

Dental Growth and Development

PRIMARY DENTITION						
	Calcification begins at	Formation complete at	Eruption		Exfoliation	
			Maxillary	Mandibular	Maxillary	Mandibular
Central incisors	4 th fetal mo	18-24 mo	6-10 mo	5-8 mo	7-8 y	6-7 y
Lateral incisors	4 th fetal mo	18-24 mo	8-12 mo	7-10 mo	8-9 y	7-8 y
Canines	4 th fetal mo	30-39 mo	16-20 mo	16-20 mo	11-12 y	9-11 y
First molars	4 th fetal mo	24-30 mo	11-18 mo	11-18 mo	9-11 y	10-12 y
Second molars	4 th fetal mo	36 mo	20-30 mo	20-30 mo	9-12 y	11-13 y

PERMANENT DENTITION					
	Calcification begins at	Crown (enamel) complete at	Roots complete at	Eruption*	
				Maxillary	Mandibular
Central incisors	3-4 mo	4-5 y	9-10 y	7-8 y (3)	6-7 y (2)
Lateral incisors	Maxilla: 10-12 mo Mandible: 3-4 mo	4-5 y 4-5 y	11 y 10 y	8-9 y (5)	7-8 y (4)
Canines	4-5 y	6-7 y	12-15 y	11-12 y (11)	9-11 y (6)
First premolars	18-24 mo	5-6 y	12-13 y	10-11 y (7)	10-12 y (8)
Second premolars	24-30 mo	6-7 y	12-14 y	10-12 y (9)	11-13 y (10)
First molars	Birth	30-36 mo	9-10 y	5.5-7 y (1)	5.5-7 y (1a)
Second molars	30-36 mo	7-8 y	14-16 y	12-14 y (12)	12-14 y (12a)
Third molars	Maxilla: 7-9 y Mandible: 8-10 y	4-5 y		17-30 y (13)	17-30 y (13a)

* Figures in parentheses indicate order of eruption. Many otherwise normal infants do not conform strictly to the stated schedule.

Logan WHG, Kronfeld R. Development of the human jaws and surrounding structures from birth to the age of fifteen years. J Am Dent Assoc 1933;20(3):379-427. Copyright © 1933 American Dental Association. All rights reserved. Adapted 2003 by permission.