n estimated 231,840 new cases of invasive breast cancer are expected to be diagnosed in women in the United States this year, according to the American Cancer Society. These women will embark upon a treatment journey to remove the disease from their bodies, typically some combination of surgery, chemotherapy, radiation and anti-hormonal drugs. Many will travel a companion path, that of reconstructing one or both breasts to some semblance or even improvement of their former appearance.

Reconstruction is widely viewed as a significant step in their psychological and emotional recovery.

Reconstruction is often overshadowed by the fears and uncertainties of the diagnosis, but it must be approached with the same informed insight and thoughtful decision-making as the treatment regimen.

The arena of breast reconstruction after cancer surgery is constantly evolving. Many factors come into play, including advances in surgical equipment and techniques, changes in medical philosophy and public sentiment, third-party reimbursements or lack thereof, and the growth of social media.

A 2014 study published by the Journal of Clinical Oncology, “Trends and Variation in Use of Breast Reconstruction in Patients with Breast Cancer Undergoing Mastectomy in the United States,” found women are increasingly choosing to undergo reconstruction. Their surgeons are more likely to reconstruct using silicone or saline implants rather than their own body tissue, known as autologous reconstruction, by a ratio of 3 to 1.

A trend noted by David Song, M.D., surgeon and surgery professor at the University of Chicago Medical Center and president-elect at the American Society of Plastic Surgeons, is more women opting for bi-lateral (double) mastectomies when only one breast is affected by cancer. Perhaps influenced by the widely publicized surgeries of film star Angelina Jolie, they view it as a prophylactic measure.

“It’s not without controversy,” he says. “Some people say we are doing it too much. Why remove a normal breast, especially if there is not a genetic predisposition? On the other side of the equation, I understand the fear of the next mammogram, the next MRI and the next biopsy. Many of my patients say (removing the second breast) is a small price to pay.”

The number of mastectomies may rise further as genetic testing becomes more commonplace, surmises Otto Placik, M.D., an Arlington Heights plastic surgeon.

As for the preponderance of implants, that surgery is less expensive, he says, “Unfortunately, reconstruction is sometimes guided by reimbursements. Reimbursement for using people’s own tissue is increasingly less covered.”

Less invasive surgeries
All surgeries are heading toward least invasive measures, and breast cancer surgeries are no exception. Oncoplastic surgery is a philosophy that removes the cancer while retaining as much of the natural breast as possible. Recovery times are shorter, and reconstruction becomes more aesthetically pleasing.

“When we talk about traditional dogma for how to treat breast cancer, most of us were trained that the bigger operation is better,” says Barry Rosen, M.D., a surgeon at Advocate Good Shepherd Hospital in Barrington. “The priority was to cure someone, and we were less concerned about aesthetics. Nowadays, what we are turning to is oncoplastic surgery. The first priority remains curing the patient of cancer, but we can also provide the best cosmetic outcome.”

Oncoplastic surgery disguises incisions and scars by making small cuts through the areola, beneath the fold of the breast or into
the armpit. The diseased breast tissue is removed through the cuts. It’s a delicate, painstaking operation but one that has been facilitated by advances in instrumentation like Invuity’s high-powered illuminating retractors that enlarge the surgeon’s field of vision.

“Cancer surgery has adopted the best principles plastic surgeons have been doing for years,” Rosen says.

Preserving the nipple is a very big deal. Nipple construction is challenging because it requires the fabrication of a 3-dimensional projection from 2-dimensional tissue. It’s another surgery for the patient, and many mammane nipples flatten over time.

“God’s nipples are better than anything I could make,” Song says. “Having said that, I think we make pretty good ones, but they are never as good as God’s creative hand.”

“The biology is very difficult to conquer,” Placik says. “If it weren’t, we could build horns on a person’s forehead, and that doesn’t happen. We sometimes do nipple-sharing. We take half of a patient, and many manmade nipples flatten over time.

“Maybe we are getting closer.”

Taking a pass on reconstruction
No reconstruction is a simple matter. Note that “immediate reconstruction” after mastectomy does not mean immediate. It means at the time of surgery, tissue expanders, which are like small balloons, will be inserted before the incision is closed. Over a period of weeks or months, the expanders are filled with greater amounts of saline to stretch the skin growing over them. In another surgery, the expanders are replaced with implants. Nipple construction is additional procedures.

In autologous reconstruction, new breast mounds are formed using tissues from the woman’s back, abdomen or buttocks. The surgery is more complex than implant surgery, and recovery time is longer. Donor areas may be weakened permanently.

All surgeries have risk factors, including infection, tissue rejection and excessive scar build-up. Some women are not good candidates for particular procedures. Thin women, for example, often don’t have enough extra body tissue with which to create a breast. Radiation therapy, smoking, diabetes and autoimmune diseases require special management of surgery and timing.

Although federal law mandates coverage of breast reconstruction, an estimated 20 percent of women decide against it. One is S.L. Wisenberg, author and creative writing adjunct at Northwestern University. She recounts her cancer experiences in the book, “The Adventures of Cancer Bitch,” (University of Iowa Press, 2010), and in her ongoing blog, cancerbitch.blogspot.com.

Wisenberg had a single mastectomy in 2007 and is ambivalent about reconstruction. She sometimes wonders if people notice her one-sided flatness, and she sometimes revels in her authenticity. “I want people to see that an obvious cancer survivor can be healthy and energetic, with one breast,” she wrote in an essay for “The Progressive” magazine.

“A lot of times I forget about it, and then I think it would be nice to have a breast,” she says. “I do wear a prosthetic on special occasions. I had skin-saving surgery, so that would make it easier if I change my mind, even though the idea of cutting healthy skin is not really pleasing to me.”

Celebrating bra day
The Breast Reconstruction Awareness USA Campaign is an industry-supported initiative founded on the tenet that reconstruction is not optimal for every woman, but every woman should be informed of the options to which she is legally entitled. Led by the American Society of Plastic Surgeons and the Plastic Surgery Foundation, it also provides financial assistance to uninsured or under-insured women who seek reconstruction.

The organization is sponsoring its 4th Annual Breast Reconstruction Awareness Day (BRA Day) on Wednesday, October 21, 2015. Affiliated medical centers, practitioners and cancer support groups across the country are planning a slate of educational sessions and activities. Chicago-area events are listed at breastreconusa.org.

“In this country, no woman who wants reconstruction should be denied that opportunity,” Song says.

Another resource is RealSelf.com, an online community for learning and sharing information about plastic and cosmetic surgery and treatments. The site features educational articles, question-and-answer forums, patient reviews, pricing information, before-and-after photographs and a listing of more than 6,000 board-certified doctors.

If you are facing the possibility of reconstruction, look at all your options and take your time, Wisenberg advises. “It’s really tempting to say, ‘As long as they are opening me up, I might as well do reconstruction.’ People have to do research. It’s really hard to do research when you are diagnosed. I found a lot of information didn’t stay in my head. I needed someone who could remember things. My husband came to everything with me. Ask if you can record your doctor visits with your phone. You can play it back and remember what they said.”

“Someone who has just been diagnosed wants to move fast, but part of my job is to slow things down,” Rosen says. “There is no ticking time bomb. By the time the cancer is palpable, it has probably been there two to five years. If someone has a strong family history of breast cancer, you may want to do genetic testing. That can take weeks to complete. Sometimes it makes sense to do chemotherapy upfront and surgery later. That gives a woman months of time to think about reconstruction.”

“The best of things is never having cancer happen,” Placik says.

“Maybe we are getting closer.”

— David Song, M.D.