FORENSIC ODONTOLOGY







Dr. Harsha M

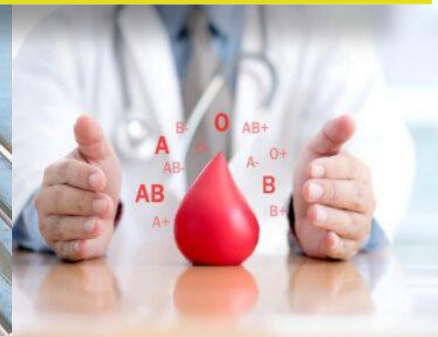
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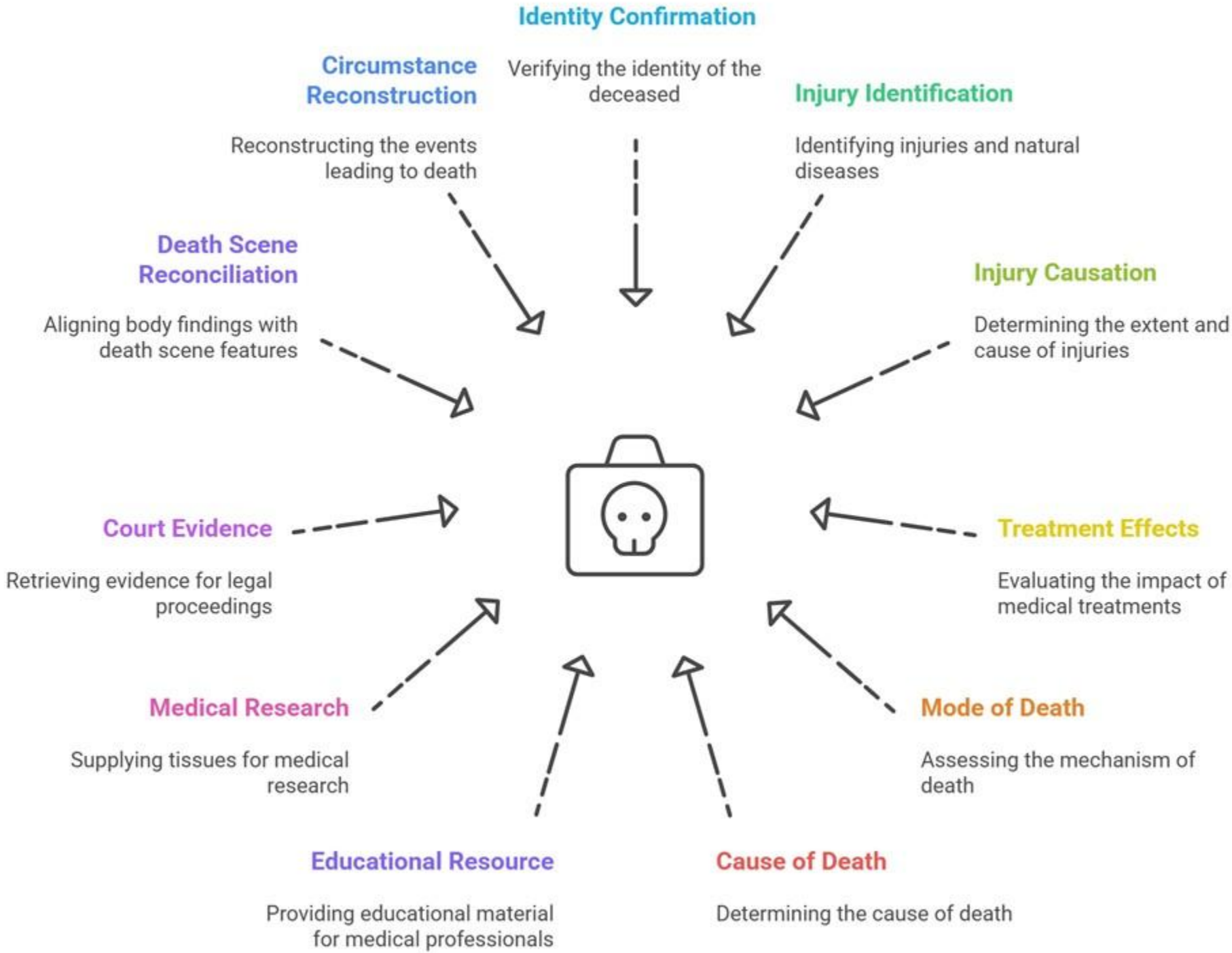











Identity Confirmation
Verifying the identity of the deceased
Circumstance Reconstruction
Reconstructing the events leading to death
Injury Identification
Identifying injuries and natural diseases
Death Scene Reconciliation
Aligning body findings with death scene features
Injury Causation
Determining the extent and cause of injuries
Court Evidence
Retrieving evidence for legal proceedings
Treatment Effects
Evaluating the impact of medical treatments
Medical Research
Supplying tissues for medical research
Mode of Death
Assessing the mechanism of death
Educational Resource
Providing educational material for medical professionals
Cause of Death
Determining the cause of death

Why is forensic science considered multidisciplinary?

MULTIDISCIPLINARY FORENSIC TEAM (MFT)



The team is comprised of staff with expertise in the areas of:

- ✓ Forensic Medicine expert
- ✓ **Forensic Odontologist**
- ✓ Psychiatry
- ✓ Toxicologist
- ✓ Counseling
- ✓ Substance Abuse Treatment
- ✓ Case Management
- ✓ Forensic-legal System
- ✓ Disaster Management team
- ✓ Police

DEFINITION

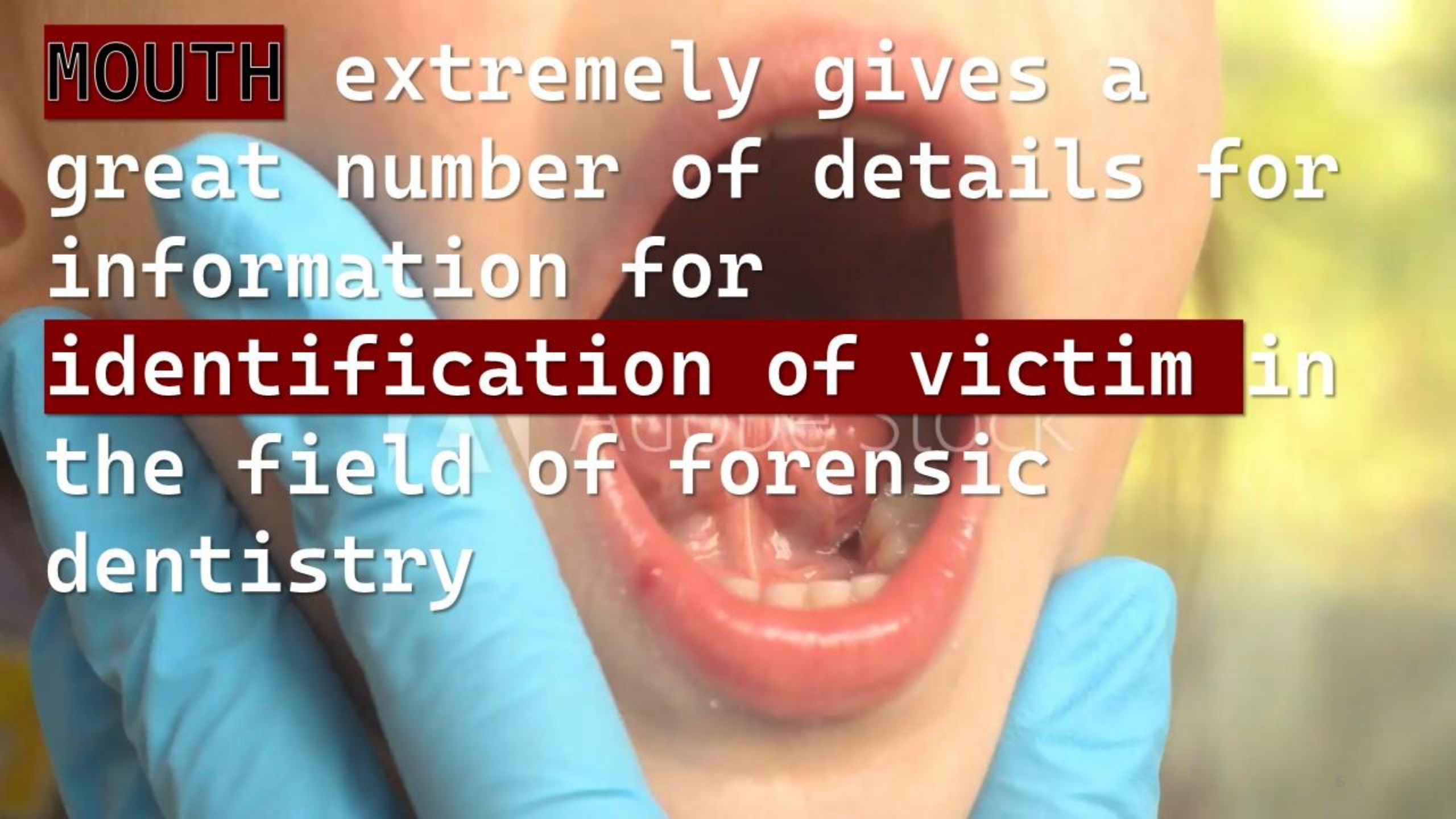
Fédération Dentaire Internationale (FDI)

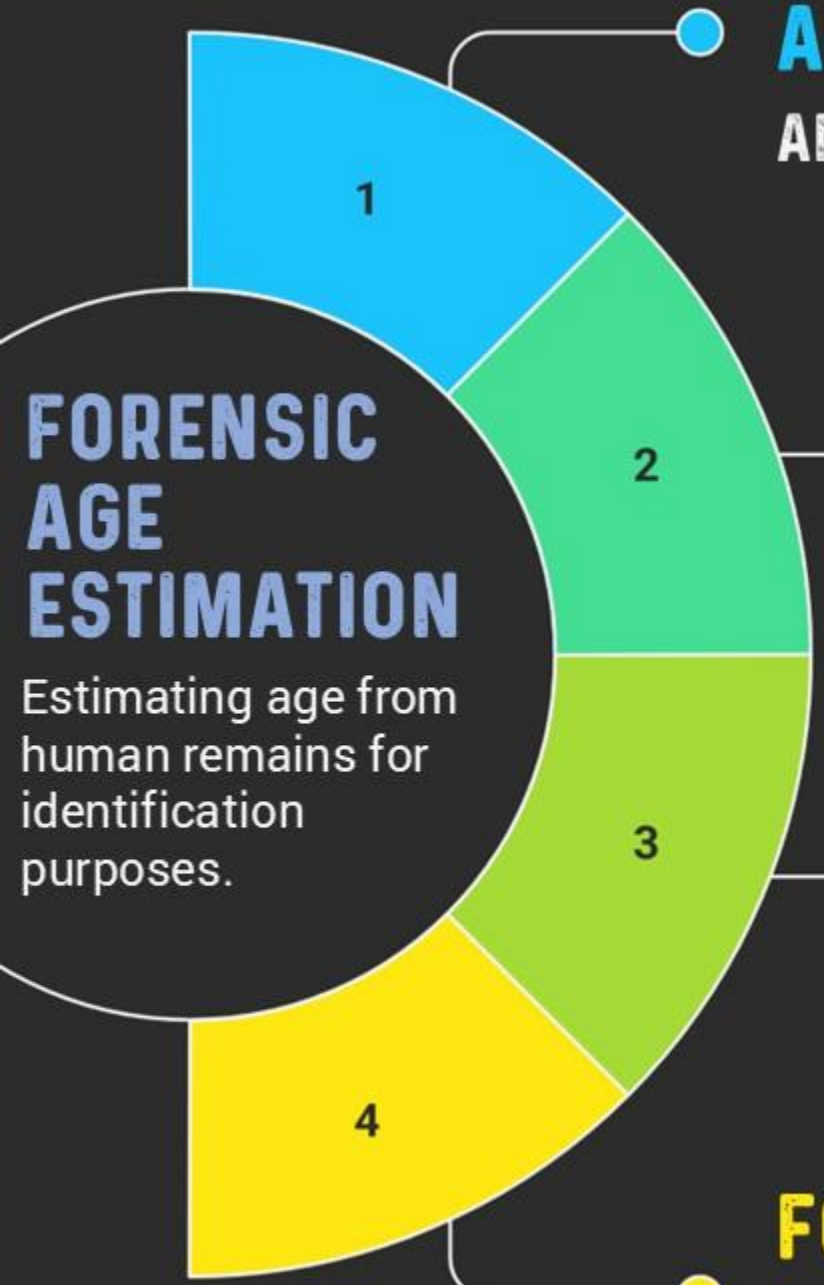
'That branch of dentistry which, in the interest of justice, deals with the *proper handling & examination of dental evidence,* & with the proper *evaluation & presentation* of dental findings'.

-Keiser-Neilson

DENTISTS AS EXPERT WITNESSES




MOUTH extremely gives a great number of details for information for identification of victim in the field of forensic dentistry



FORENSIC AGE ESTIMATION

Estimating age from human remains for identification purposes.

ANTHROPOLOGIC INVESTIGATION

ANALYZING SKELETAL FEATURES TO DETERMINE AGE.

PALAEODONTOLOGIC INVESTIGATION

EXAMINING DENTAL CHARACTERISTICS FOR AGE ESTIMATION.

PALAEOANTHROPOLOGIC INVESTIGATION

STUDYING ANCIENT HUMAN REMAINS FOR AGE INSIGHTS

FORENSIC INVESTIGATION

APPLYING SCIENTIFIC METHODS TO ESTIMATE AGE.

Palaeodontology



4000 yr old mummy. Observe the 2 central incisors

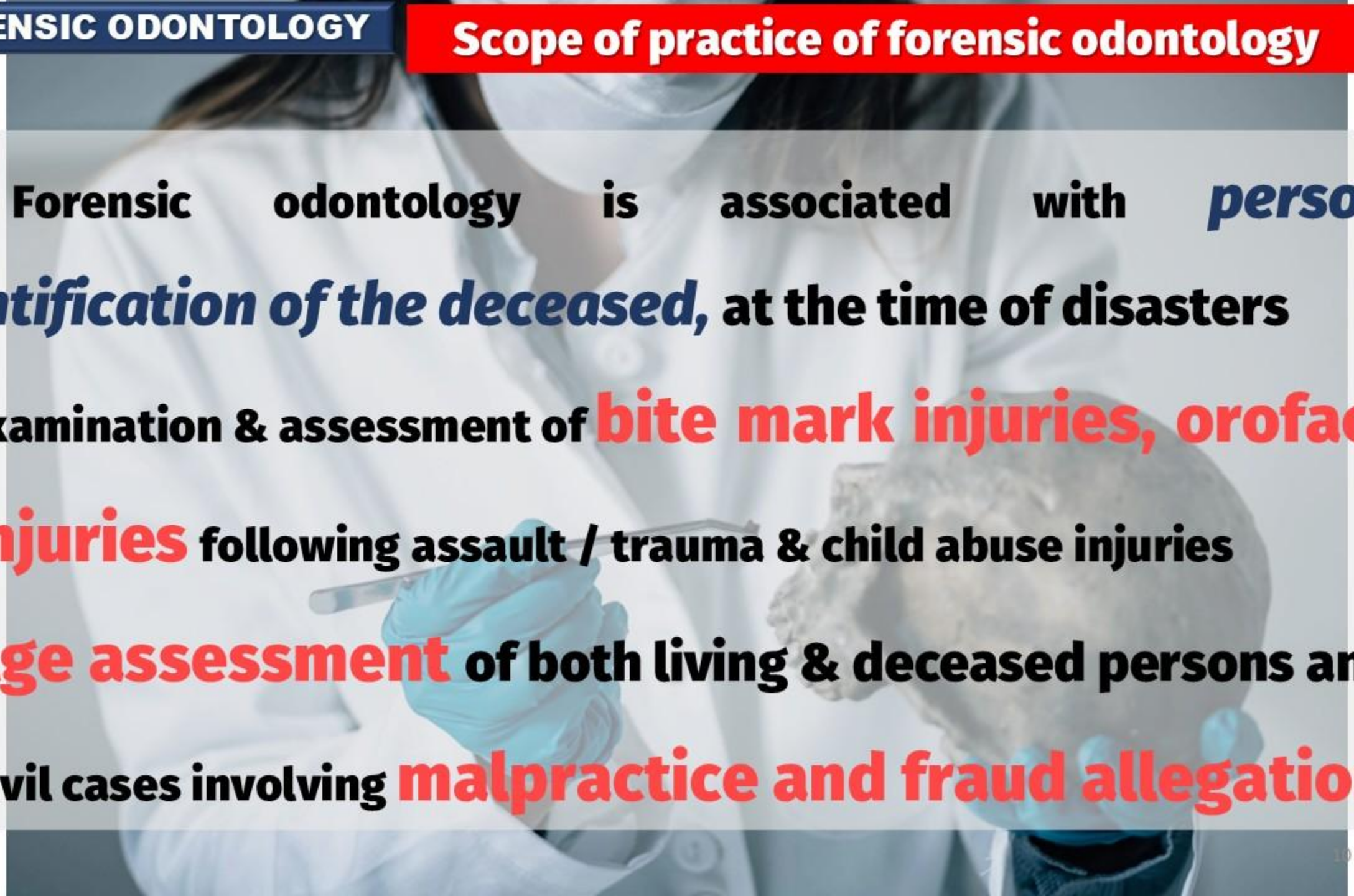
A genome sequenced from a Neanderthal jaw found in Siberia contains the same mucus gene variant found in Denisovans and many Indigenous Americans.



DNA from ancient bones reveals how Indigenous Americans got their mucus

Neanderthals and Denisovans passed along gene that provides a sticky shield against germs

Scope of practice of forensic odontology



Forensic odontology is associated with ***personal identification of the deceased,*** at the time of disasters

1. Examination & assessment of **bite mark injuries, orofacial injuries** following assault / trauma & child abuse injuries
2. **Age assessment** of both living & deceased persons and
3. Civil cases involving **malpractice and fraud allegations.**