



# Ossification Test

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## Why in News?

Recently, one of the individuals accused in the **murder case** of a political leader underwent an **ossification test** to determine if he was a minor.

## What is the Ossification Test?

### ▪ About:

- Ossification is the **natural process of bone formation**, beginning in the early developmental stage of the fetus and continuing until late adolescence, with **variations among individuals**.
- A person's **approximate age can be estimated based on the stage of development of their bones**.
- The test involves taking **X-rays of specific bones**, such as those in the hands and wrists, **to assess skeletal and biological development**.
  - The **X-ray images can be compared to standard development benchmarks** to help determine age.
  - The analysis may also **utilise a scoring system that evaluates individual bones** in the hands and wrists, comparing their growth to established maturation standards within a specific population.

### ▪ Reliability:

- **Variability in observing bone maturation** can affect the accuracy of ossification tests.
  - **Minor developmental differences among individuals** create potential for error in age estimation.
  - Ossification tests typically **provide an age range, such as 17-19 years**.
- Courts have addressed the **issue of margin of error within this range**, debating whether to accept the lower or upper end of the range.
  - For example, In 2024, the **Delhi High Court ruled** that in cases under the **POCSO (Protection of Children from Sexual Offences) Act, 2012** the **upper age limit of the ossification test's** reference range should be considered.
    - The court also stated that a **margin of error of two years should be applied when determining age**.

### ▪ Court's View About the Test:

- Under **Section 94 of the Juvenile Justice Act**, if there are "**reasonable grounds for doubt**" regarding the person's age, **the Board must initiate the process of age determination**.
- The **primary evidence** for age verification should be a **school-issued birth certificate or a matriculation certificate** from the relevant examination board.
  - If these documents are unavailable, a **birth certificate from a municipal authority**, corporation, or panchayat can be considered.
- The Act states that only in the absence of these documents should an **ossification test or another medical age determination test be conducted**, as ordered by the Committee or Board.
- In a March 2024 ruling, the Supreme Court emphasized that ossification tests should be

- used as a last resort for determining age.
- **Courts have ruled** that **ossification tests cannot override documentary evidence.**

## Why is Age Determination Significant in the Criminal Justice System?

- **Criminal law distinguishes between children and adults** in terms of procedures, correction, rehabilitation, and punishment.
  - In India, individuals **below the age of 18 are classified as minors.**
- **Minors** are governed by the **Juvenile Justice (Care and Protection of Children) Act, 2015.**
  - A child in conflict with the law is not sent to an adult prison but is **placed in an observation home** and appears before a **Juvenile Justice Board (JJB)**, comprising a magistrate and two social workers with expertise in child welfare, rather than a traditional court.
  - After conducting an inquiry, the JJB can decide to admonish the child, assign community service, or place them in a special home for a maximum of three years, among other options.
- After **Juvenile Justice Amendment Act 2021,** for **children above 16 apprehended for heinous offences** (punishable by at least 7 years' imprisonment), the **JJB must conduct a preliminary assessment of their mental and physical capacity** to commit the offence.
  - The assessment also evaluates the child's understanding of the consequences and the circumstances of the offence to decide whether they should be tried as an adult.

## UPSC Civil Services Examination, Previous Year Question (PYQ)

**Q. With reference to India, consider the following statements :**

1. When a prisoner makes out a sufficient case, parole cannot be denied to such prisoner because it becomes a matter of his/her right.
2. State Governments have their own Prisoners Release on Parole Rules.

**Which of the statements given above is/are correct?**

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

**Ans: (b)**