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essential physio

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Facts About Osteoporosis

ESSENTIAL PHYSIOTHERAPY

Osteoporosis is a condition characterized by very low bone mass or density. This is caused by the body either losing too much bone, not making enough or both. Osteoporotic bones become weak and fragile and can break from small forces that would normally be harmless.

In osteoporotic bones, as well as loss of bone density and mass, there may also be abnormal changes to the structure of the bone matrix, which further contributes to the bone weakness.

Osteoporosis is an extremely common bone disease and women are more affected than men. As it is a progressive disorder that worsens with age, while the disease process might begin earlier, the effects are usually only noticed and diagnosed in people who are 50 years and older.

What are the Signs and Symptoms?

Often called a silent disease, many people with osteoporosis will have no idea that they have the disease, as there are no obvious symptoms. In fact, sometimes the first sign that an individual has osteoporosis is when the first bone is broken. Along with fractures, which are the most serious signs of this disease, osteoporosis can cause the upper back to become excessively hunched (itself often a result of spinal wedge fractures) and there maybe widespread pain as bony tissue is increasingly unable to withstand normal forces.

Fractures are a serious problem, especially in the elderly population. Bone breaks due to osteoporosis occur most frequently in the wrist, spine or hip. When the spine is affected by osteoporosis, people may develop a hunched or stooped posture, which can itself lead to respiratory issues and places pressure on the internal organs. Osteoporosis can severely impact a person's mobility and independence, which can have a huge impact on quality of life.

What Causes It?

As this is primarily a metabolic disorder, there are a variety of things that can cause osteoporosis if they either interfere with the body's ability to either produce bone tissue or encourage excessive breakdown. This can be anything from gastrointestinal conditions that prevent absorption of calcium, lack of dietary calcium or low levels vitamin D, which is essential for absorption of calcium.

Certain medications may also cause bone loss especially if they are taken for a long time or in high doses. A good example is the long-term use of steroids. Although steroids are used to treat various conditions, it has been proven that steroids can cause bone loss and eventually, osteoporosis.

As bones respond to force and weight bearing by building more bone, having a sedentary lifestyle or doing activities with low impact can also lead to osteoporosis and this has been shown be an issue amongst professional swimmers and cyclists.

How Can Physiotherapy Help?

Physiotherapy can help you to improve your overall bone health, avoid or recover from fractures. Physiotherapy exercises can direct you to safely increase your weight bearing, which can help build bone mass. Balance training is also an important factor as this can reduce the risk of falls. Your physiotherapist can also educate you on how to adjust your lifestyle, at home or at work, to protect your bones and improve your posture.

Normal Bone Matrix

Osteoporosis

Brain Teasers

1. How many of each animal did Moses take on the ark?

2. Mary is 13 years old, her father is 40 years old. How many years ago was it that Mary's father was exactly four times older than she was?

3. The town clock takes 6 seconds to strike 4. How long does it take to strike 12?

4. Which of the seven dwarfs never speaks?

PhysioTip

Your physiotherapy exercise program is designed to help you get as much out of treatment as possible.

If you're having trouble completing the program, ask your physio for tips on how to fit the exercises into your day.

Focus On…

Achilles Tendon Tears

What is it?

The Achilles tendon is a band of fibrous tissue located at the back of the ankle. Its main role is to connect the calf muscles to the heel of the foot. This tendon is the largest tendon in the body and when it tightens, as the calf muscles contract, it pulls the heel allowing you to stand on tiptoe or to point your foot.

Achilles tendon tears commonly occur in athletes, however, this injury can affect anyone and surprisingly, a complete tear is actually more common than a partial tear.

These tears are commonly located at the part of the tendon where there is poor blood flow approximately 6cm above its attachment to the heel. Since there is poor blood supply, this part of the tendon is both vulnerable to injury and slow to heal.

What are the Symptoms?

Primarily, an Achilles tendon tear will cause difficulty in activities such as walking, running and jumping. Other signs and symptoms of an Achilles tendon tear include:

- A loud pop or snap is heard
- Sudden and severe pain at the back of the calf or ankle
- Feeling of having been kicked in the calf
- There is a gap between the tendon and the heel (about 2 inches above the heel)
- Swelling and stiffness followed by weakness and bruising
- Difficulty walking particularly during push off
- Standing on tiptoe may be impossible

What Causes It?

Anyone can tear their Achilles tendon if the tendon is subject to excessive force or overstretching, however there are some factors that can increase your risk of injury. The most common activities that cause this injury are running and jumping.

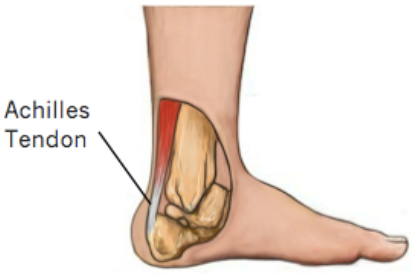
The Achilles tendon can thin and weaken both as we age and also if it is not used. As a result of this weakening, it becomes prone to injury like tear or rupture with less force or stretching required before an injury occurs. A tear of the Achilles is often observed in people with pre-existing Achilles tendinitis. Other factors such as certain medications including antibiotics and steroids and some illnesses like diabetes and arthritis can also result in weakness of the tendon, increasing injury risk. Being obese is also a risk factor as excess weight puts additional strain on the tendon.

How Can Physiotherapy Help?

Treatment for Achilles tendon tear will depend on the patient's age, how severe the injury is and the patient's activity level. For young people especially athletes, they opt to have surgery while older people choose conservative treatments including physiotherapy.

Physiotherapy treatment for an Achilles tendon tear will involve exercises to strengthen the calf muscles and the Achilles tendon and exercises for stability. Many people are able to return to their normal activities within 4 to 6 months. Functional rehabilitation is also part of the program as it focuses on how you coordinate your body and how to move it. The aim of functional rehabilitation is to help you return to your highest level of performance.

None of the information in this newsletter is a replacement for proper medical advice. Always see a medical professional for advice on your individual injury.



Answers: 1. It was Noah, not Moses 2. 4 years ago 3. 22 seconds 4. Dopey

Mixed Berry Smoothie Bowl

Ingredients:

1 cup frozen mixed berries
1 small banana
2-3 Tbsp. coconut or almond milk

Toppings:

1 Tbsp. shredded Coconut
2 fresh Strawberries, sliced
1 Tbsp. Pumpkin seeds
1 Tbsp. crushed Almonds
1 Tbsp. Pine Nuts

1. Place frozen berries and the banana in a blender and blend on low for 30 seconds.
2. Add coconut/almond milk and continue to blend until the mixture is a smooth and creamy consistency.
3. Divide the mixture into two breakfast bowls and cover with toppings. You can use the ones listed above or get creative.

Serves two for a healthy breakfast

Did You Know?

Your eyes remain the same size from birth, but your nose and ears never stop growing!