

Focus on...

arthrosis

▶ FOCUS HEALTH

**Arthrosis
is the most
common
pathology
in the second
half of life**

LET'S DO SOME CLARITY

Arthrosis (or osteoarthrosis) and **arthritis** are terms often considered synonymous, but actually they refer to two different diseases. Both are **rheumatic diseases**, or diseases that affect the joints and anatomical structures related to them such as bones, muscles, tendons, ligaments.

Both the arthritis and arthrosis are characterized by pain accompanied by stiffness and limitation of the affected joints. The similarities, however, end here because **arthritis is an inflammatory disease** that can affect subjects of all ages, while **arthrosis is a degenerative disease** that occurs predominantly after 50 years.

ARTHROSIS: WHAT IS IT

The etymology of the term “arthrosis” helps us to understand its meaning: in fact, it is a word of Greek origin, formed by *arthro* (joint) and *osi* (degeneration).

Arthrosis is then a degenerative disease of the joints linked to the gradual deterioration and wear of the cartilage and to changes in neighboring structures, especially the bone.

The cartilage is a shiny and smooth, extensible and deformable tissue that covers the articulating bones and allows their normal “scrolling”. Its function is similar to that of a bearing shock absorber: protects the joints and allows movement. Its deterioration, whatever the cause, undermines the shock absorbing action and causes a growing friction between the bones of the joint which begin to “make clutch” one on another, causing bone deformity, swelling and progressive limitation of the movement.

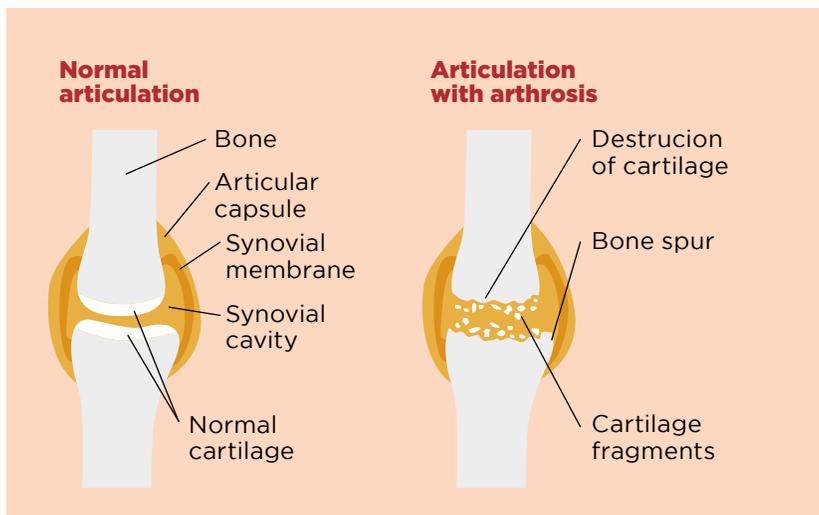
WHO SUFFER FROM IT

Arthrosis is a very common disease, probably the most common ever in the second half of life: after 65 years tends to affect, in fact, all people of every race and sex.

In Italy more than 4 million people suffer from it and that number is expected to grow due to the progressive aging of the population. One out of five Italians suffering from it and the disease is the reason for consulting family doctor once out of four.

It has an important impact on quality of life and is the main cause of restrictions of days of work. The health service has to bear huge costs to treat arthrosis, its complications and the disabilities that can result.

Arthrosis most often affects women, especially after 55 years; before 45 years, however, men are more affected since they, generally, have heavier job.



THE FORMS OF ARTHROSIS

There are two basic groups of arthrosis:

- **PRIMARY ARTHROSIS**, where it is not possible to identify a specific cause;
- **SECONDARY ARTHROSIS**, that is resulting from excessive stress of the joints, for example due to overweight, trauma, fractures, dislocations.

The most common and frequent localization of arthrosis are:

- **ARTHROSIS OF THE HANDS:** prevails in women and is accompanied to nodular deformity of the small joints of the fingers;

- **ARTHROSIS OF THE HIP:** is a crippling form and frequently involves the need for surgery;
- **ARTHROSIS OF THE KNEE:** is common, especially in women, after 50 years, and is favored by the presence of venous insufficiency (varicose veins) in the lower limbs;
- **ARTHROSIS OF THE SPINE:** is particularly frequent in the cervical and lumbar level and, given the localization, implies an involvement of the nervous structures.

RISK FACTORS

In the development of arthrosis we usually distinguish two types of risk factors: modifiable factors linked to lifestyle and therefore, preventable, and non-modifiable factors.

MODIFIABLE RISK FACTORS:

- overweight and obesity, especially for weight-bearing joints such as those of the lumbo-sacral spine or knees;
- trauma and wounds of the joints, e.g. due to accidents or certain types of sports injuries that cause small but repeated trauma;
- some working activities, such as lifting and transportation of heavy loads or the use of vibrating tools such as pneumatic hammer.

NON-MODIFIABLE RISK FACTORS:

- genetic predisposition, especially for arthrosis of the knee and hip;
- belonging to the female gender, after 55 years;
- advanced age.

SIGNS AND SYMPTOMS

The key clinical signs of arthrosis are pain, stiffness and the progressive functional limitation, which may be associated with deformations of varying extent. The pain is more vivid in the morning concomitantly with the first movement and in the evening after a day of work; it tends to recur at each resumption of articular activity after a short period of rest.

In the early stages the pain can arise only in occasion of intense and/or prolonged efforts; it is usually mild, sometimes poorly localized and erratic and behaves like a mechanical type of pain, i.e. in relation with the use of the affected joint.

As time passes it assumes more precise connotations and the load necessary to awaken the painful symptoms becomes less important until, in advanced stages, the pain can become continuous and persist even at rest or at night. For the patient, then, the usual way to control pain becomes that of not stay too long standing or sitting in the same position.

HOW DO YOU DIAGNOSE ARTHROSIS?

The suspicion of arthrosis is primarily clinical, or is based on the study of the patient: it is necessary a proper collection of his/her medical history (anamnesis), accompanied by an appropriate examination (the actual visit). The task of the physician and the rheumatologist is to assess the patient's age, weight, other diseases from which he suffers, area and limitation of movement of the affected joint, muscle strength and type of pain.

To measure the pain and the difficulty of movement are used numerous validated tests. One of the most reliable is the Euro-

Quality-of-Life (EuroQoL-5D). The questions cover experienced symptoms, joint stiffness, pain and joint function in performing daily activities. The score is the result of 5 groups of questions with 3 possible answers among which choosing. The higher the resulting score, the worse the quality of the patient's life.

WHAT TESTS DO?

Laboratory tests are of little importance in arthrosis, if not to exclude the presence of concomitant diseases. There are not specific tests for arthrosis and the common rheumatic joint tests (ESR, TAS, RA-test etc.) are usually within the normal limits.

For an accurate diagnosis, great importance has the radiological study, although often there is not a constant relationship between the clinical condition, damage and radiography. Many people, in fact, despite having radiological signs of arthrosis, do not complain of any ache. The radiological image will show the main signs of arthrosis: the presence of **osteophytes**, or excrescences of bone localized on the surface of bone and the **narrowing of joint space**.

THERAPY

Arthrosis is a degenerative disease with painful exacerbations. Therefore, on one hand, therapy should control the pain and, on the other hand, it should delay the degenerative process of the joints. Today they are available new drug therapies able to counteract cartilaginous deficits, to promote spontaneous healing processes and to control effectively the pain.

It will be the rheumatologist to suggest the best course of treatment, depending on the degree and location of the disease, accompanying it with some tips to improve the “lifestyle”, as lose

EuroQoL-5D questionnaire

MOBILITY

- | | |
|-----------------------------------------|----------------------------|
| I have no problems in walking about | 1 <input type="checkbox"/> |
| I have slight problems in walking about | 2 <input type="checkbox"/> |
| I am unable to walk about | 3 <input type="checkbox"/> |

SELF-CARE

- | | |
|---------------------------------------------------|----------------------------|
| I have no problems washing or dressing myself | 1 <input type="checkbox"/> |
| I have slight problems washing or dressing myself | 2 <input type="checkbox"/> |
| I am unable to wash or dress myself | 3 <input type="checkbox"/> |

USUAL ACTIVITIES (e.g. work, study, housework, family or leisure activities)

- | | |
|--------------------------------------------------|----------------------------|
| I have no problems doing my usual activities | 1 <input type="checkbox"/> |
| I have slight problems doing my usual activities | 2 <input type="checkbox"/> |
| I am unable to do my usual activities | 3 <input type="checkbox"/> |

PAIN/DISCOMFORT

- | | |
|-----------------------------------|----------------------------|
| I have no pain or discomfort | 1 <input type="checkbox"/> |
| I have slight pain or discomfort | 2 <input type="checkbox"/> |
| I have extreme pain or discomfort | 3 <input type="checkbox"/> |

ANXIETY/DEPRESSION

- | | |
|-------------------------------------|----------------------------|
| I am not anxious or depressed | 1 <input type="checkbox"/> |
| I am slightly anxious or depressed | 2 <input type="checkbox"/> |
| I am extremely anxious or depressed | 3 <input type="checkbox"/> |

weight if necessary and do light aerobic exercise (swimming, water aerobics, cycling), which does not involve the effort of the sore joint.

IMPORTANT There is no cure for arthrosis, but proper lifestyle and appropriate pharmacological treatments can improve the joint function and alleviate the pain. It is important, therefore, when the first symptoms appear, to contact your family doctor and rheumatologist: they may suggest pharmacological, physical and rehabilitation treatments that will restore your quality of life.

*Texts by the scientific editorial staff of Carocci Publisher
in collaboration with Fondazione IBSA.*

