

Tables from AlQahtani, Hector and Liversidge (2010). Brief Communication: The London Atlas of Human Tooth Development and Eruption. *American Journal of Physical Anthropology* 142:481-490. Published 22 March 2010.

TABLE 1. Sample and sex distribution for each age group used to develop the atlas of tooth development and eruption

Age	Spitalfields			Stacks		Radiographs		Total		Sum
	Male	Female	Unknown	Male	Female	Male	Female	Male	Female	
Skeletal remains										
28 to <32 weeks in utero	–	–	–	8	4	–	–	8	4	12
32 to <36 weeks in utero	–	–	–	8	7	–	–	8	7	15
36 to <39 weeks in utero	–	–	–	15	15	–	–	15	15	30
39 weeks in utero to <1 week after birth	–	–	–	15	15	–	–	15	15	30
1 week to <3 months	1	7	1	14	11	–	–	15	18	34
3 months to <6 months	4	1	1	6	2	–	–	10	3	14
6 months to <9 months	3	3	1	1	2	–	–	4	5	10
9 months to <12 months	5	–	6	2	1	–	–	7	1	14
1+ year ^a	9	4	4	–	–	–	–	9	4	17
Radiographs										
2+ years	–	–	–	–	–	12	12	12	12	24
3+ years	–	–	–	–	–	12	12	12	12	24
4+ years	–	–	–	–	–	12	12	12	12	24
5+ years	–	–	–	–	–	12	12	12	12	24
6+ years	–	–	–	–	–	12	12	12	12	24
7+ years	–	–	–	–	–	12	12	12	12	24
8+ years	–	–	–	–	–	12	12	12	12	24
9+ years	–	–	–	–	–	12	12	12	12	24
10+ years	–	–	–	–	–	12	12	12	12	24
11+ years	–	–	–	–	–	12	12	12	12	24
12+ years	–	–	–	–	–	12	12	12	12	24
13+ years	–	–	–	–	–	12	12	12	12	24
14+ years	–	–	–	–	–	12	12	12	12	24
15+ years	–	–	–	–	–	12	12	12	12	24
16+ years	–	–	–	–	–	12	12	12	12	24
17+ years	–	–	–	–	–	12	12	12	12	24
18+ years	–	–	–	–	–	12	12	12	12	24
19+ years	–	–	–	–	–	12	12	12	12	24
20+ years	–	–	–	–	–	12	12	12	12	24
21+ years	–	–	–	–	–	12	12	12	12	24
22+ years	–	–	–	–	–	12	12	12	12	24
23+ years	–	–	–	–	–	12	12	12	12	24

^a Sample is 1 year to <2 years, and the same applies to all ages to the age of 24.

TABLE 2. Tooth development data from autopsied infants^a (combined sex)

Age	Maxilla					Mandible				
	Tooth	Number of teeth	Tooth formation stage			Tooth	Number of teeth	Tooth formation stage		
			Minimum	Median	Maximum			Minimum	Median	Maximum
30 weeks in utero ^b	i ¹	12	Coc	Cr ½	Cr ¾	i ₁	12	Coc	Cr ½	Cr ¾
	i ²	12	Cco	Coc	Cr ¾	i ₂	12	Cco	Coc	Cr ¾
	c'	12	Ci	Ci	Coc	c,	12	Ci	Ci	Coc
	m ¹	12	Ci	Cco	Coc	m ₁	12	Ci	Cco	Coc
	m ²	12	Ci	Ci	Cco	m ₂	12	Ci	Ci	Cco
34 weeks in utero ^b	i ¹	13	Cr ½	Cr ¾	Cr ¾	i ₁	15	Cr ½	Cr ¾	Cr c
	i ²	13	Cr ½	Cr ½	Cr ¾	i ₂	7	Cr ½	Cr ¾	Cr ¾
	c'	13	Ci	Ci	Coc	c,	12	Ci	Ci	Coc
	m ¹	15	Cco	Cco	Coc	m ₁	14	Cco	Cco	Coc
	m ²	13	Ci	Ci	Cco	m ₂	12	Ci	Ci	Cco
38 weeks in utero ^b	i ¹	26	Cr ½	Cr ¾	Cr c	i ₁	23	Cr ½	Cr ¾	Cr c
	i ²	20	Cr ½	Cr ½	Cr ¾	i ₂	15	Cr ½	Cr ¾	Cr c
	c'	26	Ci	Ci	Coc	c,	26	Ci	Cco	Coc
	m ¹	29	Cco	Cco	Cr ½	m ₁	29	Cco	Cco	Cr ½
	m ²	27	Ci	Ci	Cco	m ₂	26	Ci	Ci	Cco
Birth ^c	i ¹	23	Cr ¾	Cr ¾	Cr c	i ₁	27	Cr ¾	Cr c	Cr c
	i ²	20	Cr ½	Cr ¾	Cr ¾	i ₂	18	Cr ¾	Cr ¾	Cr c
	c'	30	Ci	Coc	Cr ½	c,	28	Ci	Coc	Coc
	m ¹	25	Cco	Coc	Cr ½	m ₁	29	Cco	Coc	Cr ½
	m ²	29	Ci	Cco	Coc	m ₂	26	Ci	Ci	Coc

^a Twelve children from 28 to <32 weeks in utero, 15 children from 32 to <36 weeks in utero, 30 children from 36 to 39 weeks in utero, and 30 children from >39 weeks in utero to <1 week after birth.

^b Midpoint of 4 weeks.

^c Midpoint of 2 weeks.

TABLE 3. Tooth development data from skeletal remains^a (combined sex)

Age (months)	Maxilla					Mandible				
	Tooth	Number of teeth	Tooth formation stage			Tooth	Number of teeth	Tooth formation stage		
			Minimum	Median	Maximum			Minimum	Median	Maximum
1.5 ^b	i ¹	34	Cr ³ / ₄	Cre	Ri	i ₁	29	Cr ³ / ₄	Cre	Ri
	i ²	31	Cr ¹ / ₂	Cr ³ / ₄	Cre	i ₂	25	Cr ³ / ₄	Cre	Ri
	c'	34	Coc	Coc	Cr ¹ / ₂	c,	29	Coc	Coc	Cr ¹ / ₂
	m ¹	33	Cco	Coc	Cr ¹ / ₂	m ₁	28	Cco	Coc	Cr ¹ / ₂
	m ²	27	Ci	Cco	Coc	m ₂	25	Ci	Cco	Cr ¹ / ₂
	M ¹	4	—	—	Ci	M ₁	3	—	—	Cco
4.5 ^b	i ¹	13	Cre	Ri	R ¹ / ₄	i ₁	11	Cre	Ri	R ¹ / ₄
	i ²	11	Cre	Cre	Ri	i ₂	13	Cr ³ / ₄	Ri	R ¹ / ₄
	c'	14	Coc	Cr ¹ / ₂	Cr ³ / ₄	c,	16	Coc	Cr ¹ / ₂	Cr ³ / ₄
	m ¹	7	Cr ¹ / ₂	Cr ¹ / ₂	Cr ³ / ₄	m ₁	11	Cr ¹ / ₂	Cr ³ / ₄	Cre
	m ²	8	Coc	Cr ¹ / ₂	Cr ³ / ₄	m ₂	11	Cr ¹ / ₂	Cr ³ / ₄	Cre
	I ¹	4	Ci	Ci	Coc	i ₁	1	—	—	Ci
7.5 ^b	M ¹	4	Ci	Ci	Ci	M ₁	5	Ci	Ci	Cco
	i ¹	6	Ri	R ¹ / ₄	R ¹ / ₂	i ₁	5	R ¹ / ₄	R ¹ / ₂	R ¹ / ₂
	i ²	6	Cre	R ¹ / ₄	R ¹ / ₄	i ₂	4	Ri	R ¹ / ₄	R ¹ / ₄
	c'	8	Cr ³ / ₄	Cre	Cre	c,	6	Cr ¹ / ₂	Cr ³ / ₄	Cre
	m ¹	9	Cre	Ri	Cr ¹ / ₂	m ₁	10	Cr ³ / ₄	Cre	Ri
	m ²	5	Cr ³ / ₄	Cre	Cre	m ₂	10	Cr ¹ / ₂	Cr ³ / ₄	Cr ³ / ₄
10.5 ^b	I ¹	4	Coc	Coc	Cr ¹ / ₂	I ₁	3	Coc	Coc	Cr ¹ / ₂
	C'	4	Ci	Ci	Ci	C,	1	—	—	Ci
	M ¹	4	Cco	Cco	Coc	M ₁	4	Cco	Coc	Coc
	i ¹	5	Ri	R ¹ / ₂	R ¹ / ₂	i ₁	9	R ¹ / ₄	R ³ / ₄	R ³ / ₄
	i ²	4	Ri	R ¹ / ₄	R ¹ / ₂	i ₂	10	Ri	R ¹ / ₂	R ¹ / ₂
	c'	6	Cr ³ / ₄	Cre	Ri	c,	12	Cr ³ / ₄	Cre	Cre
10.5 ^b	m ¹	4	Cre	R ¹ / ₄	R ¹ / ₄	m ₁	12	Cre	R ¹ / ₄	R ¹ / ₂
	m ²	6	Cr ³ / ₄	Cre	Ri	m ₂	12	Cr ³ / ₄	Cre	Ri
	I ¹	4	Coc	Cr ¹ / ₂	Cr ¹ / ₂	I ₁	5	Cr ¹ / ₂	Cr ¹ / ₂	Cr ¹ / ₂
	C'	4	Ci	Ci	Ci	C,	4	Ci	Ci	Ci
	M ¹	4	Cco	Coc	Coc	M ₁	10	Cco	Coc	Coc

^a Thirty-four children from 1 week to <3 months, 14 children from 3 to <6 months, 10 children from 6 to <9 months, and 14 children from 9 to <12 months.

^b Midpoint of 3 months.

TABLE 4. Combined sex tooth development data for 17 children (skeletal remains) from 1 to <2 years, 24 children from 2 to <3 years, and 24 children from 3 to <4 years

Age (years)	Maxilla					Mandible				
	Tooth	Number of teeth	Tooth formation stage			Tooth	Number of teeth	Tooth formation stage		
			Minimum	Median	Maximum			Minimum	Median	Maximum
1.5 ^a	i ¹	5	R ¼	R ¾	R ¾	i ₁	7	R ¾	R ¾	Rc
	i ²	6	Ri	R ½	R ¾	i ₂	7	R ¾	R ¾	Rc
	c'	6	Cr _c	Ri	R ½	c,	7	Cr ¾	Ri	R ½
	m ¹	7	Ri	R ½	R ¾	m ₁	8	Ri	R ½	R ¾
	m ²	8	Cr _c	Ri	R ¼	m ₂	8	Cr ¾	Ri	R ¼
	I ¹	6	Cr ½	Cr ½	Cr ½	I ₁	6	Cr 1/2	Cr ½	Cr ¾
	I ²	4	–	Coc	Coc	I ₂	6	Coc	Cr ½	Cr ½
	C'	8	Coc	Coc	Coc	C,	4	–	Coc	Coc
	M ¹	4	–	Coc	Cr ½	M ₁	8	Cco	Coc	Cr ½
	2.5 ^a	i ¹	24	Rc	Ac	Ac	i ₁	24	Rc	Ac
i ²		24	Rc	Ac	Ac	i ₂	24	Rc	Ac	Ac
c'		24	R ¾	Rc	Rc	c,	24	R ¾	Rc	Rc
m ¹		24	R ¾	Rc	Ac	m ₁	24	R ¾	Rc	Ac
m ²		24	R ¼	R ¾	Ac	m ₂	24	R ½	R ¾	Ac
I ¹		24	Cr ½	Cr ¾	Cr ¾	I ₁	24	Cr ½	Cr ¾	Cr _c
I ²		24	Coc	Cr ½	Cr ¾	I ₂	24	Cr ½	Cr ¾	Cr _c
C'		21	–	Cr ½	Cr ½	C,	24	Coc	Cr ½	Cr ½
P ¹		19	–	Ci	Cco	P ₁	20	–	Cco	Cco
P ²		10	–	–	Ci	P ₂	18	–	Ci	Ci
3.5 ^a	M ¹	24	Cr ½	Cr ¾	Cr ¾	M ₁	24	Cr ½	Cr ¾	Cr _c
	M ²	16	–	Ci	Ci	M ₂	15	–	Ci	Ci
	i ¹	24	Ac	Ac	Ac	i ₁	24	Ac	Ac	Ac
	i ²	24	Ac	Ac	Ac	i ₂	24	Ac	Ac	Ac
	c'	24	Ac	Ac	Ac	c,	24	Ac	Ac	Ac
	m ¹	24	Ac	Ac	Ac	m ₁	24	Ac	Ac	Ac
	m ²	24	Ac	Ac	Ac	m ₂	24	Ac	Ac	Ac
	I ¹	24	Cr ¾	Cr ¾	Ri	I ₁	24	Cr ¾	Cr _c	Ri
	I ²	24	Cr ½	Cr ½	Cr _c	I ₂	24	Cr ½	Cr ¾	Cr _c
	C'	24	Cr ½	Cr ½	Cr ¾	C,	24	Coc	Cr ½	Cr _c
P ¹	24	Ci	Coc	Cr ½	P ₁	24	Ci	Cr ½	Cr ½	
P ²	20	–	Ci	Cco	P ₂	22	–	Ci	Coc	
M ¹	24	Cr ½	Cr _c	R ¼	M ₁	24	Cr ½	Ri	Ri	
M ²	20	–	Cco	Coc	M ₂	22	–	Cco	Coc	

^a Midpoint of 1 year.

TABLE 5. Tooth development data (combined sex) for 24 children in each age group: 4 to <5 years, 5 to <6 years, and 6 to <7 years

Age (years)	Maxilla					Mandible				
	Tooth	Number of teeth	Tooth formation stage			Tooth	Number of teeth	Tooth formation stage		
			Minimum	Median	Maximum			Minimum	Median	Maximum
4.5 ^a	i ¹ to m ²	24 each	Ac	Ac	Ac	i ₁ to m ₂	24 each	Ac	Ac	Ac
	I ¹	24	Cr ³ / ₄	Crc	Ri	I ₁	24	Cr ³ / ₄	Ri	R ¹ / ₄
	I ²	24	Cr ³ / ₄	Cr ³ / ₄	Ri	I ₂	24	Cr ³ / ₄	Ri	Ri
	C'	24	Cr ³ / ₄	Cr ³ / ₄	Ri	C,	24	Cr ¹ / ₂	Cr ³ / ₄	Ri
	P ¹	24	Cr ¹ / ₂	Cr ¹ / ₂	Cr ³ / ₄	P ₁	24	Cr ¹ / ₂	Cr ¹ / ₂	Crc
	P ²	24	Coc	Cco	Cr ³ / ₄	P ₂	24	Ci	Coc	Cr ¹ / ₂
	M ¹	24	R ¹ / ₄	R ¹ / ₄	R ¹ / ₂	M ₁	24	R ¹ / ₄	R ¹ / ₄	R ¹ / ₂
	M ²	24	Ci	Coc	Cr ¹ / ₂	M ₂	24	Cco	Coc	Cr ¹ / ₂
5.5 ^a	i ¹	24	Ac	Ac	Res 1/4	i ₁	24	Ac	Ac	Res 1/2
	i ²	24	Ac	Ac	Res 1/4	i ₂	24	Ac	Ac	Res 1/4
	c' to m ²	24 each	Ac	Ac	Ac	c, to m ₂	24 each	Ac	Ac	Ac
	I ¹	24	Crc	Ri	R ¹ / ₄	I ₁	24	Ri	R ¹ / ₄	R ¹ / ₂
	I ²	24	Crc	Crc	Ri	I ₂	24	Crc	R ¹ / ₄	R ¹ / ₄
	C'	24	Cr ³ / ₄	Crc	Ri	C,	24	Cr ³ / ₄	Crc	Ri
	P ¹	24	Cr ¹ / ₂	Cr ³ / ₄	Crc	P ₁	24	Coc	Cr ³ / ₄	Crc
	P ²	24	Cco	Cr ¹ / ₂	Cr ³ / ₄	P ₂	24	Cco	Cr ³ / ₄	Cr ³ / ₄
M ¹	24	R ¹ / ₄	R ¹ / ₄	R ¹ / ₂	M ₁	24	R ¹ / ₄	R ¹ / ₄	R ¹ / ₂	
6.5 ^a	M ²	24	Coc	Cr ¹ / ₂	Cr ³ / ₄	M ₂	24	Coc	Cr ¹ / ₂	Cr ³ / ₄
	i ¹	14	Ac	Res ³ / ₄	—	i ₁	11	Ac	—	—
	i ²	22	Ac	Res ¹ / ₄	Res ³ / ₄	i ₂	13	Ac	Res ¹ / ₂	—
	c'	24	Ac	Ac	Ac	c,	24	Ac	Ac	Ac
	m ¹	24	Ac	Ac	Res ¹ / ₄	m ₁	24	Ac	Ac	Res ¹ / ₄
	m ²	24	Ac	Ac	Ac	m ₂	24	Ac	Ac	Res ¹ / ₄
	I ¹	24	Crc	R ¹ / ₄	R ³ / ₄	I ₁	24	R ¹ / ₄	R ¹ / ₂	Rc
	I ²	24	Crc	Ri	R ¹ / ₂	I ₂	24	Ri	R ¹ / ₄	R ³ / ₄
	C'	24	Crc	Ri	R ¹ / ₄	C,	24	Cr ³ / ₄	Ri	R ¹ / ₄
	P ¹	24	Cr ³ / ₄	Crc	Ri	P ₁	24	Cr ¹ / ₂	Crc	Ri
	P ²	24	Cr ¹ / ₂	Crc	Crc	P ₂	24	Coc	Crc	Ri
	M ¹	24	R ¹ / ₄	R ¹ / ₂	R ³ / ₄	M ₁	24	R ¹ / ₄	R ¹ / ₂	R ³ / ₄
M ²	24	Coc	Cr ¹ / ₂	Crc	M ₂	24	Coc	Cr ¹ / ₂	Crc	

^a Midpoint of 1 year.

TABLE 6. Tooth development data (combined sex) for 24 children in each age group: 7 to <8 years, 8 to <9 years, and 9 to <10 years

Age (years)	Maxilla					Mandible					
	Tooth	Number of teeth	Tooth formation stage			Tooth	Number of teeth	Tooth formation stage			
			Minimum	Median	Maximum			Minimum	Median	Maximum	
7.5 ^a	i ¹	2	Res 3/4	–	–	i ₁	–	–	–	–	
	i ²	13	Res 1/2	Res 3/4	–	i ₂	2	Ac	–	–	
	c'	24	Ac	Ac	Ac	c,	24	Ac	Ac	Ac	
	m ¹	24	Ac	Ac	Res 1/2	m ₁	24	Ac	Ac	Res 1/2	
	m ²	24	Ac	Ac	Res 1/2	m ₂	24	Ac	Ac	Res 1/4	
	I ¹	24	R 1/4	R 3/4	Rc	I ₁	24	R 3/4	Rc	A 1/2	
	I ²	24	R 1/4	R 1/2	Rc	I ₂	24	R 1/4	R 3/4	A 1/2	
	C'	24	Ri	R 1/4	R 1/2	C,	24	Ri	R 1/4	R 1/4	
	P ¹	24	Cr 3/4	Ri	R 1/4	P ₁	24	Ri	Ri	R 1/4	
	P ²	24	Cr 3/4	Crc	R 1/4	P ₂	24	Crc	Crc	R 1/4	
	M ¹	24	R 1/4	R 3/4	A 1/2	M ₁	24	R 3/4	R 3/4	A 1/2	
	M ²	24	Cr 1/2	Cr 3/4	R 1/4	M ₂	24	Cr 1/2	Cr 3/4	R 1/4	
	M ³	4	–	–	Ci	M ₃	8	–	–	Ci	
	8.5 ^a	i ²	6	Res 3/4	–	–	i ₂	–	–	–	–
c'		24	Ac	Ac	Res 1/4	c,	24	Ac	Ac	Res 1/2	
m ¹		24	Res 1/4	Res 1/2	Res 1/2	m ₁	24	Res 1/4	Res 1/4	Res 1/2	
m ²		24	Ac	Res 1/2	Res 1/2	m ₂	24	Ac	Ac	Res 1/4	
I ¹		24	R 1/2	Rc	A 1/2	I ₁	24	R 3/4	Ac	Ac	
I ²		24	R 1/4	R 3/4	Rc	I ₂	24	R 1/4	A 1/2	Ac	
C'		24	Ri	R 1/4	R 3/4	C,	24	R 1/4	R 1/4	R 3/4	
P ¹		24	Ri	Ri	R 1/2	P ₁	24	Ri	R 1/4	R 1/2	
P ²		24	Ri	Ri	R 1/2	P ₂	24	Crc	Ri	R 1/4	
M ¹		24	R 1/2	Rc	Ac	M ₁	24	R 3/4	R 3/4	A 1/2	
M ²		24	Crc	Ri	R 1/4	M ₂	24	Cr 3/4	Ri	R 1/4	
M ³		13	–	Ci	Coc	M ₃	20	–	Ci	Cco	
9.5 ^a		c'	22	Ac	Ac	–	c,	22	Ac	Res 1/4	–
		m ¹	24	Res 1/4	Res 1/2	Res 3/4	m ₁	24	Res 1/4	Res 1/4	Res 3/4
	m ²	24	Res 1/4	Res 1/2	Res 3/4	m ₂	24	Ac	Res 1/4	Res 1/2	
	I ¹	24	R 3/4	Rc	A 1/2	I ₁	24	Rc	Ac	Ac	
	I ²	24	R 1/2	Rc	A 1/2	I ₂	24	Rc	A 1/2	Ac	
	C'	24	R 1/4	R 1/2	R 3/4	C,	24	R 1/4	R 1/2	R 3/4	
	P ¹	24	R 1/4	R 1/4	R 3/4	P ₁	24	R 1/4	R 1/2	R 3/4	
	P ²	24	Ri	R 1/4	R 3/4	P ₂	24	Ri	R 1/4	R 3/4	
	M ¹	24	Rc	Ac	Ac	M ₁	24	R 3/4	A 1/2	Ac	
	M ²	24	Ri	R 1/4	R 1/2	M ₂	24	Ri	R 1/4	R 1/2	
	M ³	17	–	Coc	Cr 3/4	M ₃	22	–	Cco	Cr 3/4	

^a Midpoint of 1 year.

TABLE 7. Tooth development data (combined sex) for 24 children in each age group: 10 to <11 years, 11 to <12 years, and 12 to <13 years

Age (years)	Maxilla					Mandible				
	Tooth	Number of teeth	Tooth formation stage			Tooth	Number of teeth	Tooth formation stage		
			Minimum	Median	Maximum			Minimum	Median	Maximum
10.5 ^a	c'	20	Ac	Res ¼	–	c,	–	–	–	–
	m ¹	17	Res ¼	Res ½	–	m ₁	16	Res ¼	Res ½	–
	m ²	21	Res ¼	Res ½	–	m ₂	18	Ac	Res ¼	–
	I ¹	24	Rc	A ½	Ac	I ₁	24	A ½	Ac	Ac
	I ²	24	Rc	A ½	Ac	I ₂	24	Rc	Ac	Ac
	C'	24	R ½	R ¾	R ¾	C,	24	R ¾	R ¾	Rc
	P ¹	24	R ¼	R ½	Rc	P ₁	24	R ¼	R ½	Rc
	P ²	24	Ri	R ½	Rc	P ₂	24	R ¼	R ½	R ¾
	M ¹	24	Rc	Ac	Ac	M ₁	24	Rc	Ac	Ac
	M ²	24	R ¼	R ½	R ½	M ₂	24	R ¼	R ½	R ½
11.5 ^a	M ³	23	–	Coc	Cr ½	M ₃	23	–	Cco	Cr ½
	c'	17	Ac	Res ¾	–	c,	4	Res ¼	–	–
	m ¹	8	Res ½	–	–	m ₁	6	Res ¼	–	–
	m ²	17	Res ¼	Res ¾	–	m ₂	18	Ac	Res ½	–
	I ¹	24	Rc	Ac	Ac	I ₁	24	Rc	Ac	Ac
	I ²	24	R ¾	Ac	Ac	I ₂	24	A ½	Ac	Ac
	C'	24	R ½	R ¾	Rc	C,	24	R ¾	R ¾	A ½
	P ¹	24	R ½	R ¾	A ½	P ₁	24	R ½	R ¾	A ½
	P ²	24	R ¼	R ¾	Rc	P ₂	24	R ¼	R ¾	A ½
	M ¹	24	A ½	Ac	Ac	M ₁	24	A ½	Ac	Ac
12.5 ^a	M ²	24	R ¼	R ½	Rc	M ₂	24	R ¼	R ½	R ¾
	M ³	24	Ci	Cr ½	Ri	M ₃	24	Ci	Coc	R ¼
	m ²	2	Res ¾	–	–	m ₂	10	Res ¼	–	–
	I ¹	24	Rc	Ac	Ac	I ₁	24	A ½	Ac	Ac
	I ²	24	Rc	Ac	Ac	I ₂	24	A ½	Ac	Ac
	C'	24	R ¾	Rc	Rc	C,	24	R ¾	A ½	Ac
	P ¹	24	R ¾	Rc	A ½	P ₁	24	R ¾	Rc	Ac
	P ²	24	R ½	R ¾	A ½	P ₂	24	R ½	Rc	Ac
	M ¹	24	Ac	Ac	Ac	M ₁	24	Ac	Ac	Ac
	M ²	24	R ¼	R ¾	Rc	M ₂	24	R ¼	R ¾	Rc
M ³	24	Cco	Cr ¾	R ¼	M ₃	24	Ci	Cr ½	R ¼	

^a Midpoint of 1 year.

TABLE 8. Tooth development data (combined sex) for 24 children in each age group: 13 to <14 years, 14 to <15 years, 15 to <16 years, 16 to <17 years, and 17 to <18 years

Age (years)	Maxilla					Mandible				
	Tooth	Number of teeth	Tooth formation stage			Tooth	Number of teeth	Tooth formation stage		
			Minimum	Median	Maximum			Minimum	Median	Maximum
13.5 ^a	I ¹	24	Ac	Ac	Ac	I ₁	24	Ac	Ac	Ac
	I ²	24	Ac	Ac	Ac	I ₂	24	Ac	Ac	Ac
	C'	24	Rc	Rc	A ½	C ₁	24	Rc	A ½	Ac
	P ¹	24	Rc	A ½	Ac	P ₁	24	R ¾	A ½	Ac
	P ²	24	R ½	Rc	Ac	P ₂	24	R ¾	Rc	Ac
	M ¹	24	Ac	Ac	Ac	M ₁	24	Ac	Ac	Ac
	M ²	24	Coc	R ¾	A ½	M ₂	24	R ½	R ¾	A ½
14.5 ^{a,b}	M ³	24	Ci	Cr ¾	R ¼	M ₃	24	Ci	Cr ½	R ¼
	C'	24	Rc	A ½	Ac	C ₁	24	A ½	Ac	Ac
	P ¹	24	A ½	Ac	Ac	P ₁	24	A ½	Ac	Ac
	P ²	24	Rc	Ac	Ac	P ₂	24	Rc	Ac	Ac
	M ²	24	Rc	Rc	Ac	M ₂	24	Rc	Rc	Ac
15.5 ^{a,b}	M ³	24	Cr ¾	R ¼	R ¼	M ₃	24	Cr ½	R ¼	R ¼
	C'	24	R ¾	Ac	Ac	C ₁	24	Ac	Ac	Ac
	P ¹	24	Ac	Ac	Ac	P ₁	24	Ac	Ac	Ac
	P ²	24	Ac	Ac	Ac	P ₂	24	Ac	Ac	Ac
	M ²	24	Rc	A ½	Ac	M ₂	24	Rc	A ½	Ac
16.5 ^{a,c}	M ³	24	Cr ½	R ¼	R ¾	M ₃	24	Cr ½	R ¼	R ¾
	C'	24	Ac	Ac	Ac	C'	24	Ac	Ac	Ac
	M ²	24	A ½	Ac	Ac	M ₂	24	A ½	Ac	Ac
17.5 ^{a,c}	M ³	24	Ri	R ½	R ¾	M ₃	24	Crc	R ½	R ¾
	M ²	24	Ac	Ac	Ac	M ₂	24	Ac	Ac	Ac
	M ³	24	Crc	R ½	Rc	M ₃	24	R ¼	R ½	Rc

^a Midpoint of 1 year.

^b Teeth that reached radiographic apical closure stage (Ac) are permanent upper and lower incisors and first molars.

^c Teeth that reached radiographic apical closure stage (Ac) are permanent incisors, premolars, and first molars.

TABLE 9. Third molar development for 24 individuals (combined sex) from 18 to <24 years

Age (years)	Maxilla					Mandible				
	Tooth	Number of teeth	Tooth formation stage			Tooth	Number of teeth	Tooth formation stage		
			Minimum	Median	Maximum			Minimum	Median	Maximum
18.5 ^a	M ³	24	Crc	R 3/4	Rc	M ₃	24	R 1/4	R 3/4	Rc
19.5 ^a	M ³	24	R 1/4	Rc	A 1/2	M ₃	24	R 1/4	Rc	A 1/2
20.5 ^a	M ³	24	R 1/2	A 1/2	A 1/2	M ₃	24	R 3/4	A 1/2	A 1/2
21.5 ^a	M ³	24	Rc	A 1/2	Ac	M ₃	24	Rc	A 1/2	Ac
22.5 ^a	M ³	24	Rc	A 1/2	Ac	M ₃	24	Rc	A 1/2	Ac
23.5 ^a	M ³	24	Ac	Ac	Ac	M ₃	24	Ac	Ac	Ac

Teeth that reached radiographic apical closure stage (Ac) are permanent incisors, canines, premolars, first and second molars.

^a Midpoint of 1 year.

TABLE 10. Median age of eruption for deciduous teeth (combined sex)^a

Maxilla				Mandible			
Tooth	Alveolar eruption	Clinical emergence ^b	Full eruption	Tooth	Alveolar eruption	Clinical emergence ^b	Full eruption
i ¹	4.5 months	9.96 months	10.5 months	i ₁	4.5 months	8.04 months	10.5 months
i ²	7.5 months	11.4 months	1.5 years	i ₂	7.5 months	1.08 years	1.5 years
c'	10.5 months	1.58 years	2.5 years	c _,	10.5 months	1.67 years	2.5 years
m ¹	10.5 months	1.33 years	1.5 years	m ₁	10.5 months	1.33 years	1.5 years
m ²	1.5 years	2.42 years	2.5 years	m ₂	1.5 years	2.25 years	2.5 years

^a Midpoint of 3 months for younger than 1 year and midpoint of 1 year otherwise.

^b From Lysell et al. (1962).

TABLE 11. Median age (years) of eruption for permanent teeth (combined sex)^a

Maxilla					Mandible				
Tooth	Alveolar eruption	Clinical emergence ^b		Full eruption	Tooth	Alveolar eruption	Clinical emergence ^b		Full eruption
		Boys	Girls				Boys	Girls	
I ¹	6.5	6.9	6.7	7.5	I ₁	5.5	6.3	6.2	7.5
I ²	7.5	8.3	7.8	9.5	I ₂	6.5	7.3	6.8	7.5
C'	11.5	12.1	10.6	12.5	C _,	9.5	10.4	9.2	11.5
P ¹	10.5	10.2	9.6	11.5	P ₁	10.5	10.3	9.6	11.5
P ²	11.5	11.4	10.2	12.5	P ₂	11.5	11.1	10.1	12.5
M ¹	5.5	6.4	6.4	6.5	M ₁	5.5	6.3	6.3	6.5
M ²	10.5	12.8	12.4	13.5	M ₂	10.5	12.2	11.4	12.5
M ³	16.5	—	—	20.5	M ₃	16.5	—	—	20.5

^a Midpoint of 1 year.

^b From Haavikko (1970).