

# Lipotransfer

## Lipotransfer

- Lipotransfer, or autologous fat grafting, is a useful reconstructive technique to achieve soft-tissue augmentation, i.e. increase the volume in a specific region, hence it is sometimes referred to as 'lipomodelling'. Common indications include facial defects in progressive hemifacial atrophy (Parry-Romberg syndrome) and the aesthetic industry for facial rejuvenation and buttock/breast augmentation. Lipotransfer is also used to improve scar remodelling, particularly after radiotherapy, the rationale being that adipose tissue contains adipose-derived stromal cells, which can modulate the healing process. Autologous fat is an ideal filler material for soft-tissue reconstruction as it is biocompatible, non-immunogenic, inexpensive and can be easily and repeatedly harvested. This technique was systematised and popularised by Coleman in the late twentieth century. The stages of lipotransfer include: (i) harvesting or 'liposuction', whereby adipose tissue is suctioned from a body part, usually the abdomen, thigh or buttock, using local anaesthetic and a cannula; (ii) fat preparation, including centrifugation of the fat aspirate; and (iii) injection, using a specialised cannula, at the recipient site. One disadvantage is that the grafted fat undergoes an unpredictable amount of fat resorption (typically approximately 20% but may reach 80%). Current research is focused on how to improve the survival of the grafted fat, including through enrichment with a freshly isolated stromal vascular fraction. Although generally safe, there is a small risk of fat embolism, which can have serious complications (including blindness and stroke) and can be fatal. Lipotransfer
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