

Osteoarthritis is one of the oldest and most common types of arthritis. Also known as degenerative joint disease, the symptoms can range from very mild to very severe. It affects the hands, knees, hips, feet and back.

Hello. I'm Dr. Aliza

Osteoarthritis: Fighting Joint Pain looks at some of the causes of osteoarthritis, the treatment options and the role that exercise, medication, and surgery can play in helping patients deal with the pain of this disease.

Narrator

Osteoarthritis is a disease of joints that causes a deterioration of the joint surfaces. It may begin from trauma; ligament or cartilage damage or it may be related to how that individual person's joint surfaces withstand normal forces over time.

Healthy joints are nearly frictionless. That is because ends of the bones are encased in a smooth, tough, Teflon-like tissue, called cartilage and are protected by a joint capsule that produces fluids. Cartilage is key in allowing smooth movement between the bones and acts as a natural shock absorber. Osteoarthritis causes the breakdown of that cartilage. If enough cartilage is worn away, the bone beneath can be left unprotected.

John Klimkeiwicz, MD **Georgetown Medical Center**

"That typically leads to pain, since the cartilage doesn't have a nerve or blood supply, but the underlying bone does. So when the bone is exposed in the joint itself that usually leads to swelling and pain."

Narrator

Doctor John Klimkeiwicz is an orthopedic surgeon at Georgetown University Hospital, who specializes in problems of the knee and the shoulder.

John Klimkeiwicz, MD **Georgetown Medical Center**

"Simply put it's an overuse injury. It's a phenomenon that occurs secondary to wear or breakdown of the articular cartilage within the joint, of the joint, irrespective of the joint."

Narrator

Osteoarthritis is often called “wear and tear” arthritis; a term, which doctors say, does not tell the whole story.

.John Bruno, MD**Tennessee Orthopedic Alliance**

“Osteoarthritis does carry the terms wear and tear, but that certainly is not always the case. On the contrary, there are people who have a labor job and have no problem with their knees throughout their lives and others who have a sit-down job and have terrible arthritis. So it’s more than that.”

John Klimkeiwicz, MD**Georgetown Medical Center**

“The patient’s age, their activity level, their weight, their anatomical factors, their bone structure, genetics even to some degree probably all contribute in some degree to the process of the cartilage breaking down.”

Narrator

The production, maintenance, and breakdown of cartilage, are now seen as a series or cascade of events. Researchers are trying to discover where in that cascade of events things go wrong. Whatever the trigger mechanism, once you have osteoarthritis, it gets progressively worse.

John Klimkeiwicz, MD**Georgetown Medical Center**

“A breakdown of articular or hard cartilage within it’s respective joint. To the point where what was a frictionless surface within the joint itself now has increased wear properties, increased friction, leading to further breakdown and acceleration of that breakdown.”

Narrator

One clear cause of osteoarthritis is the kind of the sudden impact or twisting injury to the joints that can damage ligaments or cartilage.

An orthopedic surgeon who specializes in sports injuries and a former college football player himself, doctor John Bruno has seen his share of damaged cartilage and ligaments... lead to osteoarthritis.

John Bruno, MD**Tennessee Orthopedic Alliance**

“When those cartilages are torn, they damage the joint surfaces. And it can be true on the inner and outer side. Once they hurt then the knees begins to collapse and that collapse adds to the pressure on one side versus the other side.”

John Bruno, MD**Tennessee Orthopedic Alliance**

“Many people with sports injuries will sometimes return to that sport oblivious to the fact that the seeds have been sown for a problem that may show up for them 15, 20, or even 30 years, later.”

Narrator

The advances in arthroscopy surgery, in which surgeons work through small incisions using a tiny camera to see inside the joint, means surgeons can now attempt to repair torn cartilage as a means of slowing the process of osteoarthritis.

John Bruno, MD**Tennessee Orthopedic Alliance**

“One of the saddest things for me was to have old teammates who had an injury that all of us as college students thought were a minor thing that would have them back on the football field for or five games later.”

Narrator

Left untreated, there is a good chance that torn cartilage will wear away to the point of what is sometimes called “end stage” osteoarthritis.

John Bruno, MD**Tennessee Orthopedic Alliance**

“And now some of those are my patients here in the office, with the result many years later of a significant osteoarthritis.”

Narrator

Betty Caldwell is not an athlete, but she came to doctor Bruno nine years ago to try to slow down her arthritis with arthroscopic surgery on her knee. As in most cases it is the pain that brought her to his office.

Betty Caldwell, Patient

“He first gave me cortisone, shots of the cortisone, that helped temporarily. But then I started back up again with the pain. And so planned arthroscopic surgery.”

“I would suggest to anyone, when they do feel this pain, and you feel it when you’re not walking right and it hurts and you can’t sleep well.”

“I suggest they go to their doctor.”

Narrator

Betty now has pain in her other knee, but this time the cortisone injections are not working.

Betty Caldwell, Patient

“The first part of last year, 2002, I started getting the pain all over again in the other knee. My left knee and I talked to dr. Bruno and came down to his office he gave me cortisone shots. Cortisones have helped me other times but not this time.”

Narrator

A diagnosis of osteoarthritis opens the door to many treatment options. More about treatment of osteoarthritis when we return.

Factoid

Two tips to help you live better with Osteoarthritis.

First, maintain an appropriate weight and lose weight as needed.

Studies show that if a woman loses just 11 extra pounds, she can decrease her chance of getting osteoarthritis of the knee by 50 percent.

Second, Exercise helps lessen pain, increases range of movement, reduces fatigue and helps you feel better overall.

Your doctor, a physical therapist, or other specially trained health professional can show you range-of-motion exercises and strengthening exercises that are good for arthritis.

John Bruno, MD**Tennessee Orthopedic Alliance**

“So right here this side is absolutely worn almost down whereas this side you still got a pretty significant height.”

“My concern here is this portion wearing away shifts the whole weight to the inner side of the knee, whereas here this side is opening up. No less stress is passing through it. And one of the concerns is that if this keeps on going we’ll have bone on bone arthritis and you’ll end up needing a total knee replacement.”

John Bruno, MD**Tennessee Orthopedic Alliance**

“It is vital that a patient with arthritis understand that in some ways this is in their hands. And they can make a difference. If someone is carrying 50 extra lbs. of weight they have to realize, to be empowered with the responsibility to deal with that.”

Narrator

Osteoarthritis is a disease whose treatment depends on how well you can live with the pain and how willing you are to alter your lifestyle for the best results. The first step is to outline a plan of action with your doctor.

John Bruno, MD**Tennessee Orthopedic Alliance**

“Educate them, and then work with them to design a program of joint conservation, the ways they can reduce the stresses that are taking this joint downhill.”

Narrator

The first thing your doctor might do is try to alleviate the pain and swelling with medications. While these can be effective at controlling pain and swelling in the short term, none of them have been proven to cure arthritis.

John Bruno, MD**Tennessee Orthopedic Alliance**

“There are a thousand drugs on the market right now for osteoarthritis. Virtually all fall under the category of what is called non-steroidal anti-inflammatory agents.”

Narrator

Some non-steroidal agents include the familiar drugs, such as aspirin and ibuprofen: brand names Advil and Motrin. They block the inflammatory process but also can cause stomach irritation and ulcers.

Newer prescription forms of non-steroidal anti-inflammatory drugs called Cox-2 inhibitors were developed to treat inflammation. But these drugs have been linked to increased risks of heart disease and their use for treating arthritis has been called into question.

And one older anti-inflammatory drug, naprosen, also sold as Naproxen or Aleve now has an FDA advisory regarding how much and how long to take it.

An intra-articular injection of cortisone can quickly help reduce pain and swelling in a joint, but it can only be used infrequently, and isn't a long-term solution

Patient

“There's pain in that one joint.”

“So it hurts, right here?”

“Yes”

“And that's where we gave the injection last time, right?”

John Bruno, MD**Tennessee Orthopedic Alliance**

“It can be a real aid in breaking a bad spell or arthritis or stopping an inflammatory cycle. So I frequently use it in my practice to do just that, with no intention that it will be repeated frequently, or that it is a step to keep somebody away from the O.R. for a little longer.”

Narrator

An alternative therapy available in health food stores as well as pharmacies is the combination of two supplements, Glucosamine (glue-KOH-suh-mean) and Chondroitin (kahn-DROY- ten). These supplements are being looked at to see if they provide benefit when taken over time.

John Bruno, MD**Tennessee Orthopedic Alliance**

“There is a growing body of information to suggest that taken in certain circumstances it may protect a joint that has arthritis. The data are early, in that, and we will have to see long term.”

John Klimkeiwicz, MD**Georgetown Medical Center**

“Traditionally the therapies that have been recommended for this as it’s aware is a phenomenon, simply an overuse phenomenon. Tend to be predicated on activity modification and medications.”

Narrator

While medications may keep the pain of osteoarthritis at bay, joint conservation therapy and physical therapy can help you by strengthening and stretching the muscles around your joints. More on that when we return.

Factoid

By 2030, 20 percent of Americans--about 70 million people--will have passed their 65th birthday and will be at risk for osteoarthritis.

Narrator

Irv Rubenstein was a tae kwon do champion until osteoarthritis and arthroscopic knee surgery slowed him down. A PhD in exercise physiology, he now helps train other arthritis sufferers.

John Klimkeiwicz, MD**Georgetown Medical Center**

“What happens with arthritis of any joint injury or muscle injury is that the body wants to shut down, close down, go into itself, go fetal position almost. And my job is to help them open up and spread out.”

Mary Gardner, Physical Therapist**Easter Seals**

“It’s sort of like it you build a wall with some bricks and you only put mortar on one side of the brick, then you put a brick on top. One side would be level and the other side would go downhill. That’s what happens when a joint is destroyed by osteoarthritis.”

John Bruno, MD**Tennessee Orthopedic Alliance**

“So often a person who used to be active has their activity squelched by the arthritis showing up in a hip or a knee.”

Narrator

Active osteoarthritis patients often fear that their lives will change in ways they are not ready for. Introducing a new form or alternative of exercise can be the first step to dealing with those changes.

John Klimkeiwicz, MD**Georgetown Medical Center**

“If they got knee problems then we’ll find an appropriate form of exercise so they can go out and do something. Life shouldn’t be in the gym. Their health and well-being shouldn’t come from the gym. It should be part of their lives.”

Narrator

Mary Gardner is a Physical therapist at The Arthritis Pain Center at Easter Seals. She uses different methods of therapy based on the patient strength and mobility. Each patient develops their own routine with her help.

Mary Gardner, Physical Therapist**Easter Seals**

“Exercise is beneficial in several ways. We know that with osteoarthritis there is a lack of integrity, so muscles and tendons get stretched and weakened. It is our job as therapists to instruct clients to strengthen and stretch selected muscles, so they therefore take the pressure off the disease joint.”

Mary Gardner, Physical Therapist**Easter Seals**

“The other time that exercise helpful is to prepare for surgeries that may go on somewhere down the line. The stronger they are for surgery the easier it is to recover and the easier it is to do the exercises after surgery, because they’ve already learned these exercises.”

Narrator

One of the best ways to take pressure off a joint and still work on strengthening the muscles and increasing range of motion is found in a pool.

Mary Gardner, Physical Therapist**Easter Seals**

“One of the reasons we use water is it’s a modality that allows us to decrease the weight bearing stressed on a joint, the principles of water also allow us to use the heat from the water the buoyancy principle and the timidity principle which allows for some added resistance while not decreasing he stress on the joint.”

Narrator

Recently Irv Rubenstein found out that the disease was trying to change him once again. He found out he has osteoarthritis in his hip.

Irv Rubenstein, PhD.

“At this point I’m not thinking replacement. At this point I’m just thinking maintain strength and flex-ability.”

“Knowing what I know from having worked with clients with these problems, you just find that range of exercise that allows you to do so pain free, strengthen the muscles around the joint, maintain flex-ability without going into the pain zone, used to be I could do splits now I’m happy if I can put my leg up on a table.”

“My attitude towards personal training it to treat anyone like an athlete who is using exercise to improve the quality of their life, whether it is a peak performance as an athlete, or the ability to garden and play with your grandchildren.” “My feeling about Osteoarthritis is that while it clearly lowers the peak, it doesn’t have to bring you down into the valley.”

Narrator

Up next, we will hear the story of a young athlete that was diagnosed with end stage osteoarthritis and had to have both hips replaced at age 45.

Narrator

There is something to be said about falling in love with a sport. Amy barrows was in her early 30s when she began jogging and then competitive racing. She couldn’t get enough. She even met her husband through running.

John Bruno, MD**Tennessee Orthopedic Alliance**

“Amy was as at 40 years old very close to setting the master’s marathon, record for the US. An incredible goal but one for which she was doing well and was right on track. Her husband was also her coach. He was an excellent runner. The two of them worked well towards that.”

Narrator

As a runner you always feel some pain and you think it is normal so you just deal with it. She had built up a quit a tolerance but this time it was too much and she sought professional help.

John Bruno, MD**Tennessee Orthopedic Alliance**

“Amy began noticing more and more difficulty with her hips and she was able to push pain aside most good runners have reached that point. She was doing spectacularly well but times weren’t improving, and the hip pain became more apparent. When she came in she and I both were totally startled to look at her exam and later her x-rays and find out she had end stage Osteoarthritis in both hips.”

Narrator

Amy’s osteoarthritis had progressed so far she had worn away the cartilage and the bones were rubbing against bones.

Amy Barrows, Patient

“You gotta know that that’s a sign that you’re not on the top of your game.”

Narrator

At 45 years old she would have to have both hips replaced.

Amy Barrows, Patient

“And so I started trying to figure out what to do.”

Narrator

After months of rehabilitation Amy is a true success story of courage and strength.

Amy Barrows, Patient

“Well, its really a lot better and my range of motion is better, I’ve been doing some pool running, that’s quite different than regular running.”

John Bruno, MD**Tennessee Orthopedic Alliance**

“Are you getting up off of commodes, dressing easily, shoes and socks on?”

Amy Barrows, Patient

“Getting out of car.”

John Bruno, MD**Tennessee Orthopedic Alliance**

“One thing that’s always a little bit interesting is extension, let’s lift this one up, have you hold that with your hand, let this one go down and you pull up, that looks great. Let’s pull this one up, that looks great, no tightness, good job, you got a great result, your still going to improve in that.”

Narrator

After her hip surgery, Amy Barrows wrote a story for a runner's magazine. It was about learning to cope with osteoarthritis and what to expect from the surgery. In response she has received hundreds of e-mails from people who want to know about the struggles of osteoarthritis and the possibility of success. She gives them her philosophy of life!!

Amy Barrows, Patient

"Go ahead and do as much as you can."

Narrator

Surgeons like to say that your body will tell you when it is time for joint replacement surgery. They are more and more commonplace and the results have improved remarkably over the last 20 years.

John Bruno, MD**Tennessee Orthopedic Alliance**

"Well, the original replacements into this country from England and Europe in the 70s had a life expectancy of 5 or 6 years even if everything went well."

John Klimkeiwicz, MD**Georgetown Medical Center**

"When you look at the success rates at least for the hip and the knee at 20 to 25 years you are looking at 90 percent plus still being in place. So this is really a very successful operation in so far as pain relief, quality of life, and durability, I think if taken care of by the patient."

Narrator

You should always consult with your physician about the diagnosis and treatment of arthritis and don't be afraid to ask for a specialist.

John Bruno, MD**Tennessee Orthopedic Alliance**

"As a patient approaches a physician about their OA that should be a big open street. Information exchange is vital. They need to feel a trust...the two need to work as a team and the patient needs to learn from the doctor all the options to learn better what the disease process is and then have the Dr. assist in making the decision rather than having the physician make the decision for the patient. I think we see increasingly that people are demanding that sort of care from their physician and if they don't get it in this day and times they look for another physician."

John Klimkeiwicz, MD**Georgetown Medical Center**

"What do I mean by success? Really a pain free return to most normal types of activity."

Narrator

Although, osteoarthritis is a debilitating disease you can live with it. Amy is now able to do more than the doctors ever expected. She just keeps encouraging herself.

Amy Barrows, Patient

“Just do as much as you can, you know, it’s quality of life.”

Narrator

And as a physical therapist, Irv Rubenstein takes care of himself and his clients to help them live longer healthier lives.

Irv Rubenstein, PhD.

“As a health professional that’s my goal to try and encourage to maintain a healthy lifestyle.”

Narrator

And Betty is able to get back to the things she loves.

Betty Cauldwell, Patient

“Not 100% but I can get close I can get around the kitchen now.”

Narrator

Getting around the kitchen and getting on with life...that’s the goal for all of us.