



## **Fat transfer to Breast**

Fat transfer or lipofilling for use as a breast implant has been around for about 100 years and its combination with liposuction has been used for over 20 years but in that time the technique has been criticised as it can lead to the fat dying, leaving cysts in the breast or calcification, which can be seen on mammograms and, it was thought, mimic cancer. The standard for breast augmentation remains silicone breast implants but these are not without their own problems. Implants can lead to a 'foreign body reaction' with hardness and a capsule forming around the implant, distorting the breast in a small proportion of patients. In thin skinned patients the edge of the implant and wrinkles in the outer shell can be visible. Implants cannot be expected to behave like normal breast tissue. The ideal breast augmentation/reconstruction will always be the patient's own tissue but historically these procedures have required complex surgical procedures, including microsurgical techniques, and extensive, visible scars.

Techniques of transferring fat using liposuction and lipofilling have evolved and are being developed to augment and reconstruct the breast. One of the major potential problems remains the possibility of changes on mammogram, which can mimic cancer. More than 500 cases have now been done in Italy and France and it has been found that, whilst there are changes on mammogram, experienced radiologists are able to differentiate these from cancer. If the fat cells are carefully placed under the skin in small tunnels, but not in the breast tissue, the fat cells will take and grow and increase the volume of the breast. However, this technique is not for every patient. It is best suited to those who want to increase bra size by one cup size, those who require increased fullness in the upper pole of the breast, and after 'conservative' breast cancer surgery.

Patients who undergo this type of treatment must have been screened by mammogram and ultrasound before surgery according to the guidelines laid down by the American Society of Aesthetic Surgeons, and followed up with regular mammograms and ultrasound for several years. The state of knowledge is not yet sufficient for patients to walk in off the street, have the procedure and be discharged from follow up. If patients are not treated within these guidelines, fat transfer will be used inappropriately, damaging patients and causing difficult breast problems.

The technique has great potential, but should be used carefully to avoid it getting a bad reputation.