Skin Grafting, Skin Transplant, Skin Autografting

Skin-grafting is a procedure in which a patch of healthy skin is removed from one part of your body and moved to another part of your body which has no skin. It is done under an anesthetic. This means medications are used to make you pain free while healthy skin is removed. The place where skin is removed is called the donor site. The skin is removed by use of a dermatome. A dermatome is a skin-cutting instrument which removes a very thin layer of skin. This is called a split-thickness skin graft. The graft contains the *epidermis* (top skin layer) and a portion of the dermis. The dermis is the part of the skin which contains blood vessels, nerves, hair follicles, oil and sweat glands. The dermis left behind in the donor area is able to grow back new skin. The donor site will be tender until the new skin grows back. The tenderness comes from the nerves which have been uncovered with the skin removal.

The donor site can be taken from any area of the body. It is usually an area that is hidden by clothes. Common sites are the buttocks or thighs. The site picked depends partly on the visibility of the donor skin and color match. The graft is carefully spread on the bare area to be covered. It is held in place either by gentle pressure from a padded dressing or by a few small stitches. The raw donor area is covered with a sterile nonstick dressing for 3-5 days. This provides comfort and protects the open skin from infection.

For more extensive tissue loss, a full-thickness skin graft may be necessary. This includes the entire thickness of the skin. Common donor sites include flaps from the back or abdominal wall. Full-thickness grafts are used when a lot of tissue is lost. This sometimes happens with open fractures of the lower leg. Full-thickness graft uses both layers (*epidermis* and *dermis*) of the skin. Benefits are better contour, more natural color, and less reduction at the grafted site. Disadvantage of full-thickness skin grafts is that the wound at the donor site is larger and requires more careful management. Sometimes a split-thickness graft must be used to cover the donor site.

Other types of skin grafts include skin taken from a cadaver or from an animal. It is called an allograft when skin is taken from one person and grafted to another person. It is called a xenograft when skin is taken from one species (such as a pig) and transplanted to another species (a human). Disadvantages of these grafts are that the body may reject them. Rejection means that your body tries to get rid of the skin. Artificial skin products are available which can be used and the body will not reject these.

INDICATIONS

Skin grafts may be recommended for:

- Large wounds.
- Surgeries which require skin grafts for healing.
- Any areas of skin loss such as burns.
- Cosmetic reasons on reconstructive surgeries.
- The advantages of rapid skin grafting are that they help prevent fluid loss in the case of burns and they provide a sterile covering which helps prevent infection.

RISKS OF SKIN GRAFTING ARE:

- Infection.
- Loss of grafted skin.
- Bleeding.
- Reaction to anesthesia.
- Getting an infectious disease if the graft is from someone else (an *allograft*).

PROGNOSIS

New blood vessels begin growing from the recipient area into the transplanted skin within 36 hours. Most skin grafts do well. However in some cases if they do not heal well it can require repeat grafting. Scarring can occur

in large wounds. If this is over a joint it can limit the movement of the joint. Poor result from grafting can result in poor cosmetic results. This means it may not look as good as you would like.

RECOVERY

- Recovery from grafting is usually quick following split thickness grafting. The skin graft must be protected from injury or stretching for 2-3 weeks. Depending on the location of the graft, a dressing may be necessary for 1-2 weeks or as directed. Avoid all exercises that could stretch or injure the graft for at least one month or as directed by your surgeon. Full-thickness grafts require a longer period of recovery. A hospital stay is most often necessary.
- Grafted areas and donor sites should be protected from the sun with clothes or sunscreen. Sun exposure should be avoided until both areas are well healed.
- Grafting sites are always a little more likely to get injured than your original equipment. Protect them always.

Document Released: 08/17/2006 Document Re-Released: 03/14/2011
ExitCare® Patient Information ©2011 ExitCare, LLC.