

OTHER FLAPS USED FOR BREAST RECONSTRUCTION

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Introduction

There are alternate areas from which flaps (i.e. tissue) can be harvested and then used to reconstruct a breast. However, they are used much less commonly than the TRAM flap. It should also be noted that all of the flaps that will be discussed below require the use of microsurgery (i.e. "free flaps"), which can make the procedure more complex and substantially increase the operating time. See [Figure 1](#) for a photograph of a "free" piece of tissue that will be used to reconstruct a breast.

The other options for living tissue breast reconstruction include:

- Gluteal (buttock) flaps
- Rubens flap



Figure 1 - This photograph shows a "free flap" that has already been detached from its original location. The vessel shown will be microsurgically reattached to a recipient vessel at the breast site.

Gluteal (Buttock) Flaps

A flap can be raised from the gluteal (buttock) area, which is based on either the superior or inferior gluteal arteries. See [Figures 2](#) and [3](#) for schematic representations of where the superior and inferior gluteal flaps come from, respectively. This flap contains buttock fat, which can provide a very satisfactory alternative to the TRAM flap. When using the inferior gluteal flap, the donor scar can be hidden in the buttock crease. When using the superior gluteal flap, a scar can be hidden within the bikini line. See [Figures 4](#) and [5](#) for intraoperative photographs of a gluteal flap procedure. However, both flaps can produce some element of buttock asymmetry and have the added disadvantage of requiring that the patient be turned on the operating table during the reconstructive procedure.

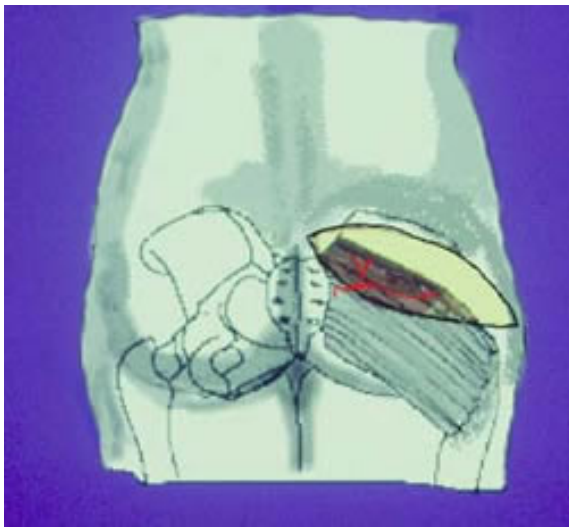


Figure 2 - This schematic shows where the superior gluteal (buttock) flap comes from.

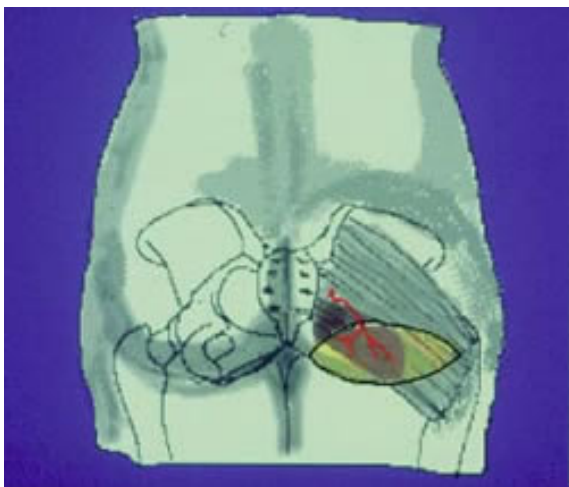


Figure 3 - This schematic shows where the inferior gluteal (buttock) flap comes from.

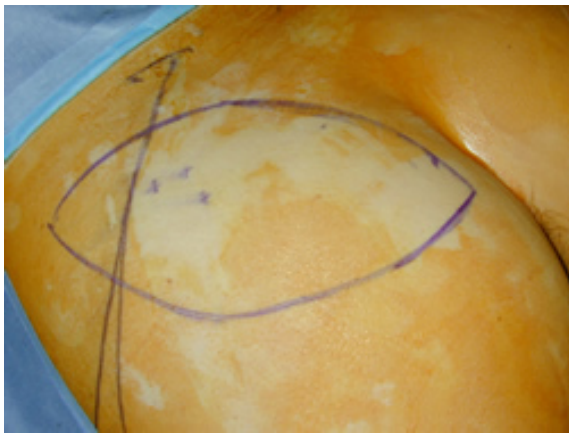


Figure 4 - The patient shown here has the preoperative markings for a gluteal (buttock) flap reconstruction.



Figure 5 - This photograph shows the gluteal (buttock) flap in the process of being raised.

Advantages of the Superior Gluteal Flap

- abundant tissue for reconstruction
- inconspicuous donor site scar
- minimal functional loss

Disadvantages of the Superior Gluteal Flap

- risks associated with microsurgery
- much more difficult to harvest than TRAM flap
- requires turning the patient during the procedure
- will cause some buttock asymmetry
- may require the removal of a portion of rib to allow for the new blood vessels to be "reconnected"

Advantages of the Inferior Gluteal Flap

The inferior gluteal flap has the following advantages over the superior gluteal flap:

- longer pedicle
- greater volume of tissue
- lower incision meaning an even less conspicuous scar
- easier to harvest

Disadvantages of the Inferior Gluteal Flap

The inferior gluteal flap has the following disadvantages when compared to the superior gluteal flap:

- exposure and possible injury to the inferior gluteal nerve, the motor nerve to gluteus maximus, and the sciatic nerve
- possible discomfort while sitting (due to the location of the scar)

Rubens Flap

The Rubens flap is based on the deep circumflex iliac artery and uses the flank skin and fat for reconstructing the breast. This flap is very useful in patients that have previously had abdominal surgery, as this makes a TRAM flap either risky or contraindicated. The use of this flap may cause a slight degree of donor site asymmetry.