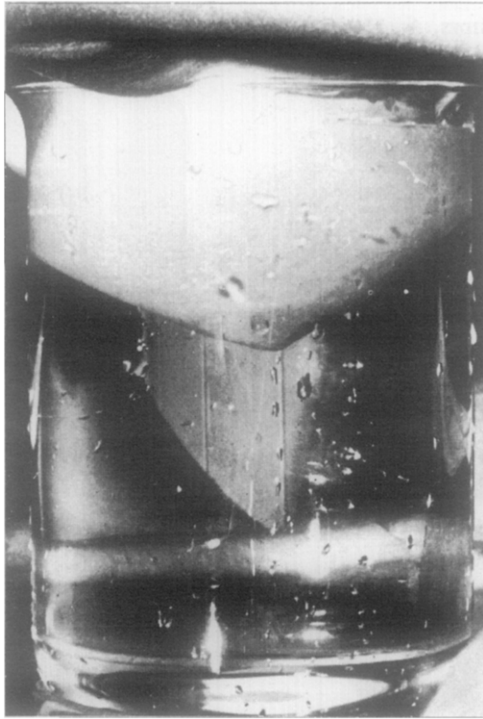


## VOLUMETRIC MEASUREMENT OF THE HUMAN BREAST AND BREAST TISSUE BEFORE AND DURING MAMMAPLASTY

By F. G. BOUMAN, M.D.

*Reader in Plastic Surgery, Free University, Amsterdam, The Netherlands*

THE aim of a reduction mammoplasty is to achieve reduction with symmetry. Some surgeons rely on visual estimations, others weigh the excised tissue during operation. Most enlarged breasts however are not symmetrical and one should have a pre-operative measure especially when one breast has obviously to be reduced more than the other.



The patient sinks her left breast in a glass jar filled to the brim with water.

Weighing pre-operatively is impossible and therefore a volumetric measurement has been adopted in which the water displacement of both breasts is measured as has been described in the extremities (Saad *et al.*, 1966). During operation the volume of the excised tissue is similarly recorded.

**Method.**—A glass jar is required with a diameter a little larger than the diameter of the base of the breast; this jar is filled to the brim with water. The patient bends forwards over it and sinks one breast into the jar until the brim exactly reaches the thoracic wall around the base of the breast (Fig.). Afterwards the jar is refilled to the brim from a measuring glass to determine the volume of water displaced. The other side is measured in the same way.

At operation the tissue (skin, fat and glandular) taken from each breast is placed in separate measuring glasses already filled with 50 ml. or more water (the tissue must remain or, if floating, be displaced under the water level). In this way the volume of tissue removed can be continuously read off.

#### SUMMARY

A method of volumetric measurement of breast tissue before and during reduction mammoplasty is described.

#### REFERENCE

- SAAD, M. N., HANDYSIDES, A., NOON, C. and CALNAN, J. (1966). The control of post-operative oedema. *Br. J. plast. Surg.* **19**, 245.