

# Breast reconstruction

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# What is breast reconstruction

Is the rebuilt of the breast with a new breast that has

- the shape
- the look
- the volume
- the position
- of the **final** breast.



- The form of the contralateral breast must be considered prior to planning breast reconstruction
- The dimensions of the opposite breast or the desired resultant reconstructed breast must be determined

Breast reconstruction can help to address the disfigurement and sense of loss that often follow mastectomy

The choice of reconstructive must take into account the:

- patient's body characteristics
- overall health
- breast cancer treatment plan
- previous and future treatments
- personal preferences.

The main question is

How and when?

In order to decide which is the indicated therapy is necessary to consider an important point:  
Has the patient already receive or is it planned to receive any kind of farther therapies such as

chemo or radiation  
Time limitation ?

# Two options of Breast reconstruction

- **Implants based**
  - silicone implants (immediate reconstruction)
  - tissue expander  
and on a second stage replacement with permanent prosthesis (Cohesive ,anatomical)
- **Autologous tissues**  
( TRAM, LD, DIEP flaps)
- **combination**

Tissue expansion with subsequent implant insertion remains one of the most common breast reconstruction methods.

### The best candidates

- have good quality of skin,
- Skin preservation following mastectomy and
- no prior chest radiation.

This method especially appeals to patients who are not good candidates for flap-based procedures or are likely to get an excellent result without a flap.



Reconstruction with implants  
surgical technique  
(Two stages reconstruction)

# First stage expanders placement

## Pocket Performance

- Resection of the pectoralis muscle
- Medially from the 4<sup>th</sup> rib
- Inferiorly all the connections under the rectus abdominus
- Laterally deep fascia of the serratus
- Totally submuscular pocket
- Totally covered expander

# Tissue expander treatment plan

## Three stages procedure

### First stage expanders placement

6 months later



Pocket Performance and  
tissue expander filling

Second stage, expander replacement with permanent implant and remodeling of the contralateral breast

3 months later



### Third stage NAC creation

Nipple creation  
Nipple from local flaps  
Areola-tattoo

# NAC complex

- Wings flaps
- Little flaps
- Tatoo

# Breast Implants work best for women who

- Have not been radiated (almost)
- Do not have enough body tissue to make the desired breast with autologous tissues
- For women who wish to enlarge their breasts
- For women with very big breast and big base of breast
- Wish to avoid a donor tissue site scar
- Have a complicated medical condition that limits their ability to safely complete a four to six hour general anesthetic
- Would like a shorter recovery period

# Implant based immediate reconstruction

# Autologous tissues Reconstruction

# Reconstruction with autologous tissues options

Muscle, Musculocoutaneous, Fasciocoutaneous flaps

- Latissimus dorsi flap
- Tram flap (free or pedicle)
- Perforator flaps  
DIEP, S-GAP, SIEA



## Autologous Tissue Flaps (Pros):

- Have a more natural feel and shape
- Are less likely to be rejected by the body
- Do not require annual surveillance of the breast implant
- Require a longer recovery period than breast implants

# Autologous Tissue Flaps (cons)

- longer procedure
- Flap necrosis risk (partial or total flap failure) or fat necrosis
- Additional scarring where the replacement tissue came from (abdominal, back)
- bulging of the abdomen,
- Hernia
- Highly trained surgeons for flaps

# Breast implants (Pros)

- Has low morbidity and can produce good results in **properly** selected patients.
- The recovery from the initial expander placement surgery and from the permanent implant placement surgery is usually quicker than flap surgery.
- It may be **easier to control the final size** of the reconstructed breast with implant reconstruction.
- It may be **easier to control the final shape**
- It may be **easier to create the sub mammary fold**
- There are no additional scars on the patient's body other than those on the breasts.
- For patients without excess fatty tissue and who have not been under radiation treatment, implants are a good choice and yield good final results

# Breast implants (cons)

- Two or three stages procedure
- Implant-based reconstruction is not generally recommended if patients already received radiation
- In the longer term, implants can develop capsular contracture (tightening of the soft tissues around the implant), which can cause
  - implant mal-position,
  - and implant rupture
  - unexplained pain in the area
- If there are complications, secondary procedures may be required.
- Shape deformity after some time due to ptosis of the healthy contralateral one, beside the mammoplasty (common for any kind of reconstruction)

# Conclusions

- It is not the autologous reconstruction versus prosthesis, rather it is the pros and cons of various options
- Autologous tissues and implants are not mutually exclusive in the same patient or even in the same breast
- It is essential that the patients are informed of the limitations of reconstructive surgery and that they are also informed of the possible complications of each method
- And the necessity, not infrequent, of further surgery in those cases when reconstructive surgery is not fully satisfying.