

Dental Anatomy and Occlusion: Maxillary Premolar Wax-up (Tooth #4)

Armamentarium

PK Thomas #1
PK Thomas #2
PK Thomas #4
Tooth colored wax
Typodont
Striker
Alcohol lamp
Alcohol
No. 2 pencil

Step 1: Mark and Seal the Margin

Again begin by marking the margin with a pencil to identify it. Then seal the margin with a coat of wax and use the carver to shape the edges. Place an even coat of wax around the entire tooth.

Step 2: Know the Functional Cusp

The difference between tooth #4 and tooth #21 is that the stem cusp, or the functional cusp, is the lingual cusp (not the buccal). In addition, the only part of the cusp that is in occlusal contact is the cusp tip.

The buccal view shows the lingual cusp with the orange cusp tip. Again, remember that wax-ups of posterior teeth are always started with the functional cusp first, unlike the anterior teeth, when we wax for esthetic considerations first and function second.

Step 3: Evaluate the Marginal Ridges

Once the buccal contour is finished, open and close the model, noting that the mesial marginal ridge of tooth #4 is aligned with the distal marginal ridge of tooth #6, and that the distal marginal ridge of tooth #5 is aligned with mesial marginal ridge of tooth #4.

Step 4: Evaluate the Occlusal Table

Looking at the occlusal table, we see that the cusp tip of the lingual is occluding with the opposing tooth. Also the distal marginal ridge aligns with the mesial marginal ridge of tooth #5 and the mesial marginal ridge aligns with the distal marginal ridge of tooth #6.

Note that the lingual cusp tip and the distal and mesial surfaces are aligned with the adjacent teeth and there are no large spaces between the teeth.

Looking into the model, the lingual cusp of tooth #5 should be occluding into the distal marginal ridge of tooth