Dear Patient,

Thank you for choosing to explore tuberous breast surgery with Dr. Naidu. This guide was written to help you understand the anatomy of the tuberous breast, and your options for reconstruction. Please read the following information in its entirety prior to your visit, as this will make your time with us more productive. If you have any questions about anything contained in this material, please print out the relevant sections and we will be happy to discuss them with you at the time of your consultation. If anyone else will be involved in your decision-making, we ask that you bring him or her with you to your visit. We look forward to meeting you.

Anatomy of the Breast

All breasts are made of fatty tissue, glands, ducts, and skin. Deep to the breast is the chest muscle (pectoralis major). During normal development of the breast, the tissue grows symmetrically across the chest, producing a round shape. Even in the setting of normal development, no woman has two breasts that match exactly, and no surgeon can guarantee perfectly symmetric breasts. It is important that you understand the limitations that may exist due to characteristics of your own breast tissue.
Anatomy of the tuberous breast

During development of the tuberous breast, the growth of the tissue may be constricted. While the volume of breast tissue may be normal, it tends to be concentrated directly below the nipple. As a result, the breast may appear long and narrow, with herniation of the tissue through the nipple-areolar complex. The nipple-areolar complex tends to be enlarged, and the base of the breast may be relatively narrow. While the extent of deformity varies from one patient to the next, each of these elements must be addressed to adequately correct the tubular deformity. Patients with tuberous breasts almost always have significant asymmetry. If an implant is simply placed without releasing the breast tissue, the result will be a breast mound which falls over the implant. (Image: Rees TD, Aston SJ: The tuberous breast. Clin Plast Surg 1976; 3(2): 339-347.)

Options for correction of the tuberous breast

Correction of the tuberous breast requires reducing the size of the nipple-areolar complex, releasing the constricted tissue at the base of the breast, and resolving the herniation of tissue through the nipple-areolar complex. In most cases, an implant is very helpful in providing not only volume but also shape to the reconstructed breast. The infra-mammary fold under the breast may also need to be lowered. In severe cases, tissue expansion of the skin and existing breast tissue may be recommended prior to insertion of the final implant.

In some patients with adequate breast volume, a breast lift alone can be performed without use of an implant. The best option for your tissues and body is determined by both a physical examination and a frank discussion of your goals.

Breast implants: silicone versus saline

Both saline and silicone are FDA-approved for use in breast augmentation. You will have the opportunity to hold and feel both implants during your consultation. Each type of implant has its unique benefits and trade-offs.

**SILICONE**
- contains a safe, cohesive silicone gel which feels more like natural breast tissue
- more expensive than saline implants

**SALINE**
- contains a salt-water solution which feels firmer than silicone
- higher risk of visible wrinkling and rippling
- lower price than silicone implants
Breast implants: location

Breast implants can be placed either partially under the pectoralis muscle (submuscular) or over the muscle and under the breast tissue (subglandular). The goal is to provide optimal long-term coverage of your implants and to avoid creating deformities which cannot be corrected, including visible implant edges and rippling. For correction of the tuberous breast, Dr. Naidu generally prefers placement under the muscle. Clinical studies have repeatedly shown a decreased incidence of capsular contracture (tight scar tissue surrounding an implant) following implantation below the pectoralis muscle as opposed to above.

Breast implants: size

The best size implant for a given patient is determined by the patient’s measurements. These include the base width of your breast, the amount of stretch of your breast skin, and the amount of breast tissue you already have. The majority of tuberous patients opt for a modest implant which will correct their deformity. Very large implants are discouraged, as an implant which is too large for your tissues can result in excessive skin stretch, which may in turn necessitate further surgery. The edges of very large implants may also be visible under the skin. Because bra cup size are not standardized, Dr. Naidu cannot guarantee a specific cup size.

Breast implants: shape and texture

Both saline and silicone implants are made in round and teardrop shapes. Although silicone teardrop implants are an excellent choice for correction of the tuberous breast, they are currently under review by the FDA and are not yet available for general use. The surface of the implant can be smooth or textured. Smooth implants move easily and feel soft, while textured implants have a slightly bumpy feel on the surface. The benefit of texture is that the implant will not move as much within the breast pocket, which is especially important for teardrop implants. The downside of textured implants is a higher risk of visible wrinkling.

Dr. Naidu most frequently uses round, textured implants for her tuberous breast patients.
Breast implants: incision locations

Although there are three commonly used incision locations for placement of breast implants (infra-mammary, peri-areolar, and trans-axillary), Dr. Naidu most frequently selects the peri-areolar incision for correction of the tuberous breast. This approach allows the surgeon to reduce the size of the nipple-areolar complex, reduce the herniated breast tissue, and release the constricted breast base through one incision. The infra-mammary fold can also be lowered through this incision. The breast implant is then placed below the muscle prior to closing the incision around the reduce areola.

Breast lift surgery

Breast lift surgery involves reshaping the breast tissue and removing excess skin. Incision options include the circumareolar pattern in which an incision is made around the areola; the vertical incision, in which incisions are made around the areola and vertically down to the breast crease; and the inverted T or anchor incision, in which incisions are made around the areola, vertically down to the breast crease, and along the inferior breast fold.

Most tuberous patients who do not require a significant release or implants are candidates for the vertical lift. After the incisions are made, the breast tissue is lifted and reshaped, the nipple and areola are reduced and repositioned, and excess skin is removed. Sutures are placed deep within the breast tissue to support the newly shaped breasts. The incisions are then closed with dissolvable sutures.

Risks of surgery

All surgery carries specific risks and benefits. These risks include but are not limited to the following:

1) bleeding
2) infection
3) implant rupture
4) scarring
5) capsular contracture of the implant
6) pain
7) change in nipple or breast sensation
8) reoperation
9) inability to breastfeed
10) unsatisfactory result
Other factors beyond our control

There are some factors that no one can control. Dr. Naidu cannot predict the risk of capsular contracture in a given patient, and there are no implants or surgical techniques that can assure that you will not develop a contracture. Dr. Naidu also cannot predict or control the amount that your tissues may stretch following surgery. The tendency of a patient to scar well or poorly also cannot be predicted. There is no guarantee that additional surgery will successfully correct the deformity. These factors should be weighed and considered carefully by the patient prior to undergoing surgery.

Surgery and Anesthesia

Surgery is performed on an outpatient basis, either in the hospital or in an ambulatory surgery center. The surgery lasts 2-3 hours, and is performed under general anesthesia. Many patients worry about the risk of general anesthesia, but it is very safe and it assures that you will be completely comfortable during surgery. Prior to surgery you will be required to obtain medical photographs, routine bloodwork, and in some cases preoperative clearance from your primary medical doctor. The evening prior to surgery, you should not eat or drink anything after midnight. This ensures that you will have an empty stomach prior to surgery, which is very important for your anesthesiologist to care for you safely. You will need to have a responsible adult available to escort you home after surgery.

Recovery

Following surgery, you will awaken in the recovery area. Once you are fully alert, you will be transported to the step-down area where you will be given something to eat prior to discharge. You will need to be seen in the office one week following surgery. You may return to most normal activities the day after surgery, but aerobic and sexual activity should be limited for 2 weeks. Most patients takes 4-5 days off of work. You will be given detailed, written instructions regarding activity. Special bras drains, and pumps are not used. You may notice some temporary swelling, tightness and numbness. If you notice sudden swelling of one or both breasts, severe pain, redness, drainage, or a fever, please contact the office immediately.
For more information about breast implants

Additional sources of information about the use and safety of saline and silicone breast implants can be found online at the following sites:

Nina S. Naidu, MD, FACS: www.naiduplasticsurgery.com
Natrelle: www.natrelle.com
Breast Implant Follow-Up Studies (BIFS): www.bifs.us
Breast Implant Answers: www.breastimplantanswers.com
American Society of Plastic Surgeons: www.plasticsurgery.org
Food and Drug Administration: www.fda.gov/cdrh/breastimplants
Institute of Medicine Report on the Safety of Silicone Implants: www.nap.edu/catalog/9618.html

About Dr. Naidu

Nina S. Naidu, MD, FACS is Board Certified by the American Board of Plastic Surgery and is a Clinical Assistant Professor of Surgery at Weill Cornell Medical College. Her practice focuses on aesthetic and reconstructive surgery of the face, breast, and body, with a special emphasis on breast augmentation, abdominoplasty (tummy tuck), and rhinoplasty (nasal reshaping) surgeries. Dr. Naidu has completed certification programs from both major implant manufacturers in the United States for the use of silicone gel-filled implants. She is also an investigator in the Breast Implant Follow-up Studies (BIFS), which studies women following breast augmentation with silicone gel-filled implants.

Dr. Naidu completed her undergraduate studies at The Johns Hopkins University and obtained her medical degree from Cornell University Medical College. After completing her general surgery and plastic surgery training at New York Presbyterian – Weill Cornell Medical Center, she performed an additional year of fellowship training at the University of Pennsylvania. She is an active member of the American Society of Plastic Surgeons, the International Society of Aesthetic Plastic Surgeons, and is a Fellow of the American College of Surgeons. Dr. Naidu maintains privileges at several prominent New York hospitals including New York Presbyterian Hospital – Weill Cornell Medical Center; Manhattan Eye, Ear, & Throat Hospital; Lenox Hill Hospital; and the Center for Specialty Care.

NINA S. NAIDU, MD, FACS
1021 PARK AVENUE
NEW YORK, NY 10028
PH: 212-452-1230
F: 212-452-4654

Photo: Victoria Wills