

General

Occlusal rims (“bite rims”), do more than just capture the patient’s general bite. The records aid the technician in selecting tooth size and shape, determine the correct position of the incisal edge of the teeth and help establish the gingiva contour for a fixed full arch hybrid. Occlusal rims also record the patient’s Occlusal Vertical Dimension (VDO) or restorative space.

At Peterson Dental Lab, we attach occlusal rims to the multi-unit abutments using two titanium temporary copings.

VDO (Vertical Dimension of Occlusion)

This is the distance between the upper and lower jaws when natural teeth or hybrid teeth are in the correct occlusion. When teeth are correct, everything looks natural when looking at the patient’s nose, lips, and chin.

Excessive VDO - This can be identified when a patient looks like they are hiding something in their mouth, or their lips have a hard time closing around the occlusal rim.

Deficient VDO - The patient's mouth appears to be collapsed and the chin looks too close to the nose. The lip corners will also look drawn down angle.

Step 1 – Adjust VDO

Measure patient’s VDO with existing restoration in place. Mark a dot on the patient’s nose and a dot on the chin with a “thin sharpie”. Record the distance of the two dots.

- Note 1 - If the patient has a worn-down restoration, then estimate the amount you would like to increase the VDO.
- Note 2 – Add or remove wax from rim as necessary until the exact measurement is achieved.

Step 2 – Adjust Lip Support

- Check the lip support of the occlusal rim. Look at the patient from the front and the patient side profile. The facial edge of the wax rim should be adjusted to where the incisal edge of the anterior teeth will be.
- Check Phonetics – Have the patient speak and check the pronunciations of “F”, “S” and “66” sounds. Adjust occlusal rim accordingly so that the patient is comfortable, speaking, and smiling appear natural.
 - Very important note – If trying to correct class II or class III patients, this step above is of most importance to evaluate if correction can occur. There is no need in moving forward to a set-up if it can’t be worked out in wax.

Step 3 – Occlusal Plane & Anterior Esthetics

- Adjust Occlusal Plane - make sure each side is level and not slanted. Adjust if necessary.
- Adjust Incisal Edge - should show equal amounts of wax across the lip line. Adjust is necessary.
- Mark Midline - use a thin instrument (not a thick sharpie)
- Mark Approximate Canine Position.
 - Note - The normal position should be even with the patient's corners of the mouth at rest. This can change given the opposing dentition and how guidance will occur.
- Mark High Lip Line – this is marked when patient is smiling and aids technician in selecting height of teeth.

Step 4 – Capture Bite, then Study Cast & Shade

- When all your functional and esthetic measurements have been recorded, inject impression material to the bottom wax rim and help guide the patient into centric relation.
- Send a study cast of the patient existing denture to aid in selecting size of teeth, and general appearance. It is very helpful to send the study cast when a patient wants changes to the existing teeth. We need a starting point to what they don't like.
- Record shade

Save Time and Money

By providing our technician with as much correct information as possible at this preliminary stage, we will be able to fabricate a new hybrid with fewer appointments and give you a more satisfied patient.