

Breast Cancer Screening  
Webcast  
April 10, 2007  
Dr. Kevin Bethke

*Please remember the opinions expressed on Patient Power are not necessarily the views of Northwestern Memorial Hospital, its medical staff or Patient Power. Our discussions are not a substitute for seeking medical advice or care from your own doctor. That's how you'll get care that's most appropriate for you.*

## **Introduction**

### **Andrew Schorr:**

Hello and welcome to another edition of Patient Power on nmh.org. I'm Andrew Schorr. And I'm delighted that we can do these programs every couple of weeks on a Tuesday evening for you to help you and your family get smarter about important health issues. So please look at all those programs we've done and the ones we've got coming on healthnet.nmh.org. There's really nothing like it around the country, and we really want to thank Northwestern Memorial Hospital for their leadership and their commitment to helping you and your family. And helping me too. I've been learning a lot.

You know, one of the things that women worry about in particular, knowing that there's a one-in-eight chance that you will develop breast cancer during a long life for women. You really worry about breast cancer, and you probably know somebody who's dealt with it. The good news is, when it's caught early breast cancer is usually curable. There are no guarantees and it varies by person, but you've got a really good prognosis if it's caught early and if it's not something like a very serious but less common inflammatory breast cancer.

So screening is really the name of the game. And so we're going to talk during this next hour with a leading medical expert from Northwestern about the latest guidelines. And there have been changes very recently and some new articles about breast cancer screening so that you will know what makes sense for you and your loved ones.

## **A Breast Cancer Patient: From Diagnosis to Treatment**

But first, let's meet a Chicago woman who at age 35, pretty early, felt a lump in her breast. And that's Tess Santayana. Tess is a paralegal inside the loop in Chicago. She lives in the Chicago area. Tess, five years ago, that must have been a really scary day when you felt that.

### **Tess:**

Yes, it was.

### **Andrew Schorr:**

You were just sitting there. I think you told me you were just sitting in a chair. What did you feel?

**Tess:**

I just panicked, but I couldn't do anything about it, because it was about eight o'clock at night on a Sunday.

**Andrew Schorr:**

Oh, my. So you eventually called your gynecologist. You got in there as soon as you could.

**Tess:**

I called him the next morning.

**Andrew Schorr:**

I bet.

**Tess:**

The moment they opened up.

**Andrew Schorr:**

Right. There are women who put their head in the sand and say, I feel something unusual, but maybe it will go away. You were just the reverse. You said I want to know what this is. So you went to the gynecologist. What did they do?

**Tess:**

They did an exam and then they gave me a prescription to get a mammogram here at Northwestern. And then I went, I think, about a week later. It was just hard to get in to get a mammogram. And then from there the ball just started rolling.

**Andrew Schorr:**

Now, at Northwestern they want to talk to you. They want to look at the films and if they did more, they did that right away too, right?

**Tess:**

Right. That's the good thing that I really like about Northwestern is they don't let the woman leave after they've done the first films of the mammogram. If they feel they need additional films they'll have you sit in the lobby and then have you come back, and they'll take more films, and they'll have you sit in the lobby again. This is the internal lobby that they have for the women. And then if they need further tests then they'll have you sit there until the technician is ready for an ultrasound.

**Andrew Schorr:**

And that was recommended in your case. So you went from a whole series of mammographic films and then they went on. And they wanted to look further because something didn't seem right. Then you had the ultrasound?

**Tess:**

Correct. It was a long morning.

**Andrew Schorr:**

Okay. And so what happened from there? Then what?

**Tess:**

From there they requested, actually, they insisted that I come back to get I believe it was a needle core ultrasound biopsy, and I went back a week later for that.

**Andrew Schorr:**

They wanted to actually look at the cells that were in that lump.

**Tess:**

Yes. They wanted to see what type of tumor it was and try to specifically find out more about the size and stuff for it.

**Andrew Schorr:**

Okay. And then eventually it was confirmed that it was breast cancer, and then you were referred to a surgeon, right?

**Tess:**

Yes.

**Meet a Breast Cancer Surgeon**

**Andrew Schorr:**

And your surgeon is with us, and that's Dr. Kevin Bethke.

**Tess:**

Hello, Dr. Bethke.

**Andrew Schorr:**

Dr. Bethke is with us. And he is an assistant professor of clinical surgery at the Feinberg School of Medicine at Northwestern, and he is in the division of surgical oncology and, of course, specializes in breast cancer surgery at Northwestern Memorial Hospital. Dr. Bethke, welcome to Patient Power.

**Dr. Bethke:**

Thank you Andrew. And hello, Tess.

**Tess:**

Hi.

## **Steps After a Confirmed Diagnosis**

### **Andrew Schorr:**

So Dr. Bethke, here comes Tess five years ago, a younger woman, with a mass. And so what happens from then? There's been this needle biopsy, this mammography, ultrasound. So in that case we have a confirmed diagnosis, so Tess went on and had a mastectomy, I believe, correct?

### **Dr. Bethke:**

That's correct. She had the options of a lumpectomy or a mastectomy, and she chose the mastectomy and what's called a TRAM flap reconstruction, which is immediate reconstruction. I did a skin sparing mastectomy in which most of the skin stays and I more or less hollow out the breast underneath the skin. Then when I'm done the plastic surgery team came in, and did the reconstruction.

### **Andrew Schorr:**

We'll talk more about surgical techniques. Just a little bit more on Tess's story. Tess, because of the situation with the cancer you had some lymph nodes taken out and did follow with chemotherapy. And I know that went on for about four months.

### **Tess:**

Correct.

### **Andrew Schorr:**

Then ultimately you were tested for the breast cancer gene, and it came back positive. We'll talk more about that in today's program as well, what that meant for you, what decisions you made and also recommendations you made to other women in your family.

Dr. Bethke, let's go on and talk about screening, though. I mentioned at the outset that there's been some really hot news related to screening and some new recommendations for women. Maybe you could begin to discuss that. For instance, we think of mammography, but now there's a new recommendation in some cases about MRI. Where does MRI fit in with breast cancer screening?

## **The Role of MRI in Breast Cancer Screening**

### **Dr. Bethke:**

Well, you're right. Breast screening has been the hot topic in the national medical media the last several weeks. A couple of weeks ago an article came out in the New England Journal indicating that if a patient has a newly diagnosed breast cancer one should consider doing an MRI before planning surgery. The gist of that article was that if you do a bilateral, meaning both sides, MRI after good quality mammography, you're going to find a surprise cancer in the opposite breast about 3 percent of the time.

**Andrew Schorr:**

Okay. So what do we do now? So who is supposed to have MRIs?

**Dr. Bethke:**

Well, that's a very good question. MRI is very sensitive. It's more sensitive than mammography. It's more sensitive than ultrasound. But it's not very specific. That means that there are a lot of false positives. So roughly on 40 to 50 percent of patients who have a breast MRI, the MRI will show something. But only a small fraction of those will it ever turn out to be another cancer. So if a patient has an MRI they need a lot of other tests. They need further imaging in the form of mammography, ultrasound and perhaps another needle biopsy.

So because of that I think we still have to be careful about recommending MRI for everybody who has a newly diagnosed breast cancer. I looked at my results, and it's actually going to be published next month, here at Northwestern on my group of patients we found that if you do an MRI on every newly diagnosed breast cancer you're going to have a beneficial change in surgical management of about 9 and a half percent and a non-beneficial change in about 13 and a half percent. Which means you have to be careful because a certain percentage of the women who have an MRI are going to end up having more surgery than they actually need. That's a problem with MRI.

In addition to the fact that it's quite expensive, it's several thousand dollars, it creates a lot of anxiety. It's in a closed, noisy tube, so it leads to claustrophobia for a lot of patients. So there are problems. You can't question the sensitivity. It's a very sensitive test, better than anything else we have, but it has its own set of problems. That's why I think we still have to be somewhat careful on whom we recommend an MRI.

Another thing is that not all MRIs are created equal. If you're going to have a breast MRI you need to go to a center that specializes in it, meaning they know how to read it, they take their time doing it. And if an MRI shows an abnormality that center needs to be able to evaluate it further and do a needle biopsy of the lesion if necessary. Some free-standing MRI centers don't do mammograms, they don't do ultrasound. So if they find something on their MRI you have to go to another center to have it evaluated, and they basically have to start all over again. And that's not the right way to practice.

**Andrew Schorr:**

Well, I think this specialization that you're talking about is something that will be a recurring theme on all of our Patient Power programs and certainly applies a lot to Northwestern. I want to talk more about that as we go along.

Now, Kimmi from Rockport, Texas, who's listening to us on the internet, wrote in. She says she's heard about the difference in results from mammography and MRIs and that MRIs were way more dependable and thorough. But it sounds like you're still weighing, where does it make sense?

So let's drop back to mammography for a minute. What are the recommendations for mammograms for women?

**Dr. Bethke:**

Currently the recommendations by the American Cancer Society are considered the official recommendations in the United States. It's to have a mammogram every year starting at age 40. If a family member, like a first degree relative, which includes mother, daughter, sister, develop breast cancer at a young age, you should start mammography five to ten years before they developed breast cancer. So if your mom developed breast cancer at the age of 42, her daughter should probably start mammography around the age of 35.

**Genetic Link in Breast Cancer: Screening Recommendations**

**Andrew Schorr:**

Okay. Now, let's go back to Tess's case a little. So Tess, your breast cancer was discovered at 35, which is relatively young. Dr. Bethke, what does that mean for her sister or her mother as far as just vigilance for them?

**Dr. Bethke:**

Her mother should have mammography every year. That's pretty straight forward. Tess, I'm not sure how old your sister is.

**Tess:**

She's about three years younger than me.

**Dr. Bethke:**

I suspect she has already started mammography.

**Tess:**

Yes. She started the same year that I was diagnosed.

**Dr. Bethke:**

If she were younger I'd say she should probably have started mammography about the age of 30, given the family history of her sister developing breast cancer at the age of 35. One has to remember that the younger you are the less sensitive mammography is. Because the denser the breast, (and the younger the person the denser the breast), the less effective mammography is in picking up small lesions.

**Andrew Schorr:**

Dr. Bethke, we're going to talk more during the program about how reliable is mammography, and I know now you have analog mammography, which is the traditional, and we have digital mammography, too, and we want to understand the differences. And we also want to understand what it means to go to a breast center, such as you have there at Northwestern, as far as the art of radiology and the specialization of the doctors who will look at those pictures and help really discover whether there is breast cancer. And I know in those dense younger breasts it's harder.

We have so much more to talk about as we discuss breast cancer screening on this edition of Patient Power on nmh.org. We invite your questions. Give us a call. Certainly, send us an email. We're here for you with Dr. Kevin Bethke, a surgeon and a specialist in breast surgery and also his patient Tess.

**Difference Between Traditional & Digital Mammography**

Dr. Bethke, let's continue. When we're talking about mammography you've got in the last few years digital mammography as well as the more traditional analog mammography. What's the difference? And should a woman seek out a center where they definitely have digital mammography or, beyond that, is it more important to go to where there are definitely radiologists who specialize at looking at mammograms and sort of bring the art of that to it as well?

**Dr. Bethke:**

Certainly. The difference between digital mammography and analog mammography is how the image is actually stored. Digital mammography is stored as a digital file, just like any file on a computer. With analog mammography, it's stored on a piece of film, like a traditional chest x-ray. That's the difference between the two. The equipment is the same for taking the picture but for storing the image it's different. With a digital film or digital file, the computer can manipulate that file, and the radiologist can tweak it to make it larger, make it clearer, give it higher contrast, less contrast. So the radiologist can play with it and I think most radiologists who use digital come to prefer it after a year or two of using it.

There's been a transition over the last five or six years to digital. And that transition has changed and become much more rapid the last year and a half, because about a year and a half ago a relatively large study came out that said if you have very dense breasts or if you're under 50 you probably should have a digital mammogram rather than the traditional film screen, because the digital mammogram can see through dense breast tissue better than the traditional film screen mammogram can. So most centers are starting to change over to digital.

It's not as easy to make a large-scale change because the digital machines are very expensive. They're three, four, five times more expensive than traditional mammogram machines. So it will take a while. I think most institutions will change over to the digital once their analog machines become outdated, but I don't think they'll change over everything at once because it becomes quite expensive.

**Andrew Schorr:**

Dr. Bethke, what about going to a center, though, such as yours where there are radiologists who just specialize in looking at breast cancer films or digital files?

**Dr. Bethke:**

I think it makes a difference if you go to a center where the radiologists have special training in mammography and breast ultrasound and breast MRI. At Northwestern we have a breast imaging department, and the radiologists who staff that department are full-time breast imagers, meaning that's all they do. They don't look at chest X-rays. They don't look at bone films. They don't look at CAT scans. All they do is look at breast images in the form of MRI, ultrasound, and mammogram. So they become very good at it. And that's where their interest lies, and they're very interested in this and interested in improving breast imaging.

In a lot of places you may have a general radiologist who does CAT scans for part of the day, bone films for part of the day, chest X-rays for part of the day and then mammography for part of the day. Now, there's nothing wrong with that. In a smaller rural community you have to have a general radiologist who can read everything. And if that radiologist is really interested in breast and does a good job of it, that's a great place to go. But if you have a radiologist who's not real interested in breast imaging they may not take the time to obtain really good films and work up some subtle changes on the image.

So I think overall if you have a choice you want to go someplace where the radiologist is really, really interested in breast imaging, and perhaps that's all they do.

**Reliability of Mammogram Results**

**Andrew Schorr:**

Yeah, that would be my vote for sure.

Now, we had a question that came in from Summer in Chicago, and she writes, "Is it possible to have breast cancer despite having had a negative mammogram?" She even says and even having a negative ultrasound. She said, "my right breast has just not felt normal to her for months."

**Dr. Bethke:**

Breast screening is a combination of physical exam by a physician, breast self exam by a patient, mammography and ultrasound, and, yes, mammograms definitely do miss cancers. They probably miss overall about 15 percent of cancers. If you look at women in their 30s and try to determine how many cancers mammography misses, it's probably more like a third of cancers are missed in very young women on mammography. This is because the breasts are very dense, and mammography cannot see through dense breast tissue very well.

Digital mammograms can see through it better, but it still isn't a hundred percent. So if you feel a lump and a mammogram doesn't show it, you're not out of the woods. It could still be something, and that's why at that point you need to see your physician to determine how suspicious it is and whether or not any further imaging is necessary.

**Abnormalities in Younger Women's Breasts**

**Andrew Schorr:**

So let's put that into perspective. So, Tess, you're with us. You felt a lump, scared you, I'm sure, and you wanted to get it checked right away. Now, it turned out in your case it was breast cancer. But, Dr. Bethke often it's not, right? What other kinds of things could it be? So while it's scary, a woman feels something unusual and a younger woman like Tess, there are other things it can be, correct?

**Dr. Bethke:**

Most palpable abnormalities that you feel are benign. No question about that. You can have cysts, which are very common, especially in women who are perimenopausal, in their 40s. You can have benign fibroadenomas, which are common in younger women. You can have just lumpy breasts, fibrocystic changes, which basically stands for lumpy, tender breasts which change with your menstrual cycle.

So don't assume that a lump is a cancer when you feel it, but you usually do need to have it checked out. Now, I do think it's safe to watch a lump for one or two menstrual cycles. If it goes away, great, but if it doesn't you need to see your physician.

**Benefits of CAD (Computer Aided Diagnosis)**

**Andrew Schorr:**

Now, we talked about mammography, but where does computer-aided diagnosis come in with mammography and can that make mammography better?

**Dr. Bethke:**

Computer aided diagnosis or CAD is the term for that. And that was also in the news a couple weeks ago in the New England Journal. CAD is a system whereby you have a digital mammogram, and that digital image is manipulated by a computer, and it looks for symmetry between the right and the left. And if there are areas which are suspicious on one side but not on the other side it will raise a red flag, and the computer will point it out to the radiologist who will then look at the image and determine how suspicious it looks.

CAD systems have been around for awhile. They continue to be improved in terms of the software. Everybody assumed that CAD systems increased the accuracy of reading a mammogram. This landmark study published in the New England Journal two weeks ago said it does not increase the accuracy of mammography, meaning that there were more unnecessary biopsies done with CAD systems than without, and there was no significant increase in making the diagnosis of a breast cancer, which really surprised everybody.

The jury is still out, I think, on CAD systems for your general radiologist who doesn't read a lot of breast images CAD systems may help them. But I think if you're pitting a CAD system against a well-trained radiologist who reads mammograms all day every day, that radiologist is going to win almost every time. At Northwestern we have full-time radiologists, so we've never used a CAD system. And after having this report just come out I suspect we will not in the near future.

**Purpose of an Ultrasound**

**Andrew Schorr:**

Dr. Bethke, so a woman has sort of a--maybe she has dense breasts and a mammography is not clear and maybe she's asked to go on to ultrasound. Is that necessarily bad news there? You've talked about a lot of--it could be a lot of other things but if we say, well, you know, we'd like you to get an ultrasound, as they did for Tess. While that's a concern, is that necessarily bad new there?

**Dr. Bethke:**

No, it's definitely not bad news. It's just another modality for checking the breast. Ultrasounds are especially helpful for looking at cysts, and they're helpful in the young patient who has very dense breasts where you see a density in the breast but you can't quite make it out on mammography, and ultrasound is then used as an adjunct to the mammogram. So they're great at looking for cysts. And if you see a cyst on ultrasound and it's a simple cyst that's a hundred percent benign and nothing else is necessary.

But an ultrasound will also help determine what a mammographic abnormality is and how suspicious it is and whether or not a needle biopsy is necessary to determine what it is. Certain lesions like a fibroadenoma have a relatively classic

appearance on an ultrasound, and if a fibroadenoma in a young woman shows up as a classic fibroadenoma on an ultrasound the radiologist will probably be comfortable just watching it.

But if the ultrasound shows anything that really doesn't quite fit that makes it a little bit suspicious, then the patient will most likely obtain an ultrasound-guided core biopsy. And ultrasound is great for directing needle biopsies. If you can't feel something clearly the radiologist can very simply place the ultrasound probe on the breast and direct the needle into the abnormality. It's quick, it's relatively comfortable for the patient and we can get an answer in 24 hours.

**Andrew Schorr:**

And again, having a needle biopsy does not necessarily mean that it's cancer.

**Dr. Bethke:**

Definitely not. Right. A needle biopsy is a method to reassure the patient that there isn't a cancer there, most of the time. When a patient has a mammogram and the radiologist calls them in and says, we see something on the mammogram or the ultrasound and we think it should be biopsied, only about 25 percent of the time is it cancer. 75 percent of the time it's benign.

**Andrew Schorr:**

Thank you. That's a very reassuring statistic because you know how--and I'm not a woman, and I know there's a percentage of men who need to be concerned about breast cancer too--but there's so much in the news, celebrities diagnosed with breast cancer, etc. it's crazy making. And so people worry, and it gets out of perspective.

**Minimizing Anxiety Surrounding Breast Cancer**

**Dr. Bethke:**

Definitely. Every woman's magazine, every Sunday paper has an article on breast cancer. So the anxiety levels are so high. It's unlike any other disease. I don't think there are anxiety levels as high as breast cancer associated with any other disease process. And you have to look at things in perspective.

With all of these tests that we're doing we're trying to find things at a very, very early stage. And the vast majority of patients who develop breast cancer don't have a problem with it again after it's adequately treated if it's caught fairly early. Now, as you said in the opening, small doesn't mean, it's never going to come back, because there's a lot of different issues that play into it. How aggressive is it biologically, how old is the patient, and so forth. But overall generally small is better than large, and that's why we do all of these imaging tests to find things earlier rather than later.

**Andrew Schorr:**

Well, it's all about early detection. We're going to take another break and when we come back we'll visit more with Tess and some further decisions she had to make when she was told that she did have the breast and ovarian cancer gene. We'll talk about a genetic connection, family history, connections like that, as we visit with Dr. Kevin Bethke, a surgical oncologist at Northwestern Memorial Hospital. It's all coming your way.

Today we're talking about breast cancer screening. We're going to get into breast cancer treatment in a minute too. And we have with us Dr. Kevin Bethke, a leading breast cancer surgeon at Northwestern Memorial Hospital and also on the faculty at the Feinberg School of Medicine at Northwestern. And we have his patient, Tess, who had a lot of decisions to make when at an early age, 35, she was diagnosed with breast cancer.

Now, Tess, you felt a lump. Had you been doing any kind of breast self exams? Had that been something you did along the way?

**Tess:**

I really wasn't as good at it as I should have been. I wasn't even doing an exam when I found the lump. I just happened to just feel it.

**Screening: Role of Self Breast Exams**

**Andrew Schorr:**

Well, let's find out, because there's debate about that. Dr. Bethke, I've heard it argued all different ways about whether a woman should do breast self exam or leave it to her doctor with regular visits to the gynecologist or whoever her doctor may be. What's your point of view and your point of view at Northwestern?

**Dr. Bethke:**

I would never discourage a patient from doing a breast self exam. But there was a study a number of years ago actually done by the University of Washington that compared two groups of women. One group did regular breast self exam and another group did not. And there was no difference in overall breast mortality between the two groups. So what that says is that breast self exam did not really lower the mortality for a large group of patients.

Now, that being said, if you do a breast self exam and you find a cancer at a fairly early stage it's going to be smaller. It may not change overall mortality that much, but it may allow you to have a lumpectomy rather than have to have a mastectomy.

In the past the American Cancer Society very clearly recommended breast self exam. Now they say it's an option. So they've kind of backed off on it a little bit. I

think the reason being is that for women who have severe fibrocystic changes and very lumpy breasts the breast self exam creates way more anxiety than it's worth. And so that group of patients can rely on their physician to do the exam and rely on breast imaging.

**Andrew Schorr:**

Okay. And as we said even if you feel something, particularly in a younger woman, it may often not be cancer, maybe most of the time.

But there it was with Tess, and it turned out and it was cancer. And, Tess, you had gotten in to the doctor right away. He pushed the schedule as much as he could to get the mammogram. They helped you, moved you right to ultrasound and then ultimately needle biopsy and then there you were with Dr. Bethke. You're somebody who asked a lot of questions. You're a paralegal at an inside the loop law firm. And so, I know, knowing that this has a lot of emotion laid over it for you, any woman, but a young woman coming in, being told she has breast cancer, you brought a friend. I understand you brought a tape recorder too, right?

**Tess:**

Yes, I did. I brought a tape recorder. I even did research before I met with Dr. Bethke and all my other doctors, and I brought my sister to the first meeting that I had with most of my doctors.

**Latest Techniques & Options in Breast Cancer Surgery**

**Andrew Schorr:**

Okay. And there are decisions to make about the approach. So Dr. Bethke, part of the goal is of course you want to cut it out and treat and kill the cancer cells, but you want to conserve the breast often. So that's a strategy there too. Where are we with some of the latest techniques for that?

**Dr. Bethke:**

I think that most of us we approach breast cancer with the idea that breast conservation, meaning lumpectomy is the preferred choice. There is some research being done in either freezing a tumor or heating a tumor and killing it that way, but those are still in the research stages. And most of the early research still involves heating it or cooling it and then actually going back surgically and removing it to see if the heating and the cooling worked. So we're still left mainly only with surgical options, meaning a lumpectomy if we're going to preserve the breast.

Now, that being said, I think we're learning more and more on how to do a good cosmetic lumpectomy. There's a term called oncoplastic technique, which means cancer plastic surgery. And it means trying to put the breast back together again after you've done the lumpectomy to minimize contour changes and try to make it look like nobody was ever there.

For some patients who need a really large area removed and it's in the upper outer quadrant of the breast, sometimes we can do a partial reconstruction, which means I may take out a large section of the upper outer quadrant of the breast and then my plastic surgery colleagues will come in and reconstruct that with a latissimus flap. The latissimus is a muscle that runs along the side of the chest, and they'll swing it over into the breast to fill in the gap created by my rather large lumpectomy.

So there are a number of tricks that we can do to try to preserve the breast. That's usually our first choice if the patient is a candidate for lumpectomy. We'll try very hard to preserve the breast.

But, as you know, not everybody can have a lumpectomy. For some patients, they have multicentric disease, which means that the tumor is scattered throughout the breast. No matter what we do, that patient can't have a lumpectomy. They need a mastectomy. But we usually can minimize the cosmetic result of that by doing the immediate reconstruction.

**Andrew Schorr:**

And that's what Tess had. Tess had the immediate reconstruction, not with any kind of breast implant but with her own tissue, right.

**Tess:**

Right.

**Dr. Bethke:**

That's right. She had what we call a TRAM flap where we take tissue and sometimes muscle from the lower abdomen and move it up to the chest and create a new breast. A bonus with that is you also get a tummy tuck out of it. It's really the gold standard for reconstruction, but it's a big operation. It adds about four or five hours onto the operation per side, and it requires about four or five days in the hospital. And I tell patients you're going to feel like a truck ran over you and then backed over you for good measure after that. So it's a big operation, but in the long run it gives the best cosmetic result.

**Andrew Schorr:**

So how did you feel after that?

**Tess:**

It wasn't a truck. It was an airplane.

## **If Genetically Susceptible: Preventative Steps**

### **Andrew Schorr:**

It was an airplane that went over you. Okay. But you got it done. Now, Tess, you went on and you had the genetic test, the blood test for the genes related to breast and ovarian cancer. And while you didn't really have--it wasn't your mom and it wasn't your sister and close relatives, but it kind of shocked you that it came back positive, right?

### **Tess:**

Yes, it did.

### **Andrew Schorr:**

And so what did you do then?

### **Tess:**

I panicked. And then, obviously, I went and called Dr. Bethke to discuss my options after I spoke with the genetic people. And I saw Dr. Bethke and my plastic surgeon again to debate what I should do next. And I opted then to go ahead and do another mastectomy on the other side and to do an immediate reconstruction.

### **Andrew Schorr:**

Okay. So the airplane ran over you again, because you had the--then you had your own tissue again used to create a new breast. But then you had what appeared to be at that point a healthy breast on the opposite side from where you'd had breast cancer removed prophylactically, as they say, to limit the risk of having breast cancer develop there.

Now, Dr. Bethke, put this into perspective for us. When you look at a genetic connection for breast and ovarian cancer, and, of course, ovarian cancer is usually discovered later and can often be fatal, it's the minority of the time. Put it into perspective for us.

### **Dr. Bethke:**

Roughly 7 percent of all breast cancers are related to the breast cancer gene mutation, and there's a BRCA 1 and a BRCA 2. So when we test patients for that gene mutation they're usually patients who have a strong family history of breast cancer, perhaps a couple first degree relatives, which would be mother, daughter or sister who had developed breast cancer, or they're of Ashkenazi Jewish ancestry. It's been shown that that group of patients have a higher risk of carrying the breast cancer gene.

Tess's cancer was first discovered in 2002. At that time, the gene mutation test hadn't been out that long, and we weren't testing as many patients as we are now. Now we're doing a lot more testing. And now it's pretty standard for somebody

who's in their 30s and who develops breast cancer to do a BRCA gene mutation test prior to surgery, which we didn't do in her case. Of course, she didn't have a family history to go with it, she wasn't of Ashkenazi Jewish ancestry, so she didn't fit the typical stereotype for having the breast cancer gene mutation. But now, I think, in 2007 we would have automatically tested her.

Now, the test. You sit down with the genetic counselors and you go over your family history and family pedigree and you and they will try to determine your risk of carrying the gene mutation. If it's high enough to warrant testing then you have some blood drawn, and that's sent away to a central lab. And it usually takes about three or four weeks to get the results back. For a lot of patients, they're somewhat anxious and they're not going to want to wait for three or four weeks to get the results back to determine if they want to have a bilateral mastectomy.

Ideally for Tess we would have done the BRCA gene testing initially after the first cancer is found, waited several weeks, gotten the test back, it would have been positive, and she would have then said let's do both sides. And we would have done both the right and the left mastectomy and bilateral reconstruction at that time. Again, she didn't fit the profile, so it wasn't done that way. And five years ago we weren't doing as much testing as we are now.

**Andrew Schorr:**

Dr. Bethke, let me ask you this: So one choice is to have the other breast removed, and we're talking about the connection between breast and ovarian cancer. Tess went on and actually she had one remaining ovary. One had been removed previously. So she had that oophorectomy I think as you call it, because she didn't want to worry about that. So where does that come in as well? Not just having the breast removed but having an ovary or ovaries removed too?

**Dr. Bethke:**

Sure. If you test positive for the BRCA gene, and Tess tested positive for BRCA 1, with that mutation you have roughly a 50 to 80 percent chance of developing breast cancer in your lifetime and a 30 to 35 percent chance of developing ovarian cancer. And as you said there's no good screening technique for ovarian cancer, and it's a much more aggressive disease than breast. So she elected the prophylactic ovarian removal to minimize that risk of ovarian cancer in the future.

For patients who have BRCA gene mutations, I always tell them there's three tiers of intervention. The first tier would be very careful screening. And that would be a breast MRI once a year and a mammogram once a year, alternating them every six months and also twice-a-year physician breast exam.

The second tier of intervention would be chemoprevention in the form of tamoxifen or raloxifene. Both are medications that can decrease the risk of breast cancer by roughly 40 to 50 percent but they have side effects.

The third tier of intervention would be an oophorectomy, which means removing of the ovaries, and a bilateral mastectomy, which is what Tess did. A bilateral, prophylactic mastectomy decreases your risk of breast cancer by 95 percent but not by a hundred percent. There's no way you can remove every last breast cell on the chest wall without losing all of the skin. So by creating very thin skin flaps we still leave behind a few breast cells that can develop into a breast cancer later. That being said, most of us have never seen a breast cancer after a prophylactic mastectomy, but it's certainly been reported in the literature.

**Andrew Schorr:**

Lots to think about. But, again, this is the vast minority of breast cancers. And so where, Tess, you got that information, it was positive. You made some surgical decisions for yourself. You told your mom. You told your sister. And, of course, your mom was already getting mammograms. Did your sister become more vigilant through all this?

**Tess:**

My sister went and continued seeing her gynecologist and making sure she went and got her mammogram. My mom did go and get tested for the gene, but she ended up being negative.

**Andrew Schorr:**

I see. I see. But the message, I'm sure, Tess, is early detection, being vigilant, being proactive, communicating with your doctor. You've done all those things.

Right. So for women, and I know you're of Filipino descent, and different groups, some groups more than others have talked about breast cancer. You've probably encouraged people of your heritage too to speak up about it and get the care they need and deserve.

**Tess:**

To be honest with you, before I was diagnosed saying the word "breast" was like voodoo for me.

**Andrew Schorr:**

Right.

**Tess:**

And now it's just like, you know, a common thing to be saying breast cancer, period. And in my culture, correct, we don't really talk about. And even now up to this day we don't talk about it as much, but I think it's just a cultural difference.

**Andrew Schorr:**

Right. Well, we're helping today. We're going to take another break, come back

with more as we discuss breast cancer screening, breast cancer treatment with Dr. Bethke, Northwestern, and his patient, Tess. Stay with us.

### **Andrew Schorr:**

Thanks for being with us on Patient Power live. In two weeks at 7 p.m. we'll have a program on ovarian cancer with, Dr. Julian Schink, who is at Northwestern, he helped us come up with this title, "Ovarian Cancer Treatment: the Future is Bright." Because there are some improvements there in what has been a very deadly cancer so typically. And even there's new research about the subtle signs that may help us catch it earlier and help people. Because, as we said, early detection is what it's all about.

Now, some people, like Tess, have been diagnosed and treated with breast cancer and Tess is just 40. She wants to live a long life and I believe she will. There's a one in eight chance you'll be diagnosed with breast cancer for women in life. And some men, small percentage, but it can happen there too.

So if someone's been treated for breast cancer, Dr. Bethke, what about screening then? Is it different or the same? What do we do then?

### **Screening After Being Treated For Breast Cancer**

#### **Dr. Bethke:**

Initially it's more frequent. After a lumpectomy we will get a mammogram every six months for the first two years and if everything is stable and there are no changes, then yearly thereafter. In some patients on whom the mammogram didn't pick the tumor up initially, say, the patient felt it and it was then seen on ultrasound but never on mammography, we may add ultrasound to that mix. And that would be done on an individualized situation.

The MRI in the future may be helpful for following patients. Right now it is not standard to follow postoperative cancer patients with breast MRI. We'll have to see where the research goes. Certainly, for some patients it makes sense if they had a very dense breast and it was very difficult to find. For them occasionally we will recommend yearly MRI in follow up, but it's not standard. After a mastectomy we generally do not get any further imaging studies. If you've had a mastectomy and you've had a recurrence, generally it will show up on the skin as little raised red nodules. And breast imaging is also not very helpful after a mastectomy and reconstruction.

### **Inflammatory Breast Cancer**

#### **Andrew Schorr:**

I want to take a couple of minutes and talk about a less common type of breast cancer but one that can't be ignored, and that's inflammatory breast cancer. Now,

that's not typical, but what is it, and what would be the symptoms a woman should look for where it's like do not pass go and get in to the doctor?

**Dr. Bethke:**

It is a rare cancer, and, as you know, about every three months there's an article on the internet or in the paper or on a TV program talking about inflammatory breast cancer, and they often talk about it as if it's this new, very, very aggressive cancer. It's not new. It certainly is aggressive, but it's been around for a long time. And it's extremely rare. A lot of patients think they may have inflammatory breast cancer after they hear these newscasts and it's nothing but a rash. You shouldn't ignore skin changes but inflammatory breast cancer is extremely rare.

The way it usually presents is with some redness on the skin, some swelling or thickening of the skin, perhaps a mass underneath and something we call peau d'orange which is a French term for orange peel. The hair follicles in the breast look like little pores and they more prominent on the skin if a patient has inflammatory breast cancer. Those are some of the signs. But many, many people have redness on the skin or little red raised nodules which are nothing but benign lesions, but it does certainly scare a lot of people and creates a large amount of anxiety.

**Andrew Schorr:**

One theme I've heard from you, I think sort of a subtext here, is not that people shouldn't be concerned or pay attention to breast cancer, follow the guidelines for screening, but they shouldn't worry themselves sick through the process nor have their worry make them hesitate to get the screening they need. And I know a woman here in Seattle where she just thought, If I don't have a mammogram I'll never developed breast cancer. And she didn't have a mammogram until, in fact, it was breast cancer and she really needed to go in and she had all sorts of symptoms. But putting it in perspective, again, early detection, but you want women to go through that screening as recommended, correct?

**Dr. Bethke:**

Correct.

**Advice from a Breast Cancer Patient**

**Andrew Schorr:**

Okay. And Tess, what would you say? You had tremendous support after you were diagnosed. What do you want to say to women who are out there, even younger women, if they feel something or if they turn 40 about getting the screening, following the guidelines so that it can be caught as early as possible or have breast cancer ruled out?

**Tess:**

What I typically say to women, which is so true, is that you're not going through this alone. You'll always find somebody out there, various support groups or even a coworker or somebody knows somebody who's had breast cancer. And we're always willing to speak out about our experiences. So it's always good to have that support, that shoulder to lean on, even just to go with you to the doctor appointments or to hold your hand while you're going through chemo.

**Andrew Schorr:**

Yeah, I think so. Friends, there's a sisterhood there, and people can come together to help each other.

Dr. Bethke this is a question that came in on the internet. I'm not sure I understand it. The question is, "Does Dr. Bethke use harmonic for his breast surgery?" And supposedly there's documented clinical benefit related to this. Do you know what that is, harmonic?

**Dr. Bethke:**

They may be talking about harmonic scalpel, which is a technique that basically cauterizes vessels as you're cutting through them. There are a lot of different methods and a lot of different technologies. I use cautery. I don't use harmonic scalpel. I've tried it; it just didn't seem to work well. It's basically a technique for cutting through tissue without a lot of bleeding, and there are many different ways to do that.

**Recommendations for Screening**

**Andrew Schorr:**

Okay. Well, you've been a breast surgeon for 16 years, and I know you've been working on it a long time and have a lot of expertise.

Dr. Kevin Bethke, just a final comment from you. We just have about a minute more to help women get the proper screening.

**Dr. Bethke:**

The American Cancer Society recommends yearly mammogram over age 40, physician breast exam every few years between their 20s and their 30s and then every year over age 40. And the new guidelines are a little bit unclear, but if you're at high risk you need to start mammography earlier, perhaps five or ten years sooner than your closest family member who got breast cancer. And consider MRI if you're really at high risk. Our goal in screening is to detect cancers at a relatively early stage before they have a chance to metastasize.

**Andrew Schorr:**

Right. Early detection is what it's all about. Dr. Kevin Bethke, breast cancer surgeon at Northwestern Memorial Hospital. Thank you for being with us. And Tess, breast cancer survivor, doing great, we wish you a long, healthy life.

**Tess:**

Thank you.

**Andrew Schorr:**

Thank you for being with us. Remember, as we always say on these Patient Power programs, knowledge can be the best medicine of all. I'm Andrew Schorr. This has been Patient Power, sponsored by Northwestern Memorial Hospital. Have a good night. See you in two weeks for our next program.

*Please remember the opinions expressed on Patient Power are not necessarily the views of Northwestern Memorial Hospital, its medical staff or Patient Power. Our discussions are not a substitute for seeking medical advice or care from your own doctor. That's how you'll get care that's most appropriate for you.*