

## **Breast reconstruction using your own tissue (flap procedures)**

A tissue flap procedure is one option to reconstruct the shape of your breast after surgery to remove the cancer. The tissue used for a flap procedure comes from somewhere else on your body, such as your tummy or back. As with any surgery, you should learn as much as possible about the benefits and risks, and discuss them with your doctor, before having the surgery.

In general, flaps require more surgery and a longer recovery than breast implant procedures. But when they work well, they look more natural and behave more like the rest of your body. For instance, they may enlarge or shrink as you gain or lose weight.

While tissue flaps are often used by themselves to reconstruct the breast, some tissue flap procedures can be used along with a breast implant.

Tissue flap operations leave 2 surgical sites and scars – one where the tissue was taken (the donor site) and one on the reconstructed breast. The scars fade over time, but never go away completely. There can be donor site problems such as abdominal hernias and muscle damage or weakness. There can also be differences in the size and shape of the breasts. Because healthy blood vessels are needed for the tissue's blood supply, flap procedures can cause more problems in smokers, and in women who have uncontrolled diabetes, vascular disease (poor circulation), or connective tissue diseases.

### **Types of tissue flap procedures**

The most common types of tissue flap procedures are:

TRAM (transverse rectus abdominis muscle) flaps and DIEP (deep inferior epigastric perforator) flaps, which use tissue from the abdomen (tummy)

Latissimus dorsi flaps, which use tissue from the upper back

Other tissue flap surgeries use tissues from the buttocks or thighs and are more specialized, so they may not be done everywhere.

## **Abdominal flaps (TRAM and DIEP)**

The TRAM (transverse rectus abdominis muscle) flap procedure uses tissue and muscle from the tummy. In some cases an implant is used with this type of flap, but some women have enough tissue in this area to shape the breast so that an implant isn't needed. The skin, fat, blood vessels, and at least one abdominal muscle are moved from the belly to the chest. The TRAM flap also results in a tightening of the lower belly, or a "tummy tuck," although it can also decrease the strength in your belly muscles. A TRAM flap may not be possible in women who are very thin or who have had abdominal tissue removed in previous surgeries.

### **There are different types of TRAM flaps:**

A pedicle TRAM flap leaves the flap attached to its original blood supply and tunnels it under the skin to the chest. It usually requires removing most if not all of the rectus abdominis muscle on that side, which means an increased risk of bulging and/or hernia on one side of the abdomen.

A free TRAM flap moves tissue (and usually less muscle) from the same part of the lower abdomen, but the flap is completely disconnected and moved up to the chest. The blood vessels (arteries and veins) must then be reattached. This requires the use of a microscope (microsurgery) to connect the tiny vessels and the surgery takes longer than a pedicle TRAM flap. The blood supply to the flap is usually better than with pedicle flaps, there is less risk of losing abdominal muscle strength, and the donor site (abdomen) often looks better. The main risk is that sometimes the blood vessels get clogged and the flap doesn't work.