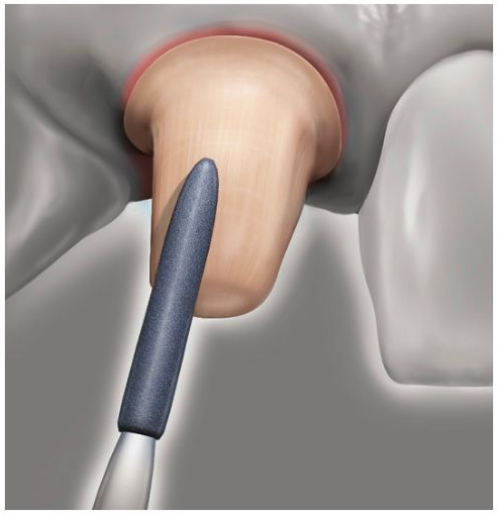
Why Tooth Preparation Design is Important

- Uniform reduction results in optimum ceramic strength
- Adequate reduction leads to better esthetics
- Smooth edges result in lower stress
- Lower stress decreases potential for fracture
- Ceramic restorations require a passive fit
- Scanners read smooth preparations more accurately



Ideal Chamfer Margins—Anterior

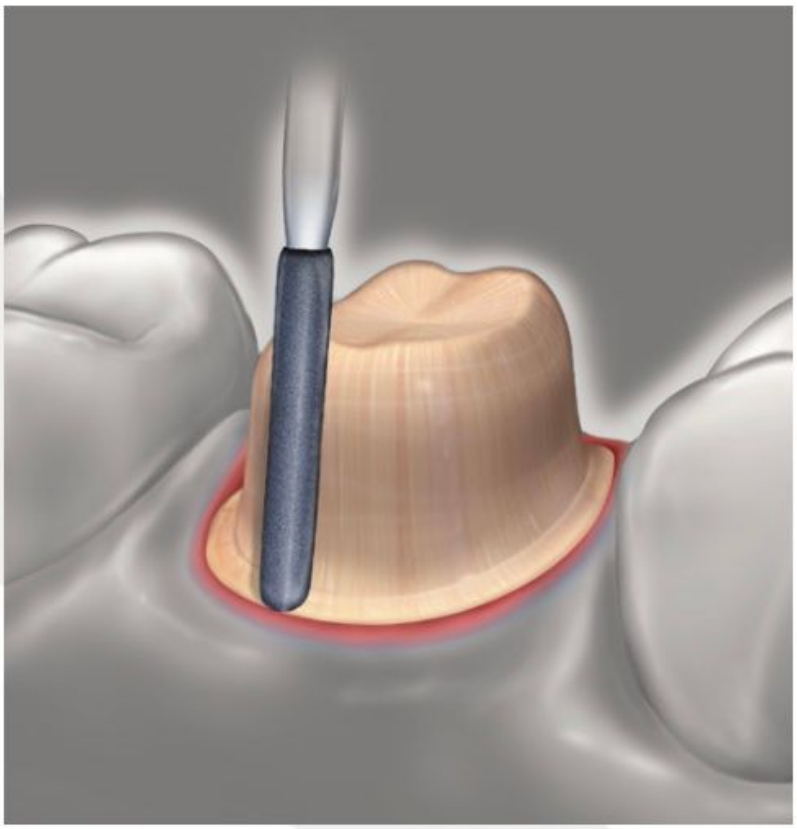
Chamfer/shoulder preparation or feather edge.

Rounded internal line angles.

Incisal reduction of 0.5mm to 1.5mm.

Axial reduction of 0.5mm to 1.5mm.

Reduction of at least 0.5mm at the gingival margin.



Ideal Chamfer Margins—Posterior

Occlusal reduction of 1.0mm ideal; 0.5mm is the minimum.

Rounded internal line angles.

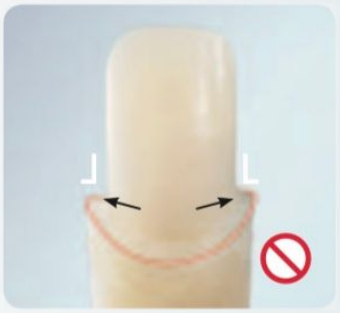
Taper between 4 and 8 degrees.

Axial reduction of 0.5mm to 1.5mm.

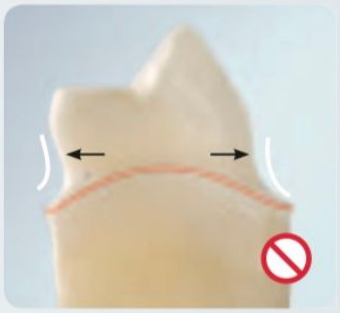
Reduction of 0.5mm at the gingival margin.

Unacceptable Preparations

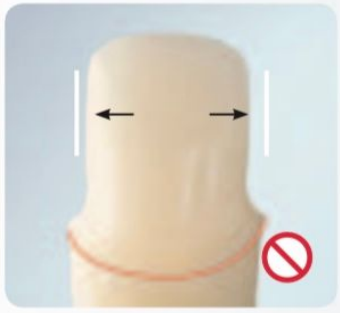
No Gutter Preparation.



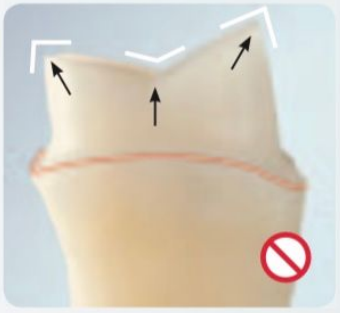
No 90° Shoulder.



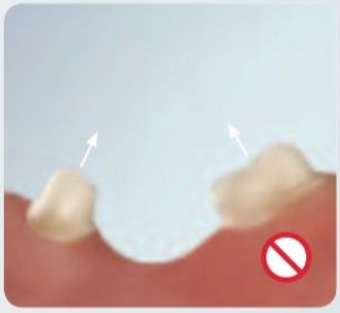
No Undercuts.



No Parallel wall preparations.



No Sharp incisal-occlusal edges.



No convergent or divergent multi-unit preparations.

Fig. 8: Unacceptable preparations.