

Measurements of success



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Has a clinician ever asked you, "How can I quickly determine the length of a maxillary wax rim in the anterior area?" If so, the following steps will enable you and the clinician to establish length and position of a maxillary wax rim with a considerably higher degree of accuracy and consistency and take your removable skills to the next level.

Communication among prosthetic team members is essential to the design and fabrication of quality prosthetics. Instrumentation such as the papillameter and rim former communicate exact measurements during treatment and fabrication. Both are essential for productive and consistent denture treatment and reduce clinical chairtime during the records appointment. This, in turn, adds value to your work.

CHAIRSIDE MEASURING

A papillameter (Fig. A) provides the ideal tool for determining the length of the upper lip. During the impression appointment, a papillameter measurement is taken and recorded for the accurate fabrication of an upper wax occlusal rim for the next records appointment.

The clinician asks the patient to stand up to record this measurement. The papillameter is held in a vertical position with the horizontal projection, which is set at "0" resting on the incisive papilla (Fig. B). The patient is asked to relax the upper lip, and the exact length can be read off the instrument (Fig. C). The clinician should repeat this upper lip measurement process to ensure a reliable and consistent result. Once the lip measurement has been recorded, it should be noted on the laboratory prescription for technical accuracy to determine length of the wax rim.

With this value-added denture technique, a technician will

be able to provide the clinician with an accurate maxillary wax occlusal rim based on the taken measurement.

TRANSFERRING MEASUREMENTS

01 After the edentulous master model has been created (Fig. D), make a hole in the facial base with an eight round bur at the midline extension. This hole is used as a reference point for one leg of the dividers when transferring a papillameter measurement.

02 Place the papillameter on the incisive papilla so the measurement can be transferred with dividers (Figs. E and F).

03 With one leg of the divider in the reference point, place the other leg at the proper measurement and vertically scribe on the base (Fig. G). The distance between the reference hole and the vertical scribe equals

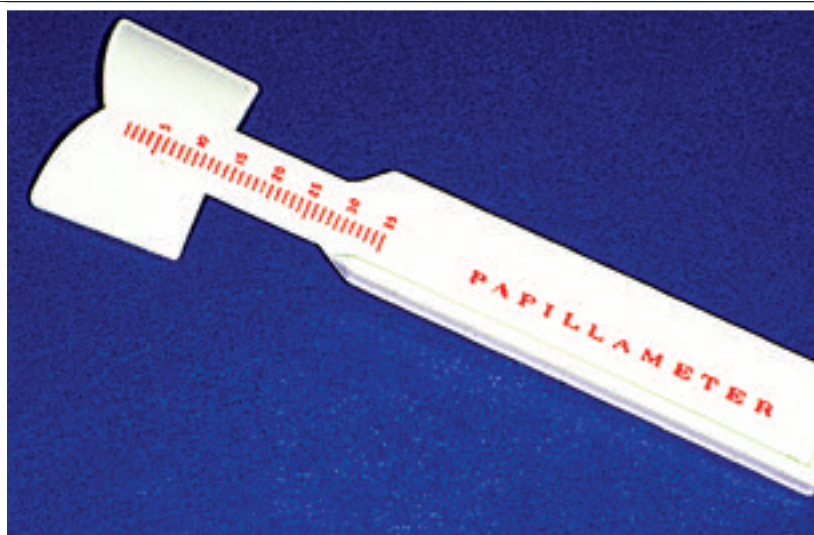


Fig. A A papillameter comprises a vestibule shield, an incisive papilla rest, and a vertical handle for measuring lip length.

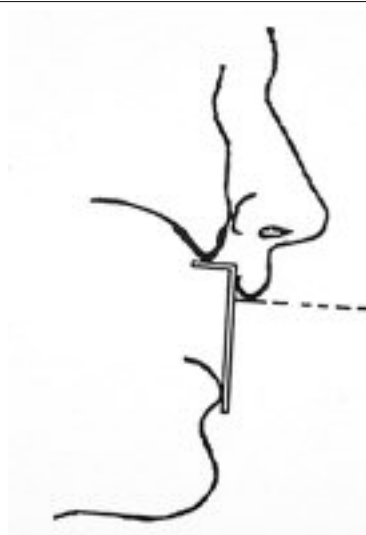


Fig. B The clinician places the papillameter in relation to the patient's incisive papilla and the upper lip.



Fig. C Papillameter in place measuring the upper lip



Fig. D The master model with the incisive papilla marked in red and the hamular notches with blue.



Fig. E Placement of the papillameter on the master model.

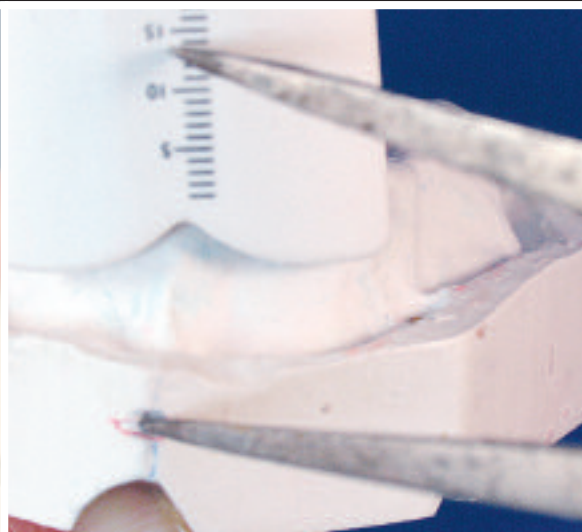


Fig. F Transferring papillameter measurement with dividers with one leg in the model base reference hole and the other at the desired papillameter measurement.

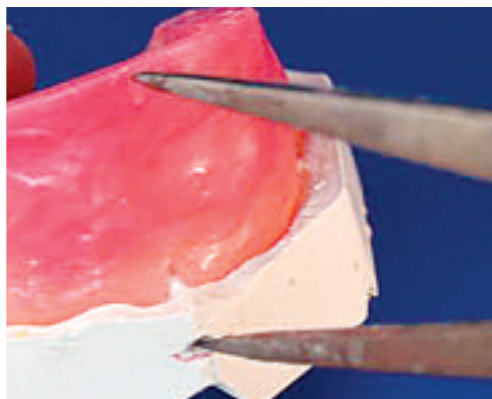


Fig. G Measuring the anterior length of the maxillary wax rim.

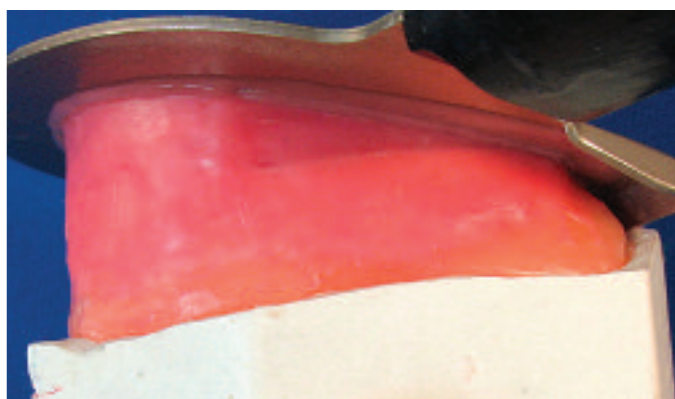


Fig. H Creating a wax rim occlusal plane with the rim former.



Fig. I Use of the papillameter can result in an esthetic tooth display in relation to the upper lip.

the length of the maxillary wax rim in the anterior area.

04 Create the maxillary wax rim, seal it to your baseplate, and then form the wax rim occlusal plane.

05 Using the distance between the hamular notch and incisive papilla, create the occlusal plane with a rim former that parallels Camper's line (Fig. H). The rim former has an angled edge that rests in the hamular notch and enables a uniform melting of wax when rotated to the anterior papillameter measurement.

LABIAL INCLINATION

Another factor to take into consideration is the labial inclination of a wax rim. A patient's skeletal classification will determine the wax rim labial inclination (see "Labial Inclination" at right).

To create a wax rim that has the proper labial inclination, a preliminary bite registration (mush bite or triple tray) must be taken at the impression appointment.

The technician then mounts the master models with this preliminary bite registration on a dental articulator to determine the proper skeletal classification.

It is very important to understand the patient's esthetic expectations because the desired occlusal classification might not be the same as the skeletal classification.

If the maxillary wax rim is created utilizing a papillameter and the occlusal plane created with a rim former, clinical chairtime for adjustment is greatly reduced. With these value-added instruments, you will increase the clinical productivity and technical consistency of a wax rim, resulting in an esthetic denture (Fig. I). **lab**

LABIAL INCLINATION



Mounted casts provide information concerning the jaw relationship of the patient, therefore, the correct inclination of the wax-rim can be anticipated.

The "ideal" occlusion profile, Class I, is straight; any malocclusion occurs with a discrepancy between tooth size and jaw length.

Class II occlusion features a retrognathic mandible (the mandibular first permanent molar is distal to its maxillary counterpart), resulting in a typically convex profile; a protracted maxilla would accentuate this situation.

Class III occlusion presents a prognathic mandible, retracted maxilla, and lingually tipped mandibular incisors. This results in a concave profile.

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