

Wearable technology gets good ratings from plastic surgeons

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Plastic surgeons see some clear advantages of using Google Glass in the operating room, reports a survey study in the July issue of *Plastic and Reconstructive Surgery*, the official medical journal of the American Society of Plastic Surgeons (ASPS).

"Despite some identified weaknesses, Google Glass is a unique technology with a promising plastic surgical application in the operating room," according to the new research by Dr. Jeremy C. Sinkin of Georgetown University Hospital and colleagues.

Plastic Surgeons Who Tried 'Glass' in the OR Give it Good Ratings

Introduced in 2013, Glass is a hands-free, head-mounted computerized device that can present information to the wearer and enable recording and sharing of photos and video. A recently concluded Google testing program allowed Georgetown <u>plastic surgeons</u> to evaluate Glass for use in the operating room.

After a brief introduction, nine resident and attending plastic surgeons used Glass for various cosmetic and <u>reconstructive surgery</u> procedures. These users were surveyed about their experience, including comfort level, ease of use, and the quality of images obtained using Glass.

In general, the surgeons gave Glass high ratings for comfort and overall satisfaction. The ability to capture images and video using voice-activated control was rated "good"—average score about three on a five-



point scale. Scores for the quality of photos and videos averaged nearly four out of five.

Compared to voice control, the surgeons had more problems capturing pictures or videos using Glass's "wink" feature. They also reported difficulties with reviewing images during surgery.

One-third of surgeons said they found Glass to be distracting. At times, they had to look away from the surgical field or bend the head and neck into awkward positions in order to take pictures.

"The results provide constructive end-user feedback regarding the introduction of this innovative technology into plastic surgery," Dr. Sinkin comments. The researchers note some limitations of their study, especially the small number of surgeons surveyed.

In a previous paper in *Plastic and Reconstructive Surgery*, Drs. Christopher R. Davis and Lorne K. Rosenfield of Stanford University described the first plastic surgery procedure performed using Glass. In a new editorial, they highlight the many potential advantages of incorporating Glass into surgery—including recording procedures for training and documentation and providing the surgeon with access to the patient's medical records and imaging studies. They write, "Despite its technological infancy, the marriage between Glass and surgeon is a healthy one with great promise."

While Glass is not currently available, it is currently undergoing a "comprehensive redesign," according to Drs. Davis and Rosenfield. They add, "One can expect redesigned frames, more flexible optical hardware, and an updated software platform open to all technology companies."

More information: Christopher R. Davis et al. Looking at Plastic Surgery through Google Glass, *Plastic and Reconstructive Surgery* (2015).



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