

CHAPTER-15

ESTIMATION OF AGE

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Determination of the age of an individual is one of the routine practical medico-legal problems. Cases are referred to Medical Officers either by the Court of Law or the investigating Police Officer in a variety of situations.

(See Appendix I)

Procedure of Examination:

1. The examination should be undertaken only on a proper authorisation from the Magistrate/Investigating Police Office.
2. Informed Consent of the individual should be obtained prior to examination if he/she is above 12 years according to his/her statement. If the child is below 12 years, the consent of the legal guardian is necessary.
3. Record the data, time, place of examination.
4. Two marks of identification to be recorded.
5. Measurements of Height and Weight, to be taken.
6. Look for the following signs of Puberty:

	<u>Male</u>	<u>Female</u>
a) Pubic hair	(14-15 year)	(13-14 year)
b) Auxiliary hair	(15-16 year)	(14-15 year)
c) Facial hair	(16-18 year)	--
d) Adam's apple	(16-18 year)	--
	Voice becomes deep.	
e) Development of Breast		(13-14 year)
f) Development of Testicles, Scrotum becomes pendulous by	13-14 year	

7. Count and identify the teeth; record the dental formula (modified F.D.I. formula)

55	54	53	52	51		61	62	63	64	65	
75	74	73	72	71		81	82	83	84	85	

(TEMPORARY)

18	17	16	15	14	13	12	11	21	22	23	24	25	26	27	28
38	37	36	35	34	33	32	31	41	42	43	44	45	46	47	48

(PERMANENT)

Find out the tooth which erupted last and the one expected shortly – (For eruption data see Appendix-II).

8. Arrange for radiographs of:
 - a. Shoulder PA view
 - b. Elbow PA and lateral view
 - c. Wrist PA view
 - d. Pelvis including the upper parts of femur. PA view
 - e. Jaws Oblique view.

Look for the presence of ossification centers in the epiphysis and the degree of fusion of epiphysis and diaphysis. The degree of root calcification of teeth may be assessed from X-rays of jaws. (For details see Appendix III).

Based on the physical, dental and radiological findings, the age may be associated and the certificate issued incorporating the relevant data. – Proforma of report form and certificate as per Appendix IV.

Medico legal Importance of age	
Age :	Medico legal Importance.
4 th month of Intrauterine life :	Quickening.
7 th month of Intrauterine life :	Viability
9 th month of Intrauterine life :	Full term Foetus.
5 Years	Criminal responsibility – Section 130 of Indian Railways Act.
7 Years	Criminal responsibility – Section 82 of Indian penal Code.
Above 7 years and	Criminal responsibility – Section 83 of Indian penal Code.
Below 12 years	
10 years	Kidnapping a child for stealing movable property – Section 369 of Indian Penal Code.
12 Years	1. Criminal responsibility – exception section 84 and 85 of Indian Penal Code. 2. > 12 consent for physical examination section 89 of Indian Penal Code. 3. < 12 – Oath not necessary – Indian Oaths amendment Act-1939. 4. Considered adult for drug therapy.
14 Years	Employment in a factory as a child-Indian Factories Act 1948.
Above 15 Below 18 years :	Adolescent employee in a factory.
16 Years	1. Consent for sexual intercourse – section 375 of Indian Penal Code. 2. Juvenile offender-children's Act 1960. 3. Kidnapping boys from legal guardianship- Section 361-366 of Indian Penal Code.
18 Years	1. Majority. 2. Consent for Procedures involving risk to life. – Section 87 of Indian Penal Code. 3. Marriage contract for females – 4. Adult-Indian Factories Act-1948. 5. Kidnapping female from legal guardianship- Section 361-366 of Indian Penal Code. 6. Casting votes for panchayats.
21 years	1. Majority for those under guardianship of Court of Wards. 2. Marriage Contract for Males. 3. Importing from foreign countries females for the purpose of illicit of Sexual intercourse – Section 366B Indian Penal Code.

APPENDIX – II

Eruption of Teeth

		Temporary	-	Permanent
Central Incisor	-	6-8 months		7-8 years
Lateral Incisor	-	8-12 months		8-9 years
Canine	-	18-20 months		11-12 years
First Premolar	-	-		9-11 years
Second Premolar	-	-		10-12 years
First Molar	-	12-14 months		6-7 years
Second Molar	-	20-24 months		12-14 years
Third Molar	-	-		above 17 years.

APPENDIX III

Table showing Data of Ossification in Different States

SNo	Ossification Centers	Bengal F. M.	Punjab	U.P.	Chennai	Kerala	A.P.	Rajas than
1.	Sternal End of Clavicle - A - F	15-19 14-16 22 20				18-20 22-23	15-19 20-22	
2.	Tip of Coracoid - A - F	10-11 10-11 16 16			13 14	14 18	10-11 16	
3.	Tip of Acromion - A - F	14-17 12-14 14-19 13-16			13-14 18	14 18	14-15 17-18	
4.	Head of Humerus - A - F	1 1 14-18 14-16	17-18	1 18-19	14-17	1 16-18	1 18-19	
5.	Greater tuberosity - A - F	2-4 2-4				3 16-18	3 18-19	
6.	Lesser tuberosity - A - F	5-7 5-7				5 16-18	5 18-19	
7.	Capitulum - A					2	1	
8.	Trochlea - A	11 10				11	9-11	10-11
9.	Lateral epicondyle - A	12 10				13	11	11-12
10.	Fusion of Capitulum's, trochlea and lateral epiconyle.	11-16 10-12	14-15		13-14	14-17	14-16	
11.	Medial epicondyle - A - F	7 5 16 14	14-1/2	14-17	14-17	8 14-17	5-7 14-16	14-18
12.	Radius-upper end - A - F	8 6 16 14	14-15	16-17	14-17	6 14-17	5 16-17	14-18
13.	Ulna-upper end - A - F	11-13 9-12 15		15-16	14-16	10 14-17	9 16-17	13-17
14.	Distal end-radius - A - F	1 1 16-17 16-1/2 18	16-17	18-19	14-18	2 14-18	2 18-19	17-19
15.	Distal end-ulna - A - F	10-11 8-10 18 17		19	14-18	6 14-18	6 17-18	17-19
16.	Iliac Crest - A - F	17 14 19-20 17-19			14-18	14 18	14 18-20	
17.	Ischial tuberosity - A - F	16-18 14-16 20 20				16 19-21	16 20-21	
18.	Fusion of ischio-pubic rami	8-1/2 8-1/2				7-8	6	
19.	Fusion of tri-radiate Cartilage rami	15-16 14			11-14	11-14	13-15	
SNo	Ossification Centers	Bengal F. M.	Punjab	U.P.	Chennai	Kerala	A.P.	Rajas -than
20.	Head of Femur - A - F	1 1 16-17 14-15	15- 1/2-17		14-15	1 15	1 17-18	
21.	Greater trochanter - A - F	17 14	16-17		14-17	4 14-17	4 17-18	

22.	Lesser trochanter - A - F	15-17 15-17			14-17	11 14-17	12-14 17-18	
23.	Lower end of Tibia - F	15-17 14-15	16-17		14-17	14-17	18-19	
24.	Upper end of Tibia - F	15-17 14-15	16-17		14-17	14-17	18-19	
25.	Upper end of Fibula - F	11-16 14-16	16-17		14-17	14-17	18-19	

Form for Age Determination

1. Name of the Subject:
2. Address:
3. Requisition from dated
4. Escorted by:
5. History:
6. Age as stated by
7. Consent
8. Date and time of examination
9. Identification marks:

(i)

(ii)

10. PHYSICAL EXAMINATION:

Height: Weight: General build:.....

Voice:.....Adam's apple:

Hair: Moustache:

Pubic:

Auxiliary:

Breasts: External Genitalia:

Puberty/Ejaculation:

Other features:

11. DENTAL EXAMINATION:

Total Number of teeth:..... Temporary.....

Permanent

Details:

12. RADIOLOGICAL EXAMINATION: on

Regions

Findings

1)

2)

3)

4)

Signature:

OPINION:

Name: Dr.

Designation:

**APPENDIX – IV-
B**

AGE CERTIFICATE

Date:

I, Dr..... certify as hereunder:-

A male/female person by Name..... was sent by
..... with his requisition No and the
following findings were observed:

IDENTIFICATION Marks:

- 1)
- 2)

A. PHYSICAL:

B. DENTAL:

Total Number of teeth Temporary
Permanent:.....

C. **RADIOLOGICAL** (X-Ray Photographs taken on No
.....)

OPINION

Based on the above physical, dental and radiological findings, I am of opinion
that the person is aged above

(.....) and below
(.....) Years.

Signature:

Name:

Designation:

Forwarded to:

Copy to: