

ABSTRACT

SYNTHETIC PROSTHESES, SILICONE, TEFLON, AND
ETHERON, WITH LABORATORY AND CLINICAL STUDIES,
INCLUDING FULL JAW SUBSTITUTIONSBY J. B. BROWN,¹ M. P. FRYER,¹ O. OHLWILER,¹ P. KOLLIAS,¹
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Since our earlier report in the *Annals of Surgery* in September 1960 on laboratory and clinical study of dimethyl siloxane (Silicone) and halogenated carbon (Teflon), continued study and work has been carried on with these materials and with diisocynate polyether (Etheron). Because of numerous inquiries from individuals and from surgical services as to the present state of decision and of acceptance of these materials, it is thought that this report is indicated.

Notable progress has been made in full lower jaw substitution by a relatively simple procedure. Dental restoration has been carried out successfully as to function and contour. Correction of facial contour and function has been developed to a worthwhile degree, and also relief for ankylosis of the jaw.

Faults have been studied, and listed, and occur as predicted in our first report, and conclusions for avoidance have been determined.

Diisocynate polyether sponge (Etheron) has been studied in 85 laboratory animals, and has been used clinically with promising results in facial function and contour, and in other defects. This work is thought to be a needed laboratory study for this material, as a matter of safety for patients and surgeons.

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