

MUDr. Irena Duskova  
Institute of Forensic Medicine  
2nd Medical Faculty

# IDENTIFICATION

# Identification

- ◎ The establishment of identity of the dead person may be required...
- ◎ 1.Intact fresh corpses ...homeless people
- ◎ 2.Decomposed corpses....body height, serological investigations, past surgical intervention
- ◎ 3.Mutilated and dismembered corpses...homicides
- ◎ 4.Skeletalized material...osteological examination and measurements

- ◎ Identification is based on reconstructive or/and comparative procedure
- **Reconstructive identification** – to create a shape of individual from the available marks
- **Comparative identification** – to compare available marks with the data of a missing person(superimposition technique)
- ◎ Task for criminalistics, forensic medicine, anthropology, forensic odontology, genetics...

# Identifications marks

- principle (main) and secondary (supportive) marks
- Principle marks: sex, race, blood group, fingerprints, DNA, teeth (forensic odontologist), surgical defects, congenital deformities
- Secondary marks: age, hair colour, eye colour, body weight, clothing
- ☞ External findings are very important (scars, tattoos, moles, length of hair, length of the sole)

# Identification of an incomplete body

➤ (decomposition, mass disaster, etc.)

1. proof of human tissue

- knowledge of anatomy
- serological investigation...species-specific proteins, DNA techniques

2. determination of the sex

- skeletal differences (skull, pelvis)
- sex-chromatine testing
- fluorescence of Y chromosome

3. determination of the race, the age and the weight

- from the skull and the other bones

4. determination of the blood groups

# Mass disasters

- DVI( disaster victim identification team)
  - A) ante mortem team
  - B) post mortem team
  - C) identity determining group
- DMORT (disaster mortuary operational response team) in USA

# Fingerprinting

- ⦿ **International AFIS** (automatic fingerprint identification system)
- ⦿ **Czech FODAGEN** (fotografie -photographs, daktyloskopy a genetic profile)

# DNA profiling or fingerprinting

- technique devised by Alec Jeffreys of Leicester University
- unique sequences of bases in the DNA strands
- redundant segment („minisatellite“)
- the test is useless without something to be compared with !!!
- blood samples, bone marrow.....

















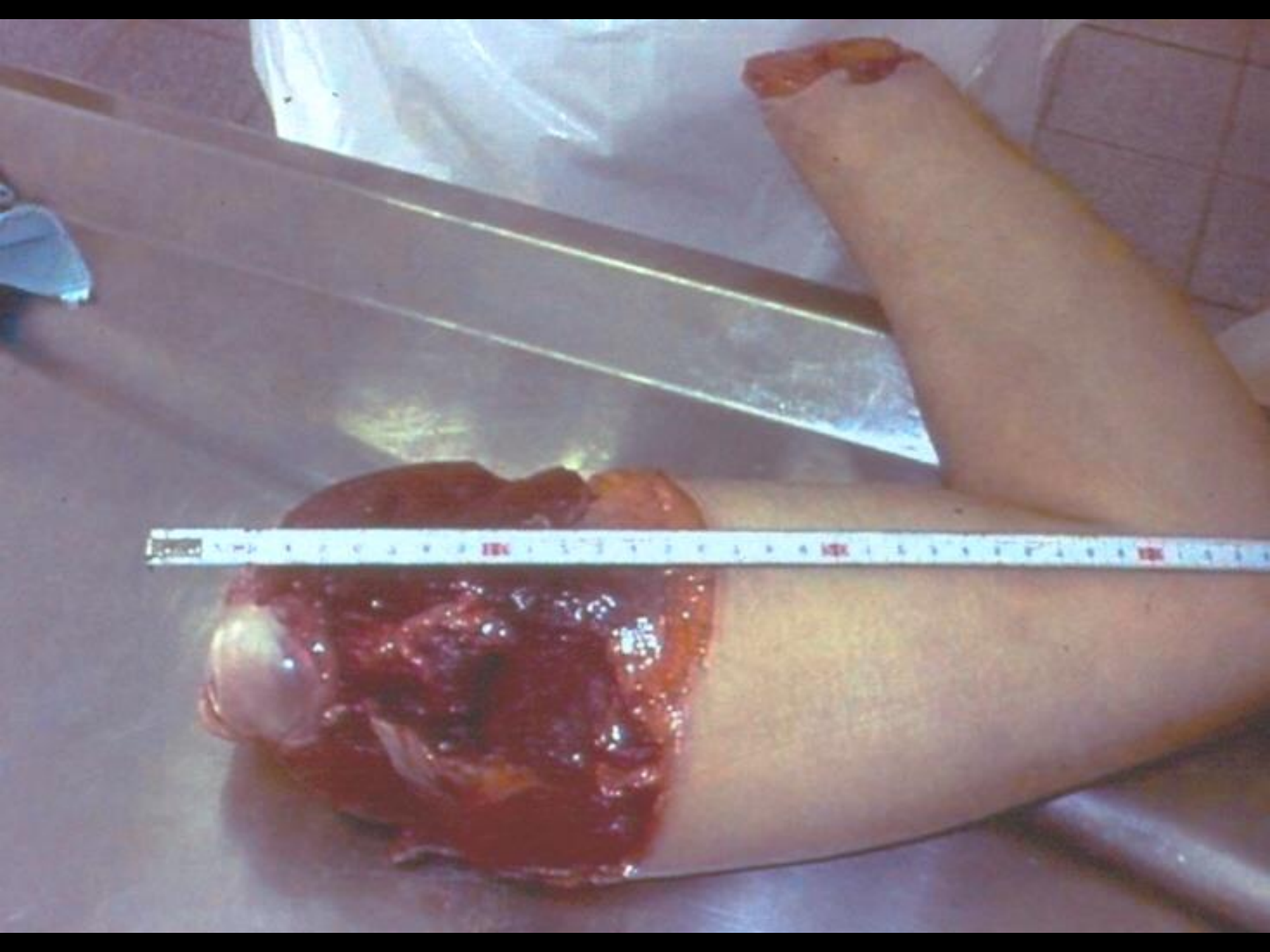




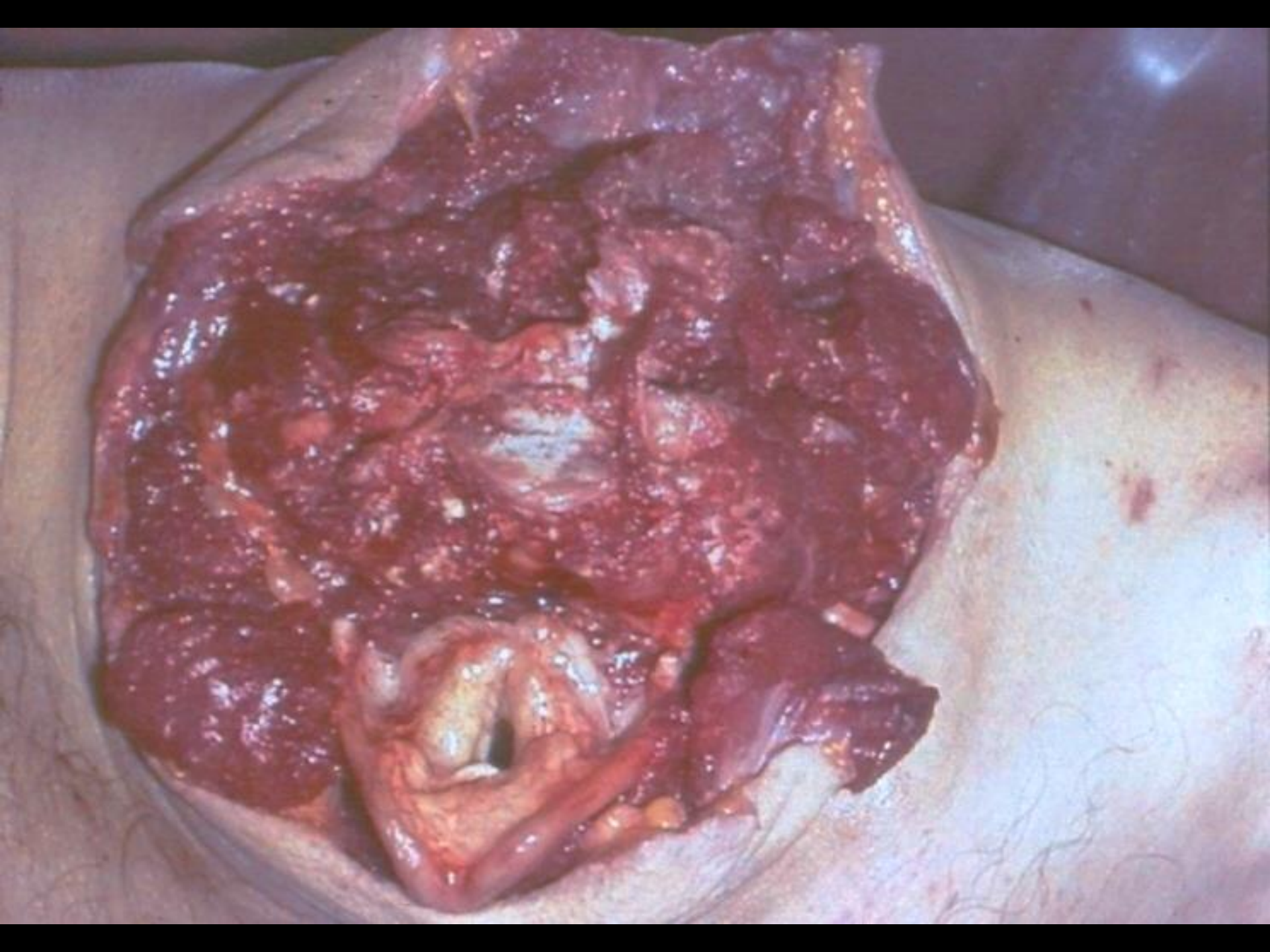






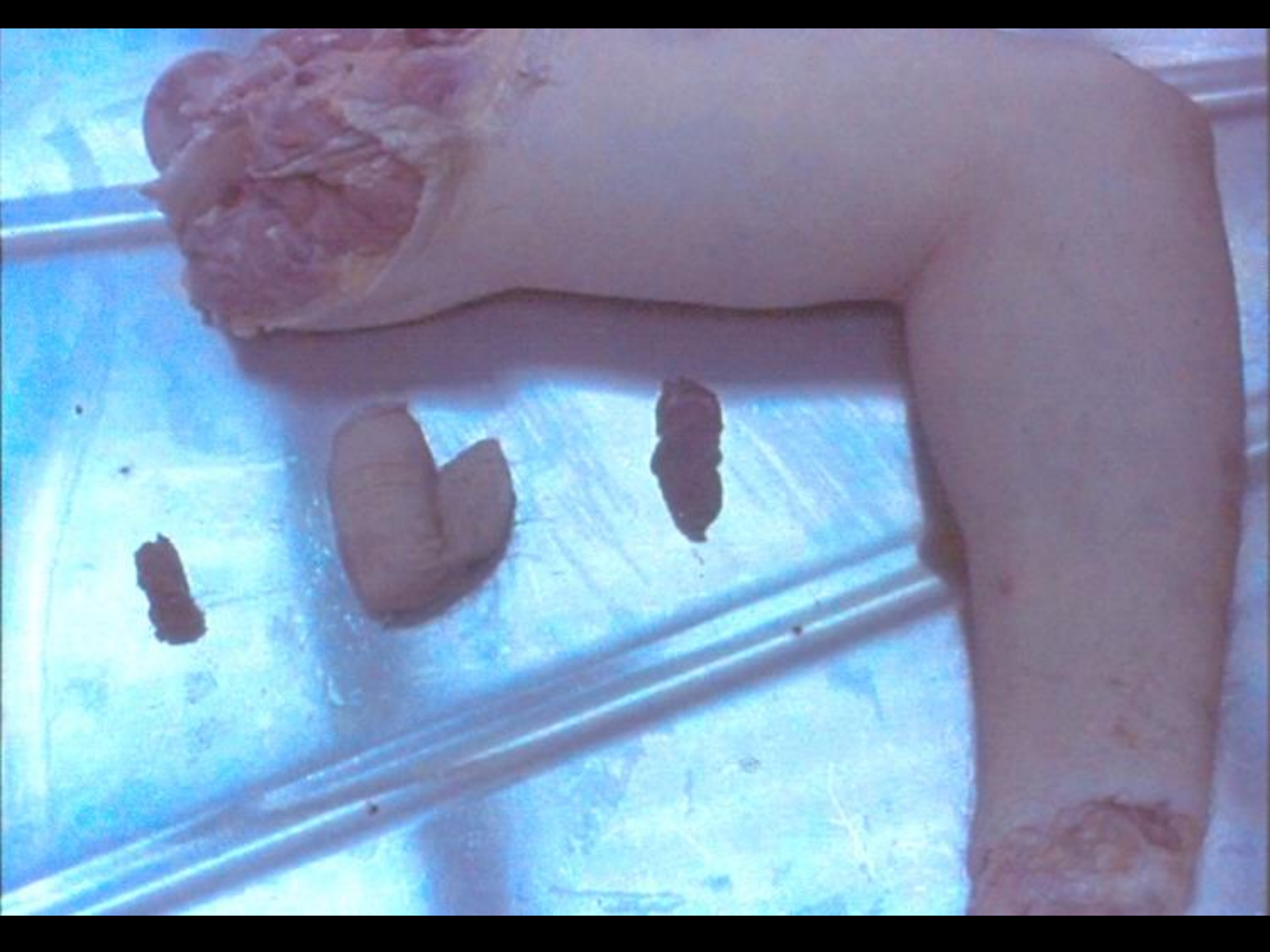






























# The skull

## ○ The female skull

- rounder, smoother
- muscle ridges insignificant
- Mastoid process smaller
- forehead high and steep
- The post-zygomatic ridge does not continue behind the auditory meatus
- Palate parabolic
- .....

## ○ The male skull

- rugged
- muscle ridges more marked
- Mastoid process larger
- sloping forehead
- The zygomatic process extends behind the auditory meatus
- U - shaped palate
- .....

♂



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