



MOKE LAKE - NEW ZEALAND



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What to Expect With Injury Healing

When injury strikes, the first thing that most of us want to know is 'how long will this take to heal?' Unfortunately, the answer to this can be complicated and requires at least a little understanding of how the different tissues of the body heal. Each of the tissues of the body, including muscles, tendons, ligaments and bone, heal at different speeds and each individual will have some variation on those times as a result of their individual health history and circumstances.

Understanding the type of tissue injured and their different healing times is an important part of how your physiotherapist approaches treatment and setting goals for rehabilitation. On an individual level, a patient's age, the location and severity of the injury and the way the injury was managed in the first 48 hours all affect the healing times of an injury. Unfortunately, as we age, injuries do tend to heal more slowly than when we are young. Any medical condition that reduces blood flow to an area, such as peripheral vascular disease, can also reduce the body's ability to heal at its usual rate.

There are some guidelines that can be followed when predicting how long an injury will take to heal based on the tissue type affected. Muscles are full of small capillaries, giving them a rich blood supply, and as such, they have a comparatively fast healing time with 2-4 weeks for minor tears. This time will be extended for larger tears and more complicated presentations.

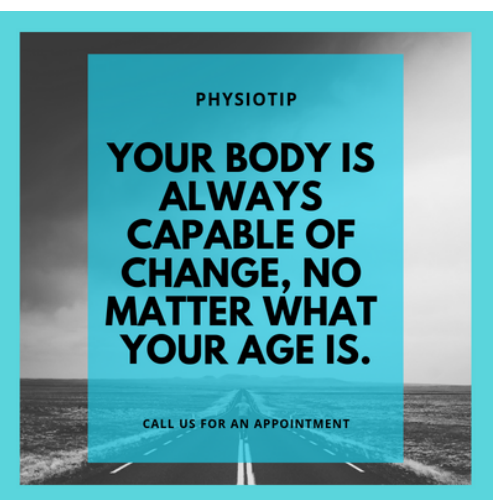
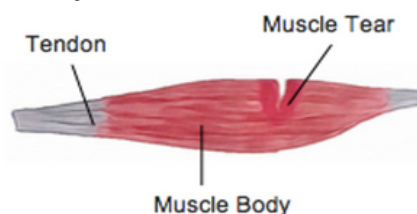
Ligaments and tendons have less access to blood supply and injury to these tissues generally take longer to heal. Larger or complete tears of all soft tissues, may not be able to heal themselves and in rare cases, surgery may be required for complete healing to occur. Similarly, cartilage, the flexible

connective tissue that lines the surface of joints is avascular, which means it has little or no blood supply. To heal, nutrients are supplied to the cartilage from the joint fluid that surrounds and lubricates the joint. While the different tissues of the body all have different healing times, they do follow a similar process of healing with three main stages, the acute inflammatory phase, the proliferative stage and finally the remodelling stage.

The inflammatory stage occurs immediately after an injury and is the body's primary defence against injury. This stage is identifiable by heat, redness, swelling and pain around the injured area. During this phase, the body sends white blood cells to remove damaged tissue and reduce any further damage. This stage usually lasts for 3-5 days. The proliferation stage is the phase where the body starts to produce new cells. Swelling and pain subside and scar tissue is formed that eventually becomes new tissue. This stage usually occurs around days 7-14 following an injury.

The final stage, known as the remodelling stage is when the body completes healing with the reorganisation of scar tissue and the laying down of mature tissue. This stage usually occurs roughly two weeks after the initial injury is sustained.

At each stage of the healing process, a different treatment approach is required and your physiotherapist can help to guide you through your recovery.



Brain Teasers

- There are three houses. One is red, one is blue, and one is white. If the red house is to the left of the house in the middle, and the blue house is to the right to the house in the middle, where is the white house?
- In a year, there are 12 months. Seven months have 31 days. How many months have 28 days.

Hamstring Tears



Small hamstring tears can feel like a 'tightness' or an ache at the back of the thigh, rather than a sharp pain.

Wrist Sprains

What is it?

Wrist sprains are a general term used to describe any injury to the wrist that doesn't include a fracture. While this can indicate that they are not serious injuries, wrist sprains can be complicated injuries that require supervision and treatment to recover fully.

The wrist refers to the area where the bones of the forearm, the radius and ulna, meet and join the bones of the hand. The wrist is able to twist on itself and allows the hand to move to face palm up (supination) or palm down (pronation). The hand is also able to move up and down (flexion/extension) and side to side (abduction/adduction). To allow such complicated movements, the joint surfaces of the wrist are held together by a series of ligaments. When a wrist is sprained, it is usually these ligaments that have been damaged.

What are the symptoms?

The primary symptom of a sprained wrist is pain with movement of the

joint or when taking load, such as when holding a heavy object.

Ligament injuries are given a grading scale to indicate their severity, which can help to guide treatment. Grade I tears refers to a stretching or laxity of the ligament fibers and injuries of this grade usually heal with rest within 2-3 weeks. A grade II classification signifies that there has been a partial tear of the ligament fibers and will often need more time and treatment for recovery. Grade III tears refer to a full thickness rupture of a ligament and may require splinting or even surgery.

The most common cause of a wrist sprain is a fall onto an outstretched hand. Ligament injuries can also happen gradually through over use, although this is less common.

What is the treatment?

Your physiotherapist is able to help diagnosis a wrist sprain and can help to rule out a fracture. An X-ray might be required and your physiotherapist will perform special tests to help identify exactly which structure has been injured, giving the injury a grade, to help guide treatment.

How can physio help?

The key to effective recovery for a wrist sprain is often in ensuring that the right treatment protocols are in place for your injury. Grade I sprains will recover best with gentle exercises and early strengthening while Grade II to III injuries may require splinting or even a surgical consult for repair.

If surgery is the right course for you, your physiotherapist is able to guide you through this treatment pathway, helping you to prepare and recover from surgery to get the best outcome possible.

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. Washington DC 2. All of them do!

Basil, Lemon and Black Pepper Pesto

Ingredients:

2 cups fresh basil leaves
1/2 cup grated Parmesan cheese
1/2 cup pine nuts
2 cloves garlic
Zest of 1 lemon
Juice of 1 lemon
1 teaspoon black pepper, freshly ground
1/2 teaspoon salt
1/2 cup extra-virgin olive oil



1. Pan fry pine nuts on medium heat on a medium-sized pan for 2-3 minutes until slightly browned.
2. Crush the garlic in a pestle and mortar with a pinch of salt. Add the basil leaves and pine nuts and pound to a coarse paste.
3. Muddle the extra virgin olive oil, lemon juice and zest and stir in the parmesan, adding a splash of water if you like it a little runnier, then continue the bashing and pounding until smooth.
4. Season with salt and pepper, if needed. Serve with grilled meat or fish, or fish, or simply stirred through pasta.

Garnish with fresh basil and parmesan.



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