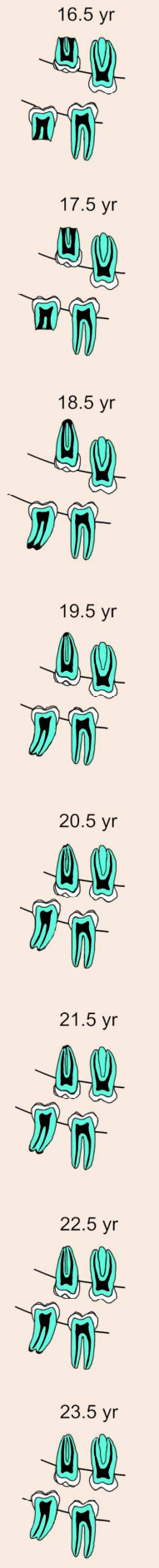


Atlas of Tooth Development and Eruption

Dr. Sakher J. AlQahtani ©

○ midpoint of one month
 + midpoint of two weeks
 ● midpoint of 3 months
 Thereafter midpoint of each year
 Solid lines represent alveolar bone level
 Teeth are spaced for clarity

16 - 23 year olds
 3rd molar



Description of Moorrees' stages (1963)
used to identify tooth developmental stages of single rooted teeth

	ci: initial cusp formation		Ri: initial root formation with diverge edges
	Cco: Coalescence of cusps		R 1/4: root length less than crown length
	Coc: Cusp outline complete		R 1/2: root length equals crown length
	Cr 1/2: crown half completed with dentine formation		R 3/4: three quarters of root length developed with diverge ends
	Cr 3/4: crown three quarters completed		Rc: root length completed with parallel ends
	Crc: crown completed with defined pulp roof		A 1/2: apex closed (root ends converge) with wide PDL
			Ac: apex closed with normal PDL width

Description of Moorrees' stages (1963)
used to identify tooth developmental stages of multirooted teeth

	Ci: initial cusp formation		
	Cco: Coalescence of cusps		R 1/4: root length less than crown length with visible bifurcation area
	Coc: Cusp outline complete		R 1/2: root length equals crown length
	Cr 1/2: crown half completed with dentine formation		R 3/4: three quarters of root length developed with diverge ends
	Cr 3/4: crown three quarters completed		Rc: root length completed with parallel ends
	Crc: crown completed with defined pulp roof		A 1/2: apex closed (root ends converge) with wide PDL
	Ri: initial root formation with diverge edges		Ac: apex closed with normal PDL width

Description of Moorrees' stages (1963)
used to identify root resorption
in single and multirooted teeth

	Ac: apex closed with normal PDL width	
	Res 1/4: resorption of apical quarter of the root	
	Res 1/2: resorption of half the root	
	Res 3/4: resorption of three quarters of the root	

Description of modified Bengston's stages
used to identify tooth eruption

	position 1: when the occlusal or incisal surface is covered entirely by bone	
	position 2: when the occlusal or incisal surface breaks through the crest of the alveolar bone	
	position 3: when the occlusal or incisal surface is midway between the alveolar bone and the occlusal plane	
	position 4: occlusal or incisal surface is in the occlusal plane	