Computer Imaging Adds to 'Nose Job' Satisfaction: Study

Rhinoplasty patients who previewed their new nose before surgery were happiest with results

By Jennifer Goodwin
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FRIDAY, Nov. 19 (HealthDay News) -- Computer imaging software gives patients a fairly good idea of how they'll look after a "nose job," and the majority value the preview process, a new study finds.

The "morphing" software, used by plastic surgeons since the 1990s, appears to improve patient-doctor communication, surgeons involved with the study said.

"Having an image of an individual in front of you and manipulating that nose on the screen is better than [the patient] showing me pictures of 15 other women's noses she likes," said Dr. Andrew Frankel, senior study author and a plastic surgeon at the Lasky Clinic in Beverly Hills, Calif. "It's her face and her nose."

Patients who thought their computer image was accurate tended to be happier about the results, the study found, while plastic surgeons were less likely than patients to think the computer image correctly predicted how the remodeled nose turned out.

The study is in the November/December issue of the Archives of Facial Plastic Surgery.

The imaging software was a major step forward in the world of rhinoplasty, or plastic surgery of the nose, Frankel said.

"Before computer imaging, people would bring in pictures of celebrities or other noses they liked and would say, 'Could you make me look like this?" Frankel said.

But promising that was often impossible, plastic surgeons said. Plastic surgeons can break bone, shave off or reshape the cartilage that makes up the lower two-thirds of the nose, even graft cartilage from other areas of the body onto the nose, but they are still limited by the nose's basic structure.

"I have to constantly communicate to the patient what are reasonable expectations," said Dr. Richard Fleming, a Beverly Hills plastic surgeon. "If somebody comes in with a huge Roman nose and they want a little turned up pug nose, you're not going to give it to them. It cannot be accomplished."

And even nearly identical noses will look different on different people, Frankel said.

"Everything else about the face structure and the person can be different -- the skin color, eyes, height -- there is no translation between some Latina celebrity's nose and some Irish 40-year-old's nose."

Still, even with the computer imaging, the nose is a complex structure. Rhinoplasty, plastic surgeons say, is the most difficult procedure they do.

Not only does the nose have important functions (breathing, smelling) to maintain, it's front and center on the face. During healing, wounds contract, skin can tighten, and scarring can weaken cartilage, which can distort what the surgeon intended, Frankel noted.

"When you throw into the mix that it's subjective -- what one person thinks is a pretty nose another may not -- then that adds to the difficulty," Frankel said.

In the study, Frankel and his colleagues sent photos of 38 rhinoplasty patients six months after surgery along with their pre-operative computer images to a panel of plastic surgeons. They asked the surgeons to rate how closely the computer image and the "after" surgery photo of the real nose matched.

On a five-point scale, the surgeons on the panel ranked the mean overall accuracy of the computer-generated image a 2.98, meaning they considered the computer image "moderately accurate," according to the study.

The researchers also asked patients to assess their happiness with their new nose and the accuracy of the computer image.

Patients had a less discerning eye. Of the 11 who responded, 81 percent rated their happiness a 4 or 5 out of 5. They rated the accuracy of the image a 3.4 out of 5.

"In the patient's eye, the images were even more accurate than in the doctors' eyes," Frankel said. "If you communicate with the patient and you are able to come to a consensus on the imaging and the surgeon comes close to that, you will have a happier patient."
Fleming agreed. "A good, experienced surgeon can come extremely close to the anticipated result, and the imaging system gives us the ability to make sure the patient and the surgeon are marching to the beat of the same drummer."

Nose reshaping, or rhinoplasty, was the second most popular cosmetic surgery done in 2009, second only to breast augmentation, according to the American Society of Plastic Surgeons. The average surgeon’s fee was $4,216, excluding anesthesia and operating room.

About 256,000 people underwent rhinoplasty in 2009, an 8 percent drop from the 279,000 who had a nose job in 2008. Those numbers are down from 389,000 people who had rhinoplasty in 2000.

More information

The American Society of Plastic Surgeons has more on nose surgery.

SOURCES: Andrew Frankel, M.D., plastic surgeon, Lasky Clinic, Beverly Hills, Calif; Richard Fleming, M.D., plastic surgeon, Beverly Hills, Calif; November/December 2010, Archives of Facial Plastic Surgery

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