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Osteomyelitis

Osteomyelitis is an infection of the bone, a rare but serious condition. Bones can become infected in a number of ways: Infection in one part of the body may spread through the bloodstream into the bone, or an open fracture or surgery may expose the bone to infection.

What Causes Osteomyelitis?

In most cases, a bacteria called *Staphylococcus aureus*, a type of staph bacteria, causes osteomyelitis.

Certain chronic conditions like diabetes may increase your risk for osteomyelitis.

Who Gets Osteomyelitis?

Only 2 out of every 10,000 people get osteomyelitis. The condition affects children and adults, although in different ways. Certain conditions and behaviors that weaken the immune system increase a person's risk for osteomyelitis, including:

- Diabetes (most cases of osteomyelitis stem from diabetes)
- Sickle cell disease
- HIV or AIDS
- · Rheumatoid arthritis
- Intravenous drug use
- Alcoholism
- Long-term use of steroids
- Hemodialysis
- Poor blood supply
- Recent injury

Visited on 07/30/2019

Bone surgery, including hip and knee replacements, also increase the chance of bone infection.

Osteomyelitis in Children and Adults

In children, osteomyelitis is usually acute. Acute osteomyelitis comes on quickly, is easier to treat, and overall turns out better than chronic osteomyelitis. In children, osteomyelitis usually shows up in arm or leg bones.

In adults, osteomyelitis can be either acute or chronic. People with diabetes, HIV, or peripheral vascular disease are more prone to chronic osteomyelitis, which persists or recurs, despite treatment. Whether chronic or acute, osteomyelitis often affects an adult's pelvis or vertebrae of the spine. It can also occur in the feet, especially in a person with diabetes.

Symptoms of Osteomyelitis

Acute osteomyelitis develops rapidly over a period of seven to 10 days. The symptoms for acute and chronic osteomyelitis are very similar and include:

- · Fever, irritability, fatigue
- Nausea
- Tenderness, redness, and warmth in the area of the infection
- Swelling around the affected bone
- Lost range of motion

Osteomyelitis in the vertebrae makes itself known through severe back pain, especially at night.

Osteomyelitis Treatment

Figuring out if a person has osteomyelitis is the first step in treatment. It's also surprisingly difficult. Doctors rely on X-rays, blood tests, MRI, and bone scans to get a picture of what's going on. A bone biopsy helps determine the type of organism, typically bacteria, causing the infection so the right medication can be prescribed.

Treatment focuses on stopping infection in its tracks and preserving as much function as possible. Most people with osteomyelitis are treated with antibiotics, surgery, or both.

Visited on 07/30/2019

Antibiotics help bring the infection under control and often make it possible to avoid surgery. People with osteomyelitis usually get antibiotics for several weeks through an IV, and then switch to a pill.

More serious or chronic osteomyelitis requires surgery to remove the infected tissue and bone. Osteomyelitis surgery prevents the infection from spreading further or getting so bad that amputation is the only remaining option.

Preventing Osteomyelitis

The best way to prevent osteomyelitis is to keep things clean. If you or your child has a cut, especially a deep cut, wash it completely. Flush out any open wound under running water for five minutes, then bandage it in sterile bandages.

If you have chronic osteomyelitis, make sure your doctor knows about your medical history so you can work together to keep the condition under control. If you have diabetes, pay close attention to your feet and contact your doctor at the first sign of infection.

The sooner you treat osteomyelitis, the better. In cases of acute osteomyelitis, early treatment prevents the condition from becoming a chronic problem that requires ongoing treatment. Besides the pain and inconvenience of repeated infections, getting osteomyelitis under control early provides the best chance for recovery.

WebMD Medical Reference | Reviewed by Jennifer Robinson, MD on May 11, 2019

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