

Osteoarthritis

Exam Question

What happens to the cartilage of a person who has Osteoarthritis?

Answer

The cartilage around the bones gradually erode when someone has osteoarthritis.

Works Cited

"Temporarily Rheumatoid Arthritis and Osteoarthritis: Top Differences." *WebMD*. WebMD, n.d. Web. 10 June 2014. <http://www.webmd.com/rheumatoid-arthritis/understanding-rheumatoid-arthritis-and-osteoarthritis-book-overview>

"Several Types of Arthritis: Rheumatoid Arthritis, OA, and Psoriatic Arthritis." *WebMD*. WebMD, n.d. Web. 11 June 2014. <http://www.webmd.com/rheumatoid-arthritis/understanding-rheumatoid-arthritis-top-differences>

Diabetes. *Diabetes*. "Osteoarthritis." *MedlinePlus Medical Encyclopedia*. U.S. National Library of Medicine, U.S. National Library of Medicine, 10 May 2014. Web. 10 June 2014. <http://www.nlm.nih.gov/medlineplus/ency/article/000421.htm>

Mayo Clinic Staff. "Osteoarthritis." *Definition*. *Mayo Clinic*. 9 Apr. 2013. Web. 10 June 2014. <http://www.mayoclinic.org/diseases-conditions/osteoarthritis/basics/definition/d20044111>

Mediastore.com Team. "Osteoarthritis." *Clinical Pathogenesis*. 2014. Web. 10 June 2014. http://www2.mediacomlab.com/condition_info_data/osteoarthritis_disease_0520140610.htm_0522120406.htm_0520140610.htm

"Osteoarthritis." *The Arthritis Society*. 2014. Web. 10 June 2014. <http://www.arthritis.ca/about-us/about-osteoarthritis>

"Osteoarthritis and Osteoporosis." *Osteoporosis and Osteoarthritis*. Osteoporosis Canada. 2014. Web. 10 June 2014. <http://www.osteoporosis.ca/osteoporosis-and-osteoarthritis/>

"Osteoarthritis: Symptoms and Causes." *Information about Osteoarthritis Diagnosis*. Osteoarthritis: Symptoms and Causes | Information about Osteoarthritis Diagnosis. N.p., n.d. Web. 10 June 2014. <http://www.arthritis.ca/about-us/about-osteoarthritis>

"Related Problems." *OH Now*. N.p., n.d. Web. 09 June 2014. <http://www.ohnow.com/about-osteoarthritis/types-of-arthritis/osteoarthritis-what-is-osteoarthritis/>

Schmitt, Peter. "Understanding Primary and Secondary Osteoarthritis." *Arthritis Center*. "Everyday Health.com". Everyday Health Inc., LLC. 2014. Web. 10 June 2014. <http://www.everydayhealth.com/osteoarthritis/understanding-osteoarthritis/>

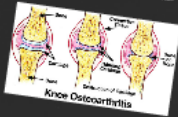
"What Is Osteoporosis? Fast Facts Are Easy to Read Series of Publications for the Public." *Fast Facts About Osteoporosis*. N.p., n.d. Web. 7 June 2014. http://www.ama-assn.org/speicalty/health_info/for/patients/osteoporosis_fastfacts.asp

"Six 5 Year Reviews." *You & Your Osteoporosis*. N.p., n.d. Web. 10 June 2014. <http://www.painrelief.ca/osteoporosis/osteoporosis/6years/6years.html>

By: Elahah Humayun & Madina Azizi

What is Osteoarthritis?

- Osteoarthritis is also known as degenerative joint disease and is when the body's cartilage (rough elastic material that covers and protects the ends of bones) gradually breaks down leaving bones to come into direct contact with one another.
- There are over 100 different types of arthritis, the two main ones being osteoarthritis and rheumatoid arthritis.
- Osteoarthritis most commonly affects joints in the hands, neck, lower back, knees and hips.



Know Osteoarthritis

What are the types of Osteoarthritis?

- Primary Osteoarthritis** - Occurs in "wear and tear" arthritis. The exact cause here is not always clear, but the arthritis associated with aging and usually occurs around age 50.
- Secondary Osteoarthritis** - Starts when there is already a cause for it such as injury to the joint, other risk factors may also be present. This is very common to professional athletes but anyone can get it.

Who does Osteoarthritis affect?

- It affects 1 in 10 Canadian adults.
- Affects women more commonly.
- Although anyone can get osteoarthritis, it is more common as we age.
- Affects people of different physical conditions and ethnic backgrounds.

What are the causes of Osteoarthritis?

- The exact cause of this disease is unknown.
- However, what is known is that joint damage can be caused by repetitive movement.

There are various factors that contribute to the cause of this disease such as:

- 1) Age: the older a person is, the higher risk they have for getting osteoarthritis.
- 2) Injuries: Repeatedly injuring a joint during sports or physical labour can increase the risk of having osteoarthritis.
- 3) Obesity: Obese individuals are putting excessive weight on the joints which puts pressure on the osteoarthritis. The knee is at a very high risk of being affected by this disease because it is a major weight-bearing joint.
- 4) Genetics: genetics contribute to the development and progression of osteoarthritis. Family history plays a role but researchers are not exactly sure how. They think it may be due to the shape of your bones and the way they fit together or your ability to make/repair cartilage and these factors are determined by genetics.

How do you prevent Osteoarthritis?



- Many cases can be prevented by doing the following:
- Maintaining a healthy weight to avoid excessive pressure on the joints.
 - Exercising regularly (but not too rigorously) to avoid stiffness.
 - Avoiding joint injuries.
 - Treating joint injuries immediately and avoid causing further damage to the joint.

Therapy

- Physical therapy** - A physical therapist can work with you to create a personal exercise regimen.
- Occupational therapy** - An occupational therapist can help teach you new ways to do everyday tasks or do your job that help reduce the pressure you put on your painful joints.
- Braces or shoe inserts** - These devices can immobilize or support your joint to help you keep pressure off of it.

Personal Thoughts/ Extra Information...

Interesting fact: Experts say that if we live long enough, we will all get primary osteoarthritis to some extent since this type is associated with aging.

Things to avoid: that physical activities that lead to a very common skeletal joint injury in the knees.

- Rheumatoid arthritis is an inflammatory arthritis and an autoimmune disease. The immune system begins attacking the body's own tissues, specifically the synovium, a thin membrane that lines the joints. Because of this, fluid builds up in the joints causing pain and inflammation.

Surgical Procedures and Injections

Cartilage shots relieve pain in knee joints. During this procedure your doctor numbs the area around your joint, then plans a needle into the space where your joint and injects medication. The medication can warm joint damage over time as these injections need to be treated.

Subacromial injections: injections of hyaluronic acid derivatives offer pain relief by providing cushioning to your knee.

Resecting bones: During a surgical procedure called an osteotomy, the surgeon cuts across the bone about 1/2 inch below the knee to make the weight rest on the healthy part of your knee.

Joint replacement (arthroplasty): This is a procedure where a damaged joint surface and implant (made from plastic and metal devices) called prostheses. The hip and knee joints are the most commonly replaced joints.

What are the symptoms of Osteoarthritis?

Depending on how severe the disease has become in the individual, the symptoms may range from mild to severe. It is possible to have osteoarthritis and not have any symptoms.

- Pain:** Joints aching during and after movement. Pain becomes more intense as the cartilage becomes thinner and the bones begin rubbing together.
- Stiffness:** Getting up in the morning becomes difficult. Stiffness also occurs after periods of inactivity. This usually lasts for 30 minutes or less.
- Muscle weakness:** The muscles get weaker due to a lack of use of the joint because of pain.
- Deformed Joints:** Bone spurs (extra bits of bone) may form around the affected joint. In smaller joints hard bony enlargements, called Heberden's nodes (on the distal interphalangeal joints) and/or Bouchard's nodes (on the proximal interphalangeal joints), may form.
- Grating or crunching noise** when moving.
- Swelling:** The joint may become inflamed with warmth and swelling.
- Reduced range of motion** and loss of use of the joints: as the disease worsens, one might not be able to bend, flex, or extend the joints.

Deformed joints: Bone spurs (extra bits of bone) may form around the affected joint. In smaller joints hard bony enlargements, called Heberden's nodes (on the distal interphalangeal joints) and/or Bouchard's nodes (on the proximal interphalangeal joints), may form.



Heberden's Node: Bony spur that forms on the distal interphalangeal joint (the joint closest to the tip of the finger).

How is Osteoarthritis detected and treated?

- There is no cure but sufferers can take medications, begin exercising, and reduce their weight.
- The best way to detect osteoarthritis is via x-ray.
- Acetaminophen (Tylenol, etc.)** can be taken for pain relief from mild to moderate pain.
- Nonsteroidal anti-inflammatory drugs (Ibuprofen: Advil, etc.)** can be taken for pain relief and to reduce inflammation.
- Narcotics:** prescription medication typically contain ingredients similar to codeine (Tylenol-3) and is taken to provide relief from more severe pain.

Osteoarthritis

Exam Question

Answer

What happens to the cartilage of a person who has Osteoarthritis?

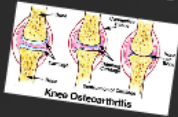
The cartilage around the bones gradually erode when someone has osteoarthritis.

What is Osteoarthritis?

Osteoarthritis is also known as degenerative joint disease and is when the body's cartilage (rough elastic material that covers and protects the ends of bones) gradually breaks down leaving bones to come into direct contact with one another.

There are over 100 different types of arthritis, the two main ones being osteoarthritis and rheumatoid arthritis.

Osteoarthritis most commonly affects joints in the hands, neck, lower back, knees and hips.



Knee Osteoarthritis

What are the types of Osteoarthritis?

Primary Osteoarthritis - considered "wear and tear" arthritis, although you may have some of the risk factors. This type is associated with aging and usually occurs around age 50+.

Secondary Osteoarthritis - occurs when there is likely a cause for it such as prior injury to the joint, other risk factors may also be at play.

Who does Osteoarthritis affect?

It affects 1 in 10 Canadian adults.

Although anyone can get osteoarthritis, it is more common as we age.

It affects certain body parts.

What are the causes of Osteoarthritis?

The exact cause of this disease is unknown.

However, what is known is that joint damage can be caused by repetitive movement.

As was mentioned before, osteoarthritis comes about when cartilage erodes.

There are various factors that contribute to the cause of this disease such as...

- 1) Age: the older a person is, the higher risk they have for getting osteoarthritis.
- 2) Injuries: Repeatedly injuring a joint during sports or physical labour can increase the risk of having osteoarthritis.
- 3) Obesity: Obese individuals are putting excessive weight on the joints which puts pressure on the osteoarthritis. The knee is at a very high risk of being affected by this disease because it is a major weight-bearing joint.
- 4) Heredity: genetics contribute to the development and progression of osteoarthritis. Family history plays a role but researchers are not exactly sure how. They think it may be due to the shape of your bones and the way they fit together or your ability to make/repair cartilage and these factors are determined by genetics.

How do you prevent Osteoarthritis?

Many cases can be prevented by doing the following:

- Maintaining a healthy weight to avoid excessive pressure on the joints
- Exercising regularly (but not too rigorously) to avoid stiffness
- Avoiding joint injuries
- Treating joint injuries immediately and avoid causing further damage to the joint

Therapy

Physical therapy - A physical therapist can work with you to create an individualized regimen.

Occupational therapy - An occupational therapist can help teach you new ways to do everyday tasks or do your job that help reduce the pressure you put on your painful joints.

Braces or shoe inserts - These devices can redistribute or support your joint to help you keep pressure off of it.

Personal Thoughts/ Extra Information...

Interesting fact: Experts say that if we live long enough, we will all get primary osteoarthritis to some extent since this type is associated with aging.

Rheumatoid arthritis is an inflammatory arthritis and an autoimmune disease. The immune system begins attacking the body's own tissues, specifically the synovium, a thin membrane that lines the joints. Because of this, fluid builds up in the joints causing pain and inflammation.

Though research that shows arthritis has been found in people with osteoarthritis, this is a very common mistake. They are different conditions.

Surgical Procedures and Injections

Cartilage shells rubs pain in your joint. During this procedure your doctor makes the area around your joint, then places a needle into the space with your joint and injects medication. The medication can remove joint damage over time as these injections must be limited.

Viscosupplementation injections - injections of hyaluronic acid derivatives offer pain relief by providing cushioning to your knee.

Resecting bones - During a surgical procedure called an osteotomy, the surgeon cuts across the bone above or below the knee to transfer the weight onto a healthier part of your knee.

Joint replacement - In a joint replacement, the surgeon removes your damaged joint surfaces and replaces them with plastic and metal devices, called prostheses. The hip and knee joints are the most commonly replaced joints.

What are the symptoms of Osteoarthritis?

Depending on how severe the disease has become in the individual, the symptoms may range from mild to severe. It is possible to have osteoarthritis and not have any symptoms.

- **Pain:** Joints aching during and after movement. Pain becomes more intense as the cartilage becomes thinner and the bones begin rubbing together.
- **Stiffness:** Getting up in the morning becomes difficult. Stiffness also occurs after periods of inactivity. This usually lasts for 30 minutes or less.
- **Muscle weakness:** The muscles get weaker due to a lack of use of the joint because of pain.
- **Deformed Joints:** Bone spurs (extra bits of bone) may form around the affected joint. In smaller joints hard bony enlargements, called Heberden's nodes (on the distal interphalangeal joints) and/or Bouchard's nodes (on the proximal interphalangeal joints), may form.
- **Grating or crunching noise** when moving.
- **Swelling:** The joint may become inflamed with warmth and swelling.
- **Reduced range of motion** and loss of use of the joints: as the disease worsens, one might not be able to bend, flex, or extend the joints.

Deformed joints: Bone spurs (extra bits of bone) may form around the affected joint. In smaller joints hard bony enlargements, called Heberden's nodes (on the distal interphalangeal joints) and/or Bouchard's nodes (on the proximal interphalangeal joints), may form.



Osteoarthritis Hand - Heberden's nodes (on the distal interphalangeal joints) and/or Bouchard's nodes (on the proximal interphalangeal joints), may form.

How is Osteoarthritis detected and treated?

- There is no cure but sufferers can take medications, begin exercising, and reduce their weight.
- The best way to detect osteoarthritis is via x-ray.
- **Acetaminophen (Tylenol, etc)** can be taken for pain relief from mild to moderate pain.
- **Nonsteroidal anti-inflammatory drugs (Ibuprofen: Advil, etc)** can be taken for pain relief and to reduce inflammation.
- **Narcotics: prescription medication typically contain ingredients similar to codeine (Tylenol-3) and is taken to provide relief from more severe pain.**

OSTEOA

Exam Question

What happens to the cartilage of a person who has Osteoarthritis?

"Comparing Rheumatoid Arthritis and Osteoarthritis-Topic Overview." [W](#)
[comparing-rheumatoid-arthritis-and-osteoarthritis-topic-overview>](#).

"Different Types of Arthritis: Rheumatoid Arthritis, OA, and Psoriatic Arth
[arthritis/guide/most-common-arthritis-types>](#).

Wo

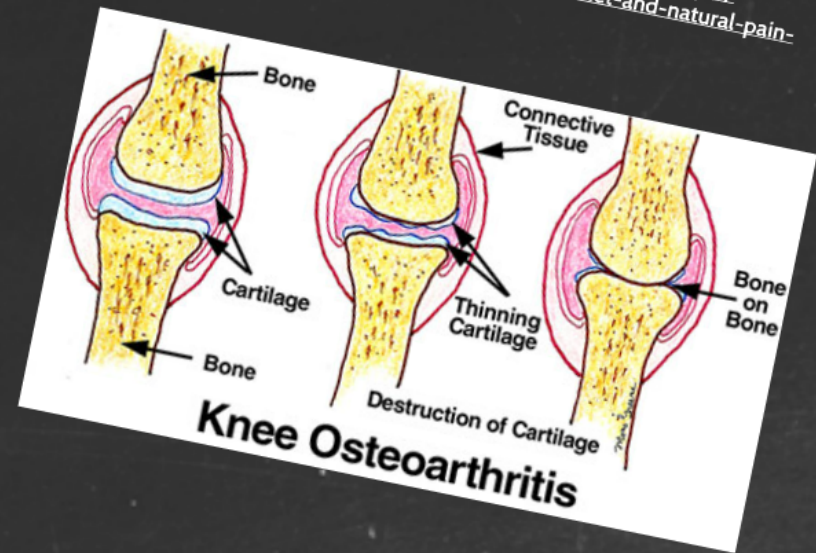
What is Osteoarthritis?

- Osteoarthritis is also known as degenerative joint disease and is when the body's cartilage (tough elastic material that covers and protects the ends of bones) gradually breaks down leaving bones to come into direct contact with one another.

- There are over 100 different types of arthritis; the two main ones being osteoarthritis and rheumatoid arthritis.

- Osteoarthritis most commonly affects joints in the hands, neck, lower back, knees and hips.

Greene, Moss. "Osteoarthritis Diet and Natural Pain Relief from CommonSenseHealth.com." *CommonSenseHealth.com*. Common Sense Health, 2014. Web. 11 June 2014. <<http://commonsensehealth.com/osteoarthritis-diet-and-natural-pain-relief/>>.



Video:



YouTube