

HEAT, COLD, ELECTRICAL, CHEMICAL INJURIES

I. Čundrle

Department of Anesthesiology and Intensive Care

FNUSA

BURN INJURIES

-
-
-
-
-
-
-
-



CAUSES

-
-
-
-
-
-



THERMAL BURNS

- **Contact**
 - **Scald**
 - **Flame**
 - + possible inhalation trauma
 - + possible intoxication
-

ELECTRICAL BURNS

- -
 -
 -
 - Electrical damage
 - Electrical arch, lightning
-



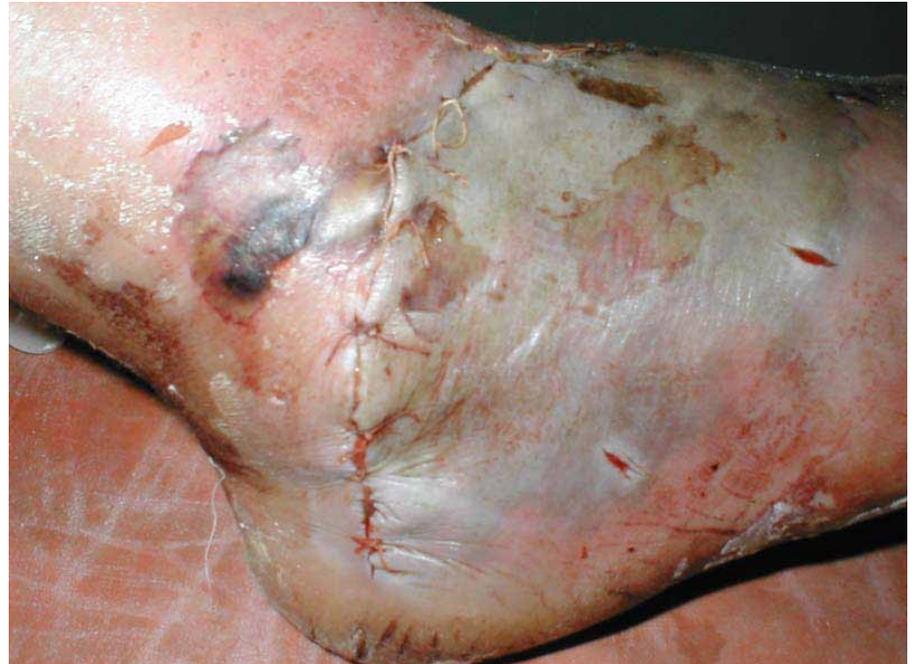
CHEMICAL BURNS

- **Acids**



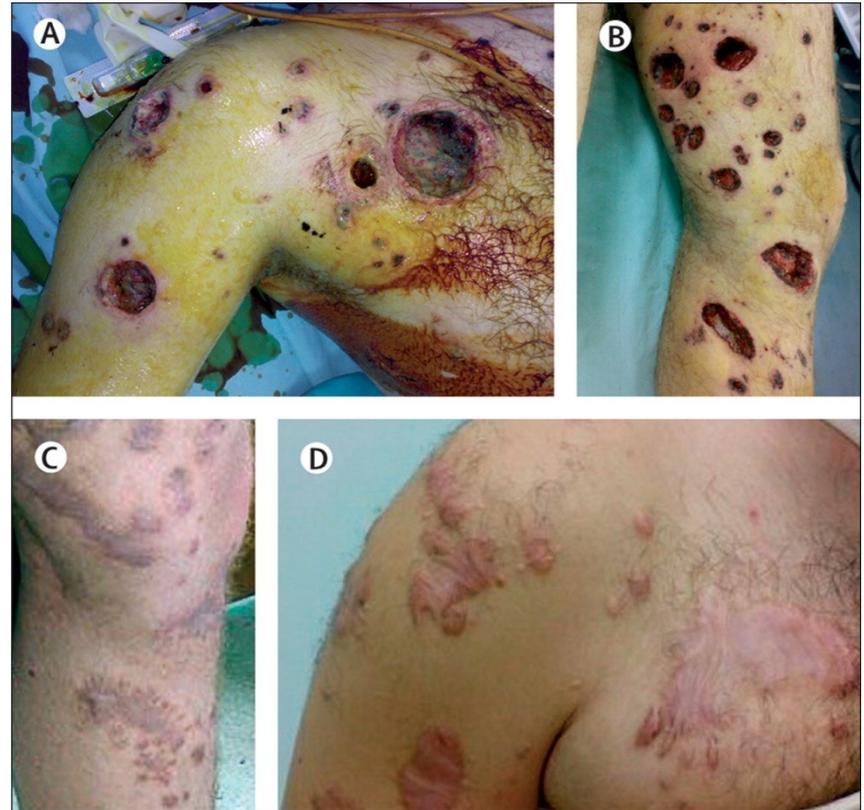
CHEMICAL BURNS

- **Alkali**

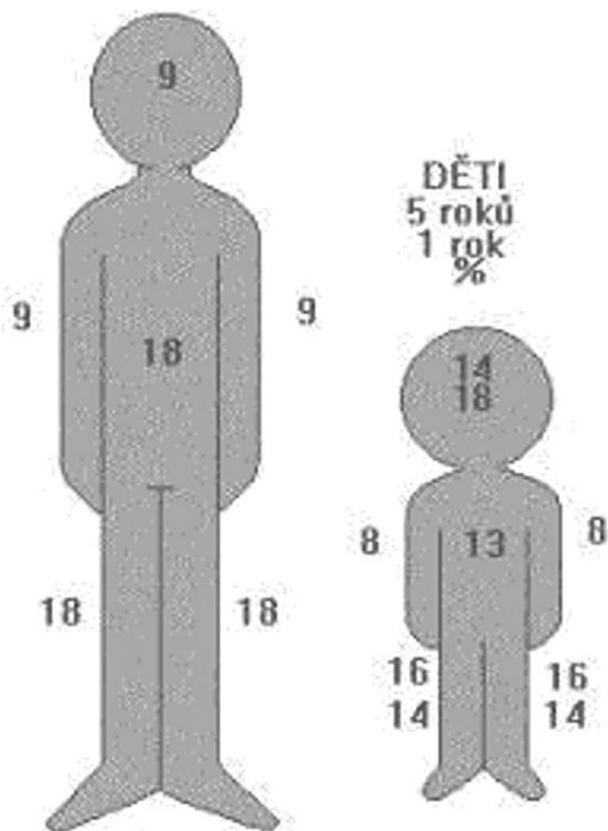


CHEMICAL BURNS

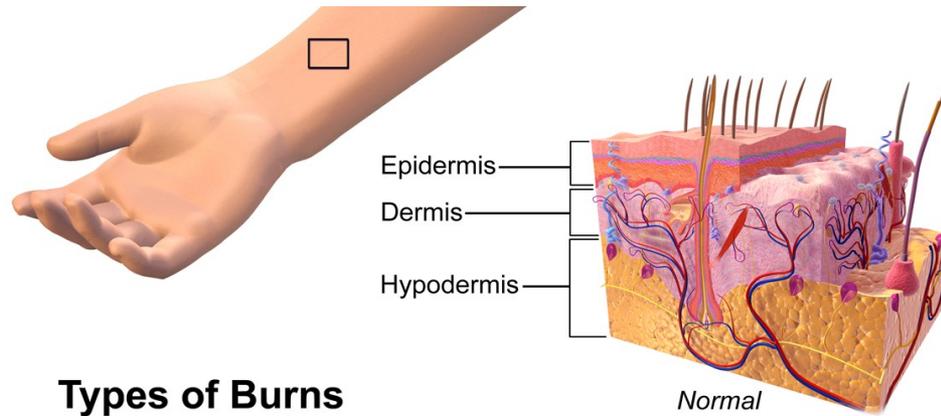
- Other substances



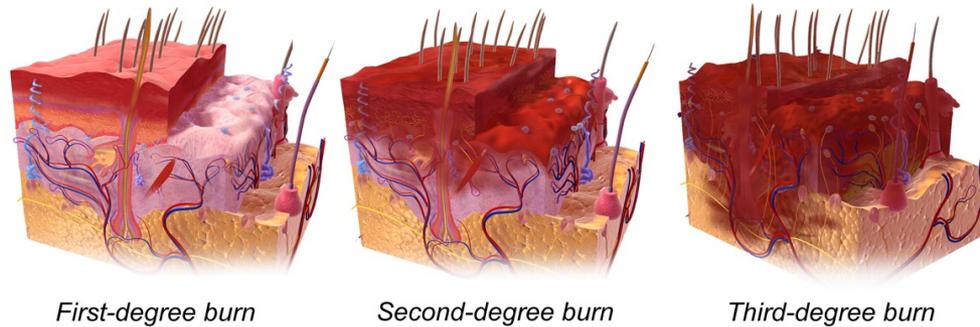
DAMAGE EXTENT ESTIMATION – RULE OF 9



DEPTH OF BURN INJURIES



Types of Burns



FIRTS DEGREE

- **First degree**



SECOND DEGREE

- **Second degree**

- **IIa**

- **IIb**



THIRD DEGREE

- **Third degree**

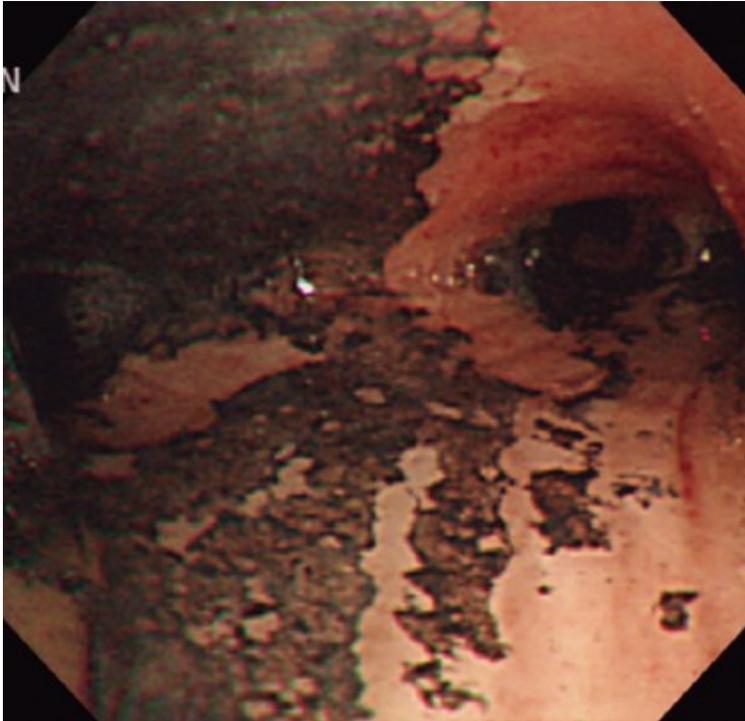


FOURTH DEGREE

- Fourth degree



INHALATION INJURY



SEVERE BURN

- Kids up to 2 years - 5 % body surface area
 -
 -
 - Kids third degree always
 -
 - Adults - 20 % body surface area
 -
 - + always
-

SPECIALIZED BURN CLINICS

-
-
-



FIRTS AID

- Remove the source of burn
- **Check** vital signs and secure vital functions
- Cooling of the wound
- Anti-shock precautions
- Transport



HEATSTROKE

-

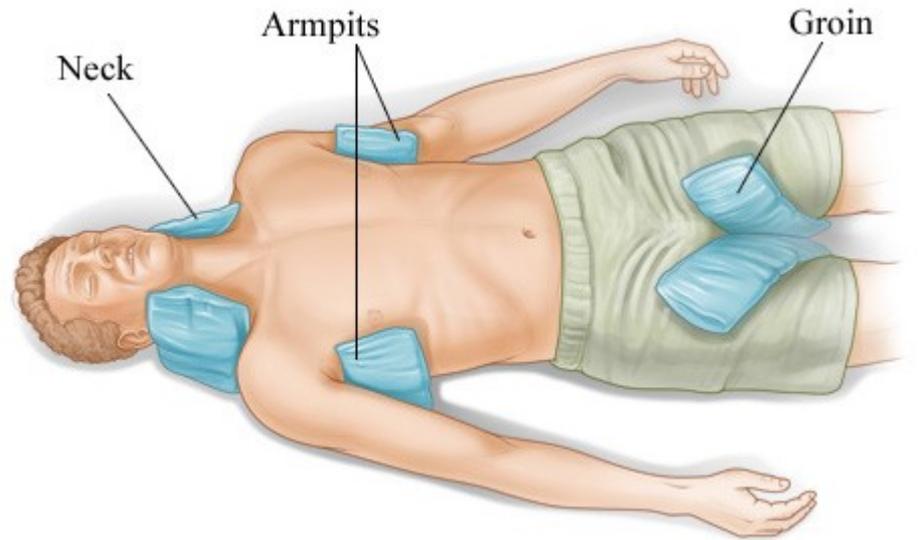
hot and wet environment

-



FIRST AID

-
- Lower the body temperature
- Cold fluids
-
-



© Healthwise, Incorporated

SUNSTROKE

- Direct effect of sunlight on head
- First to second degree burns



FIRST AID



HYPOTHERMIA

- Symptoms
-
-
- Moderate hypothermia
- Severe hypothermia



FROSTBITES



FIRST DEGREE

-



SECOND DEGREE

-



THIRD DEGREE

-



FIRTS AID

-
-
-
-
-
-
-



CHEMICAL BURNS

- Cause not known
 - Acids
 - Alkali
-

INGESTION

-
-
-
-
-



ELECTRICAL BURNS

- Low voltage 1000 V
 - High voltage > 1000 V
 - Lightning
-

THANK YOU FOR YOUR ATTENTION

