

Breast implants and your health

Breast implants are used to enlarge breasts or reconstruct breasts after mastectomy. Complications can occur with all forms of breast implants and may include scarring, swelling, rupture and leakage. However, despite a lot of controversy on this issue in the 1990s, there is no evidence to link silicone-filled implants with cancer or autoimmune diseases.

Most implants have a silicone outer shell but some are covered with polyurethane. Implants can be filled with saline solution, silicone gel or (rarely) an alternative such as soya oil.

Approved implants are considered safe

The Therapeutic Goods Administration (TGA) is the Australian Government body responsible for approving the use of medical devices and medications. The TGA has approved certain varieties of both saline and silicone-filled implants for use in Australia. Breast implants are also available in a variety of shapes, including round and teardrop shapes. If you plan on breast augmentation surgery, you should try to find out as much as you can before you make a decision to have breast implants.

Silicone implants and serious illness

The use of silicone implants in Australia was once restricted. In the 1980s, concerns were raised that silicone leaking from breast implants may be associated with an increased risk of a range of conditions, including autoimmune disorders and cancer. The most commonly reported condition was scleroderma, a thickening and hardening of the skin and other connective tissues.

Extensive reviews have established no evidence linking silicone breast implants to cancer or autoimmune disorders such as scleroderma, rheumatoid arthritis or systemic lupus erythematosus (SLE). In June 2001, the TGA approved certain varieties of silicone breast implants for use in Australia.

Complications and leakage can occur

There is strong evidence that both saline and silicone breast implants may be associated with local complications including swelling and leakage. The surgical procedure to insert a breast implant will also leave a scar.

Breast implants are not designed to last a lifetime and may eventually need to be removed or replaced. The risk of complications increases as the implant ages. Reported complication rates in Australia are similar for both saline and silicone-filled implants, but are higher for mastectomy patients. This may be because mastectomy patients often require radiotherapy, which affects the elasticity of the chest skin.

Complications

Some of the known and documented complications of breast implants, whether silicone or saline, include:

- Infection
- Permanent scarring, including keloid (thick or raised) scarring
- Capsular formation and contraction – an envelope of scar tissue develops around the implant
- Implant rupture or leakage
- Sensation changes to the breast and nipple
- Implants that move out of position.

Capsular formation and contracture

The body's normal response to a foreign body (such as a breast implant) is to form a shell or a capsule of scar tissue around it. This scar tissue may tighten or contract and can cause:

- Hardening of the breast
- Pain
- Sensitivity to touch
- Wrinkling or distortion of the breast
- Movement or displacement of the implant.

Capsular formation and contracture is the most common local change after implantation. This can occur weeks or years after implantation. Surgery to break or remove the scar capsule is called a capsulotomy.

Silicone implants – rupture and diffusion

Silicone breast implants may rupture (break) or diffuse (leak or sweat – this is rare with improved implants). Problems may occur as a result of:

- Capsular formation and contraction
- Injury
- Deterioration of implant due to age
- Mammography (breast x-ray).

Newer implants are designed to keep silicone inside the implant, even if a rupture or diffusion occurs. However, in some cases, silicone gel can move out of the implant and into breast tissue or (rarely) nearby lymph nodes.

Detecting leaked silicone

Some people notice no symptoms when an implant has ruptured or diffused. However, possible symptoms include:

- Lumps in the breast
- Decreased breast size
- Distorted breast shape
- Asymmetry (different sized or shaped breasts)
- Pain or tenderness.

All humans carry silicone in their bodies. Some laboratories claim they can test for the presence of silicone in the blood and urine, but these tests can only show the total amount of silicone in the body.

Mammograms, ultrasound scans and magnetic resonance imaging (MRI) scans can be used to detect problems with implants, but they do not always show whether or not an implant is leaking. This is because the tiny drops of silicone can be too small to register. The only way to know for sure if an implant is leaking is by undergoing surgery.

Granulomas

Sometimes, leaked silicone accumulates in the breast tissue or migrates to the lymph nodes in the armpit through the lymph vessels. Little lumps of silicone surrounded by inflammatory tissue, called granulomas, can then develop. These granulomas are not cancerous but any lumps must be examined by your doctor or surgeon.

Autoimmune disorders

Autoimmune disorders such as scleroderma have been linked anecdotally to silicone breast implants. A major review published in 2000 examined a total of 20 studies worldwide. It found no evidence of an association between silicone breast implants and any connective tissue diseases or other autoimmune conditions. This means that a woman with an autoimmune disorder would have developed the condition with or without breast implants.

Cancer

Several large studies have shown that women with breast implants have a slightly reduced incidence of breast cancer and no statistically significant increase in other cancers. This was the conclusion of the Independent Review Group in the UK, which was set up to review the research and advise government on the safety of breast implants. Another major study, published in 2009, followed more than 6,000 Scandinavian women with cosmetic breast implants for nearly four decades. It showed no evidence of an association between breast implants and any type of cancer.

Mammograms and breast implants

Women with breast implants should attend breast screening for cancer as routinely recommended for all women. A mammogram is performed by gently pressing the breast between two plates, then taking an x-ray. It is important to tell the radiographer that you have implants, as some minor modification of the screening technique may be required. If the radiographer performs the scan in the usual way, the pressure might split an implant or squeeze more silicone into the surrounding breast tissue if the implant is already leaking.

Breastfeeding concerns

There have been concerns that silicone may be passed to breastfeeding babies. An American study in 1999 found that there is no established risk to breastfeeding babies of women with silicone implants. However, some women with implants find that breastfeeding is more difficult due to the altered shape of the breast or nipple.

Where to get help

- Your doctor
- Your surgeon
- The Australian Society of Plastic Surgeons Tel. 1300 367 446
- Therapeutic Goods Administration

Things to remember

- Complications of breast implants can include swelling, scarring and rupture or leakage of implants.
- Major studies have found no evidence of a link between silicone breast implants and an increased risk of illness, including breast cancer.
- Both saline and silicone-filled breast implants are approved for use in Australia.

This page has been produced in consultation with, and approved by:

Australian Society of Plastic Surgeons

Content on this website is provided for education and information purposes only. Information about a therapy, service, product or treatment does not imply endorsement and is not intended to replace advice from your doctor or other registered health professional. Content has been prepared for Victorian residents and wider Australian audiences, and was accurate at the time of publication. Readers should note that, over time, currency and completeness of the information may change. All users are urged to always seek advice from a registered health care professional for diagnosis and answers to their medical questions.

For the latest updates and more information, visit www.betterhealth.vic.gov.au

Copyright © 1999/2012 State of Victoria. Reproduced from the Better Health Channel (www.betterhealth.vic.gov.au) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.