

SKIN GRAFTING

Skin loss may require replacement with a skin graft as a result of a number of events. **Trauma** Skin may be lost at the time of accident and/or as a result of surgical cleansing (debridement). **Skin tumours** Their removal requires the inclusion of a margin of normal surrounding skin to ensure complete removal. The margin varies according to the nature of the tumour. **Other** Some conditions, such as Dupuytren's contracture return if the involved skin is left behind.

The skin graft used for reconstruction of the *recipient site* is taken from a *donor site*. There are two types of graft. **Full thickness** An area of skin is cut out and the donor site is closed with stitches. The graft is thick and consists of all the layers of the skin. Typical donor areas include the groin and inner arm for the hand and behind the ear for the face. **Split thickness** An area of skin is shaved off and the donor site is allowed to heal over a period of approximately 10 days. The graft is thin and consists of the superficial layers of the skin.

Skin grafts can be attached to wounds in many ways depending on their site and size and the preference of the surgeon. **Small area** The graft is usually sewn on. Each stitch is left long and then tied together over the top of a ball/pad of material such as wool or foam (*tie-over dressing*). **Large area** The graft may be laid, stitched, clipped or glued in place and then held in position by a well padded dressing.

The graft is held firmly against the recipient site by the dressing. Within hours, small blood vessels grow across the gap and connect up with the graft. The dressing is designed to prevent movement or the collection of blood between the graft and recipient site, both of which would damage the delicate blood vessels. Mobile areas, such as fingers, are rested during this time.

After 5-10 days (depending on the site), connection has been made and there is blood flow within the graft ("graft take"). The dressing is removed at this time and the graft looked at. Any blood underneath will be gently removed. The graft will look "awful" at first because it is so bruised. It is also usually concave/depressed initially but fills out over the subsequent weeks.

A dressing may be applied again but grafts are often left open to the fresh air as quickly as possible. Once "open", the grafts are watertight and can be got wet in the bath or shower. Nevertheless, they are relatively vulnerable to friction and shearing forces in the early weeks after surgery and care is needed.

Natural oil production in the skin is disturbed by surgery. The donor site, the graft and the surrounding skin often become dry and flake. It is essential to apply small amounts of moisturizing cream such as Nivea, E45 or Diprobase, particularly after bathing. Antiseptics such as Dettol or Savlon to the graft which will dry it out and should be avoided.

Infection and bleeding These can occur after any operation. If you notice increased pain, swelling or redness in the area around the wound, please contact my secretary.

Graft failure Skin grafts can fail to "take" either partially or totally. This may be dealt with by dressings or re-grafting depending on circumstances. In the case of split thickness grafts, extra graft is often taken and stored for use in these circumstances.

Scarring All operations leave a permanent scar at both the recipient and donor sites. The type of scar is dependent on type of graft, age, race and site of surgery. If you have scarred poorly from previous surgery this may indicate that you form poor scars. Scars are generally more noticeable in young people who heal more vigorously. Some races are prone to special forms of scarring which can be very unsightly. This, however, is unpredictable. Some sites are more prone to form poor scars such as the front of the chest, shoulder and neck.

Maturation Grafts are often lumpy and red when immature. This is a reflection of normal healing. Maturation takes 12-24 months depending on age and skin type and during this time the pinkness and firmness of the graft gradually settles. This process can be helped by massaging the wound firmly with a moisturizing cream.

