

Surgery to Symmetry: Latest Advances in Breast Reconstruction and Nipple Tattooing

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Ellen Kleinhaus:

Okay. We will begin and let everyone in as we continue. So welcome. I am Ellen Kleinhaus, director of National Outreach at Sharsheret. Thank you for joining us for tonight's webinar, Surgery to Symmetry: Latest Advances in Breast Reconstruction and Nipple Tattooing with Plastic Surgeon, Dr. Oren Lerman and Medical Tattoo Artist, Mandy Sauler. Tonight's webinar is sponsored by the Cooperative Agreement 240061 from the Centers of Disease Control and Prevention. Before we begin, a few housekeeping items. Tonight's webinar is being recorded and will be posted on Sharsheret's website along with a transcript. Participants' faces and names will not be in the recording. If you would like to remain private, you have the option to turn off your video and rename yourself or you can call into the webinar. We also have closed captioning available. To display live captions, on the bottom bar, click on captions and then click on show captions.

You may have noticed that you are muted upon entering the Zoom. Please stay muted during the call. We will hold a Q&A at the end of the presentation. If you have any questions, please type them in the chat box and we will get to as many as we can during the Q&A. I want to remind you that Sharsheret is a not-for-profit cancer support and education organization and does not provide any medical advice or perform any medical procedures. Our full disclaimer is in the chat, A quick program spotlight. This Sunday, November 16th, Dr. Oren Lerman and Lerman Plastic Surgery is sponsoring our participation in a Peloton ride with instructor Jen Sherman at 10:00 A.M. Eastern Standard Time, 7:00 A.M. Pacific Time for a half hour class big rock ride. The in-person ride is currently sold out, but we would like to encourage you to join us virtually. For more information, the link is in the chat box.

Our next webinar, Supporting the Supporters: Navigating Rights and Resources for Caregivers will be held on November 17th at 8:00 P.M. Eastern Standard Time and 5:00 PM Pacific Time. Joanne Fawzy Doran of Triage Cancer will lead an informative discussion on the rights and resources available to those caring for a loved one with cancer. For more information, the link is in the chat box. And finally, Sharsheret is hosting its annual Pies for Prevention Thanksgiving Bake Sale, supporting the Stephanie Sussman and Ann Nadrich Memorial Jewel and Sharsheret Ovarian Cancer Program. Purchase your pie today. The link to see if there's a sale in your area is in the chat.

Most importantly, if you are at increased risk for hereditary cancer, currently facing a breast cancer or ovarian cancer diagnosis, please remember that Sharsheret is here for you and your loved ones. Sharsheret provides emotional support, mental health counseling, and other programs designed to help you navigate through the cancer experience. All are completely free and confidential. Our contact information is in the chat box now. Now, before we welcome Dr. Lerman and Mandy Sauler to the screen, I am pleased to welcome Lexy to share her story. Lexy is a Sharsheret peer supporter. She's a four-year breast cancer survivor and a passionate breast cancer advocate. She uses her voice to spread awareness, inspire early detection and support those impacted by breast cancer through advocacy, empowerment, and hope. Thank you for being here and welcome, Lexy.

Lexy Mealing:

Good evening everyone. Yes, my name is Lexy Mealing. I am a four-year breast cancer survivor. In 2017, I had a breast reduction. 2018, I said to myself, "There is no way that I'm

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putting my new boobs into a mammogram machine," so I did not have a mammogram that year. In 2019, I had a mammogram and they saw some changes and they said it was common in women who had breast reduction surgery and I could follow up in six months. Well, in 2020 when the world shut down, I was unable to have my mammogram. 2021, my physician, she said, "It's time for you to go back and have your follow-up routine mammogram." And I did. I went to have that done in March of 2021. I had a mammogram, I had a sonogram and they saw three spots in my breast, two on the right and one on the left. I had three biopsies at one time and that was excruciating.

March 30th, 2021, I was diagnosed with Stage 1A right breast cancer HER2-positive and I was thankful and relieved that the doctors discovered the tumor in its earlier stages, which is always easier to treat. I decided to have both breasts removed and I had a DIEP flap. I used my own tissue for my breast reconstruction surgery. July 2021 I started chemotherapy, 12 rounds of Taxol with Herceptin and then I had to complete one year's worth of Herceptin. March 2022, I had my second breast reconstruction surgery, the tweaking surgery, and then in August of 2022, I had my third breast reconstructive surgery. And before this surgery, I couldn't really decide whether or not I wanted to have actual nipples or 3D tattooing. I wanted to become the best new norm. I wanted to be able to look myself in the mirror and embrace the new me, my new norm.

So I decided to have the nipples and I was given a new belly button and I could not wait to get the port out of my chest. So to complete my new boobs, I decided to have my areolas tattooed and this was the best decision that I made throughout my whole journey. I feel whole. I feel complete. My beautiful scars tell my story.

While I was on this journey, I was introduced to Sharsheret by my physical therapist. This is a time in my life where I needed all the support that I can get and I was introduced to Bonnie. She sent me my thriving again kit, and I'm so grateful for all the information that was in the kit. It really helped me tremendously. I also was a recipient of a beautiful wig, so I'm so grateful. These resources allowed me to cope while I was on my journey, the toughest part of my life. And I'm so grateful to also be a peer-to-peer counselor with Sharsheret. I cannot thank you enough, Sharsheret, for what you did, the impact that you made on my journey. I'm so grateful. I'm passionate about bringing awareness to women by sharing my story. It has allowed me to become a breast cancer advocate, a mentor in the breast cancer community. Thank you so much for this opportunity. Sharsheret, you are making a difference in the lives of so many women. Thank you.

Ellen Kleinhaus:

Thank you so much, Lexy. That was beautiful. Sharing stories makes a huge impact and we know that you have made such a difference tonight in being open with everyone. So really thank you again. We are now honored to be joined this evening by Dr. Oren Lerman. Dr. Lerman is associate chair of plastic surgery at Lenox Hill Hospital and associate professor of surgery at Hofstra Northwell School of Medicine. He's the director of the breast aesthetic and reconstruction fellowship and specializes in aesthetic breast reconstruction including microsurgical natural tissue reconstruction, resensation and implant reconstruction. In addition to reconstructive surgery, he performs aesthetic surgery of the face and breast. Now it is my pleasure to introduce Dr. Lerman.

Dr. Oren Lerman:

Thank you guys. Lexy, thank you for starting off with your story. That was amazing and it was a great segue into our talk. But while I'm sharing my screen, I also wanted to say thank you to Sharsheret and thank you to Ellen for putting this together. Thank you Sharsheret for being such an amazing organization for our patients, for the community, but also for practitioners like myself. I really love working with you guys and I'm honored to be here tonight to have an event like this. So we have 15 minutes and the goal tonight is to talk about new concepts, advancements in breast reconstruction. And there's so much to talk about. I'm going to have to go through it relatively quickly, but let me get it started off by basically saying that the concept of breast reconstruction and the expectations of what we want to achieve are light years different from what they were even 10, 15 years ago.

Old concepts were telling our patients that the goal is to make you feel normal when you're wearing clothing, but when you're not wearing clothing, it's going to be kind of obvious that you had reconstruction. Well, that's not good enough anymore. Basically, our patients and us, as treating clinicians, our goal is to have results that look like you possibly had aesthetic surgery. And very often I'm telling my patients that "I want you to look better when we're done with you than you do right now." I think that Lexy probably is somebody that can speak to that, and that means that we have to use all of the latest techniques and we have to combine the same types of surgery that we would put into cosmetic surgery with breast reconstruction and then do touch-up operations and stage procedures and things like nipple tattooing and 3D tattooing that Mandy is going to talk to you about as soon as I'm done.

But in terms of the actual surgical techniques, a lot has changed. We now have things like pre-pectoral breast implant reconstruction for breast implants, which is a complete different paradigm from what we used to do even just five years ago. We have implants that have been recalled by the FDA, have been taken off the market, and now we have what we're calling sixth generation breast implants that just came onto the market this year. We have problems with breast implant illness and breast implant lymphoma that's associated with certain breast implants. But we have newer techniques to do natural tissue reconstruction the way Lexy was talking to you about in terms of the DIEP flap and other flaps that we use on a routine basis like a PAP flap or a GAP flap or a stacked flap.

And in addition to doing reconstruction, we can also reconstruct the nerves. This is a topic that we did a talk about last year, nerve reconstruction and re-sensation at the time of the mastectomy. So improved techniques come from many different places. They come from new technologies like new breast implants. They come from new surgical techniques when we design new flaps, but they also come from advancements from patient expectations and improvements on the cancer treatment. So when our breast cancer surgeons do a better job with the mastectomy and preservation of the nipple and the scars and the access incisions and preserving the anatomy and preserving the nerves, we get better results. So for prosthetic reconstruction, advances includes changing from what we call subpectoral or where the implant is behind the muscle to pre-pectoral where the implant is in front of the muscle, changing from older implants to newer implants, our sixth generation, and changing from texture to smooth.

With tissue flaps, we go from older types of flaps to what we call perforator flaps or microvascular flaps where we can transplant tissue from one part of the body like the belly called the DIEP flap, but also other parts of the body like the thighs called the PAP flap, the gluteus called the GAP flap and combining multiple flaps together. And then in oncoplastic reconstruction, this is a topic that many people don't even think about, but reconstruction when

you're having a lumpectomy instead of a mastectomy, remember, 80% of patients diagnosed with breast cancer get what we call breast conservation therapy, meaning they do not have a mastectomy, just a lumpectomy, which is what we sometimes call the partial mastectomy.

So when you do a lumpectomy or a partial mastectomy, traditionally, very often the plastic surgeon isn't involved. But in order to achieve the best cosmetic result, we very typically now combine breast cancer surgery with a lumpectomy with a cosmetic breast lift or a breast reduction or a tissue rearrangement in order to achieve a more advanced result. So this is just a graph showing you that in fact, even though we have all these new techniques, some trend lines have not changed. So in the United States, natural tissue reconstruction has not gone up that much in the last 20 years. So the blue line represents an increase in breast reconstruction in general. The red line indicates that breast implants have gone up, but natural tissue reconstruction, which is the green line, has basically remained the same.

And just to make the point, the point I'm trying to make is that many women in the United States still simply do not get breast reconstruction. And when they do get breast reconstruction, they're not necessarily offered the most advanced techniques. So the typical techniques are breast implant reconstruction, and that's what we've been doing for a very long time. That's what most people get. So the traditional breast implant reconstruction is done in two stages where a temporary breast implant called a tissue expander, on the right side of the screen you see a tissue expander, that is basically like an empty breast implant. I like to say it's like an empty water balloon. It comes out of the box and there is no fluid in it and you can stick a needle in it. That green butterfly, as we call it, can go into the implant without popping it and fill it up with saline.

And on the left side of the screen you can see a diagram of what this looks like, where the implant goes underneath the muscle and we slowly stretch it until we achieve a breast implant. This is the traditional way of doing breast implant reconstruction. It's done in two stages. You come to the office multiple times after surgery, we fill up the implant with saline. This is the pocket that's left over after the mastectomy. And after the implant is completely filled, then we go back to the operating room for a second stage and we remove the temporary breast implant and we put in the permanent breast implant.

So how has this operation advanced? Well, I can tell you that the operation that we're doing today in many ways looks absolutely nothing to the operation that we were doing just 10 years ago or even five years ago. So in this diagram on the left, you can see that the breast implant is underneath the muscle. And then we reinforce the lower pole with AlloDerm, which is a biologic mesh, and that allows us to stretch the skin more easily. And these are some pictures that you can expect a nice result after breast implant reconstruction where we did multiple advanced techniques. I mean when you look at this picture, it's hard to understand the advances that went into this surgery because she basically looks like she had cosmetic surgery, but this is the patient who had a mastectomy.

So what are the advances in this particular woman? We did a nipple sparing mastectomy, which is nowadays relatively common, but we also did an inframammary fold incision where the scar is in the crease underneath the breast so you can't see it. And we also used AlloDerm to allow us to better stretch the skin and we used a round implant that's a highly cohesive implant to minimize rippling and wrinkling.

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This is another patient example of breast implant reconstruction. On the left is before surgery, and on the right is after surgery. That is she only had a mastectomy on one side, that's her left breast that had the mastectomy. On the right side, we did a breast reduction and a lift to make it match. And that nipple that she has on the left side is actually not her nipple. Her nipple was removed at the time of the mastectomy. And that is a nipple tattoo. That is a nipple reconstruction followed by a nipple tattoo that Mandy is going to talk about later. It's probably Mandy's work. This is more patients that have had mastectomy and reconstruction with implants.

And the goal here that you can see, and what we'd like to show our patients is that it's hard to tell that they had mastectomy at all. I mean, many of these patients look like they had cosmetic surgery. Now what we're looking at in some of these patients is the latest technique of implant reconstruction where we put the implant in front of the muscle and the benefit, which I'll get to in a second, these are just more patients with breast implant reconstruction, nipple sparing mastectomy with implants. And one of the common themes that you'll see here is that many of these patients are more petite. Many of them are skinnier, some of them are smaller, smaller breasts. Breast implants, reconstruction works very well for a more petite woman with a smaller breast. If you have a large breast, it's pendulous, it's very droopy. Sometimes breast implants don't work as well. However, there are some serious downsides to using breast implants.

And in this case we have what we call muscle animation deformity. So this is a patient who came to me after she had reconstruction someplace else, and she's not happy with the way her breast implants look. And this is because they are underneath the muscle and when she moves her arms, the muscle contracts and it causes this severe deformity. So this is the classic way that we do breast implant reconstruction where we put it underneath the muscle. So because we have AlloDerm, which is a biologic mesh, we are now able to put the implant in front of the muscle. The muscle was used to protect the implant, to cover the implant, and instead of putting the implant underneath the muscle, nowadays we can put it in front of the muscle. And the benefit of this is that there's less post-operative pain. There's none of that pectoralis muscle animation that I just showed you, and they have a quicker recovery.

The downside is that you might not have some upper pole contour as nice as some of the pictures I just showed you where the implant is beneath the muscle. And you can get what we call rippling or wrinkling that's more visible. So I like to say that in breast implant reconstruction, the soft tissue covers the implant. And I like to describe if you're lying in bed and there's a thick blanket on top of you, it's very difficult to see who's lying underneath the bed. But if it's a very thin sheet, then you can see all the curves and all the bumps of the person lying underneath the sheet. So when you have a breast implant underneath the muscle and thick skin, it's hard to see the indentations, what we call rippling and wrinkling. But when you put the implant in front of the muscle, which is what we call pre-pectoral, unfortunately in many of those patients, they get rippling and wrinkling.

So along comes gummy bear implants and gummy bear implants were a huge advantage. On the right side, that right image is a teardrop-shaped gummy bear implant. And the benefit of the gummy bear implant is that it holds its shape like a gummy bear. If you rip it in half, it's still two pieces and it has less rippling and wrinkling and they also have teardrop-shaped implants that are teardrop-shaped like your breast. The problem is that many of these implants are textured and they got recalled by the FDA. And this is what we're going to talk about in two seconds. So

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these are examples of patients who've had a gummy bear implant and a pre-pectoral reconstruction with that AlloDerm wrap.

And you can see a very nice result in many of these patients, but you have to choose the right patient, choose the right person to do this on. They have to have good soft tissue coverage, they have to have adequate skin and fat that's covering the breast implant. And in some cases you can even do this in one single stage and we call that direct to implant reconstruction where you skip the entire tissue expander and you go directly to the implant.

Now Lexy just told us her story about her second stage surgery, which she called her little touch-up operation. That's exactly what we call it. But then sometimes people come back for a third stage operation and this is not unexpected. And I actually tell all of our patients that this is what you should expect when you go into reconstruction. Multiple stages is the norm. So I just talked to you about one single stage reconstruction where you skip the tissue expander and we call that direct to implant. But the fact of the matter is that with all of our advanced techniques, we have higher expectations and the higher expectations to make it look like you had cosmetic surgery sometimes necessitate revision surgery.

So going to the doctor and expecting to have multiple stages is not necessarily unexpected. It's actually probably the norm. There was a great article in the New York Magazine this past month about the need for revision surgeries. And that's the norm, that's when you have a nice result and you have to plan for a second stage and a third stage. Unfortunately, many patients have suboptimal results and complications. So this is the patient who had breast implant reconstruction and unfortunately, there's a lot of complex things that can go wrong with breast implants. They can get hard, you can get scar tissue. In this case, one of them is ruptured. So what we did is instead of trying to replace the implant, we completely just took the implant away and then we repositioned the implant in front of the muscle and wrapped it with AlloDerm and then gave her a brand new result in order to correct the deformity.

Now this is a patient that I was just showing you that had animation deformity. I'm trying to get the video to play. Here it is. And this is before... Sorry. This is before surgery on the left screen. This is her animation deformity. And then this is after surgery on the right side of the screen where we put the implant in front of the muscle. And now when she moves her arms, her breast implants move a little bit, but she doesn't have that animation deformity. So this is what we can do with pre-pectoral breast implant reconstruction. Now, along with newer techniques, we also have new complications. So breast implant associated anaplastic large cell lymphoma or what we sometimes just call BIA-ALCL or lymphoma is a new cancer that we just sort of wrapped our heads around over the last five to seven years. And because of the breast implants lymphoma, the FDA took away the textured implants that we were so fond of using in pre-pectoral breast implant reconstruction that gave us that teardrop shape.

So unfortunately, we have these round implants, they're smooth and they leave a contour abnormality in the upper pole of the breast. Very often that requires you to go back for fat grafting where we do liposuction, we suck out fat from another part of the body and then we inject it to fill that in. So now this is one of the latest things that have come out to the market literally just this year. It's not even like eight, nine months on the market, is a new brand of implants called Motiva. And we're now calling these our six generation breast implants. Breast implants came out in the 1960s. Those were our first generation implants. About 15 years ago, 10 years ago, we started using our fifth generation. Now we're up to sixth generation. These

implants are supposed to have better shape. They're supposed to have less inflammation, less capsule contracture, and they're supposed to give a more natural appearance.

The problem is that they're not even approved for reconstructive surgery yet today. They're only approved for cosmetic surgery. I do use them off-label in certain patients that want to have these implants. They will probably be approved for reconstruction as early as January 2026. You can already get them. We're already using them, what we call off-label. But other problems with breast implants is breast implant illness. And there's a lot of talk online, social media about breast implant illness. It's a diagnosis of exclusion. We don't really know what causes breast implant illness and we don't really know how to treat it. We don't even know how to diagnose it. But a lot of patients come in, they complain of autoimmune type symptoms, inflammatory type symptoms, dermatologic type symptoms, sometimes brain fog. And in many of these patients, when you take out the breast implants, they feel better. Now if you forget about breast implant illness and you forget about lymphoma, the fact of the matter is that breast implants don't last forever and over time they get worse.

And what you have here is just a patient with what we call capsule contracture and breast implants can get infected and have to be removed. They can get radiated and leave you with bad scarring. So breast implants have a lot of limitations, and the most advanced reconstruction that we do is to not use any breast implants at all, this is what Lexy was telling us about, but instead to use their own natural tissue. In the United States, only about 20% of women who get reconstruction use their own natural tissue. The most common location to take that tissue from is the belly. We call that the DIEP flap, but there are other locations. The older fashion way of doing your own tissue was using a TRAM flap from your belly where they cut the muscle or from your back, latissimus, where they cut the muscle.

So we can also take tissue from your thighs or your gluteus without cutting the muscle. These are illustrations of how this operation works and the operation has gotten better over time. So you see the red muscle has a little bit of piece that was cut out, but nowadays you can even make what's called a perforator flap or the DIEP flap, which is the most advanced way of doing it where you don't cut the muscle at all and you can actually take a nerve with it. Here's an example of our patient that the muscle is completely intact and that's the blood vessel that we're looking at. And this is the abdominal wall in the operating room. And you can see it's kind of like a tummy tuck and you're preserving all of the anatomy of the abdominal wall. So in order to achieve the kind of results that we want to get and expect, you have to combine your best reconstructive techniques with your most advanced cosmetic techniques.

So on the left hand, this is a patient before mastectomy, and on the right side is after her final result, after her nipple reconstruction, after her nipple tattoo. And the only way you get from what you see on the left, what you see on the right is to do things like fat grafting, breast lift, revision surgery, and that is combining cosmetic surgery with reconstructive surgery. Here are more examples of patients who've had autologous or natural tissue reconstruction with a DIEP flap from their belly. And many of them, I would say, look better when we're done with them than when they started. And that's the goal. Many of them look like they had a mommy makeover. You can see the stretch marks in the belly have been removed in a tummy tuck. Her breasts are actually fuller. She's bigger than she was before. This is a patient on the left with an advanced cancer who got radiation. And on the right side it's after reconstruction and nipple tattoo. And here's another DIEP flap with nipple tattoo.

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So I always tell my patients that nipple tattoo is part of the reconstruction. The nipple reconstruction, the nipple tattoo is part of the reconstruction. Very often when I see a patient that has not had nipple reconstruction tattoo, it's a giveaway, it's a telltale that they're not happy with the result because when you're happy with the result, you finish it, you get the nipple tattoo, it's no pun intended, it's the cherry on top. Without the nipple reconstruction, you don't really have a final result. And this is a patient who was almost 70 years old when we did a bilateral DIEP flap reconstruction. And I would say that she looks amazing. Here are more examples of DIEP flap nipple tattoos. So the gluteus is another place where you can take the tissue from.

This is a GAP flap patient without the nipple reconstruction. There's her donor site. This is what we call a PAP flap where we take it from the lower thigh. A lot of patients, we don't want to take it from the butt. These days, we want to preserve the fullness of the butt. People are getting Brazilian butt lifts. People are getting fat injections to their butt. So we try to avoid taking it from the butt. We take it from the thigh. This is a result after a PAP flap and this is the scar and you can see an improved shape to her thighs. And here's an example of a patient who had breast implant reconstruction on the left and has a suboptimal result. And we took the implants out and we replaced it with her own natural tissue from her belly, and then she got nipple reconstruction. So I'm going to skip the oncoplastic reconstruction. We talked briefly about doing a breast reduction or a breast lift at the time of lumpectomy.

I would say that this is one of our most common... This is one of the easiest and one of the things that gives one of the most patient satisfaction comes from these operations because you save the breast, you save the nipple sensation, they look better than they did beforehand. Many of these patients wanted to have a breast lift or a reduction, and were able to do it at the same time.

And touch briefly on nipple sensation, we did a webinar on this last year, but this is one of our newest techniques that we've been doing. So not only can we reconstruct the breast, not only can we save the nipple, but we can also reconstruct the nerves. So there are lots and lots of nerves that get cut at the time of the mastectomy, and many patients don't understand that there's at least 10 or 12 nerves on each side that get cut at the time of the mastectomy. If you could preserve these nerves, you can improve the overall result. And if the nerves get cut, we can reconstruct them with a nerve graft. And this is just a picture of us sewing these nerves together in the operating room. And the goal of this is to try to reestablish some sensation. And I'm running over by four minutes. I just wanted to finish, but thank you so much and I look forward to question and answer, and I look forward to hearing from Mandy who is following my work as usual. Thank you, Mandy.

Ellen Kleinhaus:

Fantastic. Thank you so much, Dr. Lerman. I feel like there was so much valuable information and we really did get a bunch of questions in the chat and in advance. So please keep them coming in the chat if anybody has any more questions that they want to ask during the Q&A. That being said, let me now introduce Mandy Sauler, a pioneer and powerhouse in the field of medical tattooing with a career spanning nearly two decades. Mandy has transformed lives one tattoo at a time, using her art as a bridge between physical healing and emotional restoration.

For scar camouflage to 3D areola nipple tattooing and medical tattooing education, her work continues to shape the gold standard in its rapidly evolving industry. Mandy's work has been

published in respected journals, solidifying her as a thought leader in the integration of medical tattooing into the broader healthcare landscape. She has collaborated with top surgeons, oncologists and dermatologists across the country and has become a trusted tattoo provider and consultant for some of the leading hospitals in the United States. Her contributions to post-surgical recovery for breast cancer survivors has earned her the respect of both the medical and tattoo communities. Welcome, Mandy.

Mandy Sauler:

Hello everyone. Can you hear me? Can you hear me okay? Okay, good. Thank you so much for having me. I really appreciate it. I'm so happy to be able to share this with you guys, even though I know I only have 10 minutes, so I'm going to try to move really fast. I don't even know how Dr. Lerman just filled all that, got all of that in there in that little bit of timeframe because that was a lot of information. That was so amazing to do that fast and the nerve reconnection thing, that is also really, really cool. I did hear about that and I think that's just something that's really amazing. I mean, not that I want people to feel my tattooing, but we will use topical anesthetics for that. So I'm going to share my screen here with you guys so we can talk a little bit more about all the fun stuff with tattooing.

Okay. [inaudible 00:35:05] Okay. So we're just going to talk about some advancements in tattooing. Just with tattooing and my mission in this is just to restore confidence. There's nothing better. And I tell everyone I wouldn't change what I do for the world. I started as a traditional tattoo artist doing body art growing up in a tattoo shop. And then about nine years, it led me to this. And I love what I do. I make women feel whole and more confident again with the art that I do. So as she said, she gave you all of this information and what I do, but that was just a little bit about my background. So the new advancements in tattooing is really, really amazing, just in tattooing in general. I mean, if you think about tattoos from what they were before to what they are now, it's become so popular that we have so much more advancements just in the things that we're using.

So whether we have different needles now, we have different machines. I mean, if you think about it, we used to use these big coil machines that made those loud noises and everything like that. There's new advancements. We have cordless machines that they're just amazing to work with. So incorporating all of those things and all those in the tattoo world where we're able to bring it together with the medical world, which is really, really great because we can use that art and bring it into medicine. And that's what I love about it so much. So there's so many more techniques that we can do now with it, with mapping it out and using different shadows and lighting to make a 3D effect. And using the scar tissue as part of our design, it's really been able to transform what we're doing. So if there is an area where we're working, we'll use that as part of the design.

And as like Dr. Lerman was saying, you can have that reconstructed nipple and we can create a pigment in that reconstructed nipple and bring that whole thing together. So you still have that little bump and then you have the realistic look of it. And then if not, sometimes I know some patients aren't good candidates for it. In some cases, 3D is a great option for that too. So with that, we have custom formulations also. I actually started with a company that makes tattoo pigments. Now, I did a study years ago with the two different types of pigments that were used. Think of it like back in the day when they did permanent makeup. So there's two different types of pigments. There's an iron oxide pigment, and then you have something like there are

inorganics and organics. It's not the same thing as food, but it's where they were using a type of pigment where you would have to keep coming back and coming back and coming back for touch-ups on your nipple tattoos because they would just fade so much over fast.

So we started using a more heavier pigment, which they're organic pigments for tattooing and medical tattooing. So they last a lot longer. And I know a lot of people do ask that question of how long it will last. And it all really depends on the amount of scar tissue that we are working in. But on average, I would say people might have to come back every five years. And that's just kind of an average of if you see it starting to fade or you want to kind of just do a color reboost, but it will still be there. It's never just going to fade away per se. So I would say you can get a long time out of the new types of pigments that we're using with it. But the color formulations is also really great because we're able to work with all different skin types.

So the sets that I made with the company that I work with, I made the colors. They're sold all over the world and it's a set of pigments that you're able to mix together to match any skin type from anywhere around the world. So if you're lighter skin, darker skin, it doesn't matter. If you have a unilateral reconstruction, we should be able to match your unilateral with these colors by these formulations that we made. So it's great advancements in having types of colors that are specially made for areolar nipple tattooing, which is really, really great. Years ago it was just kind of orange or they were just flat colors and they weren't really where they're at now to where we can really perform a great look for matching unilaterals or creating realistic looks. Some other advancements too is just working with radiated skin with tattooing too.

Now that we've been doing it so long, we find out that when we're doing it, we do it in different steps because sometimes with radiated skin, it can have an effect on the pigment. So we will match color on one side and then we may have to adjust it on the other side depending on the skin. So if you do have radiation, we will balance it out. So it could take maybe more than one visit just for radiated skin, but we have a two-step process with radiated skin and what colors that are going to look the best on that type of skin.

The other really great, great thing that we've been doing, and it's been complemented with areolar nipple tattooing is scar camouflage. Scar camouflage is something that is, it's not really known and a lot of people don't know about it, but I just put this in here because this is the scar set that we created. This is also the same thing. You should be able to match any skin type. And what we do here is you can see in this breast reconstruction here, the patient had nipple reconstruction, but she also has scars. So we did her tattooing, but then also we camouflaged the hypopigmented scars around the nipple tattooing. So after the process was done, you're not seeing her scars anymore also, which is really, really great. And this is I think, a big advancement in areolar nipple tattooing because we're able to address not just the areola nipple, but any scars that are possibly around there or maybe from, I keep putting the arrow, but okay, any scars that are around the areola, you can see here. She had old tattooing done, but then she had scars.

This wasn't finished, but we started doing a lightening on her scar. So she had some dark scars over here and we started lightening and we re-tattooed it. She had it done previously. I don't know how long ago it was, but just addressing the scars is just major for these patients to be able to have this done because when they come to me, they're like, "Oh, I thought I was just here for nipple tattooing. I didn't even know I could do that." So it's really, really good. And then if you're thinking about even with patients with DIEP flap reconstruction and now we have an

abdominal scar and maybe sometimes the belly button has scar tissue around it or the belly button can sometimes lose that look of a belly button.

So in this case, you can see we camouflaged her scars, and then what we do is we address the scar depending on what the scar looks like. So whether it's lighter or darker, which is hypo or hyperpigmented, we address it depending on what it looks like, and then we just come up with a plan on treatment for it at that point. So you could see here we camouflaged her belly button and then we also gave her more of a look of a belly button with tattooing. So it's really cool the things that we're doing. So just in this, a lot of times, this isn't even known. Our doctor's not even telling us about this. So this is new. It's not new. I actually have been doing it for a long time, but it's newer to breast reconstruction and all the scars that may come with it that we can do this as a whole for our patients now, which is really, really great.

And then I know a lot of people think, "Well, why should I do nipple tattooing?" It makes a big difference. I think a lot of times patients think, "Well, it feels like I'm just having a cosmetic procedure done." And as Dr. Lerman said, no, this is really part of your reconstruction process. It's bringing you back to looking normal again with having that areolar nipple tattoo. So it really, really can make a huge difference. And now with the scar camouflage too, it just really can finish it off completely.

So I would say too, a lot of people don't know what do I do? Where do I look? Some of your medical facilities will do this, so you just have to check. I know I have people contact me all the time and they don't know or their doctor doesn't know or have anyone that does it in their office. So we do see patients from all over the place, from all different plastic surgeons. Just do your research. It's like anything, being our own advocates in a lot of this stuff. And that's why I'm thankful for Sharsheret for having me here to let you guys know more about it, but asked to see photos, asked to see healed photos of this. We want to do research on this just like we do with our doctors and our treatment plans. We want to know that we're in good hands with this type of service.

And then you could see just more before and after photos here of tattooing, before and afters and what we can do with creating nipple tattoos. It's really, really good. I have a great response from all my patients. I love all my patients and it's just an amazing thing that I do. I love it so much. I did know this was only a short, short talk, so if you want, you can scan this. There are some more things in here like questions. I know I get questions all the time and you guys can ask me all the questions now too, but well, the needle popped my implant, just stuff like that that you think tattoo, needle, implant. So there's all kinds of questions and if you want to book an appointment or a consultation, there's information in here. So if you want to scan this QR code and there's information in there for you guys too. And of course, like I said, if you have any questions now, I'll be happy to answer them.

Ellen Kleinhaus:

Mandy, thank you so much again. So much important information. And again, we've got a lot of questions in the chat, so I'm going to have to try and manage everything that's coming through. Before I leave the Q&A portion of the webinar, I do want to share about Sharsheret's Best Face Forward 2.0 program that provides services and subsidies for eligible individuals for non-medical services that are critical to a woman's quality of life and body image and that are only partly covered by insurance companies, if at all. Best Face Forward 2.0 services include

financial subsidies for wigs, cold caps, nipple tattooing, and tattooing of the eyebrows. For more information about this program, please visit our website and the link is in the chat.

So we are now going to begin the Q&A portion. We have many, many questions that came through, like I said, so we are going to try and answer as many as we can. And also be mindful of the time tonight. We might answer some of them offline and be able to share them with everybody afterwards. Just to begin, Dr. Oren Lerman, I'm going to send this one to you. We have a question. Is it okay to perform multiple revisions on irradiated breast tissue as well? The individual was told that the more you alter the radiated side, the more you risk poor healing due to a potential decrease in muscularity.

Dr. Oren Lerman:

So radiation is our enemy in breast reconstruction. And unfortunately although radiation protocols have gotten shorter and fewer and less, and radiation damage is much less than it used to be, unfortunately, radiation itself can damage the tissue lifelong and it doesn't really ever go away. So I would agree with the generalization that you very often don't necessarily want to intervene in badly radiated tissue, but that doesn't mean that we don't do it routinely. So every case has to be approached individually and you have to see how the tissue looks and how it feels, what kind of surgery you've had, how bad the scar tissue is, what can you possibly accomplish. So that is a question that is complicated and has to be approached on an individual basis.

Ellen Kleinhaus:

Okay, thank you. Okay, Mandy, one quick question. Somebody had asked if you look at a woman's nipples prior to their surgery to see if you want to match it to what it looked like before the mastectomy?

Mandy Sauler:

Yes, absolutely. People always bring in photos. I would say actually a lower percentage of people bring in photos and that's okay because we're really here to help you, but if you have photos, absolutely. I am always open to looking at the photos. We will evaluate based on size whether your size has changed after reconstruction and color too. So if you have the color and the pictures, you can always bring them in and we can match the color. That's absolutely great. But like I said, if you don't, don't worry. We definitely have that under control for you too. We do the whole process with you to make you happy and give you a color that feels right for you too, so we can guide you in that too.

Ellen Kleinhaus:

And how long do their tattoos typically last and when might somebody need some touch-ups?

Mandy Sauler:

Like I said, I would say on average I would say five years. I wouldn't say that's an exact though. Some people really can get longer. It really depends on your type of reconstruction and how much area we're tattooing in scar tissue. So sometimes we may have stretch marks that come

up from the stomach and we might be going through a scar. So anywhere there's scar tissue, you may lose a little bit more color due to the skin just being compromised and/or it may fade a little faster. But I would say you're going to get years out of this now.

Ellen Kleinhaus:

Great, thank you. Okay, Dr. Lerman, one for you. A couple of questions came in about how long you can wait to actually do the revisions and the reconstruction. Is there a specific time period that this needs to be completed by?

Dr. Oren Lerman:

So typically our stages are broken up about three to four months apart. I would say four months is about average. You want the skin and the tissue to heal before you do more surgery. Surgery is an injury and when you injure tissue, it needs time to heal. If you go to the operating room and try to operate on the tissue and the skin that hasn't yet healed, you're going to end up not having the result that you want. So time is our friend when we are doing breast reconstruction and multiple surgeries and nobody wants it to drag on. Unfortunately with multiple stages, this can be a prolonged process that can last up to a year. So the short answer is about four months in between stages, but sometimes it could be a little bit less, sometimes it could be a little bit more.

Ellen Kleinhaus:

Great. What about if somebody did, let's say a DIEP flap over 10 years ago but never did the nipple reconstruction? Is that something they can do now or is it too late?

Dr. Oren Lerman:

Definitely not too late. You can definitely go back in. I mean that's the wonderful thing about natural tissue reconstruction, it lasts forever. So 10 years later probably will have a nice result just like it was 10 years ago.

Mandy Sauler:

Can I speak on that real quick too? I've had people maybe have 3D nipple tattooing and then decide maybe I would like to do nipple reconstruction after. And I did see a study that we were, or I don't know if it was published, but I know we were working on something that it's okay if you have the tattooing done and then maybe Dr. Lerman goes back and creates a nipple. He's just going to cut through my tattoo and then it's actually almost even better because you might have a little bit more color in that nipple and then I can just touch the tattoo up. So if you decide to do 3D and tattooing and you did it and then down the road you decide, "Hey, you know what? I should have had a nipple made." I think that's okay too, right, Dr. Lerman?

Dr. Oren Lerman:

Yeah. But actually I think that you just hit on a very good point. I think that we should clarify a little bit. So you can get, and you already said this and I kind of said it also, but just to clarify, you don't need a nipple reconstruction, right? A nipple reconstruction is cutting the skin in where the

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nipple is supposed to be and folding it on itself like a little origami and making a little projection of skin. It doesn't have any color and it doesn't have any sensation. And that new nipple construct is just the foundation for the tattoo. And the tattoo is what gives you the final reconstruction, the final nipple, areola. And because of the 3D tattooing that Mandy does, very often you can skip the entire little nipple reconstruction procedure that I just said. So you can do a nipple tattoo, 3D tattooing alone, or you can do nipple reconstruction plus tattoo.

And for someone, let's say that's 10 years out, for someone who doesn't really want to go back to have another procedure, they can just go straight to the 3D tattooing. Vice versa. If somebody had 3D tattooing in the past and they want to get it revised, like Mandy was just saying, you can go back and get it touched up with a tattoo or you can come back in and have a little surgery, revision surgery, we can kind of touch up the breast, do a little breast lift, make a little nip, and then do a touch-up tattoo on top of that.

Mandy Sauler:

Yeah. I think that's great.

Ellen Kleinhaus:

Great. Thank you. I guess one more question for each of you. So Mandy, somebody had asked if the ink includes metals, how does that impact somebody's health?

Mandy Sauler:

Well, so all inks I would say, they all have some type of metals in a sense. I mean, you think of iron oxides. There's different levels though. And so there has been some things in changing in the pigments actually. So with the EU regulations that were happening with tattoo inks and pigments and stuff like that, we've had a lot of companies here in the United States change that because they want to sell it to everyone of course. So they're changing that and following those EU regulations. So they were taking out some of those harmful colors and some of the inks and stuff like that. So we only work with top reputable United States companies that are safe with that. I mean, as for what tattoos can cause, I don't think there's enough studies done on that.

Ellen Kleinhaus:

Okay. Thank you. And Dr. Lerman, how can somebody really be their best advocate and make sure that their surgeon is using the latest techniques?

Dr. Oren Lerman:

So you definitely have to do your homework. Plastic surgery is like a lot of other fields. There are people who specialize in certain areas and you definitely want to go to someone who offers multiple different techniques. The reason why 80% of women in the United States don't get autologous reconstruction is because they're not offered it in the first place. And breast implant reconstruction, which includes some of the latest techniques, but breast implant reconstruction is more common and it's easier to do. So you don't have to go to a specialist that does all types of reconstruction. So it's very important to do your homework and to ask around just like you would for lots of other things.

Ellen Kleinhaus:

Terrific. Thank you. I want to thank you both. I think we're going to wrap up because we are hitting the 9:00 hour, and I just want to share with everyone that we are going to put a brief evaluation survey in the chat. Please fill it out. It really does inform our future programming. I want to, once again, thank Lexy for sharing her personal experience. Dr. Oren Lerman and Mandy Sauler, your information has been invaluable and I know there were a lot more questions, but thank you for what you are able to share with us tonight. Tonight's webinar again is in partnership with a cooperative agreement 240061 from the Centers of Disease Control and Prevention.

Please remember that Sharsheret is here for you and your loved ones. Sharsheret provides emotional support, mental health counseling, and other programs designed to help navigate you through the cancer experience. All are completely free and confidential. Our contact information is in the chat, and as we come to close, we're going to put the evaluation link back in the chat box one more time. And thank you everyone for joining us. Please let us know if you have any questions. And again, the webinar will be sent out to everyone as the recording accompanied by a transcript. Have a good night everyone. Thank you.

About Sharsheret

Sharsheret, Hebrew for “chain”, is an international non-profit organization that improves the lives of Jewish women and families living with, or at increased genetic risk for, breast or ovarian cancer through personalized support and saves lives through educational outreach.

With regional offices in the Midwest, Northeast, Southeast, West, and Israel, Sharsheret serves 275,000 women, families, health care professionals, community leaders, and students. Sharsheret creates a safe community for women facing breast cancer and ovarian cancer and their families at every stage of life and at every stage of cancer - from before diagnosis, during treatment and into the survivorship years. While our expertise is focused on young women and Jewish families, approximately 25% of those we serve are not Jewish. All Sharsheret programs serve all women and men.

As a premier organization for psychosocial support, Sharsheret works closely with the Centers for Disease Control and Prevention (CDC) and participates in psychosocial research studies and evaluations with major cancer centers, including Georgetown University Lombardi Comprehensive Cancer Center. Sharsheret is accredited by the Better Business Bureau and has earned a 4-star rating from Charity Navigator for four consecutive years.

Sharsheret offers the following national programs:

The Link Program

Peer Support Network, connecting women newly diagnosed or at high risk of developing breast cancer one-on-one with others who share similar diagnoses and experiences

Surgery to Symmetry: Latest Advances in Breast Reconstruction and Nipple Tattooing

- Embrace™, supporting women living with advanced breast cancer
- Genetics for Life®, addressing hereditary breast and ovarian cancer
- Thriving Again®, providing individualized support, education, and survivorship plans for young breast cancer survivors
- Busy Box®, for young parents facing breast cancer
- Best Face Forward®, addressing the cosmetic side effects of treatment
- Family Focus®, providing resources and support for caregivers and family members
- Ovarian Cancer Program, tailored resources and support for young Jewish women and families facing ovarian cancer
- Sharsheret Supports™, developing local support groups and programs

Education and Outreach Programs

- Health Care Symposia, on issues unique to younger women facing breast cancer
- Sharsheret on Campus, outreach and education to students on campus
- Sharsheret Educational Resource Booklet Series, culturally-relevant publications for Jewish women and their families and healthcare Professionals

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