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AGE ESTIMATION IN THE LIVING - SOME MEDICOLEGAL CONSIDERATIONS

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Age estimation in the living is one of the most important tasks of a forensic practitioner especially in developing countries where birth records are often not well-maintained. Despite the fact that there are a number of laws requiring registration of births (e.g Registration of Births and Deaths Act in India) most births are not properly recorded. We get a number of cases every day for estimation of age in living individuals in various situations, both criminal and civil. Let us have a glimpse into a few such situations.

Civil Cases

The minimum legal age for marriage in India is 21 years for boys and 18 years for girls. When a boy and girl want to marry in a court of law (this usually happens when they have eloped and want to marry against the wishes of their parents), the court official demands an age certificate from both of them. In case of non-production of this certificate, the court may refer the case to an age clinic (as is regularly run by the Forensic Medicine department of the Maulana Azad Medical College, New Delhi, India) for estimation of age.

Criminal cases

The legal age of consent by a girl for sexual intercourse according to Indian law is 16 years. If a boy and a girl have eloped and have had intercourse willingly, the boy may still be prosecuted for rape,

if the girl happens to be below 16 years of age. If the girl were above 16 years, it is not infrequent in such cases for the girl's parents to destroy her birth certificate (even if it were there), and claim their daughter's age to be below 16 years. This is done with a view to have revenge from the boy who instigated their daughter to run away from home. In such cases too, the police refers the case to the doctor for estimation of age.

Ages of Medicolegal importance

Following ages are usually relevant in various medicolegal situations:

Medicolegal importance of 1 year of age

1. According to South Carolina's child passenger restraint law, children from birth to 1 year old, or who weigh less than 20 pounds, must be secured in a rear-facing child safety seat. (http://www.buckleupsc.com/cps/laws.htm). Washington state also has a similar law (http://depts.washington.edu/booster/anton_skeen_bill.html). Similar laws exist in several other nations (http://www.ideamerge.com/leasing/childseat.html)
2. In some countries, such as Canada, Italy, the United Kingdom and Australia, murder of a child less than one year of age by its own mother is not considered homicide. Instead, the mother is charged with a lesser offence of infanticide for which the punishment is lesser. This is because such murders could be due to post-partum depression, or 'baby-blues' [supposed to be due to the effects of lactation and other aspects of post-natal care]. (http://en.wikipedia.org/wiki/Murder)

Medicolegal importance of 2 years of age

1. According to the Code of Maryland, in certain cases of alimony, a determination of potential income may not be made for a parent who is caring for a child under the age of 2 years for whom the parents are jointly and severally responsible. (For details visit http://www.dhr.state.md.us/csea/help.htm)

Medicolegal importance of 3 years of age

1. According to the UK law, if a child under 3 years old is carried in the front seat of a car, an appropriate child restraint MUST be used (the adult seat belt is not sufficient). Children under 3 years old may not travel in the front unless they are in a child restraint. If carried in the rear seat, an appropriate child restraint MUST be used, IF AVAILABLE. If an appropriate restraint is fitted in the front of the car, but not the rear, children under 3 years old MUST sit in the front and use that restraint. Remember, one could move the restraint from the front to the rear if one wished. Rearward-facing seats are designed to be used in the rear as well as the front. One should always put a rearward-facing baby seat in the rear if is a front passenger airbag fitted. (http://www.childcarseats.org.uk/law/index.htm)

Medicolegal importance of 4 years of age

1. Under Pennsylvania law, children under 4 years of age are required to use a child restraint device. Nonuse is a primary offense. Children 4 to under 8 years of age are required to use a booster seat. It is a secondary offense. The fine is a sliding fine up to $100.00. (http://www.psp.state.pa.us/psp/cwp/view.asp?A=310&Q=165399)

Medicolegal importance of 5 years of age

1. According to Section 6 (a) of *The Hindu Minority and Guardianship Act 1956*, a minor who has not completed the age of 5 years shall ordinarily be in the custody of the mother.

Medicolegal importance of 6 years of age

1. Under California law, automobile passengers under 6 years or lighter than 60 pounds must be securely fastened in a child safety seat. (http://webtrafficschool.com/wts/content/California/s3_1ca.html).
2. According to section 154 of *Crimes Act 1961 (New Zealand)*, Every one is liable to imprisonment for a term not exceeding 7 years who unlawfully abandons or exposes any child under the age of 6 years. (http://www.legislation.govt.nz/browse_vw.asp?content-set=pal_statutes).

Medicolegal importance of 7 years of age

1. According to Section 82 of the Indian Penal Code (*I.P.C.*), a child less than 7 years of age can not commit an offence.
   [There is a common misconception among several students (unfortunately propagated by many text books) that under the *Indian Railways Act 1890*, a child even under 7 years of age is liable for punishment, if it does anything maliciously to wreck or attempt to wreck a train, to hurt or attempt to hurt persons traveling by railway or to endanger the safety of persons traveling by railway by willful act or by way of rash or negligent act or omission. This is not correct as the Indian Railways Act has now been completely modified. The new Act was passed in 1989, and it does not have any provision like this. Please the linked page (briefhistory) for brief history of Indian railways, which gives the history of how *Indian Railways Act, 1890* was passed. Please the linked page (ICR India) to see a mention of the new *Indian Railways Act, 1989*.]

Medicolegal importance of 8 years of age

1. Under Pennsylvania law, Children under 4 years of age are required to use a child restraint device. Nonuse is a primary offense. Children 4 to under 8 years of age are required to use a booster seat. It is a secondary offense. The fine is a sliding fine up to $100.00. (http://www.psp.state.pa.us/psp/cwp/view.asp?A=310&Q=165399)

Government of India arrival card, which all overseas tourists arriving in India, and Indians returning back to India have to fill up. Please see rule 2 in section C. (Please Click to enlarge).


GOVERNMENT OF INDIA
ARRIVAL CARD
BUREAU OF IMMIGRATION
INDIA
Incredible India
Welcome to India
Important Web Sites
IMPORTANT INSTRUCTIONS
REGISTRATION FORMALITIES FOR FOREIGN NATIONALS
INFORMATION REGARDING CUSTOMS

Medicolegal importance of 9 years of age

1. According to the *1819 Factory Act of UK*, no child under 9 could work in factories. Children from 9 to 16 were allowed to work a maximum of 72 hours per week with one and a half hours a day for meals. This age was however later reduced to 8 years by the *1844 Graham`s Factory Act*. (http://www.historylearningsite.co.uk/law.htm)

Medicolegal importance of 10 years of age

1. According to Section 369 of *I.P.C.*, to constitute a crime of kidnapping or abducting a child with the intention of taking dishonestly any moveable property from its person, the age of such child should be below 10 years.
2. Under the *1842 Mines and Colleries Act* all women and children under 10 were banned from working underground. (http://www.historylearningsite.co.uk/law.htm)
3. According to Indian Customs rules, free allowance for tourists of Indian origin is Rs. 25,000.00 per passenger, inlcuding two litres of whisky/wine and 200 cigarettes. However this free allowance is lower for passengers less than 10 years of age (please see figure on right)

Medicolegal importance of 12 years of age

1. According to Section 83 of *I.P.C.*, the crime committed by a child between 7-12 years of age is not an offence, if he hasn't attained sufficient maturity of understanding. The judge often decides this issue.
2. According to Section 89 of I.P.C, a child below 12 years can not give valid consent to suffer any harm which may occur from an act done in good faith and for its benefit (as a general physical examination by a doctor)
3. According to Section 90 of I.P.C, consent of a child below 12 years is not a consent, as is intended by any section of *I.P.C.*
4. Under the *Indian Oaths Amendment Act 1939*, the unsworn evidence of a child below 12 years of age is admissible if the court thinks he does not understand the nature of an oath.
5. Under the *Bombay Shops and Establishments Act 1948*, no child who has not completed 12 years shall be employed in these establishments.
6. According to Section 317 of I.P.C, exposure or abandonment of a child less than 12 years of age by parents or person having care of it, may lead to punishment for 7 years and/or fine.
7. According to Section 376 of I.P.C, if a man rapes his own wife and her age is less than 12 years, he will get punishment as if he raped any other girl (the sentence is not less than 7 years, and may extend to life). But if he raped his wife who was above 12 years of age, but below 15 years, he would get a lesser sentence of only 2 years. This clause may appear paradoxical as the minimum legal age for marriage in India is 18 years for girls. But despite this law, many marriages of young girls are going on in India, and section 376 caters to such cases.
8. Under the *Children and Young Persons Act 1933* & 1952 of UK, it is an offence for a person over 16 years to have a child under 12 years in a room with an unguarded fire.
9. According to section 16 of *Indian Arms Rules 1962*, any person below the age of sixteen years but not below the age of twelve years may be allowed to use a fire-arm for the purpose of training in the use of such fire-arm in the immediate presence, or under the direct supervision and guidance of an adult instructor or the licensee:
   Provided that no person below the age of sixteen years shall be allowed carry and firearm requiring a licence, in a public place, except in the immediate presence and supervision of the person who is lawfully entitled to carry such firearm. (http://www.abhijeetsingh.com/arms/india/laws/rules/rule_15_24.html).
10. Collection of full fares in all modes of transport in India and in several other countries.
11. According to Section 26 of the Sexual Offences Act of Trinidad and Tobago, a person under the age of twelve years is deemed incapable of committing an offence under that Act.
12. A pediatrician traditionally looks after a child only upto 12 years of age.

Medicolegal importance of 13 years of age

1. According to Section 375 of I.P.C, (local amendment by Manipur Government), sexual intercourse with one's own wife, even with her consent, is rape if she was below 13 years (This provision is for the state of Manipur only by a local amendment. For the rest of the country this age is 15 years)

2. Sections 5 to 8 of *The Sexual Offences Act 2003* of UK, deal with rape and other offences against children under the age of 13 years.
    1. Under section 5, a person commits an offence if (a) he intentionally penetrates the vagina, anus or mouth of another person with his penis, and (b) the other person is under 13. A person guilty of an offence under this section is liable, on conviction on indictment, to imprisonment for life.
    2. Under section 6, a person commits an offence if (a) he intentionally penetrates the vagina or anus of another person with a part of his body or anything else, (b) the penetration is sexual, and (c) the other person is under 13. A person guilty of an offence under this section is liable, on conviction on indictment, to imprisonment for life.
    3. Under section 7, a person commits an offence if (a) he intentionally touches another person, (b) the touching is sexual, and (c) the other person is under 13. A person guilty of an offence under this section is liable (a) on summary conviction, to imprisonment for a term not exceeding 6 months or a fine not exceeding the statutory maximum or both and (b) on conviction on indictment, to imprisonment for a term not exceeding 14 years.
    4. Under section 8, a person commits an offence if (a) he intentionally causes or incites another person (B) to engage in an activity, (b) the activity is sexual, and (c) B is under 13. A person guilty of an offence under this section, if the activity caused or incited involved (a) penetration of B's anus or vagina, (b) penetration of B's mouth with a person's penis, (c) penetration of a person's anus or vagina with a part of B's body or by B with anything else, or (d) penetration of a person's mouth with B's penis, is liable, on conviction on indictment, to imprisonment for life. In all other cases, the guilty person under this section is liable (a) on summary conviction, to imprisonment for a term not exceeding 6 months or to a fine not exceeding the statutory maximum or both and (b) on conviction on indictment, to imprisonment for a term not exceeding 14 years.
3. According to section 42, Title 14 of *Louisiana Code*, Aggravated rape is a rape committed upon a person sixty-five years of age or older or where the anal, oral, or vaginal sexual intercourse is deemed to be without lawful consent of the victim because it is committed under any one or more of the following circumstances:
   (1) When the victim resists the act to the utmost, but whose resistance is overcome by force.
   (2) When the victim is prevented from resisting the act by threats of great and immediate bodily harm, accompanied by apparent power of execution.
   (3) When the victim is prevented from resisting the act because the offender is armed with a dangerous weapon.
   (4) When the victim is **under the age of thirteen years**. Lack of knowledge of the victim's age shall not be a defense.
   (5) When two or more offenders participated in the act.
   (6) When the victim is prevented from resisting the act because the victim suffers from a physical or mental infirmity preventing such resistance.
   (http://law.justia.com/louisiana/codes/146/78529.html).
4. Section 320 of the *Criminal Code of Western Australia*, defines sexual offences against children under the age of 13. It states:
   320. Child under 13: Sexual offences against
   (1) In this section "child" means a child under the age of 13 years.

(2) A person who sexually penetrates a child is guilty of a crime and is liable to imprisonment for 20 years.
(3) A person who procures, incites, or encourages a child to engage in sexual behaviour is guilty of a crime and is liable to imprisonment for 20 years.
(4) A person who indecently deals with a child is guilty of a crime and is liable to imprisonment for 10 years.
(5) A person who procures, incites, or encourages a child to do an indecent act is guilty of a crime and is liable to imprisonment for 10 years.
(6) A person who indecently records a child is guilty of a crime and is liable to imprisonment for 10 years.
(http://www.austlii.edu.au/au/legis/wa/consol_act/cc94/s320.html).

Medicolegal importance of 14 years of age

1. Under the law of **England**, a boy 14 year of age can not commit rape (In India no such age has explicitly been mentioned under the law pertaining to rape, but sections 82 and 83 of IPC serve as guidelines. According to these sections a boy below 7 years can not commit *any* crime, which implicitly includes rape. If the age of the boy were between 7-12 years, then the judge would decide if his action amounts to an offence or not.)
2. According to Article 24 of *The Indian Constitution*, a child below 14 years shall not be employed to work in any factory or mine or engaged in other hazardous employment (same provisions are reproduced in Section 67 of *The Indian Factories Act 1948*)
3. According to Section 23 of the *United Provinces Excise Act*, a licensed vendor is not allowed to employ children under the age of 14 years, in the premises in which foreign liquor or country spirit is consumed by the public.
4. Under section 375 of the *I.P.C.* (local amendment by Manipur Government), sexual intercourse with or without consent is rape if the age of the woman is less than 14 years (This provision is for the state of Manipur only by a local amendment. For the rest of the country this age is 16 years).
5. According to Section 15 of *The Juvenile Justice (Care and Protection of Children), Act 2000* (India), where a Board is satisfied on inquiry that a juvenile has committed an offence, then, notwithstanding anything to the contrary contained in any other law for the time being in force, the Board may, if it thinks so fit order the parent of the juvenile or the juvenile himself to pay a fine, if he is over fourteen years of age and earns money. (http://www.helplinelaw.com/bareact/index.php?dsp=juvenile-justice)
6. According to section 39(4) of *Child Care Act No. 74 of 1983* of **South Africa**, 14 years is the age at which children may independently consent to medical treatment. (Ref: Dada MA, McQuoid-Mason DJ. Medico-legal aspects of pathology - current dilemmas regarding confidentiality and disclosure. *S Afr Med J*. 2005 Nov;95(11):875-7.)
7. Section 6(1) of the Sexual Offences Act of Trinidad and Tobago states, "Where a male person has sexual intercourse with a female person who is not his wife and who is under the age of fourteen years, he is guilty of an offence, whether or not the female person consented to the intercourse and whether or not at the time of the intercourse he believed her to be fourteen years of age or more, and is liable on conviction to imprisonment for life." If effect the age of statutory rape in Trinidad and Tobago is 14 years.

Medicolegal importance of 15 years of age

1. According to Indian Factories Act 1948, a child above 15 years and below 18 years is an adolescent. A Child is a person who hasn't completed 15 years. Young Person is either a child or adolescent.
2. According to Section 375 of I.P.C, sexual intercourse with one's own wife, even with her consent, is rape if she was below 15 years (By a local amendment this age has been reduced to 13 years for the state of Manipur)
3. According to International Labor Conference (1948 session), young persons between 15-17 years shall not be employed in factories, mines, railways and ports for a period of at least 12 consecutive hours.
4. According to Section 13 (2) (iv) of The Hindu Marriage Act 1955, a wife may divorce her husband if her marriage (whether consummated or not) was solemnized before she attained the age of 15 years, and she has repudiated the marriage after attaining that age but before attaining the age of 18 years.
5. According to Section 160 of The Criminal Procedure Code, a police officer has power to require attendance of witnesses, but he can't compel a male person below 15 years (or any woman) to attend at any place other than the place in which such male person (or woman) resides.

Medicolegal importance of 16 years of age

1. Under section 375 of the I.P.C, sexual intercourse with a woman even with her consent is rape, if she was below 16 years of age.
2. According to the Indian law, a child under 16 years of age, who is serving a sentence for some offence, can not be kept in a jail. He has to be confined in a Children's Home.
3. According to section 361 of I.P.C, whoever takes or entices any minor under 16 years of age if a male, (or under 18 years of age if a female, or any person of unsound mind) out of the keeping of the lawful guardian of such minor (or person of unsound mind), without the consent of such guardian, is said to kidnap such minor (or persons) from lawful guardianship.
4. According to Section 22 of *United Provinces Excise Act*, a licensed vendor is not permitted to sell any spirit or intoxicating drug to persons under 16 years of age.
5. According to *The Bombay Children Act 1948*, a child means a boy or girl under 16 years. If such a child commits an offence, he becomes a youthful offender, and shall not be sentenced to death.
6. Under the *Bombay Prevention of Hindu Bigamous Marriage Act 1946*, a minor means any person who is below 16 years of age (Under the Indian Majority Act 1875, a minor is a person below 18 years)
7. According to England's *Tattooing of Minors Act 1969*, tattooing of persons under the age of 16 has been made illegal since 1969.
8. According to Section 363-A of I.P.C, kidnapping or maiming of a minor for the purpose of begging is an offence. If the person merely kidnaps, the sentence is 10 years and fine. If he maims, the sentence is life imprisonment and fine. For the purposes of this section a minor is a male below the age of 16 years, and a female below 18 years. This is an interesting section, as the ages for minors are different for males and females.

9. According to Section 2(aa) of *The Immoral Traffic (Prevention) Act, 1956* of India, a "child" means a person who has not completed the age of sixteen years. (http://socialwelfare.delhigovt.nic.in/immoraltraffact1.htm)
10. According to Section 2(cb) of *The Immoral Traffic (Prevention) Act, 1956* of India, a "minor" means a person who has completed the age of sixteen years but has not completed the age of eighteen years. (http://socialwelfare.delhigovt.nic.in/immoraltraffact1.htm)
11. Under the *Children and Young Persons Act 1933* & 1952 of UK, it is an offence for a person over 16 years to have a child under 12 years in a room with an unguarded fire.
12. According to section 16 of *Indian Arms Rules 1962*, any person below the age of sixteen years but not below the age of twelve years may be allowed to use a fire-arm for the purpose of training in the use of such fire-arm in the immediate presence, or under the direct supervision and guidance of an adult instructor or the licensee:
    Provided that no person below the age of sixteen years shall be allowed carry and firearm requiring a licence, in a public place, except in the immediate presence and supervision of the person who is lawfully entitled to carry such firearm. (http://www.abhijeetsingh.com/arms/india/laws/rules/rule_15_24.html).
13. According to section 9 of the *Indian Arms Act 1959*, a person below 16 years of age can not keep any any firearm or ammunition in his possession. (http://www.abhijeetsingh.com/arms/india/laws/act/chapter_1_2.html).
14. Since 1st July 2007, a citizen of 16 years can vote in Austria. Austria thus became the first member of the European Union, and the first of the world's leading democracies, to adopt a voting age of 16 for all purposes.
15. According to the immigration rules of New Zealand, if a person has applied for permanent residence in that country, and has a dependent child (whether natural or adopted), who is aged 16 years or younger, is single, and is totally or substantially reliant on the principal applicant, then he may be included in the application for permanent residence. (http://www.infoinic.com/faq.html).
16. In many countries, if a child is less than 16 years, than slightly different rules apply for getting the passports (called child passports). (http://americanpassport.com/Passport_Child.html).

Medicolegal importance of 17 years of age

1. According to International Labor Conference (1948 session), young persons between 15-17 years shall not be employed in factories, mines, railways and ports for a period of at least 12 consecutive hours.
2. Indian Mines Act 1923: No person who hasn't completed his 17th year shall be allowed to be present in any part of a mine which is below ground unless a certificate of fitness is granted.
3. According to Section 44 of *The Juvenile Justice (Care and Protection of Children), Act 2000*, a juvenile or child over seventeen years of age but less than eighteen years of age would stay in the after-care organization till he attains the age of twenty years. (http://www.helplinelaw.com/bareact/index.php?dsp=juvenile-justice)

Fig 1. Lateral view of the chest showing sternum and its pieces in a 16 year old male
N.B. Click this photo (as well as all the subsequent photos) to enlarge them



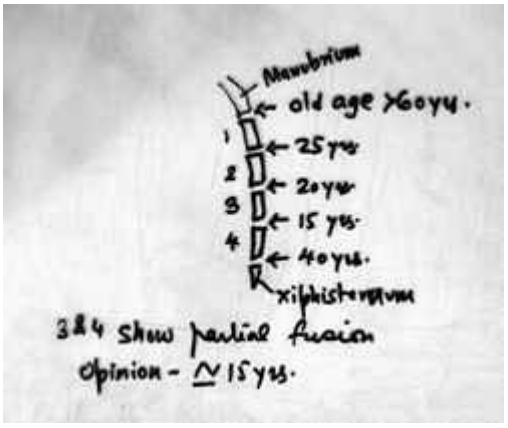
Medicolegal importance of 18 years of age

1. Under section 5 (iii) of Hindu Marriage Act 1955, the age for marriage for a girl is 18 years. If a girl marries before this age, the punishment is prescribed in section 18 (a) of the same act. It is simple imprisonment which may extend to 15 days, or fine which may extend to 1000 Rs, or with both. The marriage is not dissolved.
2. According to section 361 of I.P.C, whoever takes or entices any minor under 18 years of age if a female, (or under 16 years of age if a male, or any person of unsound mind) out of the keeping of the lawful guardian of such minor (or person of unsound mind), without the consent of such guardian, is said to kidnap such minor (or persons) from lawful guardianship.
3. According to Indian Majority Act 1875, a person attains majority when he/she attains the age of 18 years.
4. According to Section 4(a) of the *The Hindu Minority and Guardianship Act 1956*, a person who is below 18 years of age is a minor.
5. According to Section 87 of I.P.C, a person under the age of 18 years can not give valid consent whether express or implied to suffer any harm which may result from an act not intended or not known to cause death or grievous hurt (example: fencing, surgical operations by a doctor)
6. According to section 366-A of I.P.C, whoever procures any girl under the age of 18 years for the purposes of illicit intercourse with another person, shall be punishable with imprisonment which may extend to ten years and shall also be liable to fine.
7. According to section 372 of I.P.C, whoever sells, lets to hire, or otherwise disposes of any person under the age of 18 years for the purposes of prostitution or illicit intercourse with any person or for any unlawful or immoral purpose, shall be punished with imprisonment of either description for a term which may extend to ten years and shall also be liable to fine.
8. According to section 373 of I.P.C, whoever buys, hires, or otherwise obtains possession of any person under the age of 18 years for the purposes of prostitution or illicit intercourse with

any person or for any unlawful or immoral purpose, shall be punished with imprisonment of either description for a term which may extend to ten years and shall also be liable to fine.

9. According to Indian Factories Act 1948, "Adult" is a person who has completed his 18th year. A person less than 18, but more than 15 years of age is adolescent.
10. According to section 305 of I.P.C, whoever abets the suicide of child below 18 years, would be punishable with death, or imprisonment for life, and shall also be liable to fine.
11. Section 300 *I.P.C.* exception 5: Culpable homicide is not murder when the person who died was above 18 years of age and he/she risked death with his own consent.
12. A child (Under Children's Act 1960) is sent to children's home on commission of an offence, but is not retained there beyond the age of 18 years.
13. Children and Young Person's Act 1933 of England: A person below 18 years can't be sentenced to death.
14. According to Section 363-A of I.P.C, kidnapping or maiming of a minor for the purpose of begging is an offence. If the person merely kidnaps, the sentence is 10 years and fine. If he maims, the sentence is life imprisonment and fine. For the purposes of this section a minor is a female below 18 years (or a male below the age of 16 years). This is an interesting section, as the ages for minors are different for males and females.

Figure 2. Diagram showing the fusion of various parts of sternum (click to enlarge)



15. This is the age for voting in India and several other countries.
16. In Australia (and several other countries), a person must be 18 years of age or older to contest for public office at Federal, state or local government level. [Please note that age of candidacy may not necessarily be the same as age of voting in many countries.]
17. According to Section 2 (k) of *The Juvenile Justice (Care and Protection of Children), Act 2000* (India), a "juvenile" or "child" means a person who has not completed eighteenth year of age. (http://www.helplinelaw.com/bareact/index.php?dsp=juvenile-justice)
18. According to section 3 (4) (a) of the *Medical Termination of Pregnancy Act 1971* (India), if the pregnant woman has not attained the age of 18 years, her pregnancy can not be terminated, except with the consent in writing of her guardian.
19. According to Section 13 (2) (iv) of *The Hindu Marriage Act 1955* (India), a wife may divorce her husband if her marriage (whether consummated or not) was solemnized before she attained the age of 15 years, and she has repudiated the marriage after attaining that age but before attaining the age of 18 years.

20. According to Section 2 (f) of *The Transplantation of Human Organs Act, 1994* (India), a "donor" means any person not less than 18 years of age, who voluntarily authorizes the removal of any of his human organs for therapeutic purposes.
21. According to Section 2(ca) of *The Immoral Traffic (Prevention) Act, 1956* of India, a "major" means a person who has completed the age of eighteen years. According to Section 2(cb) of the same Act, a "minor" means a person who has completed the age of sixteen years but has not completed the age of eighteen years. (http://socialwelfare.delhigovt.nic.in/immoraltraffact1.htm)

Medicolegal importance of 19 years of age

1. Under the Maine law, a court order requiring the payment of child support (in cases where payments are made by one parent to the other following disputes between them) remains in force as to each child until the order is altered by the court or until that child attains 19 years of age. (The actual law is somewhat more complex than this. Please see http://janus.state.me.us/LEGIS/STATUTES/19-A/title19-Asec1653.html for details.)

Medicolegal importance of 20 years of age

1. Section 293 *I.P.C.* if a person sells, lets to hire, distributes, exhibits or circulates obscene objects to any person under 20 years of age, then on first conviction, he would be sentenced to an imprisonment of 3 years and a fine of 2000 Rs. On second conviction, the punishment would be 7 years and a fine of 5000 Rs.
2. According to Section 44 of *The Juvenile Justice (Care and Protection of Children), Act 2000*, a juvenile or child over seventeen years of age but less than eighteen years of age would stay in the after-care organization till he attains the age of twenty years. (http://www.helplinelaw.com/bareact/index.php?dsp=juvenile-justice)

Medicolegal importance of 21 years of age

1. Under section 5 (iii) of Hindu Marriage Act 1955, the age for marriage for a boy is 21 years. If a boy marries before this age, the punishment is prescribed in section 18 (a) of the same act. It is simple imprisonment which may extend to 15 days, or fine which may extend to 1000 Rs, or with both. The marriage is not dissolved.
2. Under section 366-B of *I.P.C.*, whoever imports into India from any country outside India or from the State of Jammu and Kashmir any girl under the age of 21 years with intent that she may be, or knowing it to be likely that she will be, forced or seduced to illicit intercourse with another person, shall be punishable with imprisonment which may extend to 10 years and shall also be liable to fine.
3. When a minor is under the guardianship of the Court of Wards, or is under a guardian appointed by the Court, he is not deemed to attain majority until he is 21 years of age.
4. Under section 16 of *Indian Arms Rules 1962*, an adult means a person who has completed the age of twenty one years (http://www.abhijeetsingh.com/arms/india/laws/rules/rule_15_24.html).

Figure 3. X-ray Pelvis and femur in a two and a half year old male (Click to enlarge).



Medicolegal importance of 25 years of age

1. According to Article 84 (b) of *The Constitution of India*, minimum age for contesting for the membership of Parliament is 25 years.
2. According to Article 173 (b) of *The Constitution of India*, minimum age for contesting for the membership of any State Legislative Assembly is 25 years.
3. This is the maximum age for entry into some government services.
4. According to section 27 of the Punjab Excise Act 1914, the State Government may lease the right of manufacturing, supplying and selling any Country Liquor or intoxicating drug, only to a person above 25 years of age. According to section 29 of the same Act no licensed vendor can sell or deliver any liquor or intoxicating drug to any person under the age of twenty five years. According to section 30 of this Act, no person who is licensed to sell liquor or intoxicating drug on his premises can employ any man under the age of 25 years (Women of any age can not be employed).

Medicolegal importance of 30 years of age

1. According to Article 84 (b) of *The Constitution of India*, this is the minimum age for election to the Council of States (Rajya Sabha).
2. According to Article 173 (b) of *The Constitution of India*, this is the minimum age for election to the State Legislative Council.
3. In Nigeria, a person must be at least 30 to be a Representative in parliament.

Medicolegal importance of 35 years of age

1. According to Article 58 (1) (b) of *The Constitution of India*, this is the minimum age for appointment as the President of India.
2. According to Article 66 (3) (b) of *The Constitution of India*, this is the minimum age for appointment as the Vice-President of India.

3. According to Article 157 of *The Constitution of India*, this is the minimum age for appointment as the Governor of any State.
4. According to Section 4 (3) (i) of The Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act 1994, no pre-natal diagnostic technique shall be used or conducted unless the age of the woman is above 35 years.
5. In Mexico a person must be at least 35 to be President or a Senator, as specified in the 1917 Constitution of Mexico.
6. In Nigeria, a person must be at least 35 to be a Senator or State Governor.

Medicolegal importance of 40 years of age

1. In Italy a person must be at least 40 to be a Senator, as specified in the 1947 Constitution of Italy.
2. In Nigeria, a person must be at least 40 years of age to be elected President or Vice President.

Medicolegal importance of 50 years of age

1. In Italy a person must be at least 50 to be President of the Republic, as specified in the 1947 Constitution of Italy.

Medicolegal importance of 55 years of age

1. According to section 765.03 of the State of Wisconsin Statute, persons who are nearer of kin than 2nd cousins cannot marry. But even first cousins can marry if the female was above 55 years of age (the idea is that the couple should not be able to reproduce, which is the main biological reasoning behind prevention of incest). The section states:

   > 765.03 Who shall not marry; divorced persons. (1) No marriage shall be contracted while either of the parties has a husband or wife living, nor between persons who are nearer of kin than 2nd cousins except that marriage may be contracted between first cousins where the female has attained the age of 55 years or where either party, at the time of application for a marriage license, submits an affidavit signed by a physician stating that either party is permanently sterile. Relationship under this section shall be computed by the rule of the civil law, whether the parties to the marriage are of the half or of the whole blood. A marriage may not be contracted if either party has such want of understanding as renders him or her incapable of assenting to marriage.

   (http://www.legis.state.wi.us/statutes/Stat0765.pdf).

Medicolegal importance of 60 years of age

1. This is age of retirement from Government service in several countries including India (and Delhi University)

Figure 4. X-ray pelvis and femur in a fourteen and a half year old male (Click to enlarge).



Medicolegal importance of 65 years of age

1. According to Section 10 (2) of the Consumer Protection Act 1986, every member of the District Forum shall hold office for a term of five years or upto the age of 65 years, whichever is earlier, and shall not be eligible for reappointment. District Forum is a kind of civil court which delivers judgments in cases of consumer grievances. Similarly the State Commission and the National Commission (mentioned below) are also akin to civil courts which are higher in rank to District Forum.
2. According to section 42, Title 14 of Louisiana Code, Aggravated rape is a rape committed upon a person **sixty-five years of age or older** or where the anal, oral, or vaginal sexual intercourse is deemed to be without lawful consent of the victim because it is committed under any one or more of the following circumstances:
   (1) When the victim resists the act to the utmost, but whose resistance is overcome by force.
   (2) When the victim is prevented from resisting the act by threats of great and immediate bodily harm, accompanied by apparent power of execution.
   (3) When the victim is prevented from resisting the act because the offender is armed with a dangerous weapon.
   (4) When the victim is under the age of thirteen years. Lack of knowledge of the victim's age shall not be a defense.
   (5) When two or more offenders participated in the act.
   (6) When the victim is prevented from resisting the act because the victim suffers from a physical or mental infirmity preventing such resistance.
   (http://law.justia.com/louisiana/codes/146/78529.html).

Medicolegal importance of 67 years of age

1. According to Section 16 (3) of the Consumer Protection Act 1986, every member of the State Commission shall be below 67 years of age.

Medicolegal importance of 70 years of age

1. According to Section 20 (3) of the Consumer Protection Act 1986, every member of the National Commission shall be below 70 years of age.
2. This is the age prescribed by some State Governments which qualifies a person to get pension from "Old Age Pension Scheme".

Estimation of age from X-rays

Age can usually be estimated in the living from the following four criteria (1)Teeth (2) Ossification of bones (3)Secondary sex characters (4)General development (in case of children). In this paper we shall concentrate on the estimation of age from X-rays only.

Age from Sternum

This is usually a neglected bone even by forensic practitioners engaged in the determination of age. But it can give strikingly accurate ages. Figure 1 is an example. This case was brought to the author for age estimation. A lateral X-ray of chest was advised. All the four pieces of sternum can be seen clearly.

The third and fourth piece have almost united, which allowed the author to opine on the age as around 15 years. This was later found to be true from other evidences. Figure 2 shows the usual ages of fusion of other parts of this bone.

Age from femur and hip bone

Figure 5. Lateral X-ray foot in a eight and a half year old male (Click to enlarge).



The case shown in figure 3 was a male, who was brought to the author for alleged sodomy on him. The police wanted to know his age, as a tender age could lead to stricter punishment to the accused. If we look at the X-ray carefully, we see that the head of femur has appeared. This meant that the age was above 1 year. But the greater trochanter has not yet appeared which allowed us to say that he was below 4 years. The actual age of the boy was found to be 2 and a half years from other evidences.

The case shown in figure 4 is also a male. He was brought as he had stolen some jewelry from a female, and he had applied for confinement in a Children's home. In this case, the tri-radiate cartilage can easily be seen which allowed us to say that the person was above 13 years and below 15 years of age. However a very faint shadow of lesser trochanter could also be seen. Lesser trochanter appears at around the age of 14 years. Opinion given was that the child was between 14-15 years.

Age from foot bones

The case shown in figure 5 is very interesting, and I include this case just to show that even the neglected foot bones can sometimes be very useful in estimation of age. This is the X-ray of an eight and a half year old child. The Secondary center in the calcaneum has appeared (>6 years), but has not united (<14 years). By examination of just this bone, we can limit our gap to 8 years. Of course examination of other bones was also required to pin-point the age, but this served as an important initial step.

[Important note: This page is kept up-to-date with latest laws, rules and regulations. Thus although this piece first appeared in July-December issue of 2000, the reader would find references to many statutes framed or enacted after this date.]

References

1. Aggrawal A and Busuttil A. Age estimation in the living. *The Police Surgeon, Edinburgh (Journal of the Association of Police Surgeons)*. Number 38, Jan 1991, Pp 33-36

The reader is well advised to visit the following sites for further information on estimation of age in the living

1. David Lucy: Human age estimation from Skeletal and dental evidence (Abstract of Ph.D. Dissertation)
2. Age reconstruction
3. Age determination from x-ray

This piece appears at the following sites:

India Legal Information Institute

Recommended Books

Developmental Juvenile Osteology, by Louise Scheuer and Sue Black (Illustrations by Angela Christie). Academic Press, 2000
(*The book gives excellent information on ossification centers of all bones, their times of appearance, ages of fusion and so on*)

Undergraduate Study material appearing in the next issue