A sheet of skin is removed from the donor site and passed through a mesher, which produces tiny slits in the skin that allow the skin to cover 1.5 to 9 times the area of the sheet graft; this results in a less desirable cosmetic, but functional outcome (Fig. 13-10).

FIG 13-10 Mesh graft.

The donor site is dressed with synthetic wound coverings or fine-mesh gauze until the dressing separates at 10 to 14 days when the wound is healed. Dressings are not changed on donor sites to avoid damage to newly healed, delicate epithelium. Healed donor sites are available for re-harvesting in patients with extensive burns and limited undamaged skin, but the quality of skin is decreased when multiple grafts are taken.

Dermal replacements.

The development of products that replace or allows the dermis to regenerate has produced significant improvement in burn wound healing and decreased scar formation. Integra is a two-layer membrane made of collagen (a fibrous protein from animal tendons and cartilage) and silicone rubber (i.e., Silastic). Applied over the burn following excision, the Silastic layer is later peeled off after the dermis is formed. The application of Integra does not replace the grafting procedure, but prepares the burn wound to accept an ultrathin autograft.