

# THE MANDIBULAR MOLARS ANATOMY



DENTISCOPE



# COLOR CODING

Cusp

Ridge

Fossa

Groove

Pit

Root



# MANDIBULAR MOLARS

	First Molar	Second Molar	Third Molar
Cusps	- Mesio Buccal, Distobuccal, Mesiolingual, Distolingual, Distal Cusp	- Mesio Buccal, Distobuccal, Mesiolingual, Distolingual	- Resembles 2 <sup>nd</sup> molar with BL cusp being smaller
Buccal	- Cusps Visible: MB, DB, D - Mesio Buccal Developmental Groove - Cervical ridge - Buccal Pit - Depression at middle 3 <sup>rd</sup> - Cervical line pointed in the direction of bifurcation - bifurcation 3mm below cervical line	- Cusps Visible: MB & DB cusp - BDG, BP - DB cusp > 1 <sup>st</sup> molar - Cervical line points sharply towards bifurcation - Cervical ridge - long root trunk - roots straighter, closer together, inclined distally	- MB, DB cusps rounded - Wider at contact areas than cervix
Contact Area	Mesial=MM Distal=MM	Mesial=MM Distal=MM	Mesial=MM Distal=MM
Lingual	- 3 cusps: D, ML, DL - ML cusp largest - Groove between DL cusp & DMR - Cervical line points towards bifurcation - Bifurcation 4 mm below cervical line	- Straight cervical line - Crown converges lingually - No pit, LDG short	- Resembles 2 <sup>nd</sup> molar except in development
Mesial	- Rhomboidal - MB, ML & Mesial root - Lingual tilt - MMR merged with Mesial cusp ridges - Straight cervical line	- Height of contour lingually: Middle 3 <sup>rd</sup> - Height of contour buccally: cervical 3 <sup>rd</sup> - Cervical line curvature= 1mm	- Resembles 2 <sup>nd</sup> molar except dimension

\* The abbreviations are for the terminology that was mentioned previously or mainly in the 1<sup>st</sup> Molar.



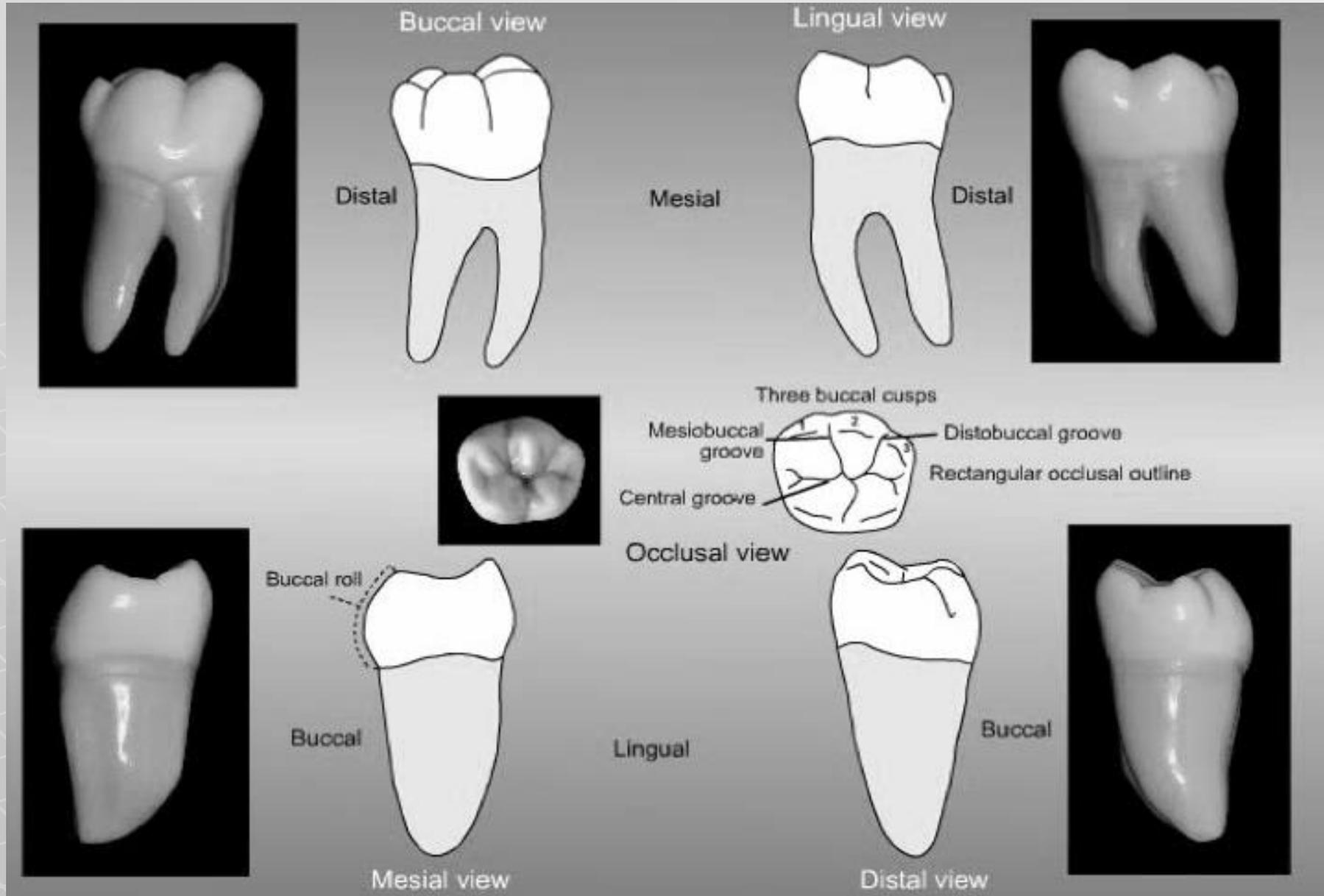
# MANDIBULAR MOLARS

	First Molar	Second Molar	Third Molar
Distal	<ul style="list-style-type: none"> <li>-Rhomboidal</li> <li>-5 cusps visible, mainly <b>distal cusp</b></li> <li>-DMR short</li> <li>-Straight cervical line</li> </ul>	<ul style="list-style-type: none"> <li>-Contact area centered in the distal</li> <li>-Cervical line straight</li> </ul>	<ul style="list-style-type: none"> <li>-Resembles 2nd molar except in dimension</li> </ul>
Occlusal	<ul style="list-style-type: none"> <li>-Hexagonal</li> <li>-MD &gt; BL</li> <li>-CF, MTF, DTF</li> <li>-MP, DP, CP</li> <li>-CDG, MBDG, DBDG, LDG</li> <li>-MMR &amp; DMR</li> <li>-MBTR + DBTR = Transverse ridge</li> <li>-MLTR + DLTR = Transverse ridge</li> <li>-DTR</li> <li>-B &amp; L supplemental grooves join MP</li> </ul>	<ul style="list-style-type: none"> <li>-rectangular</li> <li>-Plus sign (+) occlusal grooves</li> <li>-CF, MTR, DTF</li> <li>-Straight CDG</li> <li>-BDG, LDG = 90° to CDG</li> <li>-CP, MP &amp; DP</li> <li>-MMR &amp; DMR</li> <li>-More supplemental grooves</li> <li>-MBTR + MLTR = Transverse ridge</li> <li>-DBTR + DLTR = Transverse ridge</li> </ul>	<ul style="list-style-type: none"> <li>-Resembles second molar</li> <li>-More rounded</li> <li>-Smaller BL</li> </ul>
Roots	-2 Roots (Mesial and Distal)	-2 Roots (Mesial and Distal)	-2 Roots (Mesial and Distal)
Pulp Cavity	<ul style="list-style-type: none"> <li>-Mesial Root: 2 Root canals</li> <li>-Distal Root: 1 Root canal</li> <li>-Cross section:               <ul style="list-style-type: none"> <li>• Mesial Root: 2 small circular canal orifice</li> <li>• Distal Root: 1 large kidney canal orifice</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>-Mesial Root: 2 root canals ( 1 possible)</li> <li>-Distal Root: 1 root canal, 2 are possible</li> <li>-Cross section: triangular</li> </ul>	<ul style="list-style-type: none"> <li>-Irregular shapes and variations</li> </ul>

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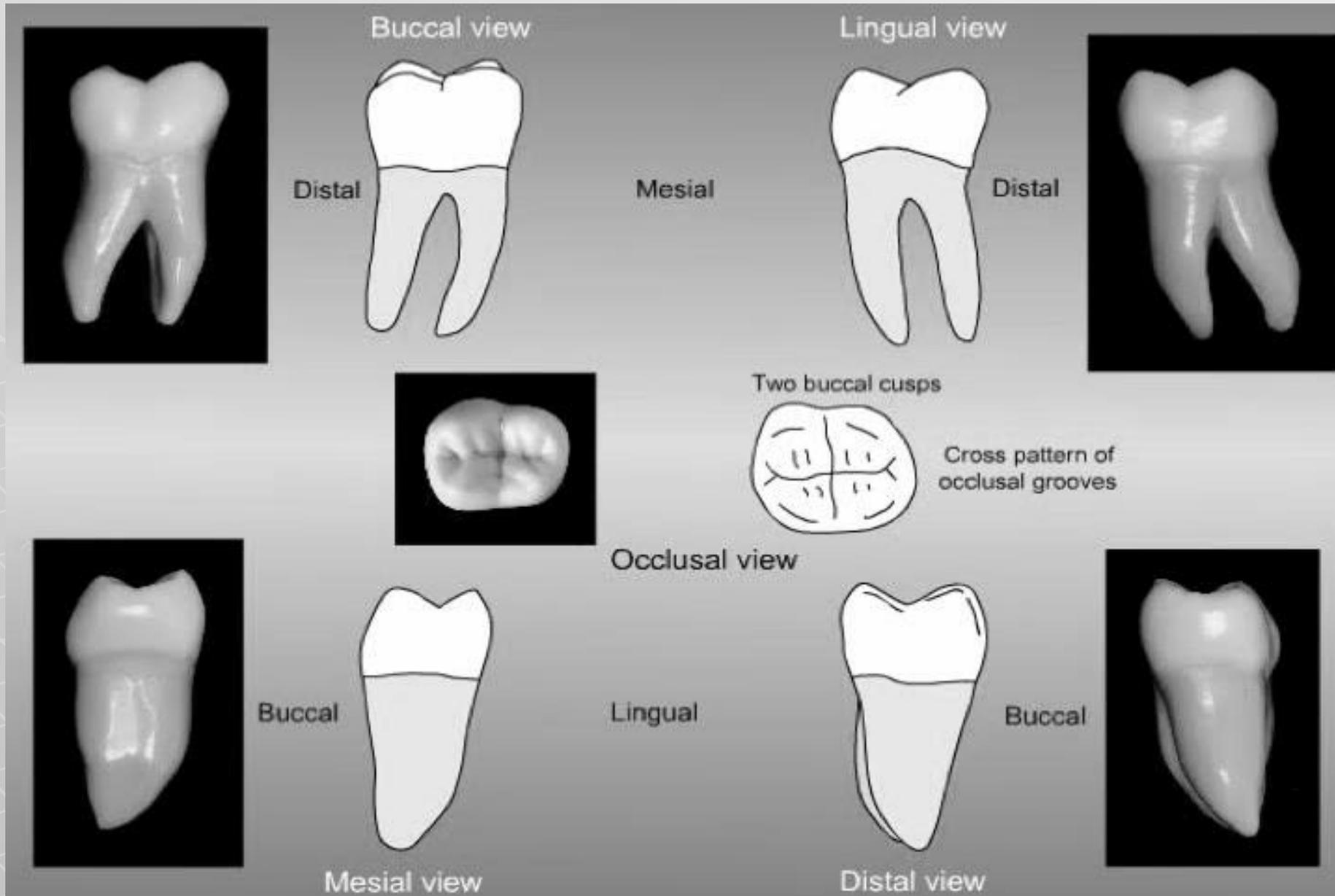


# THE MANDIBULAR RIGHT FIRST MOLAR (46)



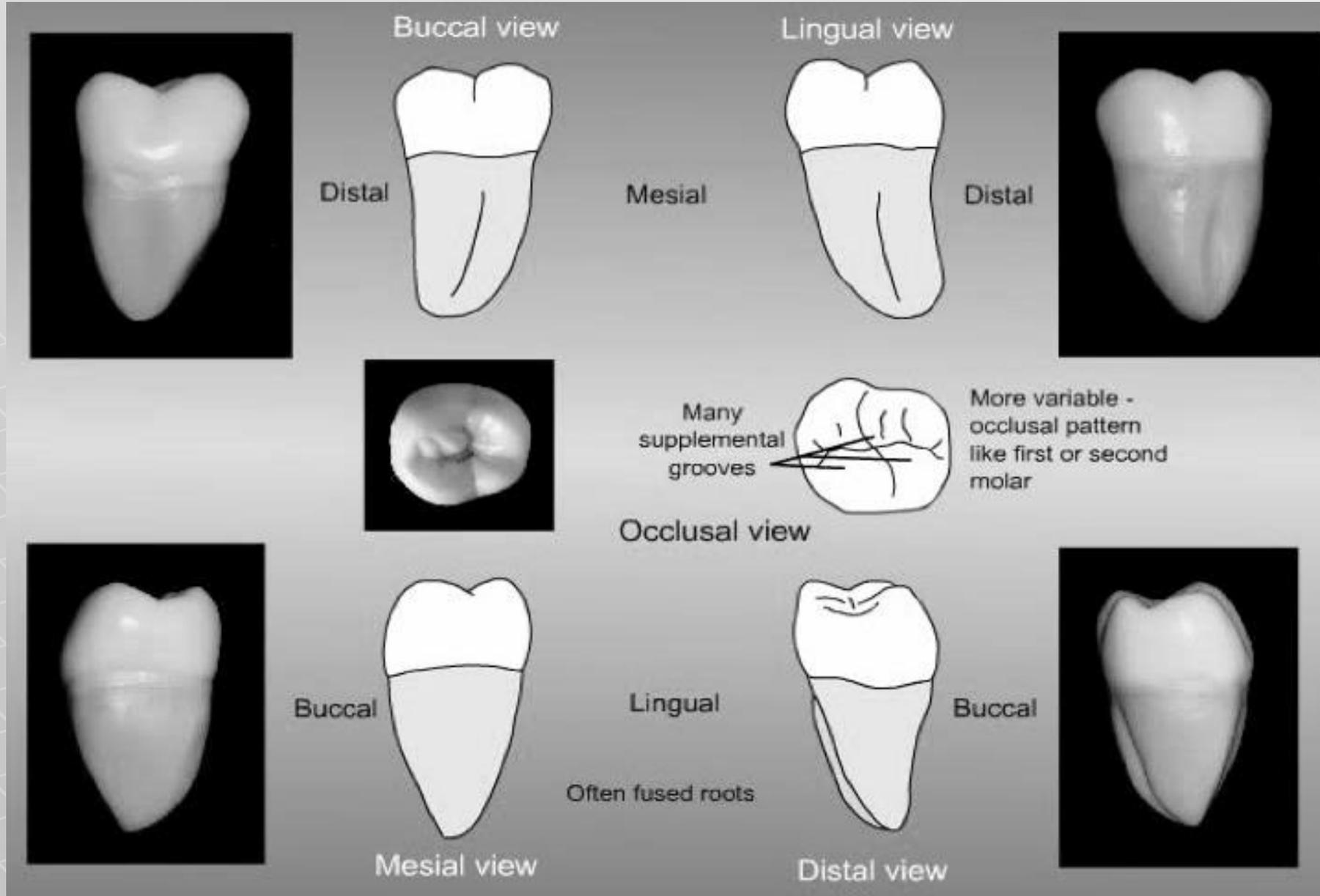


# THE MANDIBULAR RIGHT SECOND MOLAR (47)





# THE MANDIBULAR RIGHT THIRD MOLAR (48)





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