A poison is any substance that can cause illness or death when it is absorbed into the body. An antidote is a substance that acts against a poison to offset its effects.

Prevention: most accidental poisonings can be prevented if the presence of poisons is recognized and proper care is taken in their use and storage.

Poisonings: acute chronic
Incidence: 1.7 - 1.9 : 1000 inhibitans/year
(severe poisonings 1 : 3500 inhibitans/year)
(myocardial infarction 0.6 - 0.8 : 1000)
Lethality of acute poisonings: < 1 %

Signs and symptoms vary widely and are dependent about the quantity and route of administered poison

- Ingested poisons
- Inhaled poisons
- Absorbed poisons
- Injected poisons

Acute poisonings

- Aimed (suicides)
- Accidental
  - Self-treatment
  - Misuse of chemicals and drugs
    - At home
    - In medicine

Acute poisoning may occur despite all reasonable precautions and when it does, act quickly but do not panic. Four basic facts should be known to give appropriate first aid for poisoning:

- Identify the poisonous substance. Look for bottles, pills, containers or remnants of poisonous material, even vomit, that can be used to identify the toxic agent.
- Determine the quantity taken. Estimate, from the container’s size, the number of pills or amount of chemical available and, from remaining chemical or pills, how much of poisonous substance may have been taken.
- Determine the route of entry into the body. First aid will vary according to whether the substance was ingested into the stomach, inhaled into lungs, absorbed through the skin, injected into the bloodstream, or taken by combination of two or more of these.
- Determine the time elapsed since the poisoning occurred

Acute poisonings

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Alcohol

- Development of signs of poisoning is individual
- In case of poisoning the victim cannot be waked up
- Frequent vomiting
- In children and teenagers – moderately drunk should be considered as intoxication

First aid

112 if

- The victim is not responding to strong stimuli
- Child or teenager severely intoxicated
- Frequent vomiting (7...8 times per hour)
Intoxication with drugs

Every drug is poison if used in too high quantities.
- Tranquilizers, antidepressants
- Cardiovascular drugs
- Paracetamol, etc.

Try to identify
- The poisonous substance
- Quantity taken
- Route of entry into body
- Time elapsed since appearance of symptoms

Prevention!

How to determine if an alcohol/drug emergency is life-threatening

- Unconsciousness
- Breathing difficulties
- Fever
- Abnormal pulse rate or irregular pulse
- Vomiting while not fully conscious
- Convulsions

First aid

- Unresponsive patient – recovery position
- Conscious patient – induce vomiting

“Restaurant method”

Patient is conscious and clear-minded, provokes itself the reflex of vomiting and is able to control the airways

Drink water and vomit

Never induce vomiting if victim has swallowed corrosive chemicals (acetic acid, petrol).

- 112

Chemicals

Various disorders of organs function
- Gastrointestinal distress, vomiting, pain
- Unconsciousness, seizures, visual disturbances
- Often lethal

- Recovery position
- 112
- Keep the bottle with chemical
- Do not give water to drink, do not induce vomiting
Carbon monoxide intoxication

Danger:
- Fire
- House-heating
- Car with working engine in closed garage

Symptoms
- Moderate headache initially
- Disturbancies of consciousness (…unconsciousness)
- Vomiting
- Death if not rescued

Signs and symptoms of delayed carbon monoxide poisoning

- Flu-like illness
- Irritability
- Memory loss
- Inability to concentrate
- Inability to think abstractly
- Personality changes
- Uncontrolled crying

Carbon monoxide intoxication

First aid
- Protect yourself first!
- Loosen all tight-fitting clothing, especially around the neck and over the chest
- Fresh air
- Resuscitation breaths, chest compressions
- 112
- Oxygen therapy (100% oxygen by mask)

Narcotics

Heroin, Morphine, Opium
- Small eye pupils
- Coma
- Stop of breathing
- Signs of needle sticks

Basic life support.

Amphetamine, Ecstasy
- Hyperactivity, restless, insomnia
- Fast, disturbed, speech
- Disturbancies of consciousness
- Seizures
- Pulse is fast, high blood pressure
- Fever up to 41°C

Calm
Cool drinks
If disturbed consciousness, seizures, fever above 40°C, pulse above 120 – call 112
• Poison Information Centre in Estonia
  Tel. 16662 (temporarily only on workdays since 09.00 until 17.00)

Animal bites
Puncture wound or laceration.
Always consider as infected wounds.

Rabies
• A viral disease that can kill both animals and humans. The virus can be transmitted by being bitten by a rabid animal, by handling a diseased animal or through a wound that has been infected with rabies.
• Unusual behaviour of animal. Salivation.
• If a person has been exposed to rabies, the disease can be prevented by immediate immunization (3 weeks). Medical care!
• Animal should be kept for vet examination.

Snake bites
• Rest, support the affected limb;
• Calm and reassure the casualty, fear and apprehension may increase shock;
• Flush the affected area with soapy water, do not cool or use ice;
• Keep the limb below heart level;
• Transport to medical aid as quickly as possible – in first hours antidote can be given at hospital.
  Do not:
• Apply constricting band
• Try to cut out the infected tissue
• Try to suck the venom out from wound

Insect bites and stings
Tick-borne viral encephalitis
• Incubation period about 4-8 weeks
• Vaccination
• Removal of insect
• If symptoms similar to influenza appear turn immediately to physician

Wasps, bees
• May cause life-threatening allergic reactions
• Hives, swelling around the eyes and mouth, nausea, vomiting, breathing difficulties.
• Obtain medical aid as urgent as possible

Allergy
Airborne pollens and dusts, food, medicals and other chemicals, toxins of insects

• Skin symptoms. Severe itching, flushing, swallowing;
• Swelling of tissues about the face mouth and throat
• Respiratory symptoms. Bronchial asthma. Sneezing, coughing. Difficulties to breath.
• Circulation. Weak pulse, pallor, unconsciousness.

Allergy may be life-threatening!

Allergy
First aid
• A severe allergic reaction can only be reversed by appropriate medical treatment. First aid is limited to providing care for shock, maintaining breathing and circulation. Urgent transportation to a medical facility.
• Remove, if possible, the reason of allergy
• History of allergy? Medicines?
• Urgent medical aid!
• Basic life support
Bronchial asthma
- Children/adults
- Worsens during viral infections/ dust in air
- Dyspnoe. Sneezing, coughing. Difficulties to breath. Sound at breathing
- History? (Inhaled) medicals?

First aid
- Fresh air
- Medicines? Help with administering of prescribed drugs
- Warm and humidified air
- Urgent medical aid!

Heart diseases
A: Ischaemic heart disease: insufficient blood supply to heart tissue
1) Angina pectoris
- Chest pain caused by a decrease of blood supply to the heart muscle
- Stress, physical exercise may bring on the chest pain. May appear at rest.
- Pain is felt behind the sternum and spreads to the neck, shoulders, to left arm and elbow.
- Giving a rest, medication – relieved in minutes.
- Medication: nitroglycerin, isosorbid-dinitrate, isosorbid-trinitrate.

2) Heart attack
Occurs when the blood flow in a coronary artery or in one of its branches is decreased or blocked. Irreversible damage of myocardial tissue caused by lack of oxygen.
- Strong pain, similar to angina pectoris. May be upper abdominal pain. Rest and medication do not give relief;
- Fear and apprehension;
- Pallor;
- Nausea, sometimes vomiting;
- Profuse sweating;
- Dizziness;
- Shortness of breath;
- Shock or unconsciousness;
- Cardiac arrest.

Heart diseases
B: Heart failure
Result of chronic heart disease, when heart has lost some of its ability to pump blood to the body.
- Inappropriate shortness of breath, especially when person is exercising;
- Shortness of breath when laying down flat;
- Coughing bloodstained sputum;
- Cyanosis (blueness around lips, nail beds, ears);
- Swelling of ankles.
Heart diseases

First aid
• Call for medical aid immediately;
• Do not move the casualty unnecessarily;
• Place him at rest in the comfortable position; usually semisitting with the head and shoulders raised and supported;
• Loosen tight clothing at neck and chest;
• Reassure the person to lessen fear and anxiety;
• Help the conscious casualty to take his prescribed medication;
• Monitor breathing, circulation; CPR if necessary.

Vomiting, nausea
• Viral or bacterial infection, incorrect preservation of food
• Infants and children are at risk
• For infant, nausea 10…15 times per day might be dangerous, if associated with vomiting 4…5 times per day

Warning signs
• Inactivity of baby
• Skin
• Dry mouth and lips
• Augmented eyes
• Increased rate of breathing
• Cold extremities

Seizures
• Epilepsy
• Fever (infants)
• Head trauma
• Brain tumors
• Infections of central nervous system
• Pregnancy
• Diabetes
• Drugs, narcotics

Seizures
First aid
• Guide but do not restrict movement. Protect the person from injury;
• Attempt to ensure an open airway and if possible put the person in the recovery position;
• Do not insert anything between the teeth;
• Maintain the person’s privacy as much as possible, clear all nonessential persons away;
• When convulsions cease, place the casualty in the recovery position;
• Do not leave the person unattended as a second seizure is quite possible. If a second tonic-clonic seizure occurs within few minutes, call for medical aid.
• Physical cooling in case of fever

Emergency delivery

Drink
112
Hospital
Normal Delivery of the Baby

Basic Guidelines

- Be calm
- Be prepared to administer emergency care to both the mother and the baby
- Ensure the mother’s comfort
- Protect yourself from disease transmission (gloves, face mask)
- Assist the mother in her efforts to deliver the baby and to protect the baby during and after delivery
- Ensure safe handling of the newborn, but do not interfere with the natural birth process during the last stage of labour
- Do not, under any circumstances, attempt to force delivery of the placenta by pulling on the cord

Remember

- Support the infant gently but firmly during the birth process
- Ensure that the infant breathes and that an open airway is maintained
- Dry the infant quickly and wrap for warmth
- Do not cut the cord, nor pull on it. If there is bleeding from the cord or placenta, tie the cord with clean tape or heavy string 15 to 30 cm (6-12 in.) from the infant’s abdomen
- Keep the mother and infant warm and comfortable. Place the infant next to the mother’s skin
- Transfer to medical aid as soon as possible