

Osteoarthritis affects more and more people, that's why it's worth to know about it as much as possible in order to timely recognize the symptoms and start treatment.

We need to remember that early diagnosis allows to slow down the progress of the disease. There are various kinds of treatment, eg. exercises with non weight bearing, physiotherapy, balneology or proper effort that allow to keep the articular cartilage in good functional state.

CAUSES

We need to remember that the cause of osteoarthritis has never been unambiguously explained. It's an effect of multiple factors that influence both: the joint itself and the whole organism as well. Osteoarthritis can develop in patients of 20-30 years of age. 60% of patients over 60 years of age suffer from degenerative joint diseases which are the main reason of joint pain ailments. Osteoarthritis develops due to numerous factors:

- old age,
- ethnic factors,
- inborn factors – susceptibility,
- abnormal articular biomechanics,
- overweight,
- job,
- physical activity,
- hormone levels.

Osteoarthritis affects women as well as men. Men suffer from it before turning 45. Women fall down with osteoarthritis later in life.

Prophylaxis of the degenerative diseases includes:

- adequate body weight and accurate nutrition,
- moderate physical activity,
- avoiding the overburdening of joints,
- avoiding unnecessary weight bearing,
- removing from the organism chronic infection foci.

Degenerative changes develop at first in the articular cartilage with no pain ailments, as in the cartilage there's no sensoric innervation. Only when degenerative changes intensify and lead to cartilage damage or significant decrease of its elasticity, pain ailments appear (due to the compression of the innervated subcartilage bone). Pain ailments and the limitation of the range of motion are a result of overburdening of ligaments, shrinkage of the articular capsule or muscles, degenerative processes and the accompanying inflammatory process of the synovium with an exudation into the joint. At this stage there are inflammatory substances in the joint which accelerate the degenerative process. Our organism

defends itself and tries to restore the damaged cartilage by creating the so-called osteophytes – protruding, sharp bone fragments and so limits the range of motion and increases pain ailments in the joint. This is why the whole process is called degenerative-productive changes. Finally, the disease and the regeneration of the organism gradually lead to contractions and joint immobility. The gradual progress of the disease is felt as stiffness after a longer immobilization (eg. after a night sleep).

TYPES

The degenerative changes may be differentiated due to their character into:

* **Primary changes** – of unknown origin.

It is suspected that the development of the primary or idiopathic osteoarthrosis (arthrosis deformans idiopathica s. primaria) may be caused by irregularities of the local circulation in the joints that lead to debalancing the content of the articular fluid which nourishes the cartilage. The disease may be also influenced by overburdening of joints during competitive sport or hard physical work. It seems though that the main reason is inborn susceptibility to osteoarthrosis.

* **Secondary changes** – the causes are known.

The secondary osteoarthrosis (arthrosis deformans secundaria) is a group of deformities that develop under the following particular factors:

1/ inborn or hereditary factors – inborn hip dysplasia, hemophilia, hemochromatosis or alcaptonuria,

2/ acquired local and systematic factors:

- local, eg. injuries (recurring joint sprains, one greater injury or multiple small injuries or malunion), septic or tubercular articular inflammation, aseptic necrosis,
- systematic, eg. metabolic diseases such as the gout, chronic rheumatic arthritis, chronic corticotherapy or neurological disorders (eg. cerebral palsy).

COURSE OF THE ILLNESS

Osteoarthrosis means early wear and degeneration of the joint tissues (the cartilage, the subcartilage bone layer, the articular fluid, the capsule, ligaments and muscles). In the course of the disease the articular cartilage is damaged, the bone is restructured and osteophytes are built, the subcartilage layer hardens and subcartilage cysts develop. Often the function of the synovial fluid is impaired.

Symptoms

Pain ailments are the first and earliest symptom. They intensify during motion or when the joint is burdened, they decline after a period of rest. Yet pain ailments may

not occur even when an X-ray test shows extensive changes. Periodically exudations in the joint may appear and they change the natural shape of the joints.

Degenerative changes don't usually give any aberrations in lab tests. It's enough to have a doctor's examination and a radiological picture in two projections. The radiological picture of the osteoarthritis is marked by the following: the narrowing of the joint space, thickening of the subcartilage bone layer, osteochondromas and intraarticular loose bodies.

Symptoms of pain during motion are characteristic, especially painful first motion and crackling.

In cases that are diagnostically difficult, the following examinations need to be done: CT, MRI, arthroscopy and isotopic scintigraphy. If an articular exudation coexists, we find its lab qualities to be a "make or break" in differentiating with inflammatory changes.

[Osteoarthritis – treatment \(find out more\)](#)

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