Chest Reduction

Achieving optimal outcomes in gynecomastia surgery.

By Inga Hansen

GYNECOMASTIA surgery is a life-changing procedure that can have a profound affect on a patient's self-confidence. It's also a unique plastic surgery procedure in that it focuses exclusively on males and almost exclusively on a very young patient base. "Most of my patients are very young—the average age is 27," says Mordcai Blau, MD, a Westchester, New York-based plastic surgeon who specializes in gynecomastia surgery and author of Masculinity Defined: Gynecomastia and the Search for the Perfect Pecs. "It is very rare to see a patient over the age of 35."

As demand for gynecomastia surgery increases, physicians can help their patients achieve optimal outcomes by: understanding the underlying medical concerns that may cause excessive breast tissue growth in men; and developing a surgical strategy that maintains vascularization while removing the correct amount of excess fat and tissue, so patients are left with a naturally contoured chest and a low risk of recurrence.

THE PATIENT CONSULT

The first step in treating gynecomastia is determining the root cause of the condition. When communicating with patients, using the word "chest" rather than "breast" can help put them at ease.

"One of the most important parts of the consultation is to figure out the cause of the gynecomastia," says Babak Dadvand, MD, a Beverly Hills, California-based plastic surgeon. "I do this by asking a series of questions: 'When did you first notice it? Is your chest rapidly increasing in size? Do you have any other symptoms, such as low energy, low sex drive or increased irritability (that may be consistent with low testosterone levels)? Do you have a family history of gynecomastia? What medications are you on?' Because

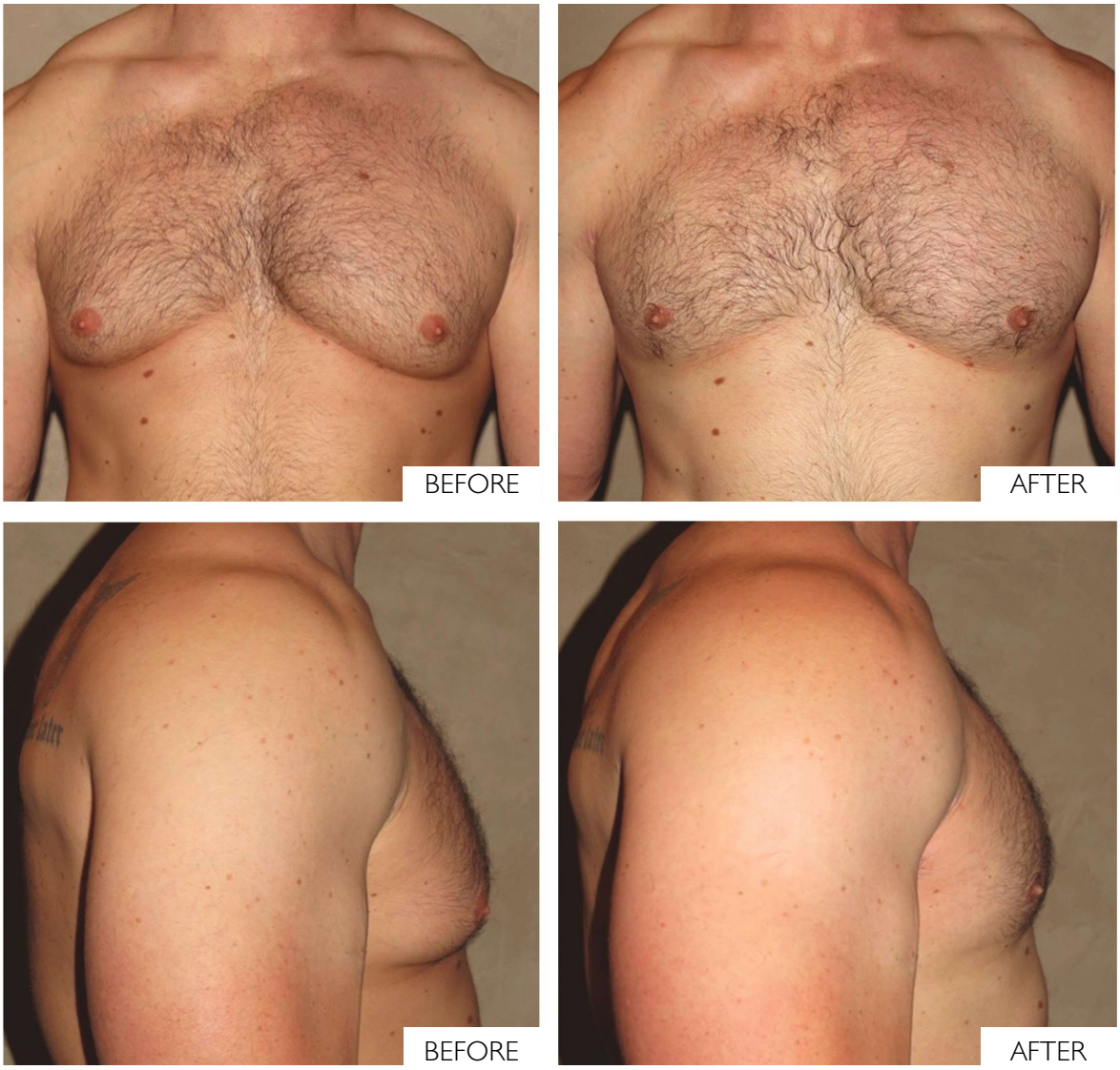
there are certain medications that can make a patient more prone to developing gynecomastia, such as certain antidepressants and antipsychotics, some heart medications and anti-seizure medications, and even some hair loss medications, such as finasteride."

Dr. Dadvand also asks about the patient's testicles. Are they both where they need to be and are they roughly the same size? Patients may also have additional symptoms, such as pain in their chest or drainage from the nipples. "Certain types of discharge, especially if it's a milky fluid, might be a clue that there is an underlying hormonal imbalance and can even be from a tumor in the brain called prolactinoma."

If the answers are negative but he has suspicions that there might be an underlying cause, Dr. Dadvand orders a hormone panel. "If this is normal, they fall into the category of idiopathic gynecomastia and it is safe to proceed with surgery with very little chance of the gynecomastia coming back," he says.

MAPPING THE PROCEDURE

In cases of true vs. pseudogynecomastia—too much fatty tissue—patients require surgical debulking of the breast tissue. If there is excess fat in addition to excess tissue, liposuction may be performed in combination with surgical removal of the breast tissue. "It's extremely rare for me to do only liposuction," says Dr. Blau. "According to the



Male chests, like female, are typically not symmetrical. Pointing out differences to the patient in consultation can help him visualize expected outcomes.

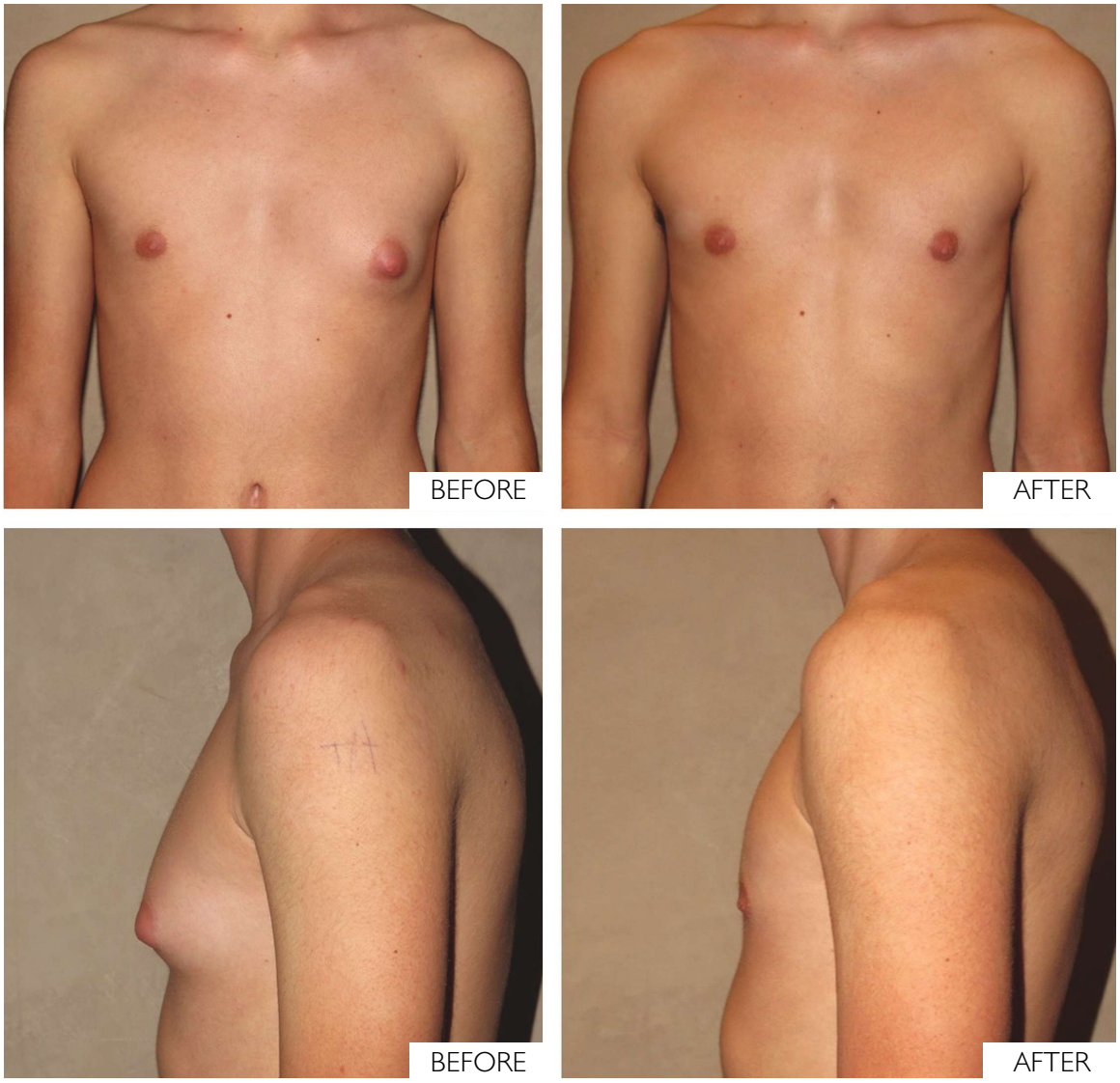
PHOTOS COURTESY OF BABAK DADVAND, MD

literature, the recurrence rate for patients who have only liposuction is 35%. If you remove the gland—or breast tissue—it doesn't come back." He typically removes about 95% of the breast tissue, "and my recurrence rate is less than 1%," says Dr. Blau.

"If it's true gynecomastia, I'm always cutting out tissue," says Dr. Dadvand. "But I'm not removing all of it—this is not cancer surgery or mastectomy—you have to leave a certain amount of tissue behind. Otherwise the nipple is going to sink down or crater in, so knowing how much to leave behind is the finesse of the surgery."

To minimize visible scarring, both Dr. Blau and Dr. Dadvand remove the tissue through a small incision on the lower part of the areola. "I tend to put it between 4 o'clock and 7 o'clock, right at the junction of the areola and the normal skin around it," says Dr. Dadvand. "No matter the race or ethnicity of the patient, the areola is going to be a different color than the skin around it, so when you place the scar right in that confluence, it heals exceptionally well."

In addition to looking at the amount of breast tissue and fat to be removed, surgeons must also consider skin laxity and nipple position. Dr. Blau will not perform skin excision on gynecomastia patients because the scarring is so severe. "When we do skin excision for women, the scarring is horrible, but women typically wear a bra or a bathing suit top.



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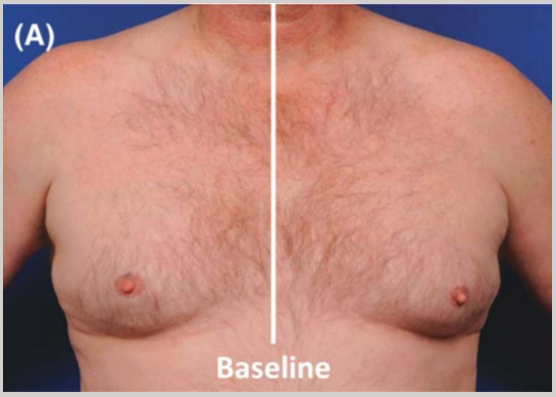
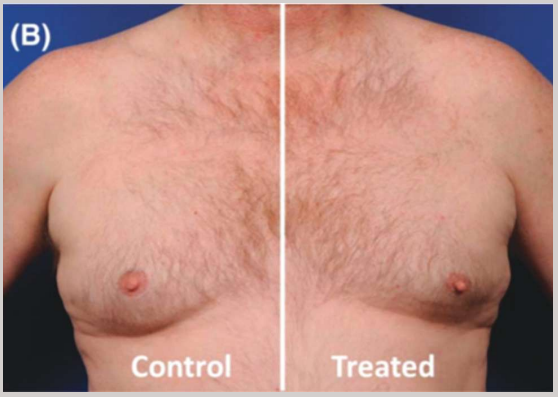
Young people are good candidates for gynecomastia surgery; careful placement of incisions below the areola allows them to move forward with no telltale scarring.





Noninvasive Options for Pseudogynecomastia

Patients who have pseudogynecomastia—excess fatty tissue that is enlarging their chests—as well as overweight patients with true gynecomastia who do not want to undergo surgery, may benefit from noninvasive procedures with a fat-reduction treatment, such as Zeltiq CoolSculpting. In September 2015, dermatologist Girish "Gilly" Munavalli, MD, of the Dermatology, Laser & Vein Specialists of the Carolinas published the results of his study, which followed 21 pseudogynecomastia patients who underwent three CoolSculpting treatments—two performed on the first day with a 50% overlap and one performed 60 days later. Using surveys to rate their satisfaction, 95% of subjects reported an improvement in the appearance of their chests; ultrasound imaging revealed a fat layer reduction of 1.6mm ± 1.2mm.

"People were pleased after the first treatment and really pleased after the second," says Dr. Munavalli. "Close to 90% said they would recommend the treatment. The biggest challenge was getting around the vacuum effect of the applicator since the area is so sensitive. We applied a numbing cream around the nipple/areola for 30 minutes before treatment and then wiped it off. That made a huge difference in patient comfort."

He notes that thin patients with fatty tissue in their chests will feel more discomfort following treatments because there's less fat to insulate the nerves, and that this procedure addresses only excess fat, not excess breast tissue. The study was published in *Dermatologic Surgery*.

So no one sees it," he says. "You really cannot afford to do skin excision on men's chests."

If it's a very large case and there is a lot of extra skin, "I tell the patient that I don't think he's the best candidate, but if he wants to do it, he will look better—not great, but better," says Dr. Blau. "If he cannot accept that, I don't do the surgery."

Dr. Dadvand will perform skin excision, but he notes that these cases are quite rare. "If the patient has excess skin on examination, I tell him that we may need to do some kind of excision procedure and that is going to result in more incisions and more scarring," he says. "But most of these patients are fairly young—between 20 and 40—so their skin tone is good and they tend not to have laxity issues. If they don't have laxity issues before surgery, they typically won't have them afterward. The skin is going to tighten up, and that's pretty predictable based on their starting-off point prior to surgery."

The most common adverse events seen in gynecomastia surgery are the same as any surgery—infection, seroma, hematoma, poor healing and scarring. "It's a very clean case; it's not a very bloody case at all," says Dr. Dadvand. "Meticulous surgical technique reduces your hematoma risk significantly, as does making sure patients know that they can't be too active in the first week to two weeks after surgery. There's a lot of raw space, and they are still healing. I am a proponent of compression garments and reducing the patient's activity level for the first four weeks or so after surgery."

Risks that are unique to gynecomastia surgery include changes in nipple sensation, necrosis of the nipple and areola, and contour deformities. "It's not uncommon to have some immediate change in nipple sensitivity following

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surgery," says Dr. Dadvand. "Sometimes it's decreased sensation; sometimes they have hypersensitivity. It typically goes back to normal in weeks or months."

To prevent necrosis, Dr. Dadvand limits his incisions to the bottom part of the areola rather than making an incision all the way around it. This maintains the blood supply to "about 65% of the skin above my actual incision," he says. "That in combination with putting on a compression garment that isn't too tight is why, I think, I've never had an issue with necrosis."

If the patient needs skin excision or a reduction in areola size, Dr. Dadvand performs those procedures at a different time. "In order to reduce the areola or tighten the skin, you do need to make an incision all the way around the areola," he says. "Combining that with the debulking and liposuction creates an unnecessary amount of risk, so I do it at a second stage after they've healed from their gynecomastia surgery, and that second stage can be done under local anesthesia."

If too much tissue is removed resulting in a depression, "you can use a fat graft or fat flap to improve the depressions," says Dr. Blau.

PREVENTING RECURRENCE

Gynecomastia surgery is a unique procedure in that results are typically permanent. "If you do a facelift, with time that skin will droop again. If you do a breast lift, with time it's going to sag again because you can't cure gravity," says Dr. Dadvand. "However, this is one of those procedures that, if done right, can last a very, very long time."

Recurrence is most common in patients who had a lot of excess fatty tissue and gain a significant amount of weight in the years following surgery, because some of the fatty tissue must be preserved to maintain the contour of the skin. "If the gynecomastia is the result of steroid use or a testosterone booster, I tell my patients, 'If you go back to using it, it can come back because you will restimulate the breast tissue,'" says Dr. Dadvand. "Granted there is a much smaller chance because they don't have nearly as much breast tissue to stimulate following surgery."

Body builders are, in fact, one of the largest groups of patients seeking gynecomastia surgery—joined by young people and overweight patients. "You have to be very careful with body builders and young people," says Dr. Blau. "Young people because they have their whole lives ahead of them, so it's going to be devastating for them if you don't get a good result. With body builders, they are very particular and they are looking for perfection. You have to be very fair with them and tell them exactly what you can and cannot do. If you don't have a lot of experience, don't touch them."

Dr. Blau recommends starting with simple cases and being careful not to overpromise what you can deliver. "If you don't have experience with gynecomastia, don't toy with severe cases," he says. "Start with simple cases that are not large, where skin elasticity is good and slowly go to more complicated cases. With the severe cases where the skin is sagging and the gynecomastia is very large, you really have to know how much tissue to take and where to take it from in order to have a really nice contour. And tell the patient the truth. If he is not a good candidate or may require a second surgery, tell him up front."

WORKING WITH MINORS

Gynecomastia often first appears during puberty—known as physiological gynecomastia—and it can be psychologically destructive for the teenagers who are affected. Because most of these cases resolve on their own within two years, pediatricians typically counsel patients to wait until they are 18 to seek a surgical consultation. But Dr. Dadvand and Dr. Blau both disagree with this advice. "If it hasn't gone away after three years, it's not going to," says Dr. Dadvand. "I've seen kids who are being home schooled because of bullying and teasing, so if they've had it for more than three years and it's not due to an underlying hormonal or endocrine issue, I do not hesitate to operate."

Dr. Blau agrees. "If somebody is young and has noticeable gynecomastia—more than 1.5 inches—and he's having a hard time, then there is no point in waiting until he is 18. If it's severe, it's never going to disappear on its own and you will save the patient a lot of psychological problems." ME

Inga Hansen is the executive editor of *MedEsthetics*.