



National Hereditary Breast Cancer Helpline 01629 813000



DIEP

DIEP stands for deep inferior epigastric perforator. This is the name of the main blood vessel that runs through the tissue that will be used to reconstruct the breast. In DIEP flap reconstruction, only skin, fat, and blood vessels are removed from the lower belly (the abdomen between the waist and hips). No muscle is removed. This is one of the main differences between the DIEP flap and the TRAM flap--the TRAM flap procedure removes muscle (along with fat, skin and blood vessels) and the DIEP procedure does not.

Because no abdominal muscle is removed, most women recover more quickly from DIEP compared to TRAM and have a lower risk of losing abdominal muscle strength. There also tends to be less abdominal wall discomfort because your muscle isn't involved.

The other main difference between the DIEP and TRAM procedures is how blood is supplied to the belly tissue once it becomes your new breast. The DIEP is called a "free" flap because the tissue is completely detached from the belly and then reattached to the chest area. Hooking up the blood vessels from the belly tissue to chest blood vessels is delicate work. Your doctor has to use a microscope during surgery, which is why DIEP is known as microsurgery. The TRAM procedure doesn't detach the belly tissue from the blood vessels in the belly. The belly tissue, still attached to its belly blood supply, is moved up to the chest area. No blood vessel surgery is necessary. Because of the extra time required for the blood vessel microsurgery, DIEP flap surgery takes longer than TRAM flap surgery (about 5 hours to reconstruct one breast and up to 8 hours if you're having both breasts reconstructed).

Like the TRAM flap, you end up with a tummy tuck as a fringe benefit of DIEP surgery because fat from your abdomen is removed to reconstruct your breast and loose skin is tightened up.

Breast reconstruction using your own tissue is popular because it's a long-lasting solution (implants usually have to be replaced after about 10 to 15 years) and the consistency of the belly tissue is very similar to natural breast tissue. But the new breast will have little, if any, sensation.

DIEP has been used since the early 1990s. Because the surgery is more complicated, it's not offered everywhere. It's usually done by plastic surgeons who specialize in free flap breast microsurgery. If you're interested in DIEP, ask your breast cancer surgeon for recommendations.

The DIEP flap procedure isn't for everyone. It's a good choice for women who have enough tissue to reconstruct one or both breasts. In general, you can still have DIEP if you've had abdominal surgery (hysterectomy, c-section, appendectomy, bowel resection, liposuction, tummy tuck).

DIEP is NOT a good choice for:

- thin women who have very little abdominal fat to spare
- women who smoke and have blood vessels that are narrow and less flexible

How does DIEP work?

A small incision along the bikini line is made and the necessary skin, fat, and tiny blood vessels are removed. The fat and skin are shaped into a natural looking breast and sewn into place. The tiny blood

vessels that feed the tissue of your new breast are matched to supplying vessels in your chest and reattached under a microscope. The procedure takes about 5 hours. Compared to women who have had TRAM flap surgery, women who have had DIEP reported less pain and more abdominal strength after surgery. But DIEP is still major surgery and you should expect to spend about 4 weeks recovering.

DIEP for double mastectomy

DIEP reconstruction can be performed after a double mastectomy, provided you have enough extra abdominal fat. Your surgeon will determine if there's enough tissue to do both breasts. This surgery takes longer than a single reconstruction (about 8 hours).