Fat Harvesting and Injection

Generally, I harvest fat from the abdomen or knee area. I harvest the fat in globules with a vacuum machine that is never set higher than –10 in Hg or –30 Kpa in the manometer. At higher settings, the fat may liquefy, rendering it useless. I use a 6 mm diameter blunt Mercedes® (Wells Johnson Co., Tucson, AZ) or cobra tip cannula to harvest the fat.

When blood appears in the aspirate, I stop suctioning and harvest from another area. I use a gauze trap to filter out the oil. I no longer wash the fat. After filtering the fat in gauze, I put it into the barrel of a syringe from the top. I prefer 50-mL syringes to inject the torso and 10-mL syringes for injecting fat into the face. Actually, if I only require a small quantity of fat, I will use a blunt 1-, 2-, or 3-mm cannula and harvest it with a syringe.

When possible I perform the procedure with the patient under general anesthesia so there is no distortion of the recipient area as with local anesthesia. When necessary I will use local anesthesia, but not in large quantities.

I prefer to inject the fat in the shape of a “sausage” in two, three, or four places. I believe this exposes the fat to the largest surface area of local tissue so that the fat has a better chance of surviving. I use a 14-gauge needle that has an inside diameter of 1 to 1.2 mm. In my experience, smaller needles don’t work as well.

I prefer putting the fat both under the skin and into the muscle. In the cheek area, I overcorrect about 20% to 30%; in the lips, just 10% to 20%. I will generally re-inject the lips again at a second stage, if needed.

If there are irregularities, I very gently massage the area while the patient is still in the operating room. If the result is good, however, I never massage the area immediately after surgery. Instead, about 1 week after surgery I will have the patient begin a skin care program to include very gentle massage with Retin-A® (Ortho Pharmaceutical Corp., Raritan, NJ) or glycolic acid. This regimen should continue for 4 to 6 months.

The areas of the face in which fat can most effectively be used for augmentation are the cheek, mandible, chin, and lips. In the eyelids, I prefer to use fat injection only for the treatment of wrinkles as a supplement to other procedures for the general rejuvenation of the face. Fat injections in the hands are very effective in patients 60 to 80 years of age. A large quantity of fat can be safely infiltrated into the dorsum of the hands. I never inject breasts.

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