

Preparation Instructions:

- Take shade before seating patient
- Evaluate lateral excursions and protrusive excursion. Remove interferences when wings will be compromised, although I have some that rise on my wings or occlude on a wing. Use celluloid (mylar) strip and articulating paper.
- Width of horizontal and height of vertical wing is significant – very important.
- Anterior translucency evaluation. Use opaque bonding for MB. Avoid incisal 2-4mm.
- Cingulum notch is kept for stability against dislodging. Even if you have grooves in interproximal keep cingulum notch for seating depth.
- DO NOT slick prep. Sheering forces will de-bond more easily if there is no contact. Just close! The more coverage on the lingual, the better. Path of insertion similar to or just like a (p/p) Partial Denture.
- In the occlusal rest, keep the groove and form to resist dislodgement. Interproximal Chamfer okay – not always necessary though
- I prefer diamond burs for prep – leave rough surface. DO NOT POLISH ANY ENAMEL! Preparation is best done by a coarse diamond to leave a rough bonding surface.



- Thus the bond material protects the tooth and the metal can act as a partial denture rest until the opposing end tooth de-bonds. Uncommon to find decay!
ICON Concept (Infiltration Concept)
 - On bicuspid and molars 180 degree wrap is essential. Do not go past midpoint of occlusal on the rest prep.
 - The tooth needs flexibility. Too much Buccal/Lingual coverage on molars leads to premature flexure breakage of the bond. Therefore do NOT extend a molar wing the entire buccal or lingual width, only to the midpoint groove. The flexibility of the tooth will break that extension and lead to early debond of that whole side of tooth.
 - The depth of the box prep can be best judged by the length of enamel near the CE junction. Keep the prep on enamel and open for a path of insertion consistent with the other abutment path. I prefer a slope – not exactly parallel – 10-15% occlusally divergence. The wings need some grip but not a total wrap of the abutment. A total grip would be a crown.
- On molars, from the height of contour of the facial also on the lingual to the occlusal plane if available. A slight inset into the facial and lingual occlusal groove is helpful. If occlusal bite space is available and no occlusal/lateral interference present, it is good to go up onto the occlusal. Slight preparation without anesthesia is indicated to make a chamfer like prep for the wing. Only slight roughening of the groove and occlusal half of the wing prep is needed. Keep as much solid enamel as possible. Just assure yourself enough space for the metal and porcelain. If a filling is involved I try to totally cover it for sealing purposes. I replace old amalgams as well as old composite with new composite. Do not cover up decay!
- On bicuspid, the same interproximal prep as for molars. However, I carry the lingual arm of wing to the opposite lingual interproximal line angle – not into the interproximal, just to the line angle. The buccal wing is only slightly prepared for from 2 – 4 mm and stop at the 180 degree wrap. This helps with esthetics too. Allows for abfractions.
- If the bicuspid is the only support and the other abutment is a rest only, then full FL wrap is best. This is a stress breaker attachment concept.

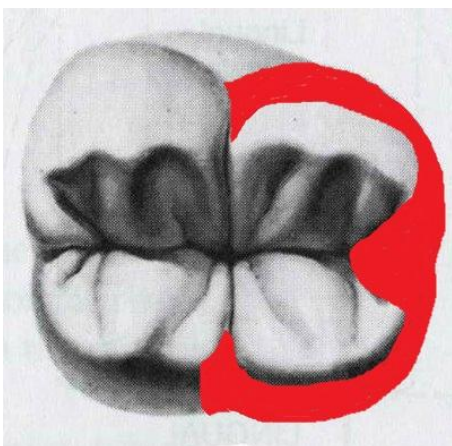
- On the subject of esthetics, composite material or porcelain can be bonded onto any of the exposed metal surfaces. This can diffuse the metal look for some patients who desire it. My experience is that some may abfract and flake off or wear off in a few months/years. Not all, just some.



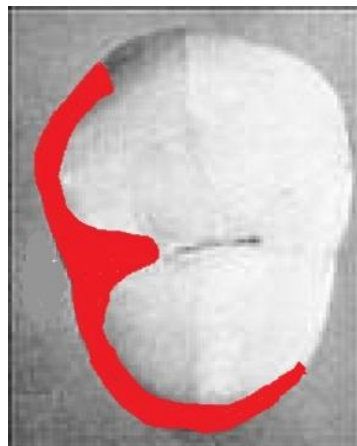
Mylar strip and articulating paper



Check centric and excursions for clearance



180° wrap clasp for a molar



Buccal of premolar 2-3mm, Lingual wrapped