

explainity explains  
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## explainity explains: Osteoarthritis

Erica has had pain in her knee for weeks. It is getting worse and worse. After a thorough examination, the verdict was clear. She has osteoarthritis. This is the world's most common joint disease.

The causes can vary. In some people, it is a joint positioning problem that they are born with or develop early in life. In others, it can be due to an accident. In most, however, it is due to many years of unbalanced physical efforts, such as playing sport professionally or working a desk job. All joints can be affected – sometimes several at the same time – but it most commonly affects the hands, hips and knees. Let's take a closer look at osteoarthritis.

Our bones support our body weight and are exposed to forces each time we move. Every bone in our body sits in a joint. Like here in the knee, where the thigh bone, the femur, meets the lower leg bone, the tibia. The membrane around the joints ensures that they move smoothly. Just like a well-oiled door hinge. And the cartilage is like a shock absorber to soften our jumps and movements. This is what a healthy joint looks like.

However, if you – like Erica – have osteoarthritis, then the knee joint looks more like this. It all starts with damage to the surrounding cartilage. If we don't do anything about it, it will just get worse. The friction it causes irritates the inner surface of the joint and leads to painful inflammation. The joint line shrinks, the bones move closer together and the first damage to the ends of the bones starts. This is what is called early-stage osteoarthritis.

If no treatment is given, the cartilage layer will continue to get thinner. This can take years, but we can see in the image how the bones are directly pressing against each other and therefore clearly damaging each other. This is late-stage osteoarthritis. The joint gets wider and the ends of the bones can rub together, which results in limitations in movement and even more pain.

But what can we do?

To relieve pain, pressure must be taken off of the affected joint. This can involve orthopedic supports. Sports that are gentle on the joints such as swimming and cycling, various kinds of physical therapy, as well as vitamins and nutrients, which can also help to relieve pain and promote mobility. In some cases, the body itself – with some extra support – is able to rebuild the destroyed tissue, make new membranes and even partially recreate the damaged cartilage. However, this needs a lot of patience – often several months – otherwise the problems will soon come back. There are also various options for surgery, including artificial joint replacements.

Erica now has regular physiotherapy, rides a bike instead of walking and follows a healthy diet. She has learned to live with her osteoarthritis and is now essentially pain-free.

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