breast, where it is in the breast,

it's actually down here on the 2D.

We might have thought it was up there, but it's down there.

So we're able to accurately localize lesions and we're able...
to characterize them better. You see on the 2D that could easily have been missed, whereas here we exquisitely see the detail of the speculations. So we’re able to localize, characterize and then honestly patients go directly to ultrasound from from this, a lot of the diagnostic workup additional views. Are not necessary anymore. We can find things with ultrasound. We do a lot of this at the shoreline, lot of ultrasound guided biopsies because the majority of lesions other
than true calcification lesions can be biopsied with ultrasound. Just a note about tissue density with breast in mammography. The sensitivity of mammography is obviously related to tissue density. It’s an important aspect of interpreting a mammogram. While the sensitivity is very very high in fatty breast, it obviously is reduced even with the 3D mammography in denser tissue. So as you’re probably well aware, we were the first state in the nation to.
Uh, it’s today density notification law. So this took effect in October of 2009 and women are informed of their breast density and since that time many women with breasts, with dense breasts have opted to undergo supplemental screening particularly with ultrasound just something that we developed it at Yale. So I just thought I would show you is a density an artificial intention in intelligence density tool. This is through our visage, our pack system and this is now FDA approved and this just. Obviously,
breast density is a little bit of a subjective. It, you know, like classification, this makes it a little bit more objective. We get a density reading which is just an output on our workstations giving the breast density with the confidence. So it’s a nice tool that we’ve developed. I mentioned the mobile van before. is one of our sites and just to mention it again because this does visit the shoreline, you know four to five times a month,
You may see it up in the parking lot taking up valuable parking spaces, but nonetheless it is good for our patients. We do screening on the van with the course 3D mammography and breast ultrasound. So this fan which has been on the road for about 2 years now has both a mammography unit and an ultrasound separate. Sweets and while we’ve had a van for 35 some years in New Haven at Yale, this is the first time we’ve had mammography and ultrasound on the van. So certainly those women with dense tissue that really need the screening ultrasound as well can...
00:05:37.392 --> 00:05:39.329 be well accommodated on the van.

00:05:39.330 --> 00:05:41.490 And here’s a case that was done on the van.

00:05:41.490 --> 00:05:43.932 Patient with dense tissue had her

00:05:43.932 --> 00:05:46.014 mammography and her ultrasound and

00:05:46.014 --> 00:05:48.688 actually had multiple cancers in her breast.

00:05:48.690 --> 00:05:49.266 Interventional procedures.

00:05:49.266 --> 00:05:50.130 Like I said,

00:05:50.130 --> 00:05:50.816 we perform.

00:05:50.816 --> 00:05:53.560 About two to three per day at the

00:05:53.637 --> 00:05:55.997 shoreline and patients love it.

00:05:56.000 --> 00:05:58.114 I’ll just say we just do ultrasound

00:05:58.114 --> 00:06:00.299 biopsies currently we do not do stereotactic.

00:06:00.300 --> 00:06:02.337 that is just something that is

00:06:02.337 --> 00:06:03.999 an extra piece of equipment.
So we’re doing those downtown right now, but maybe in the future we will when we have a little bit more resources at the shoreline ultrasound biopsies though again the majority of patients can undergo ultrasound biopsies, which is preferable modality, we also can localize. Patients for surgery using mammographic or sonographic guidance. We have dedicated breast imaging nurses now and this is that they’re invaluable and always one is always at the shoreline. So these nurses help us with our procedures, patient care, communication, pathology,
follow up and then data entry.

So it’s really they’re wonderful.

Here’s just an example.

Again, Doctor Zaneski is going to talk more about the surgery side of things, you know.

Diagnosed the patients, we image them, we work them up, many of them are able to have surgery at the shoreline, at which is just wonderful for them.

We can do wire localizations as we’ve done for years.

This is done on the day of surgery and something that we’ve been doing for the last few years is a
radio frequency tag localization.

The advantage of this is it could be inserted a few days or weeks before surgery and then the patient. Need to go directly to surgery on that day and so that facilitates scheduling.

Here's an example of a shoreline patient. Here is her screening mammogram. Obvious lesion in the breast. She goes directly to ultrasound, doesn’t need any extra views. Mammographic views. Ultrasound shows a highly suspicious mask. We then do a core biopsy and leave a marker. She comes back for a localization on the day of surgery and her specimen shows...
the lesion and the tag all removed.

Very convenient for patients and they love it. Just in the next.

The very shortly hopefully few months we are going to be starting construction and we will have expansion of our breast imaging services at Yale, which at the shoreline which is much needed, which at the shoreline which is much needed, which at the shoreline which is much needed,

we will have an additional 3D mammography and ultrasound units.

So this is going to help with patient scheduling and also in terms of the, the physical layout, we’re going to have a direct connection with the breast surgery suite.
So that permits patients to go back and forth.

Because I'm happy to go out in the hallway, so it's really a very comprehensive.

Services and wonderful for patients, they love it and I think with this expansion we'll be able to offer even more.

More, get more patients in and offer more patients to be seen at the shoreline.

Just a shout out to the wonderful technologists at the shoreline who take really good care of patients.

So thank you very much.

Hopefully that was helpful.

brief brief overview. Thank you so much Leanne and we have
patients who specifically reach out to have you and doctor Butler? Do their mammograms and overwhelmingly positive Do is incredibly positive and patient centered so. Thank you for all you do. Next up, we're going to introduce doctor Greg Zaneski, My partner and a member of our team, doctors and Esky joined Yale School of Medicine in 2019, he’s an assistant professor.
Surgical oncology and cares for women with benign and malignant breast disease and also men with breast related issues. His clinical practice location is predominantly at the Shoreline Medical Center in Guilford, but he also has a clinic weekly and some operating room time at the New Haven site. And he received his medical degree from the State University of New York at Stony Brook and completed a fellowship in surgical oncology at the University of Pittsburgh. And he’s going to be giving us updates and breast cancer surgery. Thank you,
00:10:08.776 --> 00:10:09.139 Greg.

00:10:17.020 --> 00:10:20.430 Good. Thank you, Rachel. Look at

00:10:20.440 --> 00:10:21.820 the share my screen.

00:10:24.780 --> 00:10:25.370 OK.

00:10:28.710 --> 00:10:31.430 Thank you very much Rachel and and

00:10:31.430 --> 00:10:33.710 thank you everybody for attending

00:10:33.797 --> 00:10:35.525 on a on a rainy night.

00:10:35.530 --> 00:10:37.874 But my goal is tonight is to talk

00:10:37.874 --> 00:10:39.852 about breast surgery you know here

00:10:39.852 --> 00:10:41.838 at Guildford and also you know

00:10:41.909 --> 00:10:44.450 how we integrate it throughout

00:10:44.450 --> 00:10:45.970 the system here at smilow.

00:10:48.350 --> 00:10:51.325 So here’s our our grant institution here

00:10:51.325 --> 00:10:54.169 at Shoreline and as Doctor Philpotts,

00:10:54.170 --> 00:10:56.222 you know, describe very well the

00:10:56.222 --> 00:10:56.222
amount of breast imaging that’s done here and also the various findings. You know that we can come across not all malignant, sometimes benign or needing close follow up and surgery is an important component for helping integrate that at times and of course our multidisciplinary team which will be talked about further. So this is a picture of our surgical clinic and you know I think a lot of times with the with surgery we think about that it’s a for malignancy. But I think a big part of our day including our nurse practitioners here at Guildford is things like benign disease.
00:11:36.670 --> 00:11:38.980 We can’t see your slides.
00:11:41.770 --> 00:11:45.490 No, no. Sorry about that.
00:11:45.600 --> 00:11:47.240 Sorry, sorry about that.
00:11:47.960 --> 00:11:48.988 Can you try again?
00:11:49.680 --> 00:11:53.750 Yeah, let me. Escape, yeah.
00:11:58.520 --> 00:11:59.580 Yeah, share.
00:12:07.530 --> 00:12:08.430 Is that better?
00:12:13.310 --> 00:12:14.110 Can you see that?
00:12:19.930 --> 00:12:21.354 Do you want to send them to me
00:12:21.370 --> 00:12:23.491 and I can share them from my
00:12:23.491 --> 00:12:25.570 computer? Sorry about that.
00:13:02.020 --> 00:13:03.250 OK. So I got them. Greg,
00:13:03.250 --> 00:13:04.671 why don’t you go ahead and keep
00:13:04.671 --> 00:13:07.248 talking and I’ll pull them up here.
00:13:07.860 --> 00:13:09.210 Sorry about that. I don’t
00:13:09.210 --> 00:13:10.560 know why it’s not sharing.
NOTE Confidence: 0.81109915

00:13:22.570 --> 00:13:24.640 Alright, I think maybe now
NOTE Confidence: 0.665459663333333

00:13:24.810 --> 00:13:26.220 we can. Now
NOTE Confidence: 0.91216684

00:13:26.230 --> 00:13:27.058 we can see it.
NOTE Confidence: 0.64943756

00:13:27.640 --> 00:13:28.868 Sorry about that everybody.
NOTE Confidence: 0.642499095

00:13:30.320 --> 00:13:32.528 Right. Yeah. So you know again
NOTE Confidence: 0.882315219444445

00:13:32.540 --> 00:13:34.430 this is the clinic and you know
NOTE Confidence: 0.882315219444445

00:13:34.430 --> 00:13:36.760 what we see with our nurse
NOTE Confidence: 0.882315219444445

00:13:36.760 --> 00:13:38.208 practitioners or or things,
NOTE Confidence: 0.882315219444445

00:13:38.210 --> 00:13:40.278 you know benign disease,
NOTE Confidence: 0.882315219444445

00:13:40.278 --> 00:13:43.380 you know palpable masses that patients
NOTE Confidence: 0.882315219444445

00:13:43.465 --> 00:13:46.748 may feel or if various imaging findings,
NOTE Confidence: 0.882315219444445

00:13:46.750 --> 00:13:49.466 you know things that require a close
NOTE Confidence: 0.882315219444445

00:13:49.466 --> 00:13:51.893 interval follow up will work with
NOTE Confidence: 0.882315219444445

00:13:51.893 --> 00:13:53.868 radiology to follow those patients
NOTE Confidence: 0.882315219444445

00:13:53.868 --> 00:13:56.467 or the wealth of biopsies can often
00:13:56.467 --> 00:13:59.024 be benign and how do you interpret
00:13:59.024 --> 00:14:01.908 them as your primary care or OBGYN.
00:14:01.910 --> 00:14:04.328 Positions you know what is a
00:14:04.328 --> 00:14:06.742 papilloma need or what type of
00:14:06.742 --> 00:14:09.366 follow up a library card inside you.
00:14:09.366 --> 00:14:12.222 We're very happy to see those patients
00:14:12.222 --> 00:14:15.604 and you know talk about the different
00:14:15.604 --> 00:14:17.920 management surgical options or even
00:14:17.920 --> 00:14:20.520 screening strategies and of course
00:14:20.520 --> 00:14:22.911 breast malignancy of course which you
00:14:22.911 --> 00:14:25.508 know breast surgeons are are both kind
00:14:25.508 --> 00:14:27.720 of associated with clinical trials.
00:14:27.720 --> 00:14:30.522 We enroll patients in our various
00:14:30.522 --> 00:14:32.850 surgical clinical trials and even.
00:14:32.850 --> 00:14:35.370 Follow those patients up and
NOTE Confidence: 0.882315219444445
coordinate the necessary imaging regarding the clinical trial protocol.

And you know with the cooperation of radiology, we’re able to offer surveillance, clinical exams for instance you know women who have undergone breast cancer surgery, radiation therapy, oncology therapy and then it’s time for annual follow-up how much imaging is needed and we’re happy to see our patients for clinical exam and coordinate the follow-up mammogram on the same day.

A good portion of my clinic today was seeing some of our patients who
are one year follow up with same day.

Imaging and patients seem to be very happy to bundle those visits and make one trip to see the search and then the radiologists on one day take less time off from work, family and all the other busy things and also.

OK. Yeah. Yeah, we can’t. We are stuck on the title slide.

Are they advancing now? You see surgical clinic slide? No, no, I’ll try and pull them up here, Greg. Thank you.
I'll stop sharing.

Apologies to the audience. Thank you for your patience.

Yeah.

And it's not stopping the sharing either.

Well, in the interest of time, why don’t we move forward with medical oncology and then we’ll come back or Doctor Butler from plastic surgery and we can come back to your slides when we get the technical issues worked out.

Doctor Butler, Are you ready and loaded?

So I’m going to share my screen too.

Don’t have the same challenge, but I’m ready.

I’m gonna introduce Doctor Butler.

He’s an associate professor of surgery
NOTE Confidence: 0.906935142
00:16:59.238 --> 00:17:01.540 in plastics and reconstructive surgery,
NOTE Confidence: 0.906935142
00:17:01.540 --> 00:17:03.316 and he's the inaugural Yale Department
NOTE Confidence: 0.906935142
00:17:03.316 --> 00:17:05.199 of Surgery vice Chair of Diversity,
NOTE Confidence: 0.906935142
00:17:05.200 --> 00:17:06.860 Equity and Inclusion.
NOTE Confidence: 0.906935142
00:17:06.860 --> 00:17:08.750 He's board certified both by the
NOTE Confidence: 0.906935142
00:17:08.750 --> 00:17:10.659 American Board of Surgery and the
NOTE Confidence: 0.906935142
00:17:10.659 --> 00:17:12.423 American Board of Plastic Surgery and
NOTE Confidence: 0.906935142
00:17:12.423 --> 00:17:14.750 a Fellow of the American College of
NOTE Confidence: 0.906935142
00:17:14.750 --> 00:17:16.435 Surgeons and his clinical interests
NOTE Confidence: 0.906935142
00:17:16.440 --> 00:17:19.392 are in breast reconstruction and body
NOTE Confidence: 0.906935142
00:17:19.392 --> 00:17:21.360 contouring after bariatric surgery.
NOTE Confidence: 0.906935142
00:17:21.360 --> 00:17:24.648 Reductions left scars and aesthetic surgery,
NOTE Confidence: 0.906935142
00:17:24.650 --> 00:17:26.354 and we're thrilled to have him
NOTE Confidence: 0.906935142
00:17:26.354 --> 00:17:27.490 on our Yale team.
NOTE Confidence: 0.906935142
00:17:27.490 --> 00:17:29.060 So take it away, Paris,
NOTE Confidence: 0.8715973625
thank you very much for the kind introduction.

I'm going to share my screen. Maybe, Rachel. Just give me a thumbs up if you can see my screen when the time comes.

Excellent. Looks great, wonderful.

So thanks for allowing me to join you this evening. I have most recently been recruited to Yale plastic surgery from the University of Pennsylvania. I've been on faculty here for a little over five months, kind of hard to believe and really fortunate to join an outstanding group.
00:18:01.080 --> 00:18:03.048 of plastic surgeons within our division.

00:18:03.050 --> 00:18:05.420 We are growing our division rather significantly.

00:18:05.420 --> 00:18:06.368 We have six plastic surgeons amongst our faculty.

00:18:08.280 --> 00:18:09.426 We have a faculty of 12 now, which is rapidly grown in the last four or five years.

00:18:11.570 --> 00:18:12.750 Our chief is Bo Pomahac, so all six of these.

00:18:12.750 --> 00:18:14.290 Individuals perform plastic and reconstructive surgery on breast in one way, shape or form.

00:18:14.290 --> 00:18:21.470 The majority of us do reconstructive surgery as well on breast and I

00:18:21.470 --> 00:18:22.769 shape or form.

00:18:22.769 --> 00:18:25.367 so all six of these.

00:18:25.367 --> 00:18:28.174 Individuals perform plastic and reconstructive surgery on breast in one way, shape or form.
would say that is all about 50%

So we have Obama hawk who is

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,

We have doctor Hari, Ayala myself here,
overview of plastic and reconstructive surgery in in eight to 10 minutes, but I’m going to do my best to kind of keep it there. So as it pertains to the goal of a breast reconstruction, as many of you all know it’s to restore breast appearance and clothes. We say as we’re setting expectations with our patients and we don’t try to oversell what our capacity is, but we also try to provide a nice light at the end of the tunnel as it pertains to.
00:19:29.208 --> 00:19:31.053 the duration of the completion
NOTE Confidence: 0.868036085
00:19:31.053 --> 00:19:33.240 of their oncologic care.
NOTE Confidence: 0.868036085
00:19:33.240 --> 00:19:34.560 So in my opinion,
NOTE Confidence: 0.868036085
00:19:34.560 --> 00:19:36.540 I think we can do honestly,
NOTE Confidence: 0.868036085
00:19:36.540 --> 00:19:38.508 I think we can do better than just
NOTE Confidence: 0.868036085
00:19:38.508 --> 00:19:40.519 getting them to appear normal in clothes.
NOTE Confidence: 0.868036085
00:19:40.520 --> 00:19:42.455 I think we can get them to restore
NOTE Confidence: 0.868036085
00:19:42.455 --> 00:19:44.520 their breast appearance in a bathing suit.
NOTE Confidence: 0.868036085
00:19:44.520 --> 00:19:44.809 However,
NOTE Confidence: 0.868036085
00:19:44.809 --> 00:19:47.121 we do let them know once that bathing
NOTE Confidence: 0.868036085
00:19:47.121 --> 00:19:49.006 suit is removed and underwear is
NOTE Confidence: 0.868036085
00:19:49.006 --> 00:19:51.192 removed that they will see their
NOTE Confidence: 0.868036085
00:19:51.192 --> 00:19:53.820 scars and such how often is it performed.
NOTE Confidence: 0.868036085
00:19:53.820 --> 00:19:56.956 So if you look at the national
NOTE Confidence: 0.868036085
00:19:56.956 --> 00:19:58.668 data about 65% of the time.
NOTE Confidence: 0.868036085
00:19:58.668 --> 00:19:59.364 In the US,
formal breast reconstruction is performed in post mastectomy patients. So that equates to about 138,000 breast reconstruction procedures that are performed annually. This is data from 2020 and the numbers continue to just go up, which I obviously is a plastic surgeon. Unfortunately though, this varies according to age, race, ethnicity and insurance status. While I was at the University of Pennsylvania, we actually looked at who was
getting breast reconstruction
to determine what the rates were
and also to determine if there were any patient populations that were not getting breast reconstruction at the same rate as others.
And what we identified when we looked at national data over a 6 year period,
we identify that there are two subsets of the Community that don’t get breast reconstruction at the same rate as others.
Those are more. Seasoned ladies,
no one likes to be called old.
So our ladies over 45 and then unfortunately our ladies of color and namely our
And then when we look at insurance status, probably not a surprise that uninsured women would not receive breast reconstruction at the same rate as others. But we've also identified the fact that unfortunately, women who have public insurance don't receive breast reconstruction at the rate as those that have private insurance. This is a soft spot for me because I do a lot of disparity research and scholastic effort, but I do think that this is something that has been understated.
and something that needs to be addressed kind of nationwide.

I’m going to do my best here at Yale University to help push that envelope and push that needle forward.

So what is the best timing for reconstruction? Pretty much anytime.

Immediate or delayed, there’s been good, really good literature out there describing the fact that when a woman wakes up from a mastectomy and has the semblance of a breast mount it, it can be helpful emotionally, socially, psychologically.
And even functionally. So I would say it’s probably strong language to say that it is gold standard to have it done immediately, but it is more common occurrence for us to now do it in an immediate setting rather than a delayed setting. That being said, we can offer and do offer breast reconstruction in a delayed setting, so anytime after that initial mastectomy. Who’s the candidate? I would say the vast majority of patients. So any woman who has had or...
is going to have a mastectomy, there’s really no specific age limit. Women over 60 are welcome to inquire and I recommend to my breast surgeons that any woman, regardless or agnostic of age, race, ethnicity, have an appointment or consultation with one of those plastic and reconstructive surgeons. Breast reconstruction is covered by insurance. I get this question all the time when I’m out in the community talking about breast reconstruction and doing my best to enhance breast health literacy.
Our country did a wonderful thing. In the late 90s, our legislators in DC passed the Women’s Health and Cancer Rights Act of 98, which mandated that insurance companies, if a woman has medical insurance covering her, her surgical care, lumpectomy, mastectomy, radiation medical or medical oncology chemotherapy, they are also mandated to cover breast reconstruction. For the duration of their life, and that also includes a balancing operation on say,
the contralateral side.

Patient suffers from a left sided cancer,

has a left sided mastectomy.

We do reconstruction on the left side.

Their insurance company is mandated for me to also perform a balance and procedure on that opposite side.

So as breast reconstruction safe,

this has come under a bit of attack of late,

particularly as it pertains to implant based reconstruction.

So before I get to that,

I just want to comment that brush reconstruction does not make the breast cancer recur at any higher rate.

We’ve looked at this over and over and
over again and there's no heightened rates of recurrence in patients who've had reconstruction versus those that opted to not have reconstruction or were not healthy enough for reconstruction. Higher complication rates are noted in smokers, obesity and diabetics. Sometimes we can optimize patients prior to surgery, other times we cannot. We just have to let them know once again what the expectations are and it sometimes does limit the options we have for the reconstruction.

Silicone implants have been proven to
be safe and reconstruction patients,

even if they rupture,

they don’t cause additional harm.

So about six years ago,

there was a lot of conversation about

this association of anaplastic large

cell lymphoma with textured implants.

The FDA has identified a risk of

about one in 30,000 women who had

textured implants or risk of suffering

anaplastic large cell lymphoma.

The rates when you look more broadly,

it’s like being less than being

struck by lightning.

That being said,

I do.
00:24:50.900 --> 00:24:53.035 Address this with my patients at time of consultation and we actually now give them paperwork and have them sign an affidavit with an understanding that this association has been made.

00:24:53.035 --> 00:24:55.116 Most recently there’s been a conversation about an association with a rare type of skin cancer, squamous cell skin cancer associated with the capsule that can develop around the implant.

00:24:57.188 --> 00:24:58.923 There have been 15 reported cases worldwide.

00:25:01.306 --> 00:25:03.278 This has been in the news in the last four to six weeks and the FDA made it.

00:25:05.327 --> 00:25:07.892 There have been 15 reported cases worldwide.

00:25:09.640 --> 00:25:11.821 with the capsule that can develop around the implant.

00:25:12.960 --> 00:25:16.138 There have been 15 reported cases worldwide.

This is a statement from Bonita Ashar, the director of the Office of Surgical Infection Control Devices for the FDA, that right now we do not have enough information to say whether breast implants cause these cancers or if any types of implants pose higher risks than others. So the reason for the louder part of that statement is because the anaplastic large cell lymphoma has been associated with textured implants and not smooth implants. Thankfully, I really did not put in many textured implants,
have only put in smooth implants, but this skin cancer. Association has been identified both in smooth implants as well as textured implants and once again we need to do additional studies. So what are the methods of reconstruction? Once again, it would take 2 hours to go over our methods of breast reconstruction, but I kind of separate them. And then three buckets. First and foremost, I’d like to consider what we do as,
as breast reconstructive surgeons,

NOTE Confidence: 0.729710134

as, as this continuum of care.

NOTE Confidence: 0.729710134

So we offer aesthetic flat closures because

NOTE Confidence: 0.729710134

not everyone wants breast reconstruction.

NOTE Confidence: 0.729710134

Not everyone is healthy enough

NOTE Confidence: 0.729710134

for breast reconstruction.

NOTE Confidence: 0.729710134

So we offer these services to our

NOTE Confidence: 0.729710134

surgical oncology colleagues.

NOTE Confidence: 0.729710134

Breast oncology colleagues,

NOTE Confidence: 0.729710134

as it pertains to mastectomy closures,

NOTE Confidence: 0.729710134

then there’s implant based reconstruction

NOTE Confidence: 0.729710134

and then autologous reconstruction.

NOTE Confidence: 0.729710134

So aesthetic cloud closures

NOTE Confidence: 0.729710134

are also becoming more common.

NOTE Confidence: 0.729710134

This is an article from the Annals

NOTE Confidence: 0.729710134

of Surgical Oncology in 2020 which
documented the fact that there was some women that were pretty upset with the fact that 22% of the women that were surveyed did not have this offer to them as an option. Additionally, 74% of the women that did have a flag. We’re very satisfied with their outcome. So this you know plastic surgeons we like show and tell this is a patient that I. Rather recently operated on who decided that she did not want formal breast reconstruction,
she wanted to be closed flat.

Our incision patterns are changed over time.

There was more of an oblique incision initially and then we went to more of a horizontal.

And now I kind of prefer this incision that’s that mimics the inframammary fold and we’ve gotten good results with it.

Women are able to be fitted with external prosthesis if they want.

It also avoids any of the extra skin and intertrigo.

That can happen after mastectomy, particularly in large breasted women.
of formal breast reconstruction,
reconstructing a breast mound 75% of the time in this country it’s performed via the use of a of a of an implant typically in two stage fashion with a tissue expander placed slowly inflated over multiple weeks to months and then a permanent implant placed. And then 25% of the time we’re using an autologous technique,
so using tissue from another part of the body to recreate, reconstruc
is not necessarily reflective.

I would say that we do probably more 40 to 50% autologous and about 50 to 60% implant based.

This is very, we’re fortunate that the vast majority of us here have a background in microsurgical reconstruction which allows us to carry out this additional technique and provide this additional option for these patients. So the realities of implant based reconstruction for the most part it’s for small to moderate breast sizes kind of aided, we’re limited in the size of implants.
NOTE Confidence: 0.729710134
00:28:52.835 --> 00:28:54.583 trial that is ongoing.
NOTE Confidence: 0.729710134
00:28:54.590 --> 00:28:56.634 So we may have some additional options
NOTE Confidence: 0.729710134
00:28:56.634 --> 00:28:58.649 for our larger breasted women or women
NOTE Confidence: 0.729710134
00:28:58.649 --> 00:29:00.990 that desire to to reach a larger size.
NOTE Confidence: 0.729710134
00:29:00.990 --> 00:29:02.290 It’s a shorter operative
NOTE Confidence: 0.729710134
00:29:02.290 --> 00:29:03.590 procedure about 2 hours,
NOTE Confidence: 0.729710134
00:29:03.590 --> 00:29:05.786 shorter hospitalization one to two days
NOTE Confidence: 0.729710134
00:29:05.786 --> 00:29:08.528 and once again as I said typically
NOTE Confidence: 0.729710134
00:29:08.528 --> 00:29:10.720 requires 2 procedures that expand or.
NOTE Confidence: 0.729710134
00:29:10.720 --> 00:29:12.670 Followed by a permanent implant.
NOTE Confidence: 0.729710134
00:29:12.670 --> 00:29:13.870 Implant replacement is recommended
NOTE Confidence: 0.729710134
00:29:13.870 --> 00:29:15.670 by all three of the big
NOTE Confidence: 0.859250781428571
00:29:15.731 --> 00:29:16.807 implant manufacturers to happen
NOTE Confidence: 0.859250781428571
00:29:16.807 --> 00:29:18.740 at the 10 to 15 year Mark.
NOTE Confidence: 0.859250781428571
00:29:18.740 --> 00:29:20.780 And then it’s not ideal for
NOTE Confidence: 0.859250781428571
patients that need radiation therapy
which once again could be
another hour long conversation.
And then for the most part
for unilateral operation,
the patient must have an understanding
that they should consider a balancing
procedure on the other side.
Realities of flat based reconstruction.
Once again we love, show and tell.
This is the woman that I did,
as in a delayed fashion,
we usually kind of steer women in
this direction if they are have a
larger BMI or a larger body habitus.
The operative procedure is longer,
it's longer and it's more difficult on the patient, at least up front. It also requires a longer hospitalization, usually three to four days. There is a risk of hernia or bulge. I don't oversell this, I inform patient. It's about the five to 10% risk of a hernia and then flat death is about 2% where that and at microsurgical anastomosis doesn’t work that’s about 2% nationwide. It’s not for smokers, not for super obese, not for those that have severe.
comorbidities and then they also must know that this is typically not just a one and done either more times than option. If you look at the literature I touch up operation either one or two maybe sometimes three is required in order to get them to to. Do a result that they’re pleased with and we are also satisfied with. I’ve been really pushing and doctor Greeno can attest to this. I think there’s an operation out there called Uncle Plastic breast where a patient who has a small cancer and a larger
breast that are very toxic breast and get the benefits of a breast reduction or a breast lift at the time of their cancer resection. This is the silver lining for many of our ladies. I do a lot of breast reduction surgery and being able to. To combine oncologic reconstructive principles along with breast reduction principles has caused this operation to be one of my favorites. I really think it’s the best of both worlds. Patients obviously will still necessitate
radiation therapy more times than not because this is a component of their breast conservation therapy.

So this is a patient who had large breast, she had always wanted a breast reduction.

We were able to do an uncle plastic reconstruction.

This is actually after her.

Radiation as well and she's healed beautifully.

She's got just a still a little bit of skin darkening but was ecstatic with her result.

Here's another young lady. She had a cancer on the left side.
Lots of tosis.

Had always wanted a breast lift, thought she would be vain by setting it, setting herself for a breast lift.

So we did a breast lift and and lumpectomy at the same time.

And she was also quite pleased.

The breasts just keep getting larger.

And my slideshow here’s a woman who was actually turned down for breast reductions previously developed.

And then finally a much more seasoned lady, I had a breast surgeon that that sent
00:32:18.302 --> 00:32:19.950 this patient to me said I don’t think
NOTE Confidence: 0.819561746153846
00:32:19.997 --> 00:32:21.485 there’s anything we really can do.
NOTE Confidence: 0.819561746153846
00:32:21.490 --> 00:32:23.258 And the radiation oncologist,
NOTE Confidence: 0.819561746153846
00:32:23.258 --> 00:32:25.026 we’re concerned about radiating
NOTE Confidence: 0.819561746153846
00:32:25.026 --> 00:32:27.633 such a large entatic breast causing
NOTE Confidence: 0.819561746153846
00:32:27.633 --> 00:32:30.720 lymphedema in the breast and we were
NOTE Confidence: 0.819561746153846
00:32:30.797 --> 00:32:33.184 able to to give her this result.
NOTE Confidence: 0.819561746153846
00:32:33.190 --> 00:32:35.698 So in short and in summary,
NOTE Confidence: 0.819561746153846
00:32:35.700 --> 00:32:37.149 there are many options and I believe
NOTE Confidence: 0.819561746153846
00:32:37.149 --> 00:32:38.763 that all patients should be offered a
NOTE Confidence: 0.819561746153846
00:32:38.763 --> 00:32:39.953 consultation with a plastic surgeon.
NOTE Confidence: 0.819561746153846
00:32:39.960 --> 00:32:43.026 To just discuss those reconstructive options,
NOTE Confidence: 0.819561746153846
00:32:43.030 --> 00:32:45.142 I’m a big proponent of shared
NOTE Confidence: 0.819561746153846
00:32:45.142 --> 00:32:45.846 decision making.
NOTE Confidence: 0.819561746153846
00:32:45.850 --> 00:32:48.524 I don’t push patients in any direction.
NOTE Confidence: 0.819561746153846
00:32:48.530 --> 00:32:50.042 I kind of provide them the menu and
then we have a good conversation about what’s going to be best for them. And then as I mentioned before, the method and timing of the procedure is one that should fulfill the patients needs and lifestyle. So with that I will stop sharing. Thank you all very much.

Yeah. Thank you so much, Doctor Butler, and we’re so lucky to have you at Yale. Paris has a national reputation in oncoplastic reconstruction and many of our patients have thought about breast reduction or lift their whole life. And the ability to have it covered by...
00:33:24.170 --> 00:33:27.577 insurance or the inability to pay cash
NOTE Confidence: 0.942527464
00:33:27.577 --> 00:33:30.410 has prohibited them from moving forward.
NOTE Confidence: 0.942527464
00:33:30.410 --> 00:33:32.462 So when they come to us with a cancer,
NOTE Confidence: 0.942527464
00:33:32.470 --> 00:33:35.536 it's an opportunity to both improve.
NOTE Confidence: 0.942527464
00:33:35.540 --> 00:33:38.258 Eristics and also make it easier
NOTE Confidence: 0.942527464
00:33:38.258 --> 00:33:40.070 for their downstream treatment
NOTE Confidence: 0.942527464
00:33:40.149 --> 00:33:42.309 with lower risk of lymphedema.
NOTE Confidence: 0.942527464
00:33:42.310 --> 00:33:43.210 As you mentioned,
NOTE Confidence: 0.942527464
00:33:43.210 --> 00:33:45.830 we're going to ship back to Doctor Zaneski.
NOTE Confidence: 0.942527464
00:33:45.830 --> 00:33:48.238 I think we've resolved our technical issues.
NOTE Confidence: 0.942527464
00:33:48.240 --> 00:33:50.512 So Eliza is going to load up his
NOTE Confidence: 0.942527464
00:33:50.512 --> 00:33:52.772 slides and we look forward to
NOTE Confidence: 0.942527464
00:33:52.772 --> 00:33:54.792 hearing about breast cancer surgery.
NOTE Confidence: 0.5556801
00:34:02.560 --> 00:34:06.450 OK. Alright, great. Thank you.
NOTE Confidence: 0.67799021
00:34:07.570 --> 00:34:09.370 Yes. And you'll be advancing them.
NOTE Confidence: 0.67799021
00:34:09.370 --> 00:34:11.126 Uh, thank you so much.
You have advanced to the next slide.

Great. And again, one more.

We got stuff at the surgical clinic.

So, so this is, you know, an operating room here at Shoreline.

Detailed view, you can see the operating room table and anesthesia station in the very far back.

In the back right is our intraoperative facts atron where we take specimen radiographs and of course of course the instrument table and the operations that we do here you
00:34:48.053 --> 00:34:49.628 know surgical excision, biopsy,
NOTE Confidence: 0.805293687777778
00:34:49.628 --> 00:34:52.048 you know things like atypia,
NOTE Confidence: 0.805293687777778
00:34:52.050 --> 00:34:53.850 some women choose to have
NOTE Confidence: 0.805293687777778
00:34:53.850 --> 00:34:54.570 fibroadenomas removed.
NOTE Confidence: 0.805293687777778
00:34:54.570 --> 00:34:56.600 These are benign tumors and so all
NOTE Confidence: 0.805293687777778
00:34:56.600 --> 00:34:59.186 can be done here with with the
NOTE Confidence: 0.805293687777778
00:34:59.186 --> 00:35:00.830 localization as doctor Philpotts.
NOTE Confidence: 0.805293687777778
00:35:00.830 --> 00:35:02.759 Mentioned or without.
NOTE Confidence: 0.805293687777778
00:35:02.759 --> 00:35:05.974 Breast conservation to classical lumpectomy,
NOTE Confidence: 0.805293687777778
00:35:05.980 --> 00:35:08.215 the big departure from radical
NOTE Confidence: 0.805293687777778
00:35:08.215 --> 00:35:10.450 mastectomy decades ago that we’re
NOTE Confidence: 0.805293687777778
00:35:10.521 --> 00:35:13.460 performing hopefully over 70% of the
NOTE Confidence: 0.805293687777778
00:35:13.460 --> 00:35:16.100 time for early stage breast cancer.
NOTE Confidence: 0.805293687777778
00:35:16.100 --> 00:35:17.094 Radiological localization,
NOTE Confidence: 0.805293687777778
00:35:17.094 --> 00:35:20.573 Doctor Phil Potsin over that with wire
NOTE Confidence: 0.805293687777778
00:35:20.573 --> 00:35:22.478 localization and tag localization.
00:35:22.480 --> 00:35:24.916 I'll show some images as well.

00:35:24.920 --> 00:35:27.520 Localization can be same day,

00:35:27.520 --> 00:35:29.592 you know bundled with you want Academy

00:35:29.592 --> 00:35:31.992 or we have the option to localize

00:35:31.992 --> 00:35:33.802 the small tumors and radiology.

00:35:33.810 --> 00:35:35.987 Sleep on a separate day and then

00:35:35.987 --> 00:35:38.603 do the going back to me as a first

00:35:38.603 --> 00:35:40.788 case early in the in the morning.

00:35:40.790 --> 00:35:41.896 Axillary surgery,

00:35:41.896 --> 00:35:44.661 things like Sentinel lymph node

00:35:44.661 --> 00:35:46.837 biopsy routinely performed here

00:35:46.837 --> 00:35:48.585 actually lymph node dissection

00:35:48.585 --> 00:35:51.368 or a lymph node excision biopsy

00:35:51.368 --> 00:35:53.988 to help our hematologists and

00:35:53.988 --> 00:35:56.084 oncologists with lymphoma diagnosis

NOTE Confidence: 0.805293687777778
were often involved in that.

And as we go forward,

Under the directorship of Doctor Greenup at Shoreline,

Same Day mastectomies, possibly in the near future,

mastectomies with immediate breast reconstruction, implant based,

possibly same day discharge.

It was working on that in New Haven.

That’s a new addition to the Department of Surgery.

And maybe even overnight stay at Shoreline one day.

So all these things are being introduced.
00:36:32.757 --> 00:36:34.742 thought about and discussed to
00:36:34.742 --> 00:36:37.508 again bring more complex breast and
00:36:37.508 --> 00:36:39.424 reconstruction surgery out to the
00:36:39.424 --> 00:36:41.277 community and closer to the patient’s
00:36:41.277 --> 00:36:43.119 home that the next slide please.
00:36:47.560 --> 00:36:49.920 Yeah. This is again some of the localization.
00:36:49.920 --> 00:36:51.957 I can see the two wires there.
00:36:51.960 --> 00:36:57.071 That’s a bracketed lumpectomy.
00:36:57.071 --> 00:37:02.360 And then the other image is what we
00:37:02.360 --> 00:37:04.940 can call our tag localization, which can
00:37:04.940 --> 00:37:07.575 be placed prior to the day of surgery.
00:37:07.575 --> 00:37:09.780 That’s a bracketed lumpectomy.
00:37:11.900 --> 00:37:13.600 There’s a picture of a
00:37:13.600 --> 00:37:14.960 Sentinel lymph node biopsy.
NOTE Confidence: 0.812327905555556
00:37:14.960 --> 00:37:17.767 I can see the tiny blue dye.
NOTE Confidence: 0.812327905555556
00:37:17.770 --> 00:37:20.600 We can do intraoperative injection
NOTE Confidence: 0.812327905555556
00:37:20.600 --> 00:37:24.359 of the radioisotope or the blue dye.
NOTE Confidence: 0.812327905555556
00:37:24.360 --> 00:37:26.929 These are two markers that are injected
NOTE Confidence: 0.812327905555556
00:37:26.929 --> 00:37:29.305 into the breast to help identify
NOTE Confidence: 0.812327905555556
00:37:29.305 --> 00:37:31.310 the Sentinel lymph node biopsy.
NOTE Confidence: 0.812327905555556
00:37:31.310 --> 00:37:35.478 And that’s part of a routine staging process.
NOTE Confidence: 0.812327905555556
00:37:35.480 --> 00:37:37.538 And as we are moving forward,
NOTE Confidence: 0.812327905555556
00:37:37.540 --> 00:37:39.565 there’s a new initiative called
NOTE Confidence: 0.812327905555556
00:37:39.565 --> 00:37:41.185 the Choosing wisely initiative.
NOTE Confidence: 0.812327905555556
00:37:41.190 --> 00:37:43.428 Businesses from the Society of Surgical
NOTE Confidence: 0.812327905555556
00:37:43.428 --> 00:37:45.671 Oncology and the American Board of
NOTE Confidence: 0.812327905555556
00:37:45.671 --> 00:37:47.391 Internal Medicine where maybe we
NOTE Confidence: 0.812327905555556
00:37:47.391 --> 00:37:49.839 can deescalate and not have to do or
NOTE Confidence: 0.812327905555556
00:37:49.839 --> 00:37:51.579 routinely do a Sentinel lymph node
biopsy for our women who are 70 and above.

Early stage breast cancer with favorable biologic markers,

meaning estrogen receptor positive,

her two negative patients are taking to this very strongly when we discuss this because what it’s able to do is reduce the amount of side effects when the even though it’s low risk with Sentinel and biopsy, we’re able to lower that even further by not removing lymph nodes.

So that’s been a new, a new approach in surgical.
College over the last four to five years.

And the next slide please.

And the specimen radiograph again, you know, focusing on the instrument.

Uh, the machine in the back.

Immediate specimen radiograph,

this is very good for confirming your removal of the tumor of the biopsy clip,

but it also helps with margin status.

You know one of the big things with successful oncologic surgery is negative margins for invasive cancers 2 Senate, margins for ductal
carcinoma in situ only lobectomies and we’re able to gain more a lot of information with the intraoperative specimen radiograph to look at the margins. To see as a surgeon, you know are things looking very good on that radio graph and to take shave margins at that time of surgery and thereby reduce the risk of second operations for margin resection. You know our goal is to keep that and never we can never achieve 0, but we want to find a very nice range where it’s not too high, not too well,
00:39:34.221 --> 00:39:35.810 so we can have good cosmetic outcome,
NOTE Confidence: 0.830154918
00:39:35.810 --> 00:39:38.235 good oncologic outcomes and that
NOTE Confidence: 0.830154918
00:39:38.235 --> 00:39:40.175 machine is very important.
NOTE Confidence: 0.830154918
00:39:40.180 --> 00:39:40.948 Next slide please.
NOTE Confidence: 0.861903025
00:39:46.230 --> 00:39:47.558 Go back one here,
NOTE Confidence: 0.771462525
00:39:47.990 --> 00:40:01.520 yeah, back one more. There we are. Yeah.
NOTE Confidence: 0.837919542857143
00:40:01.520 --> 00:40:04.328 So again, this is a special radiograph.
NOTE Confidence: 0.837919542857143
00:40:04.328 --> 00:40:07.120 The larger one is A tag,
NOTE Confidence: 0.837919542857143
00:40:07.120 --> 00:40:10.255 a lumpectomy and to the the
NOTE Confidence: 0.837919542857143
00:40:10.255 --> 00:40:13.057 middle slide is a lymph node.
NOTE Confidence: 0.837919542857143
00:40:13.060 --> 00:40:15.112 You know the tiny lymph node with the
NOTE Confidence: 0.837919542857143
00:40:15.112 --> 00:40:17.263 biopsy clip in it here at Yale over
NOTE Confidence: 0.837919542857143
00:40:17.263 --> 00:40:20.008 routinely put a biopsy clip after a
NOTE Confidence: 0.837919542857143
00:40:20.008 --> 00:40:23.020 lymph node has been radiologically biopsied.
NOTE Confidence: 0.837919542857143
00:40:23.020 --> 00:40:25.133 And we can confirm retrieval of
NOTE Confidence: 0.837919542857143
00:40:25.133 --> 00:40:27.268 that in the operating room to
NOTE Confidence: 0.837919542857143
help with our accuracy and false negative rates with Sentinel.

You know biopsy.

Next slide please.

And with regard to clinical trials at the shoreline and in our clinics, we’re able to offer you two trials, surgical trials.

This the alliance A 011202 was open here and is now reached the coral and we’ll be awaiting those results in about 5 years.

And we’ve had patients who’ve enrolled and able to do their files with us at Shoreline and we’re actively recruiting within the comet trial.
You know, we’re asking ourselves. Finally, believe it or not is aggressive treatment as you know,
are invasive cancer type treatments necessary for precancerous disease,
believe it or not, possibly omitting surgery,
ductal carcinoma inside you and this is a randomized trial looking at,
meaning a low risk to surgery or not,
possibly omitting surgery,
randomizing women with favorable DCIS,
meaning a low risk to surgery or no surgery with the options of some of the other adjuvant therapies.
Um, so we’ve recruited patients at Shoreline already in our actively recruiting in this,
this trial to answer some of these pending questions of how aggressively do we need to treat ductal carcinoma in situ.

And comprehensive care, you know, a lot of our discussions when patients come in with newly diagnosed breast cancer or even high risk things like genetic counseling, risk stratifying by the various risk models, the Gale model, the Tyra Cusick model, we routinely do that in our clinics with appropriate referrals due to our genetic counselors. They’re not on site at Shoreline,
but certainly by zoom can do referrals.

Uh, social work we have on site social workers who help us uh routinely and we're very grateful to their help our outpatient oncology rehabilitation services, OK, not on site,

but again a quick phone call to the director Scott Kaposa who is always willing to see our patients promptly and streamline them for various post surgical issues or even non post surgical issues, things like lymphedema.

Um or postmastectomy, pain,
again um within the system, we’re able to access that at Smilo as well as smoking cessation. Patients have been very receptive to these consultations and part of our comprehensive care model. Next slide please.

That concludes my discussion. Like to thank everybody for their time. The Breast Center number is there and there’s my e-mail. You know, certainly I encourage anybody to e-mail me directly and certainly will provide my cell phone number because a lot of the most difficult
00:43:25.532 --> 00:43:27.622 discussions I think in the primary
NOTE Confidence: 0.6733104828
00:43:27.622 --> 00:43:30.070 care may very well be what do you do
NOTE Confidence: 0.6733104828
00:43:30.132 --> 00:43:32.418 with some of the radiologic findings?
NOTE Confidence: 0.6733104828
00:43:32.420 --> 00:43:34.285 We're happy to help integrate
NOTE Confidence: 0.6733104828
00:43:34.285 --> 00:43:35.404 and answer those.
NOTE Confidence: 0.6733104828
00:43:35.410 --> 00:43:38.259 Those questions, uh what types of follow-up
NOTE Confidence: 0.6733104828
00:43:38.259 --> 00:43:40.139 screening strategies for high risk.
NOTE Confidence: 0.6733104828
00:43:40.140 --> 00:43:42.460 Um, you know all of those different things.
NOTE Confidence: 0.6733104828
00:43:42.460 --> 00:43:45.610 So always happy to help problem solve
NOTE Confidence: 0.6733104828
00:43:45.610 --> 00:43:47.886 and would really encourage anyone
NOTE Confidence: 0.6733104828
00:43:47.886 --> 00:43:50.664 to primary care OBGYN setting to
NOTE Confidence: 0.6733104828
00:43:50.664 --> 00:43:52.858 certainly send an e-mail how can
NOTE Confidence: 0.6733104828
00:43:52.858 --> 00:43:55.461 we help you remember sure surgery
NOTE Confidence: 0.6733104828
00:43:55.461 --> 00:43:58.296 at shoreline for breast cancer,
NOTE Confidence: 0.6733104828
00:43:58.300 --> 00:44:01.280 you know from Yale started in 2020 that
NOTE Confidence: 0.6733104828
00:44:01.280 --> 00:44:03.680 was our first breast surgery there.
Breast conservation so alive.

Of changing quickly um.

And we would like to certainly get your feedback on how we can help you navigate your patients view benign disease, high risk as well as malignancy.

And there's a shout out to Doctor Horowitz who started the clinic here several years ago with Doctor Kiley and it’s a torture carrying and we’ve since her retirement we’ve added breast surgery and even expanding to reconstruction under the directorship of Doctor. Or Salvador.
Great things there.

And that’s Elizabeth, our nurse practitioner, uh Renee, one of our assistants, and Sherry, one of our nurses and coordinators.

Again, feel free to always send an e-mail and happy to help in any way.

Thank you so much, Greg.

And I think the community had big concerns that we would not be able to fill doctor Horowitz’s tremendous role in caring for our breast cancer patients.

Those are big shoes to fill, but we’re doing our best to keep up.
So we all prioritize access and a high quality patient centered care and we're here to help anytime.

So I’m going to turn it over to Doctor Zahir. It’s a pleasure to introduce the next speaker known her for some time. Sarah McGillion is an associate professor of medicine, medical Oncology and chief ambulatory officer for Smilow Cancer Hospital. She cares for patients with breast cancer in New Haven and more recently we are so happy to have her in Guilford. She’s also involved in education of students, residents and fellows here.
00:45:48.160 --> 00:45:50.460 at Yale outside the clinic.
NOTE Confidence: 0.90889765
00:45:50.460 --> 00:45:53.000 She’s involved with cancer outcomes,
NOTE Confidence: 0.90889765
00:45:53.000 --> 00:45:55.910 public policy and effective veness research,
NOTE Confidence: 0.90889765
00:45:55.910 --> 00:45:57.675 which is called Copper Center
NOTE Confidence: 0.90889765
00:45:57.675 --> 00:45:59.087 at Yale Cancer Center,
NOTE Confidence: 0.90889765
00:45:59.090 --> 00:46:01.195 with a specific interest in
NOTE Confidence: 0.90889765
00:46:01.195 --> 00:46:03.300 chemotherapy regimens used in the
NOTE Confidence: 0.90889765
00:46:03.378 --> 00:46:05.490 treatment of breast cancer and how
NOTE Confidence: 0.90889765
00:46:05.490 --> 00:46:08.219 they are used in clinical practice.
NOTE Confidence: 0.90889765
00:46:08.220 --> 00:46:09.069 So welcome, Sarah.
NOTE Confidence: 0.90889765
00:46:09.069 --> 00:46:10.767 Thank you for joining us today.
NOTE Confidence: 0.69482982625
00:46:11.080 --> 00:46:12.110 Thanks, waji.
NOTE Confidence: 0.69482982625
00:46:12.110 --> 00:46:15.200 So welcome everybody like Doctor Butler.
NOTE Confidence: 0.69482982625
00:46:15.200 --> 00:46:18.060 I think that this is clearly a topic
NOTE Confidence: 0.69482982625
00:46:18.060 --> 00:46:21.140 that fits very nicely into 10 minutes.
NOTE Confidence: 0.69482982625
00:46:21.140 --> 00:46:22.916 Describe my job in 10 minutes,
no problem. As what you said,

I do see patients at the Guildford location one day a week.

I’m also in New Haven one day a week.

But what we’re really what

I really want to get across is

anything we can do in New Haven,

we can also do in Guildford and.

I love working in Guildford.

I love the parking situation.

Air rights is my worst nightmare.

But I love the the group that we have out

here and I love my colleagues in Guildford.

So with the few small exceptions

of a couple of clinical trials
that really have very high level needs and rapid turnaround, we can do just about anything in Guildford that we can do in New Haven. What I really want to get across. If you have a patient who’s been diagnosed with breast cancer, she’s in for, she’s in for a ride, there’s a multidisciplinary team consisting of a medical oncologist, a radiation oncologist, and a surgeon and those three different disciplines work closely with
our diagnostic imagers as doctor Philpotts has described to get appropriate imaging right off the bat. We also have social work, physical therapy, Nutrition, genetics, fertility and reproductive endocrinology, all prior to the patient who might then have to undergo chemotherapy prior to surgery. Each of those little dots is a treatment. Then the patient might have surgery with a breast surgeon and a reconstructive surgeon as as doctor Zaneski and Doctor Butler have described. They might continue on getting more
chemotherapy or more anti cancer therapy prior to then getting radiation, which could be up to 30 or even more. With nutrition, physical therapy all along the way and then once the definitive treatment is finished, there’s continued follow-up visits, mammograms, bone density studies, infusions, physical therapy and the list goes on and on. So this is not one stop shopping, this really requires a closely knit group of clinicians who are working together to provide the best care.
So just a little bit more about multidisciplinary care in the treatment of breast cancer itself. The goal of breast surgery is to remove the known cancer, obtain negative margins, evaluate the lymph nodes, and removed the involved lymph nodes. Surgery alone can be curative radiation on top of that, and I don’t want to steal Doctor Higgins’s Thunder. However, the goal of radiation, as I like to describe it in clinic,
is to mop up any microscopic disease in

the breast and the regional lymph nodes,

and this is generally administered

after lumpectomy and can be recommended

even after a mastectomy and this.

The goal of radiation is to reduce local

recurrence. So then you might say,

well surgery, radiation,

breast is all clean.

Why do you need a medical oncologist?

Well, we have a different goal

in medical oncology and our goal

is to mop up the microscopically

undetectable disease systemically.

And our goal is to reduce the risk

of distant recurrence to reduce
the likelihood that a patient dies of metastatic breast cancer.

Umm. Nope. I’m going to do

This is what happens when you oops,

So how do we decide who

It’s a really complicated story.

It takes into account patient

characteristics, their age,

their medical comorbidities,

their own personal preferences.

It takes into account tumor stage,

which is tumor size, nodal status,
and the presence or absence of metastatic disease and tumor characteristics such as grade hormone, receptor status. 

Her two status. And I know that these may not be quite familiar.

The goal of this slide is to just demonstrate that it’s not one-size-fits-all for all patients. And based on that combination we then choose a systemic therapy.

I want to review really quickly staging one-size-fits-all for all patients. And based on that combination we then choose a systemic therapy.

you know it’s it’s funny everybody
what’s my stage because apparently that’s the most common question that they are asked upon revealing a breast cancer diagnosis stage is more than just the tumor, the nodal status and the presence or absence of metastases. More recently we started in incorporating some of these other features of a breast cancer such as the grade, the estrogen receptor, the progesterone receptor and her two to come up with a more prognostic stage that’s really more aligned with the patient’s overall prognosis.
So you might say, OK, what does all that mean? Well grade is a measure of how aggressive the cancer appears under the microscope as described by our pathology colleagues. In general, the higher the grade, the more aggressive the cancer and the more aggressive we have to be to prevent a systemic recurrence. Then we get on to the estrogen and progesterone receptors. These are nuclear based hormone receptors. They and the kind of quick and dirty way of thinking about these dirty way of thinking about these
estrogen or progesterone receptors, it’s fueled by hormones and so hormone deprivation or interference with that receptor and ligand interaction can be a therapeutic option and we have medications that do just that. Her two is a member of the EGFR family of cell surface receptors, and it can be overexpressed in some of the most aggressive breast cancers. Her two positive or her her overexpressing cancers are often poorly differentiated and require chemotherapy and really, really aggressive and intense therapy.
We also have gene expression profiles at our disposal that can help determine whether or not a patient needs chemotherapy. One such example is the Oncotype DX, which is a 21 cancer related gene expression panel that spits out a number on a scale of zero to 100. The higher the number, the higher the risk of the recurrence. If that number is over 25 in general, chemotherapy is going to be discussed.
we take a lot of things into consideration.

We take into account medical history and the presence or absence of heart disease, diabetes, osteoporosis, prior venous thromboembolism, autoimmune disease and then importantly, and we haven’t mentioned this much, but we take into account family history, there are a lot of different genetic syndromes associated with breast cancer and the presence or absence of a genetic predisposition. May impact not only local therapy, but it’s becoming increasingly used to determine what systemic
therapies might be used. 

So I'll quiz you all on this a little bit later.

These are all the chemotherapy regimens actually.

These are not all of them, these are some of them, but they're complicated and they all have different side effects, different schedules, different needs, different central access requirements, different durations.

It's because of this that doctors are here and I have a job. So, so not to make light of this,
but it’s complicated and different
regimens are used for different settings.

We use a lot of different chemotherapy drugs.
Here are some common ones and
some of the more long-term side effects that can happen.
These are really potent drugs that do kill cancer,
and it’s great that they kill cancer,
but they can cause other problems as well,
namely cardiomyopathy with
some of the anthracyclines,
neuropathy with some of the taxanes,
and hypersensitivity
reactions across the board.

Just really quickly, we, the multidisciplinary treatment of breast cancer does require conversations for a number of different clinical scenarios where we have to decide, well, who’s going first, surgery going first? Is chemotherapy going first? Are we thinking about other strategies? And there are different rationales for doing either.

It’s called adjuvant systemic therapy when surgery is 1st and it’s called neoadjuvant when chemotherapy is first. So if you ever see that in a note, that’s kind of all that that’s describing.
But this really does require close communication, particularly between the surgeon and the medical oncologist, but often requires the radiation input as well as the reconstructive surgery input to plan down the line once chemotherapy is complete. And then moving on into the more chronic phase of cancer of many cancer treatments, we use a lot of anti estrogen therapy, namely tamoxifen or other aromatase inhibitors which work by preventing the peripheral aromatization of steroids into estrogen.
And they work in different ways. They have pretty nasty potential side effects. Tamoxifen can cause vasomotor symptoms like hot flashes. There's a small risk of blood clots and uterine cancer, although it may be helpful for osteoporosis. Aromatase inhibitors, can cause more of a second menopause in postmenopausal women with a persistent or even more pronounced low estrogen state, and can cause vasomotor symptoms, accelerated bone loss,
and even increased cholesterol.

Once we’ve completed the definitive treatment or are into the surveillance phase, we do history and physicals one to four times per year.

We do periodic screenings for family history. We manage some of the acute and chronic toxicities of our cancer treatments. Patients get annual mammograms.

I think it’s important to note that we’re not doing routine surveillance imaging in the absence of clinical signs and symptoms that suggest recurrence.

However, there may be a.
A low threshold to image in the setting of symptoms that meet what I like to call the three P’s symptoms that are perplexing, persistent or progressive. And that’s where patients with a history of cancer may end up getting more scans as a result of. Unfortunately about 15% of the time are curative treatments aren’t effective or patients present with metastatic breast cancer. The most common sites of breast
cancer metastases are bone, liver, lung, with brain being a distant fourth. Although on average the life expectancy after a diagnosis of breast cancer is about two years, this is a huge spectrum with patients that could live for even decades depending on some of their disease burden, their performance status, what type of breast cancer they have, and then their response that their cancer has to treatment. I wanted just to mention that this
00:57:52.072 --> 00:57:54.157 is an area that breast cancer and breast oncology is an area of a lot of research with lots of novel drugs that are all at our beckon call and all of which can be either administered IV IM subcutaneously or or orally with new targeted agents such as CDK 46 inhibitors, PARP inhibitors, PI3 kinase inhibitors and antibody drug. Projects, and I’m not gonna bore you with all the mechanisms of all of those things, but they are new and exciting, keeping people with metastatic breast cancer alive for longer, to enjoy more quality life with their loved ones.
That is all that I have.
Thank you very much for the opportunity.
I'll turn it back over to I think Doctor Zahir.
Thank you, Sarah. That was wonderful.
That was an excellent review of what we do in 10 minutes and I completely agree with you.
We try to do what we are doing in New Haven and and even more because of the very people that are presenting here tonight.
So before I go on to the last speaker, I just want to mention if you have any questions, please be prepared to ask.
And don’t be afraid to ask.
and write them down.

Also, there’s a choice to do that.

So the next speaker is really a pleasure

to introduce Doctor Susan Higgins,

who I have known for forever,

I think for many years.

She’s a professor of therapeutic radiology and of obstetrics,

and serves as a medical director for the radiation Oncology at Shoreline Medical Center.

She completed her residency in therapeutic radiology and she is a medical director for the radiation Oncology at Shoreline Medical Center.
Great Great for Yale and all of us that she decided to stay here. She for nearly 25 years has dedicated herself as an educator, mentor, researcher and above all a dedicated clinician at Yale. It’s really a pleasure to work with her. We all, the all the patients as well as the staff at at the shoreline are so grateful that she’s here with us and takes care of our patients. Thank you.

So then you’re muted.
Yep. Thank you Angie.

I’m going to share my screen and hopefully let me get to.

Let’s see if I can get this to show the slideshow. OK.

Hold on one second. OK.

Can everybody see that?

So one of the things I wanted to do was just a little bit of a, a little bit of a historic overview before I talk about radiation and basically.

It continues on some of the themes that others have talked about here. But in terms of the regional oncology services and the shoreline, you know we started the Shoreline
Medical Center actually it’s now about 18 years ago and it was one of the first places where we were able to get Yale medical Oncology, radiation oncology and diagnostic imaging under the same roof. And I think we all had you know great hopes for the shoreline that are all now sort of coming true. So it’s it’s a really exciting time to be here. And Umm, we had served at this phase of the Yale New Haven Hospital, Shoreline Medical Center phase in the early 2000s,
but then we in 2019 here,
well in the near term we had this
smile all of course expansion
of our Cancer Center downtown
with the Smilow Cancer Center.
And then in 2019,
the investment in our infrastructure here
with the renovation and expansion of
all of our oncology and imaging services,
including upgrades that gave
us a beautiful surgical center.
With more accommodations for our
breast surgeons including our
plastic surgeons and more space for
our medical oncology colleagues.
And I think that you know we continue
to build the team and build the services.

And what we’re seeing now in 2022 as my colleagues have spoken about is that we really have a truly comprehensive multidisciplinary oncology Center for breast care here and we are happy to see you know in our. Our catchment area is expanding. And you know, we’re just very happy to serve the community and I think that as you know, we’re seeing a lot of gratitude from the patients and it’s just a great place to work and a great place to Park,
right, Sarah?

Not only a great place to work but a great place to Park.

But anyway, so I just wanted to you know just I think if I get one point across is we’re happy to see your patients, we love working here and you know it’s one stop shopping for patients with breast cancer and it’s sort of a dream come true for a lot of us. So basically with regard to radiation therapy. To do a little bit of an overview, uh, people know a little less about radiation than they do about some of the other oncologic disciplines.
So I'll just start with like a little tiny intro of radiation 101, then talk about radiation therapy and the multidisciplinary treatment of breast cancer, both for breast conservation and patients who have had a mastectomy. And one of the technical advances that I wanted to talk about today is one of our projects that we began a few years ago that’s at all of our sites. That has really changed what we do with regard to treatment and that’s the deep inspiration breath hold technique. And then finally,
I thought it would be helpful to speak about some of the things we do for our patients with metastatic disease because as our systemic therapies are getting better, we as radiation oncologists are being called upon now even more to help with the sites of sanctuary sites like the CNS and some extracranial sites have been static disease. So, you know, for five decades now, radiation therapy has been an essential part of the oncologic triad of oncologic treatments and about 50% of people who have cancer.
receive radiation therapy during their course of their illness. And it’s radiation is a key component of curative breast cancer treatment, both in breast conservation therapy where patients who receive lumpectomy in general with a few exceptions, but most patients who get a lumpectomy. It’s followed by as Doctor McCallion pointed out, we are the cleanup crew radiation therapies used to take care of microscopic cells that might be left in the breast or nodes and following mastectomy select patients,
not all, but many patients received postmastectomy radiation therapy. To reduce the risk of local recurrence. In either case, radiation has been shown to be really safe and effective, and it can reduce the risk of local recurrence by 50 to 70%. And in certain patient subsets, radiation therapy is associated with an increase in survival. And in general, um, this very basic radiobiology. It’s ionizing radiation causes damage to cellular DNA and in malignant cells. They are not able to repair this DNA.
01:05:12.120 --> 01:05:14.858 damage and they cannot reproduce
NOTE Confidence: 0.766930606666667
01:05:14.860 --> 01:05:15.733 in normal cells.
NOTE Confidence: 0.766930606666667
01:05:15.733 --> 01:05:17.479 There’s also damage to the DNA,
NOTE Confidence: 0.766930606666667
01:05:17.480 --> 01:05:20.560 but it’s normal cells are better able
NOTE Confidence: 0.766930606666667
01:05:20.560 --> 01:05:23.578 to repair this type of DNA damage.
NOTE Confidence: 0.766930606666667
01:05:23.580 --> 01:05:25.455 And radiation therapy is delivered
NOTE Confidence: 0.766930606666667
01:05:25.455 --> 01:05:26.955 with the linear accelerator.
NOTE Confidence: 0.766930606666667
01:05:26.960 --> 01:05:29.170 We have two bays downstairs
NOTE Confidence: 0.766930606666667
01:05:29.170 --> 01:05:30.496 in our department,
NOTE Confidence: 0.766930606666667
01:05:30.500 --> 01:05:33.140 we’d say emits high energy photon beams and
NOTE Confidence: 0.766930606666667
01:05:33.140 --> 01:05:35.739 we target the breast and regional nodes.
NOTE Confidence: 0.766930606666667
01:05:35.740 --> 01:05:37.444 And what you see here is just a
NOTE Confidence: 0.766930606666667
01:05:37.444 --> 01:05:38.975 schematic of a patient on the
NOTE Confidence: 0.766930606666667
01:05:38.975 --> 01:05:40.285 treatment table getting what we
NOTE Confidence: 0.766930606666667
01:05:40.285 --> 01:05:41.620 would call breast tangents.
NOTE Confidence: 0.766930606666667
And in the upper right hand corner, you can see that we're targeting the breast and we basically have a tangential field that comes across the chest wall and you can see that sometimes we have a little bit of underlying. Along in the field and we're going to talk about that in a minute. But basically, as Doctor Magellan referred to, we do daily treatments and it's delivered over the course of three to six weeks, so there is some time involved. Treatment again is directed at the breast or chest wall with or without the regional nodes.
And the way it’s done is in terms of the just logistics, patients come in for something called the simulation, which is a CAT scan and they’re immobilized in the position that we’re going to use for treatment. And basically it’s shown here they’re on a slant board. The arms are over the head because we need to have the arms out of the way when we treat the breast and the nose with fields that are directed and those at the chest. And what we get is a CT scan that
01:06:38.910 --> 01:06:40.618 shows us the patient’s entire,
NOTE Confidence: 0.766930606666667
01:06:40.620 --> 01:06:41.104 you know,
NOTE Confidence: 0.766930606666667
01:06:41.104 --> 01:06:43.685 body and we can do sort of a 3D
NOTE Confidence: 0.766930606666667
01:06:43.685 --> 01:06:46.108 reconstruction. Of their body.
NOTE Confidence: 0.766930606666667
01:06:46.110 --> 01:06:48.616 And the doctor then goes to the
NOTE Confidence: 0.766930606666667
01:06:48.616 --> 01:06:51.162 computer and we use that CT data
NOTE Confidence: 0.766930606666667
01:06:51.162 --> 01:06:52.206 set to contour.
NOTE Confidence: 0.766930606666667
01:06:52.210 --> 01:06:54.172 We will contour out the targets
NOTE Confidence: 0.766930606666667
01:06:54.172 --> 01:06:56.586 which are the breast and the nodes
NOTE Confidence: 0.766930606666667
01:06:56.586 --> 01:06:58.316 and then the physician prescribes
NOTE Confidence: 0.766930606666667
01:06:58.316 --> 01:07:00.459 the the dose to those targets.
NOTE Confidence: 0.766930606666667
01:07:00.460 --> 01:07:02.700 Then then our sophisticated
NOTE Confidence: 0.766930606666667
01:07:02.700 --> 01:07:04.380 treatment planning system
NOTE Confidence: 0.808383406
01:07:04.380 --> 01:07:05.630 comes up with what we
NOTE Confidence: 0.808383406
01:07:05.630 --> 01:07:06.880 call a 3D conformal plan.
NOTE Confidence: 0.808383406
01:07:06.880 --> 01:07:09.124 It’s a basically the optimal beam
arrangement and the beam strength and beam shape to maximize the dose to the targets which breast in nodes and minimize the dose to the organs at risk like the lung and heart. So this is sort of a what a this actually comes right off of our treatment planning system. This is what you would see when you do that 3D conformal treatment in the upper left hand corner. I don’t know if you could see my can you see my pointer here? Probably not, but in the upper, you can’t good in the upper left hand corner.
Thank you, Sarah.

You can see there are two tangential fields and there’s a green that represents the dose to the breast tissue.

So this would be a right breast cancer, a beam would be coming this way from the right, a beam from the left and then a single field that’s pointed at the patient for the Super cloud fields. But this would be a typical sort of dose distribution and this is the, this is what the physician basically is. Is going to you know devise in order to treat that patients breast cancer. I'm have one sort of schematic here.
just to show you again this is a cross section of a patient’s heart.

In Gray’s lungs in black, the actual treatment fields for a right breast cancer,

one would be the lateral field,

one would be a medial field and the beams basically treat the breast and just some of the underlying lung.

For postmastectomy radiation, it’s very similar sort of theme.

But in this case, we’re treating the chest wall or a reconstructed breast, whether that’s an implant or a deep flap and the regional notes.
So again, you can see on the patient that the regional notes up above in the clavicle area and under the arm are being treated along with the chest wall. And not everyone who has a mastectomy needs postmastectomy radiation. We often have lots of discussions with patients about whether they fall into the category that is high risk and that usually includes. Patients with positive nodes AT3 or larger tumor or a positive margin. So what has happened over the years is that our technical advances have basically been aimed at making this a safer treatment, and that means
maximizing the dose of the target,

minimizing the dose to the underlying organs and for left press treatment,

the underlying organs that we’re trying to spare a lung and heart.

So one of the new things we’ve been able to do in the last few years is to address this with the deep inspiration breath hold.

Technique.

But let me just show you what the challenge is from an anatomic standpoint.

I think was just showing you that the tangent fields that we’re trying to use are coming across the chest wall.
and you’re trying to treat the green, which is the breast tissue without encountering too much lung, which is black and heart circled here in red. But the problem is, in many ladies, the heart and lung are immediately adjacent to our target. And in the past, we could adjust the beams, we could change the strength of the beam, we could shape the beam, but we couldn’t change the anatomy. So we do now have a technique to do that and it’s called the deep inspiration breath hole technique.
01:10:29.240 --> 01:10:31.118 And it’s there are two things
01:10:31.118 --> 01:10:33.935 we need to do this we have to
01:10:33.935 --> 01:10:35.795 use in surface imaging system.
01:10:35.800 --> 01:10:36.040 Uh,
01:10:36.040 --> 01:10:37.240 a specific surface imaging system
01:10:37.240 --> 01:10:38.758 that I’ll show you in a minute,
01:10:38.760 --> 01:10:42.160 and a special gated treatment
01:10:42.160 --> 01:10:43.520 delivery system.
01:10:43.520 --> 01:10:46.382 So the surface imaging system is
01:10:46.382 --> 01:10:49.608 a new technology that allows us to
01:10:49.608 --> 01:10:52.457 map out and actually in real time
01:10:52.547 --> 01:10:55.284 put a surface map on a patient.
01:10:55.290 --> 01:10:56.910 Using a light system,
01:10:56.910 --> 01:10:58.935 there are three cameras and
01:10:58.935 --> 01:11:01.544 we’re able to check a patient’s
position prior to treatment.

And see if they’re in the correct position.

By looking at the overlay of a pre

sort of pre recorded or pre obtained

body contour and basically when

blue and green coincide they’re in

the exact right position position.

Every part of their body is within a few

millimeters on you know where it should be,

but if you see red or yellow that

means that body part is in or out of

the plane of the field and basically

that allows us to maneuver them in the

exact position prior to treatment,

which is really important again

when we’re trying to.
Deliver with, you know, sub millimeter to millimeter accuracy. The other thing this does is allows us to track in real time these cameras are on in real time and giving constant feedback so that as a patient’s chest wall changes in the motion of the chest as the chest wall moves, we are all able to track the chest wall. And that allows us to perform what we call gated treatments.
radiation beam stopped and we call so it actually all starts when they come in for simulation
there's a camera here that actually starts to collect this data on their surface of the patient, we pick up a spot for tracking their chest wall motion.
breathing and where this is what we’re seeing in the control room, the patients actually in, let’s imagine this patients in the simulator. And we’re tracking this position on their chest. They have these goggles on. We asked them to basically, this is their baseline breath the baseline breathing inhale. you’ll see they’ll hold their breath and then we exhale and the baseline breathing inhale. What we’re trying to do is figure out exactly what position can they sort of reproducibly obtain with,
you know, expanding their chest.
In other words, what's their kind of comfortable breath hold volume?
And it's really cool because what was really interesting about this is we thought,
this is going to be too much for patients. It's going to make them really nervous.
But what was really cool about it was it gave them something to do.
And the Goggles Act sort of like A to insulate them from other, like, distractors.
And it actually helped a lot of our patients feel more comfortable.
And I think people like to participate in their care. You know, people like say, oh, what can I do to help myself? And when we tell them this is something you could do and you can’t do it wrong, they like that.
The chest is right up against, I'm sorry, the heart is right up against the chest wall. You could see the heart sitting on the diaphragm on the right when they expand their chest and the diaphragm moves down. The heart that creates a little space between the heart and the chest wall. So diaphragm drops and the heart moves down and away from the chest wall.

So now when we go to do our planning, So Step 2, as you did your simulation, now you want to go back and do your treatment plan. And on the left you could see free breathing.
The chest is sort of collapsed. And there's the line. That little green line is where we’d like to put the edge of our tangent field. You could see it’s right near, actually right near the left anterior descending artery. We've moved the chest on the contents of the chest such that the heart is now moved away from the field and a smaller portion of the chest.
the lung is now being radiated.

So actually you know it was really a game changer because now you know your sort of therapeutic ratio, your risk benefit is really changed because you’ve been able to change the internal organs. And then finally, when they get on the treatment machine, you have to have what’s called a gated delivery system. So now we’ve set up the plan. They know what to do with the goggles, but when you actually deliver radiation, you have to have a system that basically will only give the
radiation when they’re in the exact correct breath hold position. And I tell them you can’t do it wrong because they all get nervous about that. But basically we have three cameras in the room and the three cameras again are tracking the patient’s chest wall motion. And we have, the patient has their goggles in the goggles, they see this little green box and the orange is like sort of a, a vertical line that goes up and down. And this biofeedback allows them to position their chest in exactly the right spot and when they’re
in that spot
and their chest wall is expanded.
The beam goes on,
treatments delivered in 20 seconds,
30 seconds at a time and when they exhale the beam goes off.
So this is a way that you know we can significantly reduce the dose to the heart and lung.
And again it was a real game changer because this is an actually this is being used with lymphomas and other thoracic malignancies because now using breath hold we can actually change their anatomy to suit what
we need to do for the malignancy.

And then just two final things

Now that we have such great systemic therapies,

we are seeing that we’re using more and more radiation therapy and a stereotactic fashion to deliver radiation.

In higher doses to more targeted sites so that we can optimize the control of both intracranial and extracranial metastatic disease.

For intracranial metastatic disease,

we have the only gamma knife stereotactic radiosurgery unit in the state.
We have a huge gamma knife program.

It's very active.

I don't know how many thousands of patients they see a year,

but it's I'd say the gamma knife is pretty much running almost all the time.

Now we also have a new program with Doctor Ann,

which is the Spine SRS program and that program with Doctor Mandel is getting very active.

And I'll just.

And I'll give the little background in why we do spine radiosurgery in a minute,

but we also have the ability to do body radio surgery and that would
01:17:36.651 --> 01:17:39.042 be for sites that again someone
NOTE Confidence: 0.817686503461538
01:17:39.042 --> 01:17:40.854 has a long disease free interval,
NOTE Confidence: 0.817686503461538
01:17:40.860 --> 01:17:42.743 something comes up in a site that
NOTE Confidence: 0.817686503461538
01:17:42.743 --> 01:17:45.326 we feel might be the only site or a
NOTE Confidence: 0.817686503461538
01:17:45.326 --> 01:17:47.076 limited site of extracranial metastatic
NOTE Confidence: 0.817686503461538
01:17:47.076 --> 01:17:50.500 disease. We can also do body SRS.
NOTE Confidence: 0.817686503461538
01:17:50.500 --> 01:17:53.302 So any type of stereotactic radiosurgery
NOTE Confidence: 0.817686503461538
01:17:53.302 --> 01:17:55.840 requires a very highly precise,
NOTE Confidence: 0.817686503461538
01:17:55.840 --> 01:17:58.008 precise treatment and a
NOTE Confidence: 0.817686503461538
01:17:58.008 --> 01:17:59.634 lot of immobilization.
NOTE Confidence: 0.817686503461538
01:17:59.640 --> 01:18:00.820 But the advantage there is
NOTE Confidence: 0.817686503461538
01:18:00.820 --> 01:18:02.360 that you can treat a large,
NOTE Confidence: 0.817686503461538
01:18:02.360 --> 01:18:04.435 a small target with extremely
NOTE Confidence: 0.817686503461538
01:18:04.435 --> 01:18:06.980 high doses and very high dose,
NOTE Confidence: 0.817686503461538
01:18:06.980 --> 01:18:08.212 steep falloff of dose.
NOTE Confidence: 0.817686503461538
So very little dose to the surrounding tissue and it’s typically done in a single fraction. This is actually being used very frequently for lung cancers.

Now for early stage lung cancer, the benefit from metastases is, is that you can get more durable local control and again in select patients. As they spoke about with the spine SBRT program, the spine SBRT, here’s just a schematic that shows how precise it is. You can see that you can take this very high dose curve which is red and wrap a very high dose around the vertebral body while avoiding the spinal canal.
NOTE Confidence: 0.804687427777778
01:18:46.530 --> 01:18:50.002 canal, spinal cord and that dose can be
NOTE Confidence: 0.804687427777778
01:18:50.002 --> 01:18:52.850 adjusted within again a few millimeters.
NOTE Confidence: 0.804687427777778
01:18:52.850 --> 01:18:54.110 It’s a very precise treatment.
NOTE Confidence: 0.804687427777778
01:18:54.110 --> 01:18:56.194 It requires milligrams, etcetera,
NOTE Confidence: 0.804687427777778
01:18:56.194 --> 01:18:58.799 but very helpful for various
NOTE Confidence: 0.804687427777778
01:18:58.799 --> 01:19:00.290 patient populations.
NOTE Confidence: 0.804687427777778
01:19:00.290 --> 01:19:02.551 Spinus PRT is being used for people
NOTE Confidence: 0.804687427777778
01:19:02.551 --> 01:19:04.040 with oligo metastatic disease,
NOTE Confidence: 0.804687427777778
01:19:04.040 --> 01:19:07.220 especially if it’s a new diagnosis.
NOTE Confidence: 0.804687427777778
01:19:07.220 --> 01:19:09.302 Some people have a limited metastatic
NOTE Confidence: 0.804687427777778
01:19:09.302 --> 01:19:11.224 lesion after a long interval
NOTE Confidence: 0.804687427777778
01:19:11.224 --> 01:19:13.080 from their primary diagnosis.
NOTE Confidence: 0.804687427777778
01:19:13.080 --> 01:19:16.224 Or for people who have previously
NOTE Confidence: 0.804687427777778
01:19:16.224 --> 01:19:17.796 radiated spine metastases,
NOTE Confidence: 0.804687427777778
01:19:17.800 --> 01:19:19.500 we’ve done maybe external beam,
and then they have a recurrence, which is unusual, but maybe a recurrence a few years later. We can give this and spare the spinal cord and treat the vertebral body. And finally, just our gamma knife program and especially in this era of very, very effective targeted therapies, we still have the brain is still a sanctuary site. We are still dealing with people who have uncontrolled or come to us with uncontrolled intracranial disease. And with our gamma knife program, we’re able to deliver very high doses of
radiation to multiple brain metastases.
It's a single treatment session.
People go home.
I know that Doctor Bindra says his famous,
his favorite call is like the people who say,
I just went golfing like the guys like
24 hours out and he gives him a follow
up call and the guy was out golfing.
It's a very, very beneficial,
very effective treatment and gives more durable local control for brain medicine,
significant decrease in morbidity
when compared with our standard whole brain radiation therapy. And you know, Doctor Chang and my other colleagues are just always available and a doctor is here and I work really closely with them. And Doctor McGauley and we we can get those patients to the gamma knife people to the spine radio surgeons and anything they need at any time. So we we have a very like hand in. So basically radiation therapy to summarize is an essential part of the multidisciplinary.
it’s very safe and effective and I think the DBH is making it even more safe and effective and it reduces the risk of local and regional recurrence by 50 to 70%. And you know what’s really going to help in the future with quality of life for patients, especially for gamma knife is the use of these stereotactic procedures to control local and metastatic disease. Thank you very much.

Thank you Susan for a very good comprehensive review.
comprehensive with short review of radiation

oncology and what we provide here.

The biggest thing is availability

of all the providers and really the

great thing that I can call you and

get the person in fairly quickly

within the same day or sometimes

within 24 hours and that’s wonderful.

So thank you very much for everybody

to join us today and I just

was hoping we would have some

questions from the audience.

I had. I don’t see any.

No, there is one question here.

I’m going to stop sharing. There we go.

I don’t know how do they ask
questions, I'm not sure.

I'm looking at the question answer in the chat, but I don't see any so. So I may ask one question of all the, you know, all the speakers tonight and anyone can answer. Umm, it's a very simple question. What do you think is the most important advance in breast cancer over the past year and it can be one or two sentences and we can finish up this meeting this evening. Sarah, you want to start.
I think the biggest breakthrough was the use of an antibody drug conjugate, which is kind of like a very directed heat-seeking missile toward the her two protein which is effective in not just people who have truly hurt to overexpressing cancers, but lots of different other kinds that have very low levels of expression. I would point out that there is a question that asks about the best way to initiate a referral to the breast team. You can answer there.
01:23:11.810 --> 01:23:13.900 through any referrals to breast surgery can be breast surgery.
01:23:15.990 --> 01:23:20.154 And a part of our process is to try to make sure that we're accommodating where the patient's coming from.
01:23:20.154 --> 01:23:23.866 if the patient is located on the shoreline, we really try to get them into the shoreline because there's no reason for them to shut down and tolerate the air rights garage.
01:23:23.870 --> 01:23:25.232 So that if the patient is located on the shoreline, we really try to get them into the shoreline because there's no reason for them to shut down and tolerate the air rights garage.
01:23:25.232 --> 01:23:26.140 located on the shoreline, we really try to get them into the shoreline because there's no reason for them to shut down and tolerate the air rights garage.
01:23:26.140 --> 01:23:27.820 we really try to get them into the shoreline because there's no reason for them to shut down and tolerate the air rights garage.
01:23:27.820 --> 01:23:29.075 the shoreline because there's no reason for them to shut down and tolerate the air rights garage.
01:23:29.075 --> 01:23:30.755 reason for them to shut down and tolerate the air rights garage.
01:23:30.755 --> 01:23:32.067 tolerate the air rights garage.
01:23:32.067 --> 01:23:35.360 And you know, if there's ever any question, you're welcome to call us.
01:23:35.360 --> 01:23:36.540 you're welcome to call us.
01:23:36.540 --> 01:23:38.157 Any one of us call me especially
if you want to. I mean, I will get the person in right away.

All of the providers here.

I know, I know they can, they can make space.

I happen to know that people sit in the queue for our referrals for less than 24 hours, so we usually make those appointments within one business day.

So Leanne, what do you want to tell us about the latest development in radiology over the past year, there have been many.

In the past year.
I mean there are things artificial intelligence is obviously taking off in breast imaging. It’s a challenging area though compared to other areas of radiology. Mammography is just really one of the hardest things. But I think we’ll see that coming very shortly and that should help us some you know hopefully improve our accuracy and reduce again a lot of false positives. I think that’s that’s where I see it, it helping a lot. I can’t share any more slides.
on Thomas synthesis, but we're going to be presenting data next month looking, we've been doing it for 10 years and looking at all of our cancers on detected with Thomas synthesis and comparing it with the 2D mammography and we are finding a significantly fewer advanced cancers, so.

You know, that's it's encouraging you know, because we just don’t want to find more cancers, we want to find the bad cancers and we’re
finding the bad cancers at a lower stage.

So really feel good about that.

So, you know, definitely tomosynthesis is here to stay, there’s no doubt about that.

But yeah, I think AI is going to be the next big thing.

Any of the other speakers, Paris or Greg, Susan, the medical devices, the prosthesis, the implants they get better and better. We’re on our fifth generation of
implants at this point in time and they increasingly get more sturdy. I have been in practice long enough. So president plants of silicone breast implants have been out for well over 50 years. And that first generation and even second generation when they ruptured it was a nightmare to remove them and I've had to do more than my fair share. This fifth generation they call them cohesive, stable so. The gummy bear implants. So you can imagine a gummy bear, if you cut a gummy bear in half, nothing leaks out.
01:26:14.805 --> 01:26:15.930 That’s what all of these new devices are like,
01:26:16.790 --> 01:26:19.910 which is which is of benefit in in many,
01:26:21.046 --> 01:26:25.590 One is they tended to have better durability.
01:26:25.590 --> 01:26:27.459 The second is that they tend to
01:26:27.459 --> 01:26:28.969 have longer and better projection
01:26:28.969 --> 01:26:30.925 for a longer period of time.
01:26:30.930 --> 01:26:33.106 So I would say and over the course
01:26:33.106 --> 01:26:35.162 of the year this most recent
01:26:35.162 --> 01:26:37.316 generations kind of come out and
01:26:37.387 --> 01:26:39.447 really has become very popular.
01:26:41.400 --> 01:26:46.070 Greg, yeah, absolutely. You know,
you know through residency and fellowship I think and also the menu clinical trials we see at breast. I think I think what I’ve seen the most is the patients now inactive participant. Yeah, they now have a big voice in terms of how much imaging they want to do, how much treatment they want to do. With the help of medical oncology we can reduce your tumor burden and give them more surgical options with the help of plastic surgery. You know we’re able to give them more options and and I think what we’re going to see more and more

01:27:21.950 --> 01:27:24.035 You know as we’re accumulating

01:27:24.035 --> 01:27:26.016 more trials we’re finding that

01:27:26.016 --> 01:27:28.308 you know maybe less axillary lymph

01:27:28.308 --> 01:27:29.638 node dissections and surgeries,

01:27:29.638 --> 01:27:31.218 maybe patients are going to

01:27:31.218 --> 01:27:32.558 be doing just as well.

01:27:32.560 --> 01:27:35.916 We have a lot of trials that have met

01:27:35.916 --> 01:27:39.004 accuro and are going to be releasing their,

01:27:39.010 --> 01:27:41.229 you know their data in five years

01:27:41.229 --> 01:27:43.727 and I think it’s nice to see

01:27:43.727 --> 01:27:45.567 you know the patient advocacy.

01:27:45.570 --> 01:27:47.844 For themselves and and they’ve really

01:27:47.844 --> 01:27:50.002 been an active participant and you

01:27:50.002 --> 01:27:51.742 know it’s nice to see physicians
who have had an open year and a lot of our conversations are really geared toward them and we're happy to provide all those different operations different options. So it's really been enlightening.

Thank you. That's, that's great. Susan, you want to add something? I would say that the thing I've seen over the last few years that's been gratifying on a personal level and I think my colleagues are, we're just enjoying working with our plastics colleagues and making sort of this I think multidisciplinary efforts of knowing when and how to
kind of coordinate the radiation
devices. For instance, with regard to all the different
reconstruction techniques, progress has been
remarkably gratifying as we check.
Says the techniques change.
So I think that, you know,
radiation therapy in the post mastectomy
setting has gotten more and more complex,
but in a good way because I think that.
Our group, you know,
we all have very good communication and
we’re able to sort of preempt a lot of
the issues that I think maybe in the
beginning of many years ago when we
01:29:00.505 --> 01:29:02.600 people started doing plastics procedures,
NOTE Confidence: 0.866679508888889
01:29:02.600 --> 01:29:03.800 we didn’t know all the questions
NOTE Confidence: 0.866679508888889
01:29:03.800 --> 01:29:04.600 to ask up front.
NOTE Confidence: 0.866679508888889
01:29:04.600 --> 01:29:07.352 But now I think we have a really
NOTE Confidence: 0.866679508888889
01:29:07.352 --> 01:29:08.990 great workflow for communicating
NOTE Confidence: 0.866679508888889
01:29:08.990 --> 01:29:11.140 with their colleagues and patients
NOTE Confidence: 0.866679508888889
01:29:11.140 --> 01:29:13.528 get really good oncologic as well
NOTE Confidence: 0.866679508888889
01:29:13.528 --> 01:29:15.353 as plastics outcomes because we’re
NOTE Confidence: 0.866679508888889
01:29:15.353 --> 01:29:17.703 all sort of on the same page and
NOTE Confidence: 0.866679508888889
01:29:17.703 --> 01:29:18.794 speaking the same language.
NOTE Confidence: 0.866679508888889
01:29:18.794 --> 01:29:20.378 So I think our patients really
NOTE Confidence: 0.866679508888889
NOTE Confidence: 0.866679508888889
01:29:21.170 --> 01:29:23.834 I think all of us have a lot of
NOTE Confidence: 0.866679508888889
01:29:23.834 --> 01:29:25.064 sort of satisfaction from that
NOTE Confidence: 0.866679508888889
01:29:25.064 --> 01:29:26.721 part of our job and it continues
NOTE Confidence: 0.866679508888889
Thank you. Thank you very much.

I think we are just about to overtime and I really greatly appreciate all of you for joining us and really appreciate for what you do every day. Have a great night.

Thanks very much. Thank you. Take care.