UNIVERSITY OF WASHINGTON
School of Dentistry
Department of Orthodontics

INTERPROXIMAL REDUCTION (IPR)

Limited orthodontic treatment often requires space to align teeth without significantly changing overjet or occlusion. Orthodontists commonly provide space by removing tooth structure, either by extracting teeth or reducing the mesio-distal width of the dentition via IPR. Another common indication for IPR is a mismatch in maxillary to mandibular incisor coupling, i.e. a Bolton tooth-size discrepancy.

IPR can be effectively and safely done in both the anterior and posterior segments. Studies indicate that up to 50% of interproximal enamel can be removed with no increase in caries incidence or periodontal disease.

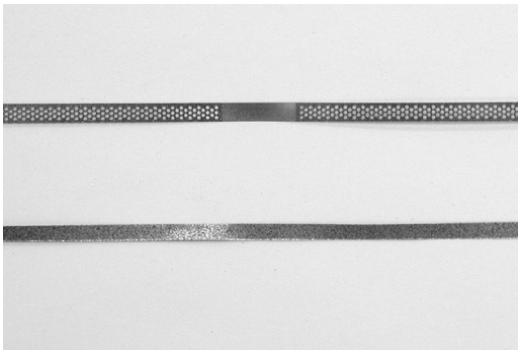
Care must be taken remove enamel in a symmetric fashion to avoid shifting the midline. Reproximate only the contact areas on the mesial and distal of the tooth as it will be **when aligned.** All reduced surfaces should be thoroughly polished to avoid plaque retention of roughened surfaces.

1. Measure space requirement accurately using orthodontic models. Confirm measurements with intra-oral examination.

2. Check radiographs for adequate enamel thickness and root/crown angulations.

3. Check contacts using floss. Be aware that rotations often create non-physiologic contact points (i.e. more gingival). Visualize the correct placement of the tooth and contact area—this is usually where you want to remove enamel.

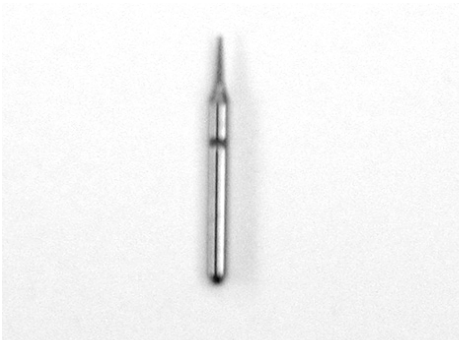
4. Insert the **diamond abrasive strip** in the most aligned or open contact of the tooth to be reduced. (Slip the plain/non abrasive segment in the middle of the strip down first.)



5. Slowly **saw** the abrasive through the contact point, taking care not to slice up the gingival papilla. Advance to a clean section of abrasive as needed

6. **Open** the contact enough to easily remove the strip.

7. Contacts can also be reduced using diamond disks on a straight handpiece or with very fine diamond points. Opening tight contacts with abrasive strips first is usually advised when using rotary instruments.



8. **Polish** the reduced contacts well with finishing strips and disks. You may administer a fluoride treatment to assist in remineralizing any damaged enamel.

9. **Record** the approximate amount of enamel you removed and estimate if further reduction will be needed.