



First Aid

Thermal Injuries

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Prevention



Srnský, 2004

Damage of organism

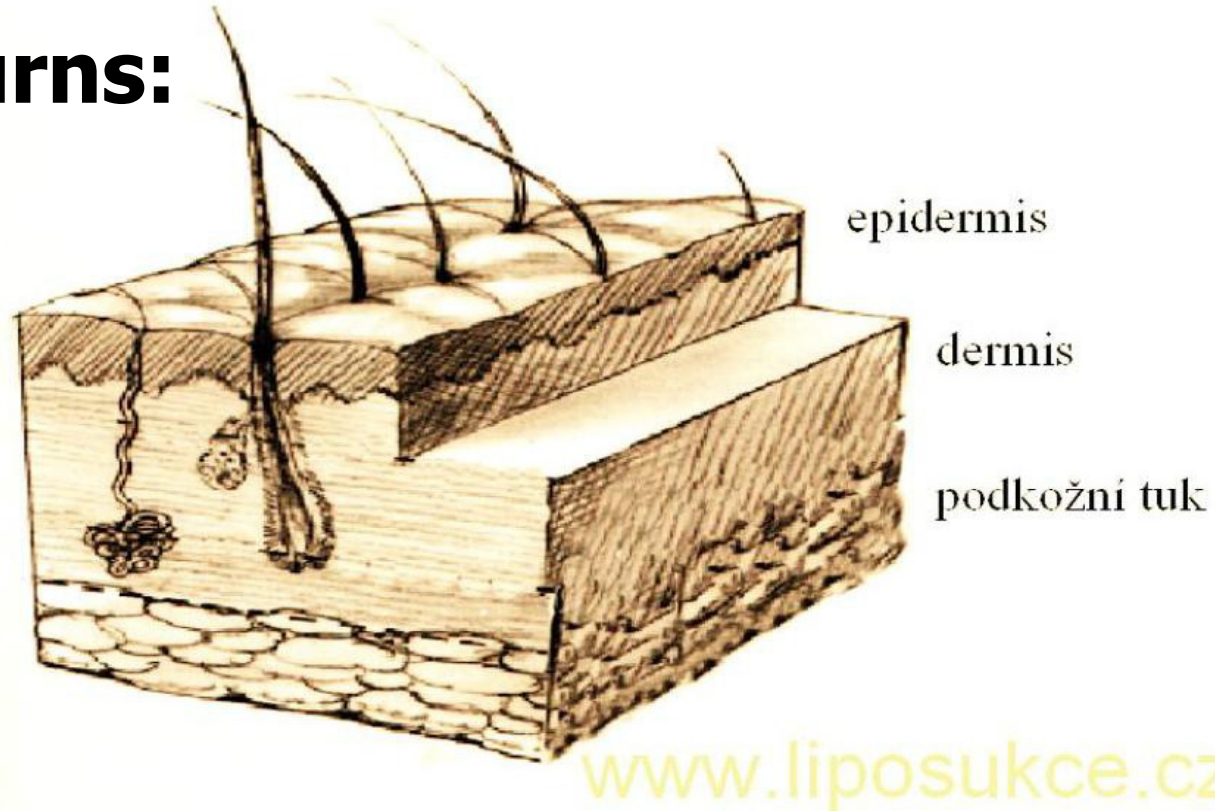
- as a result of working of extreme temperatures, radiation, electric current (including lightning strike)
- **Local** – burns, scalds, sunburn
- **General** – sunstroke

Evaluating of local damage

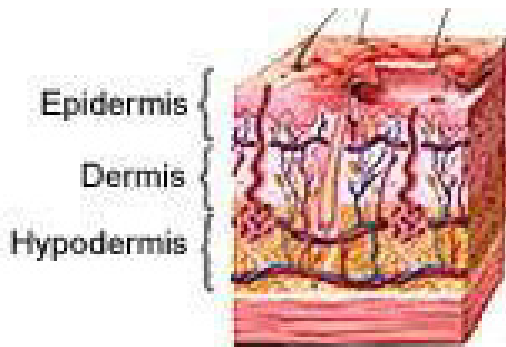
- **degree** and **area** of damage is important

Degrees of burns:

- **1. degree burn**
- **2. degree burn**
- **3. degree burn**



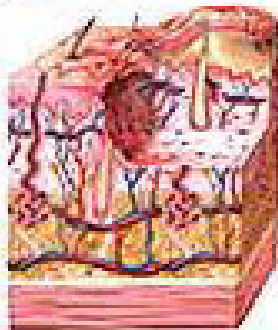
Degrees of burns



First degree
burn



Second degree
burn



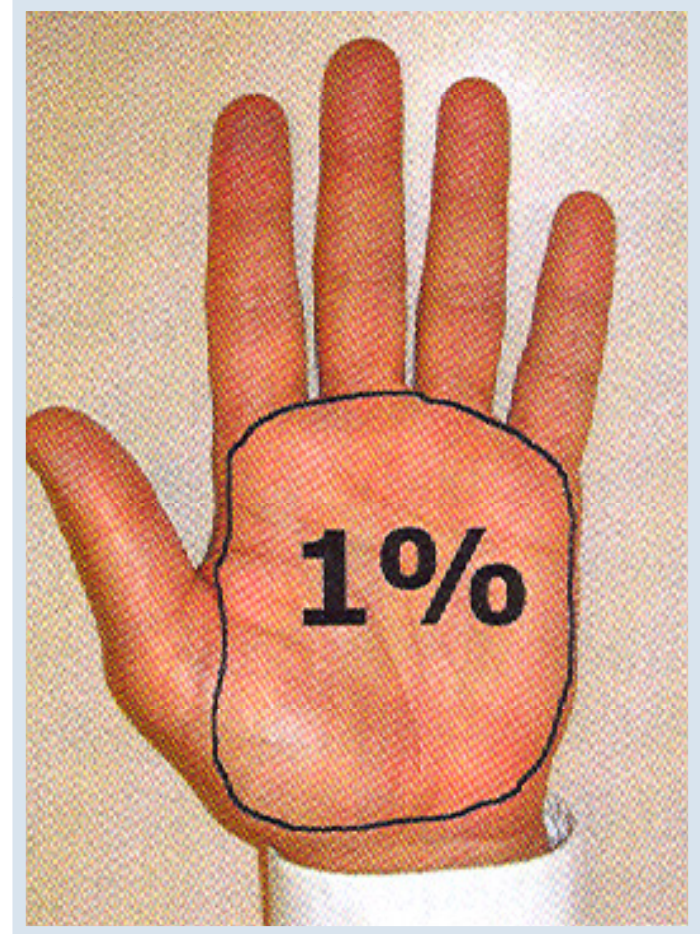
Third degree
burn



Evaluation

Danger of shock

- Child 0 – 2 years **2 % – 5 %**
- Adult 16 – 70 years **20 %**



Stelzer, 2007

Burns



1st. and 2nd. degree burn

Burns



3. degree burn

Burns



3.degree burn

Burns – consecutive care





First Aid – principles

- technical First Aid
- dialling of EMS
- check on vital signs
- then care about burned areas
- cooling down only to 5 % of burned area of the body – location face, neck, hands, genitals
- water temperature 4-8°C
- sterile dressing

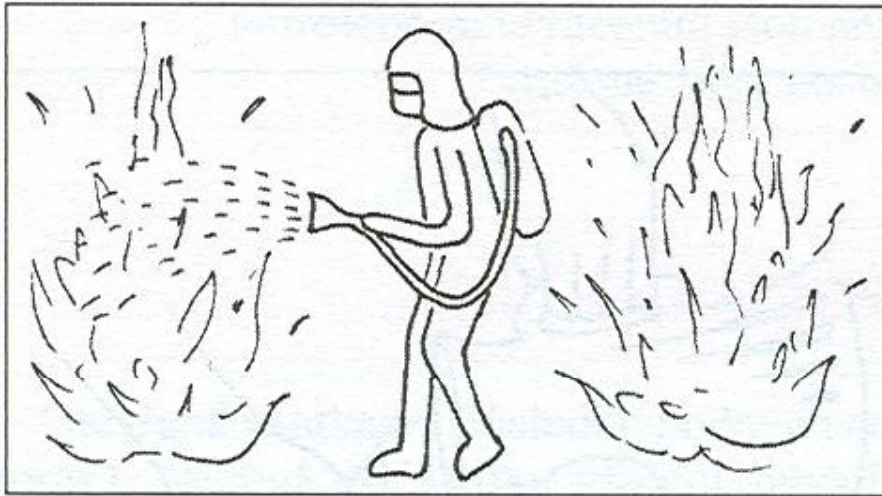
First Aid – process

- extinguish fire, remove clothing (don't remove any clothing that sticks to burn)
- removal of heat conductors (rings, bracelets etc.)
- cooling down (cold running water – 20 min.), don't cool down the whole body!
- sterile dressing
- don't break blisters
- don't lubricate any ointments
- measures against shock

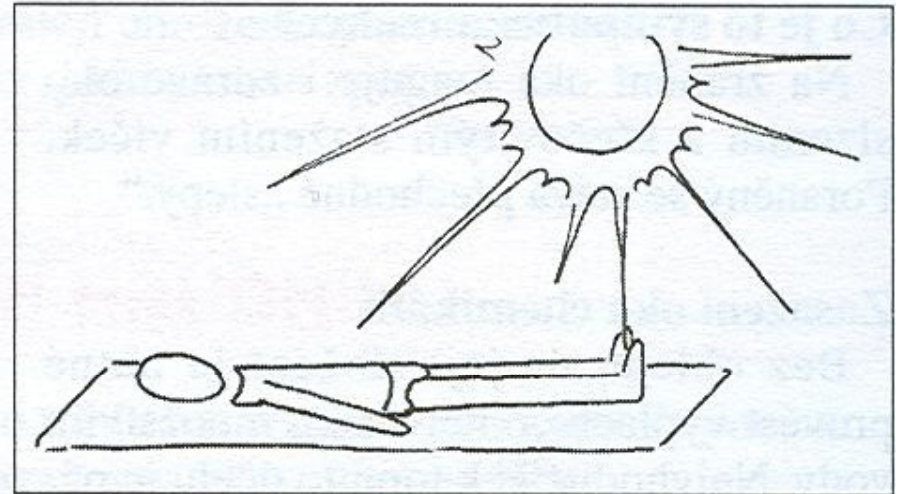


Doctor – visit with all consequential degrees - more than 1%

Sunstroke x Sunburn



Sunstroke



Sunburn

Sunburn

- working of sun-rays directly on head and nape
- local hyperthermia of head, hyperthermia of brain and its covers

Symptoms:

high body temperature, by children – convulsions, unconsciousness

Sunstroke

- working of closed surrounding environment, which is warmer than body temperature (boiler-rooms, kitchens etc.)
- general hyperthermia of organism -> the body can't cool itself

Symptoms:

headache, red – dry skin, high body temperature, loss of consciousness

Sunstroke + sunburn

First Aid

- Lay the casualty down in a cool, shaded area
- dialling of EMS
- check on vital signs
- cooling down – **not on the chest!**

Electric current accident

- safety of the rescuer
- technical First Aid:

disconnect lead of electric current



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First Aid:

- always dial EMS – conscious casualty without obvious signs of injury, could have a serious damage of the heart
- **conscious casualty** – treatment of the burn, half-sitting position
- **unconscious casualty** – **not breathing** – start CPR – GL 2005

Prevention of high voltage accidents

REMEMBER!

Even without direct contact with electric current, life – threatening injury could happen (step voltage).



Illustrated photo