Readability Assessment of Online Patient Resources for Breast Augmentation Surgery

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Background: Patients increasingly rely on Internet resources for medical information. Well-informed patients are more likely to be active participants in their health care, contributing to higher satisfaction and better overall outcomes. Access to online patient material, however, can be limited by inadequate functional health literacy. The National Institutes of Health and the American Medical Association recommend that educational content be written at a sixth-grade reading level. This study aims to assess the readability of online patient resources for breast augmentation surgery.

Methods: A Web search for "breast implant surgery" was performed using the largest public search engine. After sponsored results were excluded, the 12 most accessed sites were identified. Patient-directed information from all relevant articles immediately linked from the main site was downloaded and formatted into plain text. The readability of 110 articles was evaluated using 10 established analyses, both overall and by Web site.

Results: The overall average readability of the 12 most popular Internet resources for breast augmentation was at a thirteenth-grade reading level (Coleman-Liau, 13.4; Flesch-Kincaid, 12.7; FORCAST, 11.3; Fry, 13; New Dale-Chall, 12.9; New Gunning Fog, 13.8; Raygor Estimate, 15; and Simple Mesaure of Gobbledygook Formula, 14.3). The Flesch Reading Ease index was 41, which falls into a "difficult" reading category. No individual article or Web site was at the recommended sixth-grade level.

Conclusions: Online resources for breast augmentation are above recommended reading levels. This may potentially serve as a barrier to patients seeking this type of surgery. Plastic surgeons should be aware of potential gaps in understanding and direct patients toward more appropriate resources. (*Plast. Reconstr. Surg.* 135: 1573, 2015.)

Breast augmentation is the second most common cosmetic surgical procedure performed in the United States, with over 363,000 cases performed in 2013 alone.[1] Like any operation, it involves a number of risks and benefits that must be clearly communicated with patients before surgery. Approximately 18 percent of patients experience a complication after augmentation, and having a complication has been shown to correlate with patient satisfaction postoperatively.[2,3] Available patient-reported data suggest that women decide to seek breast augmentation over a number of years before undergoing the procedure, providing ample opportunity for research before consulting a plastic surgeon.[3] Other studies have found that the majority of breast augmentation patients begin their search for information about the procedure online, most with a Google (Google, Inc., Mountain View, Calif.) search.[4] Well-informed patients have been shown to participate more in their care, have higher satisfaction postoperatively, report better overall outcomes, and engage in malpractice litigation less frequently.[5–7] The advent of Internet-based educational Web sites has resulted in unprecedented patient access to health information. Over the past decade, Internet use has increased

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Received for publication May 4, 2014; accepted July 22, 2014.
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DOI: 10.1097/PRS.0000000000001230

Disclosure: *The authors have no financial disclosures and report no conflicts of interest with any of the companies or products mentioned in this article.*