

Fat transfer (Grafting)

The technique of transferring fat from one part of the body to another - for example, from the tummy or buttocks to the face - has been practiced for many years. However, for any tissue to survive it must have an adequate supply of blood to the cells to keep it nourished. When blocks or segments of fat are moved, it is impossible for enough blood vessels to grow into the centre to keep the fat alive and so it tends to diminish in bulk over time and eventually disappear or, less commonly, calcify (i.e. become hard).

A better understanding of these issues has led to the development of a technique known as "structural fat grafting". This is based on the principle that if very small quantities of fat are placed in individual tunnels, building up layers for bulk, each fat cell will be closer to a nourishing blood vessel, allowing capillaries to grow in to keep the fat alive. The fat to be transferred is obtained by very gentle liposuction using a syringe rather than a mechanical suction device so that the cells are not damaged.

The donor site is usually the tummy, thigh, knee or bottom. The fat is then centrifuged to separate it from any oily fluid before being put into small syringes and grafted using an injection technique into numerous tunnels with specially designed blunt needles.

Indications

This procedure is used most commonly in the face to provide contour or bulk, though it has found a place, usually in combination with liposuction, to contour other areas of the body such as the buttocks. Facial tissues tend to lose bulk with the passage of time, especially in the cheekbone area, the groove over the lower part of the eye socket (tear trough) and the lips. Structural fat grafting can be used, either alone or combined with other procedures such as facelift, or blepharoplasty (eyelid surgery), to improve contour and so rejuvenate these facial regions.

Limitations

The creation of the numerous tunnels necessary for successful fat grafting can cause considerable swelling and bruising, particularly in the lips, which will take two to three weeks to subside. There will also be a little bruising at the site from which the fat was taken. However much care is taken, it is impossible to accurately predict exactly how much fat will survive but most estimates are put at between 50% and 70%.

If, following the operation, some weight is gained then the transferred fat will increase in size just as fat cells elsewhere in the body will. Sometimes there may be irregularities in the treated areas - this is more likely in areas where the skin is thin, such as beneath the lower eyelids, and very occasionally a small surgical procedure may be necessary to correct it.