

# When Will My Injury Heal?

ESSENTIAL PHYSIOTHERAPY

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 tears 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.

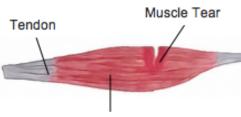
While the different tissues of the body all have different healing times, they do follow a similar process of healing with three main stages, the acute inflammatory phase, the proliferative stage and finally the remodeling stage.

The inflammatory stage occurs immediately after an injury and is the body's primary defense 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 subsides 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 remodeling stage is when the body completes healing with the reorganization 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. Ask your physiotherapist to explain how your injury can be managed best and what to expect in your recovery process.



#### Muscle Body



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### Did You Know?

Your right lung is able to hold more air than the left lung.



## **Brain Teasers**

1. You have 8 identical looking balls, seven of them weigh the same but one is slightly heavier than the others.

You have a balance, but you can only use it twice. How can you figure out which ball is the odd one out?

2. If two men take each other's mothers in marriage, what would be the relationship between their sons?

## PhysioTip

Don't be afraid to ask your physio more questions. One of the most important factors in recovering from an injury or chronic pain is to understand your condition and feel that you have an element of control over your own health. Focus On...

### Rotator **Cuff Tears** What Is It?

The rotator cuff is a group of four small muscles that surround the shoulder joint. Their tendons attach to the humerus, close to the joint line and act as a cuff that provides support and control to the shoulder. They also play a primary role in creating rotational movements of the shoulder.

Rotator cuff tears are common injuries and can occur in any of the four muscles, usually at their weakest point, which is the junction between the muscle and tendinous tissue. These tears are common in racket and throwing sports and are one of the leading causes of shoulder pain. The prevalence of rotator cuff tears increases as we age due to age related degenerative changes in the tissues.

#### What are the symptoms?

Many people have rotator cuff tears with no symptoms at all, and are unaware of the injury. However, for others, these tears can be very painful and lead to difficulty moving the shoulder, particularly with overhead activities. They may find their range of movement is restricted and the arm feels weak. They often experience pain that radiates down to the arm and pain at night, which can cause sleep disturbances.

It is interesting to note that the size of a tear is not necessarily related to the amount of pain and dysfunction experienced, with small tears sometimes creating large problems and large tears going unnoticed.

#### What are the causes?

Movements that create a rapid twisting motion or overstretching of the shoulder often cause rotator cuff tears. The most common mechanism of injury is a fall onto an outstretched hand. These tears can be acute or chronic, developing over a period of time or related to degenerative changes, where tendon tissue is damaged by everyday activities due to reduced strength and elasticity.

Other causes of rotator cuff tears include overuse, lifting or carrying heavy objects and repetitive overhead activities. Poor biomechanics can cause weakening of the shoulder's tendons with insufficient blood supply to the rotator cuff over a long period of time. This can leave the tendon more susceptible to injury as is a significant contributing factor to the development of tears and the outcomes of recovery.

#### How can physiotherapy help?

The primary objectives of physiotherapy treatment are to reduce pain, increase range of motion and strength and improve shoulder function. Your physiotherapist will work with you to help set goals assist to reach them with a targeted rehabilitation

program, manual therapy and education on how to achieve the most from your recovery.

While severe tears are often repaired surgically, research is increasingly showing that even in severe tears, a comprehensive rehabilitation program under a physiotherapist leads to similar outcomes to surgery. For this reason, a conservative approach guided by a physiotherapist is often recommended to patients as the first option for treatment. The exact time frame of treatment and recovery will vary from person to person and is affected by a variety of factors including if surgical repair was chosen, the severity of the injury and function prior to injury.

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. First weigh three on each side. If both sides are equal the heavier ball will be in the two left over and you can find it on the second round. If not, it will be in the heavier group of three. Weigh any two of these three to work it out. 2. They are both uncle and nephew to each other.

### Roasted Dates With Almond & Ricotta

#### Ingredients:

1/2 cup of Ricotta Cheese 4 Tbsp. of Almond Nuts, crushed 20 Medjool Dates 1 Tbsp. Extra Virgin Olive Oil 1 Tbsp. Balsamic Vinegar Glaze Sea Salt to taste



- 1. Preheat your oven to 180 degrees Celsius or 350 degrees Fahrenheit. In the meantime, heat a medium sized frying pan to medium heat and add crushed almonds.
- 2. Stir almonds frequently, until warm and toasted, removing them from heat as they begin to brown. In a small bowl, mix the ricotta cheese and half of the toasted almonds. Stir gently until they are thoroughly combined.
- 3. Use a small knife to carefully remove the seed from the dates (if using seeded dates), making space for the ricotta mixture. Spoon 1/4 teaspoon of the ricotta mixture into each date and place on a foil-lined baking sheet. Place dates on the sheet, ensuring they are not touching each other and drizzle with olive oil. Sprinkle the remaining almonds on top along with a small amount of sea salt.
- 4. Roast dates for 15-20 minutes until ricotta is melted. Remove from oven and immediately drizzle balsamic glaze.



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