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A Technic for Immediate Full Denture Restoration

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A Technic for Immediate Full Denture Restoration*

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THERE IS NO DOUBT that denture technic is moving forward. Immediate full denture restoration is sound in principle, and this service will be the future procedure as soon as the public is educated away from the customary practice of staying edentulous for many months.

Dr. Lowery, in the American Textbook of Prosthetic Dentistry, says: "The ideal means of securing natural appearance is the immediate insertion of dentures after the extraction of the teeth. The immediate denture prosthesis has a number of advantages. The new denture serves as a dressing which favors healing and furnishes a means for securing a better ridge form of the arches. There is less disturbance of masticatory function, thereby maintaining facial contour and expression.

"The mandibular articulation is maintained in its normal relationship and the condyle heads in their accustomed position; the tongue retains its contour and forward position; the lips and cheeks do not lose their muscle tone; and muscle fatigue usually accompanying extraction of all the teeth is eliminated. Further, the patient remains socially presentable, which helps to maintain a favorable mental attitude over a trying period and frees the patient from the extreme depression so often accompanying a long edentulous period. The art of learning to wear dentures is made easier for the patient by following this procedure."

It should be kept in mind that excessive surgical removal of osseous tissue is contra-indicated. There is a constant necessity for rebasing and duplication of dentures if too radical surgical operation is performed. Removal of sharp spines and spicules is desired. The healthy cortical layer should be retained if possible. The periosteum is limited in its bone-building powers after it is stripped from the cortical layer and stretched over a newly-prepared cancellous base. It is better

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to have a slow resorption of the bony process than to have no base at all after a little while. The X-ray plays a very important part in disclosing the density and amount of bone surrounding the teeth. One must use a great deal of judgment in the preparation of the mouth for the immediate denture service.

This procedure is not new. As early as 1896 Essig described a method. "Temporary denture" is a term applied to a denture that is inserted immediately upon or soon after the extraction of the natural teeth before the process of resorption is complete.

The technic that I shall describe here is simple and one that resorts to the minimum of surgical removal. The posteriors of the lower on one side are extracted. The spines and spicules are removed, sharp edges filed and the tissue pressed together. There should be very little suturing. This avoids a scar tissue septum. The posteriors of the other side are removed at a subsequent sitting. The time is controlled usually by the patient. Unless the removal is urgent, the patient should have recovered from the previous operation. When all of the posteriors are removed a splint should be constructed for the lower. This gives a patient something upon which to rest and the form of the ridges will become accustomed to the base. The posteriors of the upper on one side are removed, the spines and spicules removed and the tissues pressed and held together with the least number of sutures possible.

The posteriors on the other side are removed at a subsequent sitting and the same procedure followed. A temporary base is made for the upper to occlude with the lower. Two snap impressions are taken with modelling compound and poured. Upon these casts master sections are made of a tray impression compound. I prefer making master sections in this manner, because it is easier for the operator. These master sections are heated with the torch, dipped in hot water and seated in the mouth; the lower is usually handled first.

The patient becomes accustomed to plaster and is more cooperative while the impression is being taken. After the section is finally trimmed a plaster wash is taken with the master section and a labial core constructed to finish the impression. The need for accuracy is essential in the construction of immediate dentures. The sections are assembled and

poured. The upper master section is tried in the mouth, seated and post-dammed. A plaster wash is also taken and the labial core finished in plaster. These parts are assembled and poured. Two bite rims are constructed and the vertical space checked. This is easy, for the remaining teeth maintain the correct vertical space for the patient. About one-sixteenth of an inch of the lower bite rim is removed and carding wax added to take its place. Soften the carding wax and have the patient close until the teeth just come into contact. This procedure equalizes the pressure on the tissues. The casts are luted to the contour models and then mounted to the articulator.

The size, shape and shade having been secured, each tooth is cut from the upper cast and an artificial substitute is placed in its position. After this is accomplished the posteriors are placed in their normal relationships to the lower ridges. The upper wax model denture is removed from its cast and just enough of the model removed to permit a thin labial flange. If the process is too massive, I prefer to butt the teeth instead of using a flange, and if the lip line is very high, I do not use a flange. Esthetics will be better without a flange in such cases.

The lower anteriors are removed one at a time, as directed for the upper, and an artificial tooth placed in the correct positions. The posteriors are occluded with the uppers already placed. These are finally adjusted to function in the eccentric positions.

When the cases are completed the patient is notified and the upper anteriors are removed and the process trimmed if indicated until the denture is seated. The lower bite rim is adjusted to occlude with the upper and the patient allowed to rest for a few days. A little adhesive powder is placed on the denture (not in the region of the fresh extractions) and the patient instructed to keep the denture in for at least twenty-four hours before removing. A mouth wash is prescribed for cleansing the mouth during this period. Frequent visits are made to the office for checking. As soon as the patient recovers, the lower teeth are removed and the process trimmed and the denture inserted to occlude with the upper. After a few days a wax check is taken and the dentures milled. Frequent checks are maintained to provide the servicing of the dentures

which is necessary to help the patient through this period.

These dentures should be worn as long as possible, for the tissues will take a definite form which will limit the future settling of the duplicate dentures.

For the replacement of these dentures duplicate ones are made with the correction of tissue adaptation.

The impressions for the new dentures are taken, using the temporary dentures as trays in centric occlusion; casts are poured and mounted on the articulator, which must have a guide pin to enable the operator to keep a constant distance between the supports. A registration of the position of the anteriors is taken and the dentures removed from their respective casts. The anteriors are set up and the posteriors are occluded according to the desired functional positions. The cases are tried in and finished as usual.

The objections as stated by Benjamin F. Johanson, Battle Creek, Mich., are that "complete asepsis is prevented by immediate covering of the wound with a non-sterile object which also hinders free drainage. This type of denture means a greater financial burden for the patient. For its construction a highly skilled specialist is needed. Nor should this type of service be employed for individuals who are poor surgical risks, aged persons, cardiac patients and those with acute infections of the mouth or marked tendency to hemorrhage."

In summarizing the merits of the immediate dentures over those inserted following a long edentulous period, we note that better ridge form results, less postoperative pain is encountered, the blood clot is supported, mastication is less difficult, the vertical space is maintained, centric occlusion is always correct, less muscle fatigue ensues, no changes in facial expression occur and there is no embarrassing period for the patient.

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