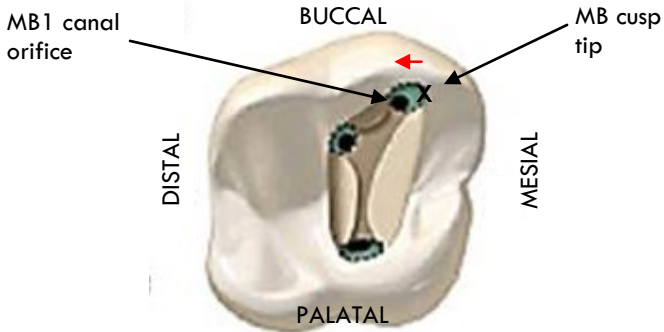
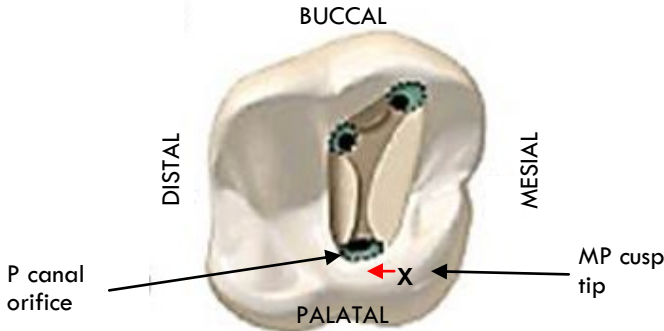
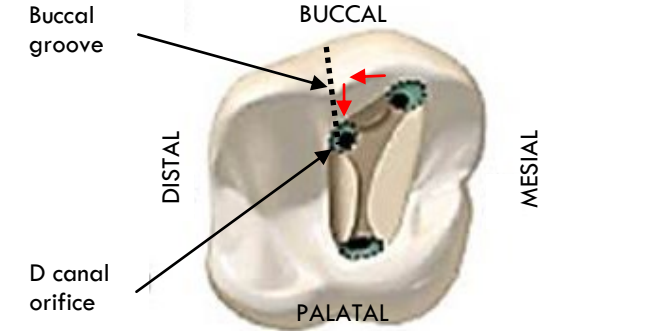
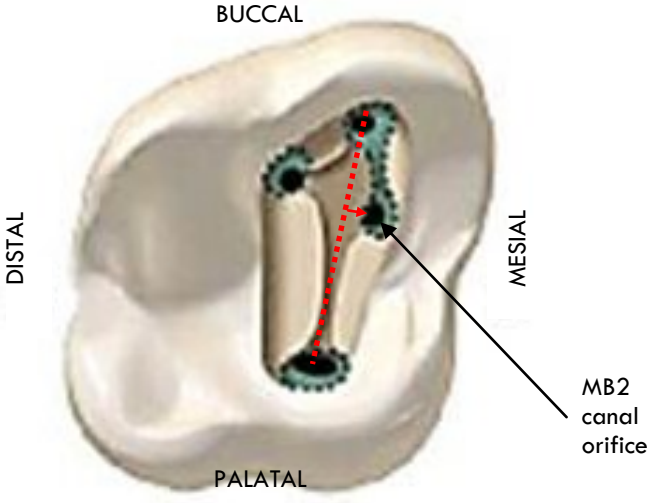


## Locating the MB2 canal

One of the main reason that root canal treatment can fail is due to missed anatomy and therefore inadequate chemo-mechanical debridement within the root canal system. This is particularly evident when root treating the upper first molar. Recent studies show that the MB2 canal is present in 97% of cases (Salehrabi R et al, 2004). Clinicians should therefore consider the presence of two MB canals until proven otherwise. The following article will focus on predictable ways of identifying the MB2 canal.

### STAGES:

Stages	Diagram	Description
<b>1- Identifying MB1, P and D canal</b>		<b>MB1</b> -usually located slightly distal to MB cusp tip
		<b>P</b> -usually located distal to MP cusp tip
		<b>D</b> -usually located distal and slightly palatal to MB1 canal. It tends to be in line with buccal groove.

Stages	Diagram	Description
2- identify- ing MB2 canal		<b>MB2-</b> usually located palatal to MB1 canal and slightly mesially to a line drawn between MB1 and P canal.

## TECHNIQUES:

Technique	Description
Identifying anatomical features	The MB2 canal is usually located palatal to MB1 canal and slightly mesially to a line drawn between MB1 and P canal.
Magnification	<p>Studies show that using magnification increases the rate of detection. A study undertaken by Buhrley LJ et al 2002, showed for each visual method the percentage of cases the MB2 canal was located in.</p> <p>Naked eye-17.2% Loupes-62.5% Microscope-71.1%</p>
Removing dentine shelf	<p>Upon identifying the anatomical location of where the MB2 canal should be, remove the shelf of dentine which represents the roof of the pulp chamber overlying the MB2 canal orifice.</p> <p>The dentine shelf can be troughed using ultrasonic tips or slow speed burs.</p> <p>Do not exceed a depth of more than 2 mm, to avoid perforation and weakening the mesial furcation.</p>
Stains	Stains such as 1% methylene blue can be used to highlight the pulp chamber anatomy.
Effervescence	Fill pulp chamber with sodium hypochlorite enough to observe bubbling over MB2 canal orifice.
Chelating agents	Soak pulp chamber with EDTA solution to aid in removing smear layer and softening calcifications inside the chamber to allow for easier access to canal orifices.

## REFERENCES:

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[http://intranet.tdmu.edu.ua/data/kafedra/internal/stomat\\_ter/classes\\_stud/en/stomat/ptn/Propaedeutics%20of%20Therapeutic%20dentistry/2%20year/10.%20Endodontics%20-%20its%20objectives%20and%20goals.%20.htm](http://intranet.tdmu.edu.ua/data/kafedra/internal/stomat_ter/classes_stud/en/stomat/ptn/Propaedeutics%20of%20Therapeutic%20dentistry/2%20year/10.%20Endodontics%20-%20its%20objectives%20and%20goals.%20.htm)

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2. Salehrabi R, Rotstein I. Endodontic treatment outcomes in a large patient population in the USA: An epidemiological study. *J Endod* 2004;30(12):846-850.