

Historical development of alloplastic temporomandibular joint replacement after 1945 and state of the art.

[Driemel O](#), [Braun S](#), [Müller-Richter UD](#), [Behr M](#), [Reichert TE](#), [Kunkel M](#), [Reich R](#).

Department of Oral and Maxillofacial Surgery, University of Regensburg, Germany.

oliver.driemel@klinik.uni-regensburg.de

The variety of temporomandibular joint (TMJ) prostheses and condylar reconstruction plates available is in contradiction to their rare application. This emphasizes that alloplastic TMJ reconstruction is still evolving. This article reviews the history of TMJ reconstruction. Medline as well as public and private libraries have been searched. Current systems are reviewed. Prosthetic devices can be differentiated into fossa-eminence prostheses, ramus prostheses and condylar reconstruction plates, and total joint prostheses. Fossa and total joint prostheses are recommended when the glenoid fossa is exposed due to excessive stress (degenerative disorders, arthritis, ankylosis, multiply operated pain patients). Singular replacement of the condyle is preferred as a temporary solution in ablative surgery. The use of prosthetic devices for long-term replacement should be restricted to selected cases, taking care to retain the disk, in order to prevent penetration into the middle cranial fossa. The term 'condylar reconstruction plate' reflects this more clearly than 'ramus prosthesis' which suggests permanent reconstruction. Long-term studies comparing the functional and aesthetic results of the various prostheses and condylar reconstruction plates are not available, which leaves the choice to personal experience.