Poisoning, bites, stings

First aid
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Poisoning

- **Unintentional**: result from exposure to or ingestion of toxic substances, including drugs and alcohol, chemicals, contaminated food

- **Intentional**: in cases attempted suicide
Poisoning

- The effect depends on the type and amount of substance absorbed.
- A poison (toxin) may cause temporary or permanent damage.
- Poisons can be swallowed, absorbed through the skin, inhaled, splashed into the eyes or injected.
Poisoning

- A poison, after entering to the body, may enter the bloodstream and be carried to all organs and tissues.

- Signs and symptoms: vary with the poison (develop quickly or over a number of days):
  - vomiting
  - local signs
  - systematic signs
Poisoning

- **Swallowed (ingested):**
  - drugs and alcohol,
  - cleaning and gardening products, plant poisons,
  - bacterial and viral (food) poisons

**Effects:** nausea, vomiting, abdominal pain, seizure, irregular, fast or slow heartbeat, impaired consciousness
Poisoning

- **Inhaled:**
  industrial poisons, fumes from fires
  effects: headache, confusion, difficulty breathing, hypoxia, cyanosis

- **Absorbed through the skin:**
  cleaning and gardening products, plant poisons, industrial poisons
  effects: pain, swelling, rash, redness, itching
Poisoning

- **Splashed in the eyes:**
cleaning, home repair and gardening products
*effects:* pain and watering of the eye, blurred vision, inability to open the injured eye

- **Injected through the skin:**
venom from stings and bites, drugs
*effects:* pain, redness and swelling at injection site, nausea, vomiting, difficulty breathing, seizures, impaired consciousness, anaphylactic shock
Poisoning

First aid:
- Identify the poison
- Monitor victim
- Seek medical help
- Resuscitate if necessary
- Help victim into fresh air (inhalation)
- Remove contaminated clothing, wash area for at least 10 minutes (absorption through the skin)
- Irrigate the eye
Alcohol poisoning

- depresses the activity of the central nervous system
- Impairs all physical and mental functions, sink into deep unconsciousness
- Several risks from alcohol poisoning:
  - inhaling and choking on vomit
  - loosing heat, hypothermia
  - misdiagnosed and not receive appropriate treatment for an underlying cause of unconsciousness (head injury)
Alcohol poisoning

**Recognition:**
- a strong smell of alcohol
- empty bottles or cans
- impaired consciousness, unconsciousness
- deep, noisy breathing, shallow breathing
- full, bounding pulse, weak rapid pulse
- flushed and moist face, dilated pupils, that react poorly to light
Alcohol poisoning

- **First aid:**
  - cover the person with a coat to protect from the cold
  - *asses* the person for any injuries
  - monitor and *record vital signs* (level of response, pulse, breathing)
  - transport
Drug poisoning

- **Painkillers** (swallowed):
  - abdominal pain,
  - nausea, vomiting,
  - ringing in the ears,
  - confusion, delirium,
  - dizziness

  cave: acetaminophen (Paralen):
  - irreversible liver damage within 3 days
Drug poisoning

- Nervous system depressants and tranquilizers (barbiturates, benzodiazepines): sleepiness, unconsciousness, shallow breathing, weak or abnormally slow or fast pulse
Drug poisoning

- **Stimulants and hallucinogens** (amphetamines - Ectasy, LSD, cocaine):
  - excitable, hyperactive behavior, wildness, sweating, tremor of the hands, hallucinations
Drug poisoning

- **Narcotics** (morphine, heroin): small pupils, confusion, unconsciousness, slow shallow breathing, which may stop, needle marks
Drug poisoning

- **Solvents** (lighter fuel - inhaled): headaches, nausea, vomiting, hallucinations, cardiac arrest

- **First aid:**
  - identify the drugs (keep samples of any vomited material)
  - maintain open airways, vital function
  - arrange urgent transport
Food and fungi poisoning

- Caused by consuming food or drink contaminated with bacteria (Salmonella) or viruses or eating mushrooms
- Symptoms may develop rapidly (within 2-6 hours): nausea, vomiting, abdominal pains, headache, fever
  - mushrooms: vomiting, severe watery diarrhea, hallucinations, poisoning may be fatal
- Danger: loss of body fluids - dehydration fluids replacement
  : liver failure  (death cap mushrooms)
Fungi poisoning
Poisoning

- In the hospital (swallowed drugs):
  - provoke vomiting (syrup of ipecac), gastrointestinal decontamination (orogastric lavage), oral activated charcoal (diminish absorption and enhance excretion of many drugs)
  - i.v. fluid replacement
  - special antidotes
  - specific therapies
Insect sting

- Sting from a bee, wasp or hornet
- Recognition: pain at the site of sting, swelling, redness
- Sting in the mouth or throat – swelling can obstruct the airway
- Serious reaction (allergic reaction, anaphylactic shock)
- FA: raise the affected part
  apply an ice pack or cold compress
- CPR
Insect sting
Bites from certain species of scorpions and spiders, snakes (vipers, exotic snakes), sea creatures

Bites in the mouth or throat are dangerous because swelling can obstruct the airway

Be alert to an allergic reaction

Can cause serious illness and may be fatal (spiders, snakes)
Bites
Bites
Bites
Bites

**FA:**
- raise the affected part if possible
- apply an ice pack or cold compress
- note the snake's appearance
- tourniquet?
- slash the wound with a knife, or suck out of venom?
- gently wash the wound and clean with gauze swab, lightly compress the limb above the wound with roller bandage, immobilize the affected area