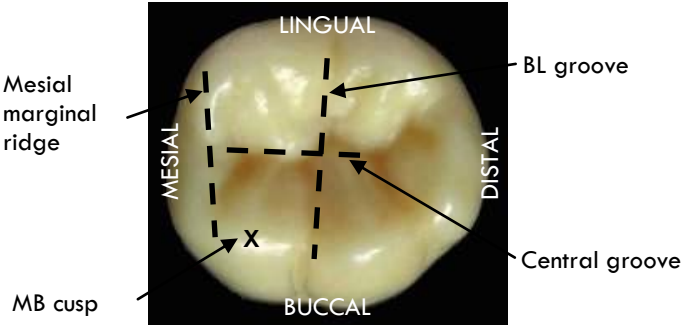
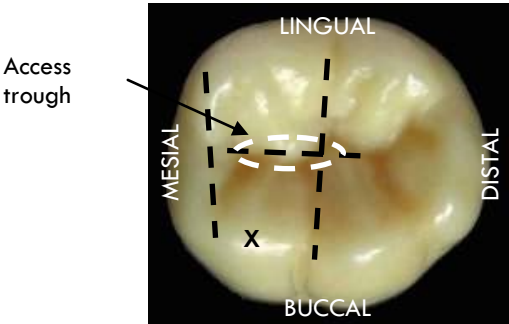
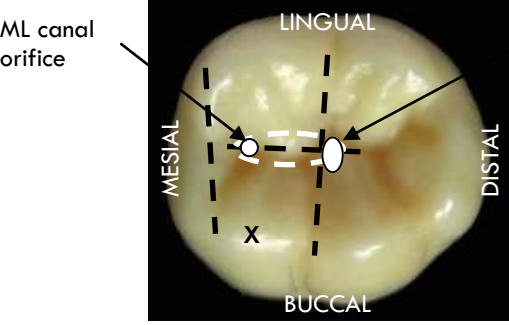
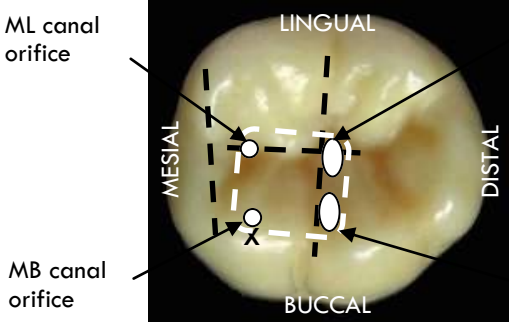
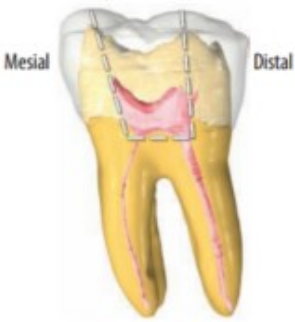
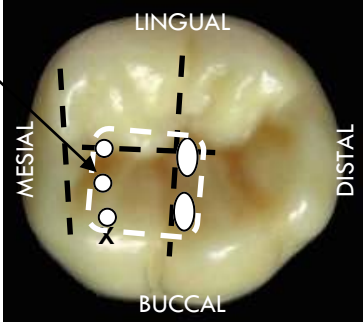


Access cavity walkthrough: Lower mandibular first molar

Access cavity preparation is crucial in the success of endodontic therapy. A well designed access cavity can help identify all the canals, allow thorough chemo-mechanical debridement and reduce unnecessary tooth tissue removal. The following article will focus on how to maximise efficiency when preparing an access cavity in a lower mandibular molar.

STAGES:

Stages	Diagram	Description
1- identifying anatomical landmarks		<p>In most cases the roof of the pulp chamber is between and below four anatomical landmarks:</p> <ol style="list-style-type: none"> 1. BL groove 2. Central groove 3. MB cusp 4. Mesial marginal ridge
2-initial access		<p>Create an initial access trough into the pulp chamber 1mm distal from the mesial marginal ridge extending 1mm distal to BL groove.</p>
3-locate ML and D canals		<p>Using an endodontic explorer such as a DG 16 probe or handfiles locate the ML and D canal. If the canals cannot be located, extend the prep slightly until the orifices are found.</p>
4-extend preparation		<p>Extend the prep into a rectangular shape to enable finding MB canal and a potential second distal canal, present 30% in mandibular molars (Weine FS, 2004). If the distal canal is located near or along the central groove, it is highly likely that only one distal canal is present.</p>

<p>5-modify access cavity</p>		<p>Flare mesial wall to allow unimpeded straight line access. The distal wall can be slightly undercut to preserve tooth tissue, whilst still allowing thorough chemo-mechanical debridement.</p>
<p>6- locate middle mesial canal</p>	<p>Middle mesial canal orifice</p> 	<p>Try to locate a middle mesial canal between ML and MB canal. It is reported that it can exist in 1-15% of mandibular first molars (Baugh D et al, 2004). Create a trough 1mm deep between ML and MB canal to find a potential middle mesial canal.</p>

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