

A new approach on managing breast asymmetry

BY THOMAS COLSON

Numerous approaches for evaluating and measuring breast asymmetry have been attempted but they remain either subjective, cumbersome or cost prohibitive. Some methods are as simple as using varying cup sizes or rulers, while others are more complex, implementing Archimedian mathematics or modern radiological procedures (MRI and CT scans). When managing breast asymmetry and planning for corrective surgery, a more precise evaluation method is needed.

Any new technology introduced to a practice must be technically robust and should take into account the patient's needs. The use of 3D imaging systems can be an indispensable approach to accurately measure breasts and obtain data which was previously not available to plastic surgeons.

The system we use in our practice, the 3D LifeViz®, is manufactured by Quantificare (Sophia-Antipolis, France) and has improved the way we manage breast asymmetry. The device is a portable, handheld 3D camera with which we take three to four stereoscopic pictures and with the integrated dual beam distance pointers, we obtain realistic 3D images. The software, which is part of the package, quickly generates a 3D image and allows precise evaluations of the breast by segment and even volume, which was previously not possible.

The 3D LifeViz® system has been an invaluable tool to convince my patients to engage in face, breast and body procedures. I have found it particularly helpful when performing breast surgery, as well as for face and body procedures.

3D photodocumentation is an integral part of the consultative process, which helps the patient to understand and visualise their physical imperfections so that we can determine a treatment plan together.

From a clinical perspective, I can easily view differences in segment size (SSN to nipple, upper and lower pole length, width, etc.). The software indicates the width of the breast and provides guidance on the choice of implants.

Another helpful aspect of the software is that it generates differences in height such

as the Inframammary Fold (IMF) and Nipple-Areola Complex (NAC). This data is extremely useful to plan the surgery and correct asymmetry in breast height (Figure 1).

This device can calculate volume differences and illustrate exactly where it is distributed on the breast as shown by the colour map (Figure 2).

The system can be used as an aid for lipofilling. We know how much fat we inject but we cannot always accurately determine how it displaces in the body. With this device, we can take before and after pictures and obtain accurate figures on the quantity and location of the volume.

The patient benefits of the system are equally important. In some cases, they lack objectivity about their feature and simply forget how they looked before and after the intervention. With this solution, there is no room for misunderstanding, given the images can be visualised and the volume changes are objectively quantifiable.

The simulation software helps me develop a treatment plan and even choose the type of surgery, i.e. mammary implants or lipofilling. By browsing the catalogue, I can try different implants to choose the right combination to correct the asymmetry.

The visualisation of postoperative results enables objective results. I can show the patient before and after measurements and quantify the correction of the asymmetry.

The 3D LifeViz® system has become an integral part of my breast consultations by improving both my technical skills and communicating more effectively with my patients.

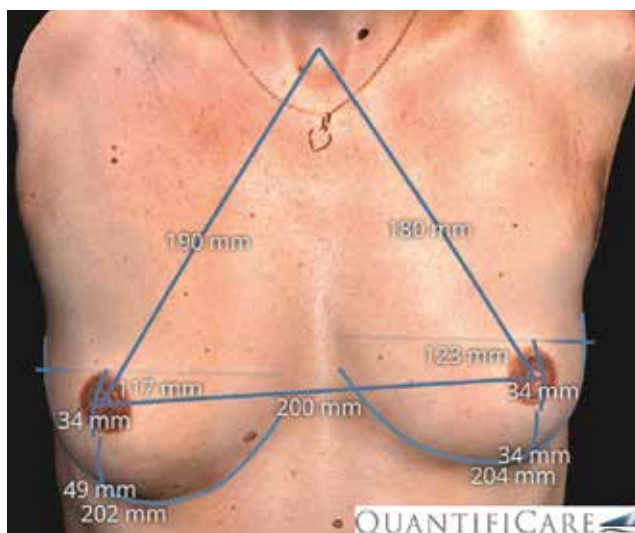


Figure 1: Difference in segment size displayed in the BreastShaper module.



Figure 2: Symmetrical comparison between left and right breast.

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