

Around the time she hit her mid-forties, Savana J. noticed her B-cup breasts becoming smaller.

The San Diego, Calif., mother of three worried her husband might lose interest in lovemaking because of that.

Breast augmentation surgery – which boosted Savana to a C-cup – put her fear to rest.

But, then, trouble. Six months after the operation, her right breast started feeling painful. And weirdly hard. It also seemed to be lifting up and, at the same time, reshaping itself into a half-sphere, sharing none of her left breast's elegant sculpted drape.

Culprit is layered scar tissue

Savana's problem was capsular contraction, an unwelcome thickening and tightening of the pocket surgically created within the chest wall to contain the implant. Typically, the condition affects one breast only, but sometimes both.

Capsular contraction results from scar tissue forming beneath the skin and around the implant, explains Savana's doctor, Maurice P. Sherman, an associate clinical professor of surgery at the University of California, San Diego, who also operates the Del Mar Cosmetic Medical Center in Del Mar, Calif. Sometimes slowly, sometimes rapidly, this scar tissue builds up, he says. As it does, the tissues under the skin swell with inflammation. This produces the feeling of hardness while also pushing the implant upward.

It's not always clear why contraction happens. But authorities mention four possible triggers. One is that, during surgery, a small amount of blood finds its way inside the implant pocket. Unless completely cleared out by the time surgery concludes, the blood remnant may later invite scar tissue and inflammation.

Another potential cause is bacteria.

As with leftover blood, if harmful microorganisms remain behind after surgery, trouble may follow. Viruses are a third, highly theoretical source of contracture: once in your blood stream, the virus finds its way to the wall of the breast implant pocket and, soon afterward, scarring takes hold.

Bosom Baddies

Sometimes even an otherwise perfect breast job can contain a serious hidden flaw. How cosmetic surgeons try to prevent one of them. By Rich Smith



Finally, it's thought that too tight a fit of the implant within its pocket can be enough to start the process.

Regardless of how such contractions actually occur, augmentation patients face on any one side of their chest "only about a 10% chance of it happening to them," says Dr. Theodore E. Staahl, founder of the Center for Cosmetic Surgery and MD Laser Center in Modesto, Calif.

An ounce of prevention

Those aren't bad odds especially when you consider that, if it's going to happen at all, it'll most likely be within six months of augmentation surgery. On top of that, many cosmetic surgeons believe capsular contraction is preventable. Among the most widely recommended measures – none as yet scientifically proven – are daily massaging of the augmented breasts to help deter scar formation, taking plen-

ty of Omega-3 and -6 antioxidants (such as fish oil and vitamin E), and using a leukotriene antagonist (the main active ingredient in two widely prescribed asthma medicines).

Improved implant techniques and technologies make an even more positive contribution to contracture prevention. For example, "no touch" and "minimal trauma" methods in the operating room help keep implant surfaces and pocket tissues as sterile and free of blood as possible. Placing the implants below the pectoralis muscle rather than above it also is said to aid in decreasing contracture risk. Meanwhile, Dr. Sherman, a past-president of the American Society for Cosmetic Breast Surgery, is testing the effectiveness of a platelet-rich fibrin gel coating derived from the patient's own blood and boosted by special genetic material called growth factors to help speed up healing: "In theory," he says, "the faster healing occurs, the less chance of inflammation later."

Impressive results

And if prevention fails, there's always corrective surgery.

The primary procedure – a capsulectomy – involves total removal of the affected implant pocket. "Sometimes, we can't get all of the pocket out because it's become attached to the rib cage," says Dr. Sherman. "Faced with that, we can perform a partial capsulectomy in combination with a second, related procedure, which is known as a capsulotomy. This allows us to spread or otherwise open up the capsule. Then, with the implant removed, we meticulously sterilize the area and place a fresh implant, one identical to the original."

The approximately hour-long corrective surgery costs in the neighborhood of \$5,000 to \$6,000, doctors report.

Following surgery, patients often return to normal activities in about a