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**MOULD POISONING**

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Moulds are various fungi (mainly zygo- and ascomycetes) that form branching mycelia without large sporocarps easily visible to the naked eye. They are constant humans' companions in daily life, as their growth conditions (high atmospheric humidity, sugars in the environment and poor air circulation in the room) are perfectly suitable for foodstuffs.

The most common and dangerous fungi genus to be found in the house is *Aspergillus*. *A. fumigatus* and *A. flavus* species are the most often toxic, producing aflatoxins (both toxins and hepatocarcinogenes).

Their main target organ is the liver. Large doses can cause irreversible liver damage, leading to death. Toxic effects of aflatoxins include hepatic necrosis, impaired vitamin D metabolism with all the avitaminosis consequences, inhibition of bile salt formation, impaired intestinal nutrients absorption, immune system suppression, growth and developmental delays in children. Chronic poisoning is to lead to cirrhosis and liver carcinoma.

Acute aflatoxicosis develops within 30 minutes after ingestion of contaminated food and is characterized by the following symptoms: abdominal pain, nausea, vomiting, diarrhoea, headache, convulsions and paresis, lethargy, weakness, loss of appetite, swelling and muscle pain, movement disturbance.

Like any food poisoning, aflatoxicosis requires immediate medical attention. Otherwise there can be severe and sometimes irreversible damage to the liver and nervous system. Treatment usually consists of several stages: cleansing the body, taking enterosorbents, antifungal drugs, immunostimulants, hepatoprotectors, vitamin and mineral complexes and detoxification. The earlier medical help is given and treatment started, the better the prognosis of the disease.

Aspergillosis is a group of diseases caused by the genus *Aspergillus fungi*. People with a weakened immune system, e.g. tumour chemotherapy patients or people suffering from AIDS, are mostly susceptible to this disease.

Aspergillosis pneumonia, aspergillosis pleurisy (pleural inflammation), meningoencephalitis, endocarditis (inflammation of the heart and valves inner lining), aspergillosis splenomegaly (the spleen enlargement), mycetoma (madura foot), aspergillosis otitis media, aspergillosis skin, aspergillosis nail are the examples of different aspergillosis types.

The symptoms are varied. Aspergillosis of the lungs is characterized by fever, bitter taste in the mouth, pyrexial state, accompanied by bone aches and chills. Aspergillosis otitis is recognized by redness and itching of the external auditory canal skin. Thinning of the epithelium and gradual filling of the canal with loose greyish or yellowish, cotton wool-like mass with fungal spores appear then. Infiltration of the mycosis into the tympanic membrane is manifested by severe stabbing ear pain. Ulcerative conjunctivitis and other eye lesions may also occur. Aspergillosis of the skin is chronic and presents with rashes, vesicles, multiple dense, painless nodules, localized mainly on the upper extremities. And the appearance of fungus in the nail plates in combination with dermatophytes is characterized by the appearance of gray, yellow, less often greenish spots or stripes in the nail thickness, the development of subnail hyperkeratosis (thickening).

Treatment of pulmonary and septic aspergillosis is difficult. Chemotherapy is effective only in a few cases. Aspergillosis of the lungs is best treated by surgery. In most patients, the operation is successful and without complications. Relapse is rare. If the disease has spread to other organs, surgical and other conventional methods are combined. The course lasts, depending on the type of aspergillosis, and averages between 4 and 8 weeks. When skin and mucous membranes are affected by aspergillosis, anti-inflammatory and antimycotic drugs are used topically. Examples include voriconazole, isavuconazole, amphotericin B (including lipid preparations) and echinocandins (as a backup therapy).