

Taking recovery into your own hands

Christine Arni first discovered a lump in her breast in January 2018. In early February, she was diagnosed with breast cancer. She had no way of knowing that in less than a year, she could not only have her double mastectomy completed and be cancer-free, but also undergo reconstruction surgery.

Going from cancer to reconstruction so quickly is, in part, thanks to a new product called the AeroForm Tissue Expander.

When Dr. Jason Lichten of Central Ohio Plastic Surgery, Inc. first heard of the AeroForm Tissue Expander created by AirXpanders, Inc., he was intrigued.

As a plastic surgeon who performs reconstructive surgery for women who have had mastectomies due to breast cancer, Lichten liked the idea of a device that would make preparing for reconstructive surgery easier than ever for his patients. One of his patients was Arni.

According to Susan G. Komen, about 100,000 women undergo mastectomies every year. Traditionally, women who wanted reconstruction following a mastectomy had to undergo a series of doctor visits in order to expand the tissue to make room for an implant.

The visits, over several weeks, involved having a doctor inject saline through a needle. While this option was effective in expanding the tissue and preparing a patient for implants, for women who lived a long

distance from their doctor, were scared of needles, or were unable to make the time commitment for the doctor visits, there wasn't an alterna-

handheld controller, allowing her to manage her tissue expansion from anywhere, whether at home or at work. "It opens up the door for

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— Dr. Jason Lichten

tive option, Lichten said.

The AeroForm, however, is now giving women a choice in how to prepare for reconstruction surgery.

Recently approved by the U.S. Food and Drug Administration, the AeroForm directly addresses the concerns and barriers with the traditional tissue expanding procedure by offering a needle-free alternative.

"As a surgeon, you always worry about infection," said Lichten, who noted that whenever there is an injection site, there is the potential for infection. "If I don't have to introduce a needle, for me that's a nice option."

Instead of coming in to a doctor's office for weekly tissue expansions, the AeroForm Tissue Expander can be inserted immediately after a mastectomy is performed, eliminating the need for another surgery.

A patient is then able to control the tissue expander herself with a wireless

those who live far away and don't want to drive in" for doctor visits, Lichten said.

It also allows for the patient to control her comfort level. Lichten noted that because traditional saline tissue expanders happen in the doctor's office, they happen less frequently and require a larger expansion, or stretching of the tissue, each visit. For a patient with the AeroForm, however, she can stretch the tissue in smaller amounts several times a day in a matter of seconds, achieving the same effect but in a more comfortable manner, he said.

He suggested the AeroForm as an option for Arni.

"I was very excited I would not have to make weekly trips to the doctor's office," she said, adding that she would not have to worry about fitting them into her schedule between work and kids. "I really liked that I'd be able to fill at home in my own convenience quickly and painlessly."

There is also the potential



Dr. Jason Lichten displays the AeroForm Tissue Expander, which can be inserted immediately after a mastectomy is performed, eliminates the need for patients to make weekly visits to a doctor's office for tissue expansions.

for women to achieve full expansion quicker. According to the XPAND clinical study, women who used the AeroForm completed tissue expansion in about 21 days, while women with saline expansion took about 46 days.

Lichten, who said he was the first plastic surgeon to perform an AeroForm Tissue Expander reconstruction in central Ohio, added that Arni was fully expanded in just nine days. He's been

pleased with the process and has found the end results to be similar to saline expansions. And while it is more expensive, it is covered by insurance, he noted.

"It's a newer option that hasn't caught on as much yet, but the benefits are there," he said. In fact, the largest benefit he can see is that "it helps women get to the other side" of their breast cancer recovery quicker, allowing them to feel like themselves again.

Breast cancer and men

Gene mutations that contribute to risk can also signal prostate, pancreatic cancers

BY MELISSA ERICKSON
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Having a mother or daughter who carries a mutation on the BRCA1 or 2 genes puts women at an increased risk of developing breast and ovarian cancer. The same is true for men, although few men undergo genetic testing.

"Men are equally as likely as women to inherit a BRCA mutation," said Dr. Christopher Childers, a resident physician in the department of surgery at the David Geffen School of Medicine, University of California-Los Angeles. "If a male has a BRCA mutation, his risk of breast cancer increases a hundredfold."

A study published in JAMA Oncology in April found that few men are screened for BRCA genetic mutations. Analyzing data from the 2015 National Health Interview Survey, researchers found that men underwent testing for breast/ovarian cancer genes at one-tenth the rate of women.

It may be the first national study analyzing the rates of genetic cancer testing for both men and women, Childers said.

"Men who carry BRCA mutations are at

higher risk for a variety of cancers including breast, prostate, pancreatic and melanoma. In particular, males who carry BRCA2 mutations are at increased risk of often early and more aggressive prostate cancers," Childers said.

CHECK FAMILY HISTORY

Previous studies have shown that men believe breast cancer is a female issue, but this couldn't be farther from the truth, said genetic counselor Kimberly Childers, study co-author and regional manager at the Center for Clinical Genetics and Genomics at Providence Health & Services Southern California. The Childerses are married.

"The strongest risk factor for carrying a BRCA mutation is having a family member with a BRCA mutation. If your mother, father, sister, brother or child has a BRCA mutation, you have a 50 percent chance of having the mutation as well," Kimberly Childers said.

Other factors that may indicate a high probability of carrying a mutation include a personal history of male breast cancer, pancreatic cancer or high-grade or metastatic prostate cancer, Kimberly Childers said.

"Men without a history of cancer may also be at

risk of carrying a mutation if there is a strong history of these cancers in their family," she said. "It's important for men to know that if their female relatives have ovarian or early breast cancers, that this may translate into a higher cancer risk for them, too."

COURSE OF ACTION

Men with a BRCA mutation are recommended to undergo clinical breast exams every year starting at age 35, Christopher Childers said.

"Once a BRCA mutation is identified, it is important that they ask their doctor to show them how to perform a self exam of their chest, learning what abnormal tissue might feel like and what could be of concern," he said.

Most but not all breast cancers in BRCA-positive men occur after age 50. Starting at 45, men with BRCA mutations are often recommended to undergo prostate cancer screening (prostate-specific antigen and digital rectal exams), Christopher Childers said.

If men are concerned about their risk they should discuss it with a primary-care provider or genetic counselor. To find a local genetic counselor, visit nsgc.org/findageneticcounselor.