

**There are multiple ways of treating osteoarthritis. It's the most important, however, for the treatment to be complex and include:**

- non pharmacological treatment (healthy lifestyle, nutrition, dieting, wearing insertions in shoes, doing exercises that increase the mass of muscles),
- pharmacological treatment (taking prescribed drugs),
- rehabilitation (kinesiotherapy and physiotherapy).

## **TREATMENT AND REHABILITATION**

In a case where the cause is unknown, the treatment aims at reducing symptoms and modifying the course of the disease. When the cause is known however, the treatment concentrates on the cause, as well as the symptoms and the course of the disease. Every patient is treated according to the kind and progress of the disease.

Conservative treatment includes pharmacological means and physiotherapy. It aims at reducing the symptoms and introducing active exercises.

Patients with osteoarthritis of hips and knees should avoid sitting at soft, deep armchairs. They should sit on simple, hard chairs, sleep on hard beds, remember about correct posture, remain physically active and decrease stress onto the joint by having some rest and later by using a cane or crutches.

Exercises that have been well chosen, that aim to keep proper muscle strength and elasticity, to keep maximum painless mobility and to avoid muscle contraction, especially those that consist in non weight bearing, help to decelerate the disease course. We also should remember to rest during a day, so that the joints aren't overburdened and over exploited. Immobilization, even if short-term, may cause exacerbation of the disease and complete arthrodesis in a restricted posture. Patients should reduce body weight, avoid changeless overburdening (especially in extreme positions of the joint, be it extension or flexion).

Physiotherapeutic procedures used in osteoarthritis:

- electrotherapy: ionophoresis, interference currents, TENS,
- if pain is caused by changes in the connective tissue in young patients, it's recommended at the beginning to introduce treatment that improves local blood circulation; the treatment prepares the patient for exercises. It includes: hot baths, peat poultices, massages, solux, warm gel wraps. If, however, the disease is far advanced, patients must avoid the following: hot baths, peat and paraffin and Fango poultices and DKF. They might worsen the coexisting osteoporotic changes.
- kriotherapy brings anti swelling and anti inflammatory effects,
- laser therapy and magnetic field.

## **PHARMACOLOGICAL TREATMENT**

In the case of osteoarthritis, one of the most bothersome symptoms is pain, felt

differently by every patient. We use the following drugs to fight the pain and reduce the inflammation:

- 1) Non steroid anti inflammatory drugs – they are analgesic, anti inflammatory and antipyretic. This group includes, among others: paracetamol, diclofenac, ibuprofen, acetylsalicylic acid, indomethacin, ketoprofen, naproxene, piroxicam and sulindac. They may be administered orally, rectally or locally onto skin (creams, ointments or gels). If the pain isn't severe, it's enough to use a cream, gel or an ointment. If the symptoms are more severe, it's better to use drugs that are administered either orally or rectally.
- 2) Glucocorticoids – administered directly into the joint or into the pain area, not more than 1-3 a year, since greater quantity of the injected substance may lead to quicker and more extensive joint damage.
- 3) Disease-modifying drugs – that is suflazaladine, D-pencillamine, gold preparations, immunosuppressing drugs, eg. methotrexat. Modifying, immunosuppressing or steroid drugs are much stronger. They may, however, cause side effects, such as: nausea, headaches, vomiting, skin irritation with a rash, intestinal disorders and/or diarrhea.
- 4) Myorelaxant drugs – many of them have a calming effect, wear off anxiety, eg. tetrazepam or tolperisone.
- 5) Drugs improving blood circulation and the metabolism of tissues – they're administered when we assume the blood vessels pathology to be a part of osteoarthritis pathology. Arthritis often coexists with varicose veins of lower extremities. This group of drugs includes diosmine.
- 6) Medicines containing elements of articular cartilage – glucosamine, chondroitin sulfate, collagen, vitamin C. Theoretically, these drugs help to build in elements of cartilage, which improve articular cartilage slide – they have a positive effect on patients in early stages of the disease. These drugs are being widely tested in the USA.
- 7) Hialuronic acid injections – various kinds of drugs, administered into the joint 1-3 to 5 times in a week' intervals. They contain hialuronic acid which is a natural ingredient of the synovial fluid. They improve articular cartilage slide and tissue nutrition. They work as long as 6 months.
- 8) Homeopathic injections – they contain herbal extracts and extracts from animal placenta. They stimulate healing and reduce the inflammation.
- 9) Injections of autologous growth factors – not popular in Poland, common in other European countries. They stimulate healing, reduce inflammation and increase the potential of the cartilage to regenerate.

## **SURGICAL TREATMENT**

Should the conservative treatment be ineffective and the pain is nagging (the pain being the primary indication for a surgery) or there're extensive joint damages, a surgical treatment can be a solution. Depending on the disease we perform:

- surgeries to remove tissues changed and damaged due to an inflammation and to reduce existing contactions (arthroscopies),
- surgeries to correct the placement of bones and joint surfaces (osteotomies)
- surgeries to replace joint surfaces (endoplasties) – cutting out damaged joint elements and replacing them with new metal or plastic parts,
- surgeries to fix the joint,
- corrective surgeries – if the joint damage is extensive, the course of ligaments and bone placement is surgically corrected, which improves the function of the limb.

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

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