

Poisoning, bites, stings

First aid

MUDr. Jitka Mannova

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

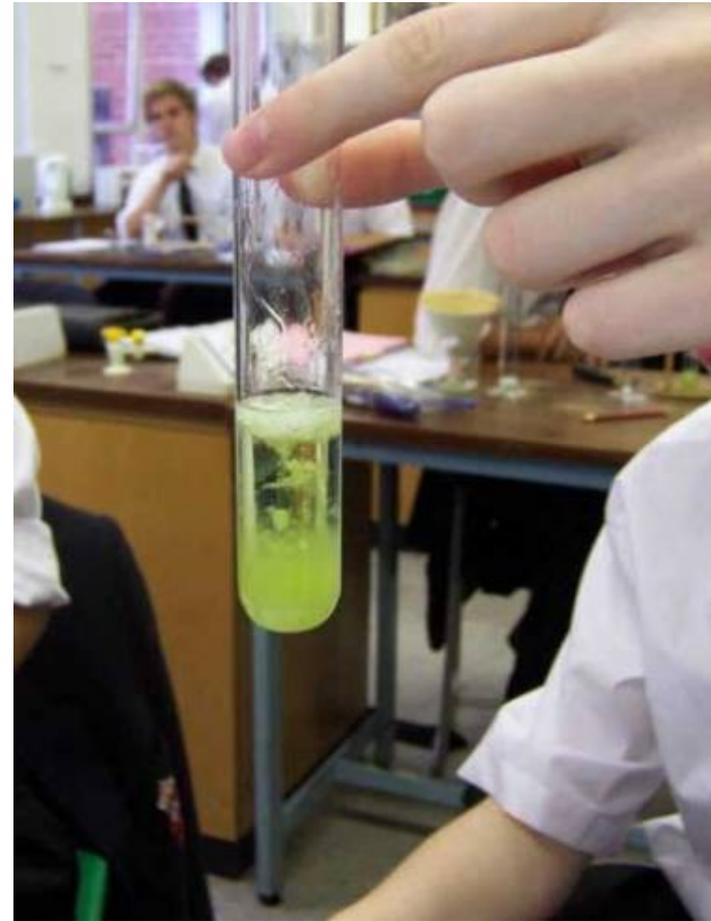
- **Swallowed (ingested):**
drugs and alcohol,
cleaning and gardening
products, plant poisons,
bacterial and viral (food)
poisons

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
 - losing 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

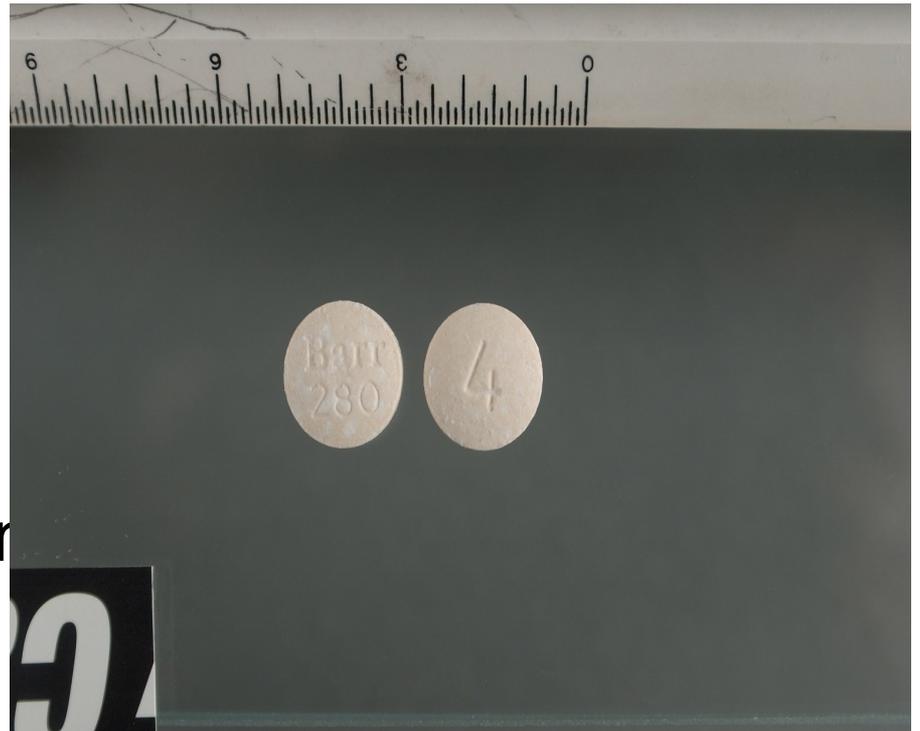
- **First aid:**
 - cover the person with a coat **to protect from the cold**
 - **asses** the person for any injuries
 - monitor and **record vital signs** (level of response, pulse, breathing)
 - transport

Drug poisoning

- **Painkillers**

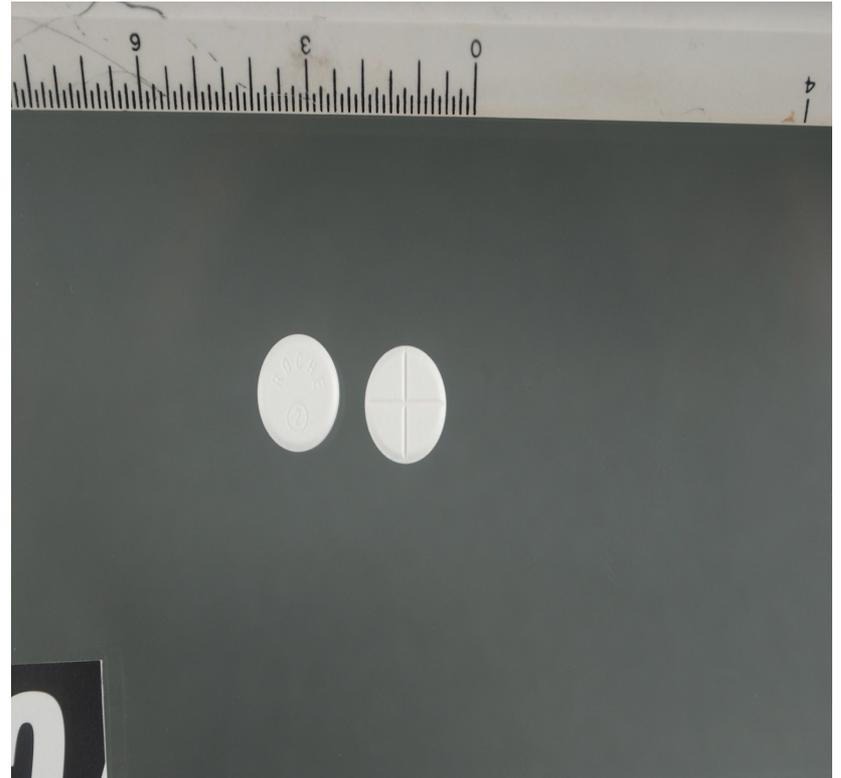
(swallowed):
abdominal pain,
nausea, vomiting,
ringing in the ears,
confusion, delirium,
dizziness

caution: 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



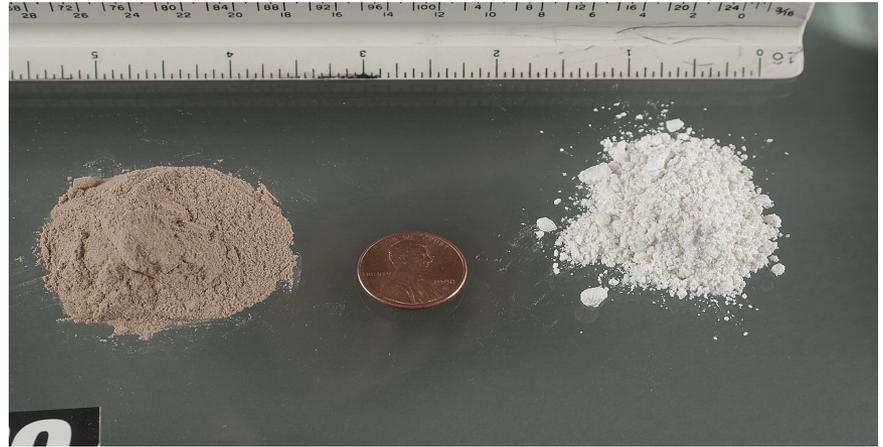
Drug poisoning

- **Stimulants and hallucinogens** (amphetamines - Ecstasy, 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

- 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 snakes 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