



By Linda W. Lewis

NEWSMAKERS

Stem Cells in Facelifts

A new fat cell collection device offers surgeons a startlingly effective way to do facelifts, reports one plastic surgeon with offices in Italy and the U.S.

"The procedure not only restores the youthful contour and shape of the face but also tightens the skin and evens out color."

"I've used fat to add volume to areas of the face during facelifts for years," says Renato Pier Calabria, MD, FACS, a plastic surgeon with offices in Beverly Hills, California, and Milan and Rome, Italy. "But the outcome was always uncertain. You never knew how much of the volume would be retained." Recent research into adult stem cells has renewed interest in fat transfers, and now a new device allows plastic surgeons to collect and concentrate fat cells more efficiently, giving them an exciting new way to perform more natural-looking volumized facelifts.

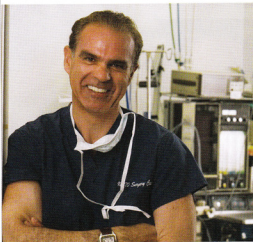
Dr. Calabria calls his technique the Stem-Cell Enhanced Facelift. It not only restores volume but also adds regenerative cells that are believed to be beneficial to the rejuvenation process. First, Dr. Calabria harvests fat from the patient, usually from the lower abdomen, using a low-volume tissue cell collection procedure. He places the collected tissue in the Celution 800/CRS System (Cytori, cytorix.com), which separates the stem and regenerative cells from the adipose matrix, washes and concentrates

them in the collection container. The process takes place in a closed environment to minimize the risk of contamination and can be completed within the timeframe of a single surgical procedure. Dr. Calabria then uses a blunt cannula to place the stem and regenerative cells into layers of facial tissues like the SMAS, arranging them precisely before covering them with the skin and completing the facelift.

"After the facelift, the patient exhibits dramatic improvement not only in soft tissue contouring but also in the skin itself. It is thought that growth factors contained in the implanted cells initiate a signal to local stem cells as well as the transplanted adult stem cells to restore themselves and multiply," explains Dr. Calabria. "So the procedure not only restores the youthful contour and shape of the face but also tightens the skin and evens out color irregularities caused by aging and sun damage."

The Celution 800/CRS System obtained its CE Mark in Europe late in 2008 and is in use in Dr. Calabria's offices in Milan and Rome, but it is not yet available in the U.S. "The device is extremely expensive, costing 70,000 to 80,000 Euros," says Dr. Calabria. "And it costs about 2,000 Euros every time you run it. It is likely that surgeons will be using it for breast reconstruction and other reconstructive surgery, not just facelifts.

"It's a new frontier in reconstructive and aesthetic surgery," concludes Dr. Calabria. "And as with anything new, we have to proceed with caution. I'm slowly integrating the Celution device into my procedures, but from what I've seen already, I predict that it will change the way we do facelifts in the future." ❖



Renato Pier Calabria
MD, FACS

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