



## FAT TRANSFER AUGMENTATION

Fat transfer refers to the use of autografts for cosmetic or reconstructive purposes. Subcutaneous fat is typically harvested from areas prone to localized deposits such as the abdomen, thighs or lower flank and transferred to the face or dorsal aspects of the hand. This offers a double benefit to patients, because for most of them the localized fat is undesirable.

Harvesting is done through a small-bore liposuction cannula or 2mm needle. Because the needed volumes are small, manual suction under local anesthesia is frequently done. Tumescent anesthesia can be used. The harvested material should rest for a few minutes to let viable fat tissue separate from serum, infused solutions, and also non-viable fat ("oil" leaked from cells during the procedure). Centrifuging the tissue can help separating the viable fat. One should remove approximately twice or three times more volume than one intends to inject because just a fraction of the aspirate will be of viable tissue.

Many different techniques can be used to inject the harvested fat. It can be safely done under local neural block and/or conscious sedation. Injection can be performed through needles or with very thin blunt cannulas, which decrease the risk of perforating vessels and nerves. It is important to inject the fat subcutaneously and to avoid injecting bolus of fat at a single point. The placement of small droplets of fat through retrograde injection technique offers the best results. Small volumes at each point will increase take, because the whole graft will receive adequate oxygen from

surrounding tissues. This will also avoid calcification secondary to central necrosis, and will decrease the risk of forming unpleasant cysts.

Although grafts can last for years, more than fifty percent of the injected fat may be resorbed over six months. Therefore, it is usually advisable to overcorrect the treated areas and to clarify patients about the unpredictable duration of results.

Fat transfer can provide excellent results for both rejuvenation and correction of disease related atrophy, e.g., HIV associated lipoatrophy and post scleroderma atrophy. It, nevertheless, remains an invasive surgical technique requiring special training.

Davi de Lacerda, MD  
Sao Paulo, Brazil