

Imaging a Better You

New technology aims to take the guesswork out of cosmetic surgery.

By Stacey Colino



If you're wondering how you'd look with a straighter nose, a flatter belly, more buoyant (or simply bigger) breasts, believe it or not: There's an app for that.

Last November, Chevy Chase plastic surgeon Dr. **Navin Singh** developed "Mod Your Bod," which can be downloaded for free at the iTunes store for an iPhone, iPod or iPad. It lets you snap a digital photo of yourself, then trim the hook from your nose, shave the excess off your protuberant belly, or lift sagging breasts or buttocks with a few brushes of a fingertip on the screen. The result: a picture of you, only better.

It's like having virtual surgery before the real thing. You can even e-mail the photo to friends for their opinions.

"It's very compelling when people see themselves in before-and-after photos," Singh says. It's far better, he says, than simply viewing a photograph of a different nose or a pair of breasts and imagining how you'd look with them.

I'm hoping Singh can show me how I'd look without bags under my eyes. But he tells me there isn't much he can do surgically, given the anatomy of my eye area. Instead, he snaps front and profile photos of my face, then shows what I'd look like with a classical Greek nose.

It looks good, I must admit. But we agree that the nose I have suits my face, too.

Singh's app is the latest manifestation of a technology that aims to take the guesswork out of plastic surgery and eliminate the likelihood of patient remorse. Computer imaging for plastic surgery has been around since the 1990s. But in recent years, software companies have been further customizing these programs and apps.

"Now consumers are [increasingly] asking for computer imaging," says Dr. **Shervin Naderi**, who uses two-dimensional computer imaging in his Chevy Chase and Herndon, Va., practices. Even so, he estimates that only 10 percent of local plastic surgeons use computer imaging, but the number is expected to grow. Right now, price may be a factor the systems can cost \$13,000

to \$25,000. And “it takes time to do the imaging,” says Naderi, who specializes in rhinoplasty and rhinoplasty revisions (correcting previous surgeries). There’s also a considerable learning curve in terms of being able to use the imaging tools in a way that realistically captures the likely results of real-life surgeries.

With two-dimensional computer imaging (also called “digital photo morphing”), a plastic surgeon takes a digital photo of the front or side view of a patient’s face or body, then manipulates the image on a screen to reflect the changes a patient desires. The image shows what the patient might look like after undergoing rhinoplasty (a nose job) or an eye- or face-lift, and adjustments can be made in the course of discussion. It takes the guesswork out of the equation at least in the planning stages.

“It’s helpful to use computer imaging as a tool to start the conversation and help patients see what’s possible because otherwise we’re just trying to read their minds,” says Dr. **Jennifer Parker Porter**, owner of Chevy Chase Facial Plastic Surgery. “Sometimes people don’t know what they want; they just know they want to look younger or different. So I try to get them to hone in on what their real concern is, using two-dimensional computer imaging.”

Once the goal is set, Porter often brings the final computer image into the operating room as a frame of reference.

Though two-dimensional computer imaging is more commonly used by plastic surgeons, there’s also a version that comes in 3-D. The patient sits on a stool between three different pods, each of which holds two cameras. When the surgeon pushes the button, all six simultaneously take a photo from their different points of view. These images are then transferred to a computer screen, where they create a three-dimensional image that can be rotated to show the proposed changes from different perspectives.

“This gives us a way to determine what’s the appropriate amount of change. Using 3-D imaging, we can exaggerate a look in the consultation to get a sense of the threshold where a patient still feels like him- or herself with the changes,” says Dr. **Monte Harris**, whose Center for Aesthetic Modernism in Chevy Chase specializes in facial plastic surgery and hair restoration. “When a patient comes to see me, he or she has ideas of what they want. By taking this picture, we can engage in a different level of conversation. My whole platform is about using technology to enhance the discussion, to create a shared aesthetic vision. It’s a game-changer.”

Of course, people sometimes get carried away and want to make changes that aren’t possible given their anatomy, or that aren’t in harmony with the rest of their face or body. “Sometimes people come in and ask, ‘Can I have Halle Berry’s nose?’ or ‘Can I have Ashlee Simpson’s nose?’ ” Singh says. “And I say, ‘No, she’s using her nose, but we can make your nose look better.’”

“We only show people what we can realistically deliver,” he adds. With a breast-lift or augmentation, for example, Singh considers what’s appropriate for a woman’s body frame. “It’s not like Mrs. Potato Head,” he says, meaning that you can’t just add any body part. “We want the breasts to be symmetric, sensual and soft not like grapefruits stuck onto the chest.”

To some extent, unrealistic expectations come with the territory in plastic surgery, and they can be inflated when patients see potential changes on a computer screen. If those patients are told the adjustments can't be made in real life, it just exacerbates the disappointment.

“If the surgeon hasn't touched your nose and examined you, the computer image is just an artistic rendering it doesn't mean anything,” Naderi says. “This isn't a marketing tool; it's a dialogue tool. It has to be something that gets the surgeon and the patient in the same game, with the same goals.”

The plastic surgeons who use computer imaging say they wouldn't perform the surgery without this step. “I want [patients] to know what it's going to look like, because a picture is worth a thousand words, and they need to know what they're getting into,” says Naderi, who had his own nose done during his residency. “I tell people to print the image, put it up on the fridge and walk by it five times a day and see if they like it.

“It's even more important to do this with male patients,” he says, “because men are not used to their looks changing much. Women use makeup or have makeovers, so they're used to it. Changes come harder to men, so they've got to know what they're getting into.”

Naderi says computer imaging sometimes dissuades people from having plastic surgery. If they see the limits of what can be done to change a particular feature, they may decide the surgery's not worth it. Naderi also says he refuses to operate on about 20 percent of patients largely because they can't agree on a goal or because the patients want something that's unrealistic or inadvisable for their face.

When plastic surgeons do operate, they want patients to understand that “the vagaries of human healing do come into play,” Singh says. “You can do these procedures in a predictable way, but each body will heal differently.”

Researchers at the Atherton Plastic Surgery Center in California found in a 2010 study that rhinoplasty patients tended to be more satisfied with their surgical outcome when it closely resembled the computer image they'd agreed upon with their surgeons.

In the case of my under-eye circles, plastic surgeons tell me there's not enough fat under my eyes to have them surgically erased. Harris suggests an alternative: Minimally invasive injections of my own body fat could plump my cheeks slightly, making my under-eye bags less noticeable. “The best place to restore youthfulness is in the cheeks,” Harris says.

He shows me 3-D computer imaging of the potential result: I look refreshed and radiant, but still like me exactly the effect I would want from any cosmetic procedure.

“This will be the norm in five years or so,” Harris says of the use of computer imaging in plastic surgery. Seeing really is believing.

Stacey Colino lives in Chevy Chase and writes regularly about health, psychology and family issues for national magazines.