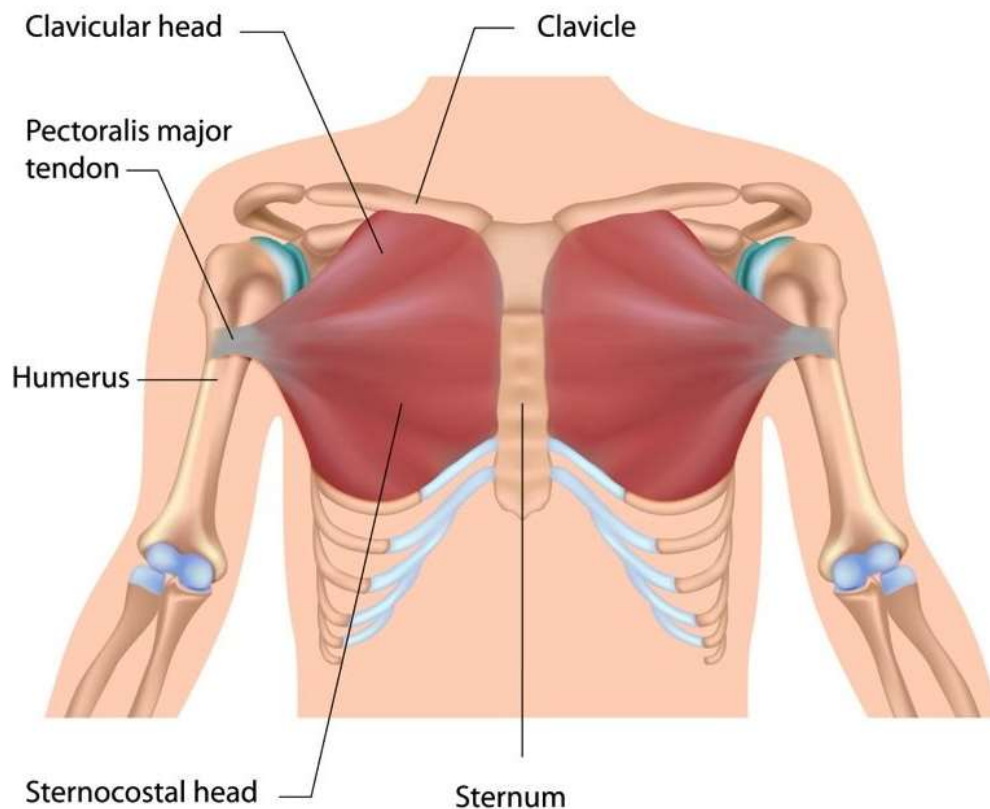


Pectoralis Major Tendon Rupture

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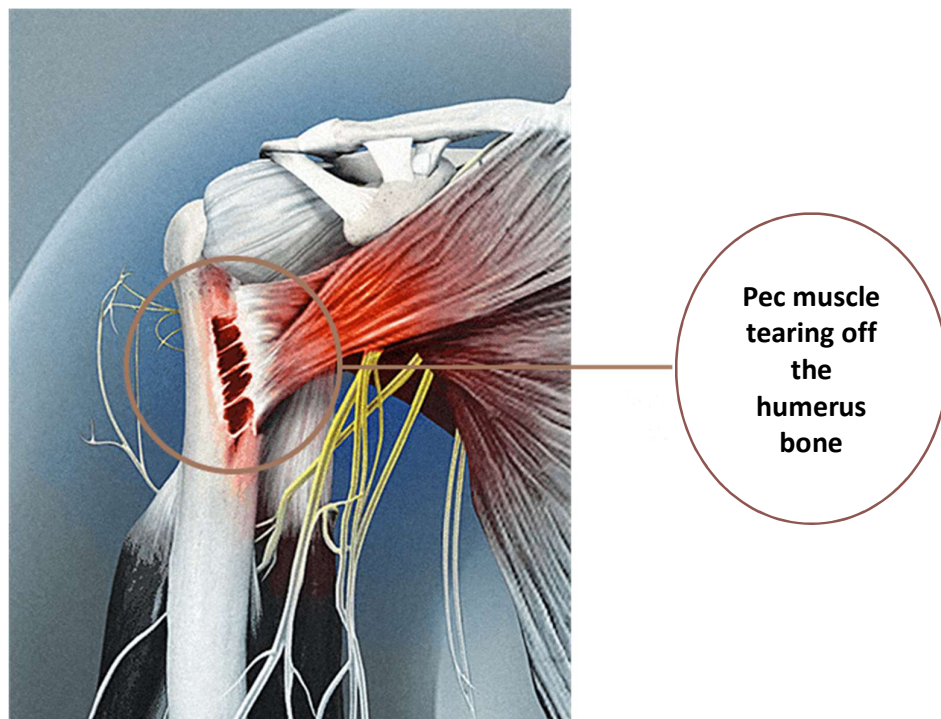


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Anatomy/Description

The pectoralis major is the muscle that expands symmetrically across the chest from the sternal midline to the humerus (the upper arm bone). It is connected to the humerus by the pectoralis major tendon. The pec muscle provides power, and together with the deltoid muscle they facilitate movement of the arm. The upper part of the pec muscle is known as the 'clavicular head' and the lower part the 'sternal head'.

A rupture of the pectoralis muscle refers to the tendon tearing completely off the bone. The injury displays itself by a noticeable change in the contour of the chest; the chest becomes enlarged and significant bruising appears across the upper arm.



What Causes a Pec Major Rupture?

A rupture in the pectoralis major is generally the result of injury or trauma. More commonly from weight training, the bench press exercise in particular puts heavy stress on the muscle and can cause the muscle to tear away from the bone and 'bunch up'. A painful snap at the front of the shoulder and chest can be felt. It can also occur as a result of a high speed tackle or significant fall. People who take anabolic steroids are at a higher risk of experiencing this injury as the steroids can weaken the attachment of the muscle into the bone. This attachment point is the most common site of rupture, however a rupture can also occur through the muscle tendon interface, otherwise known as the musculotendinous junction.

Types of Ruptures

There are a few ways the Pec Major muscle can rupture;

- Tendon rupture off the humerus (most common)
- Tear where the muscle and tendon meet
- Tear within the muscle itself (usually irreparable)
- Tear off the sternum (very rare)

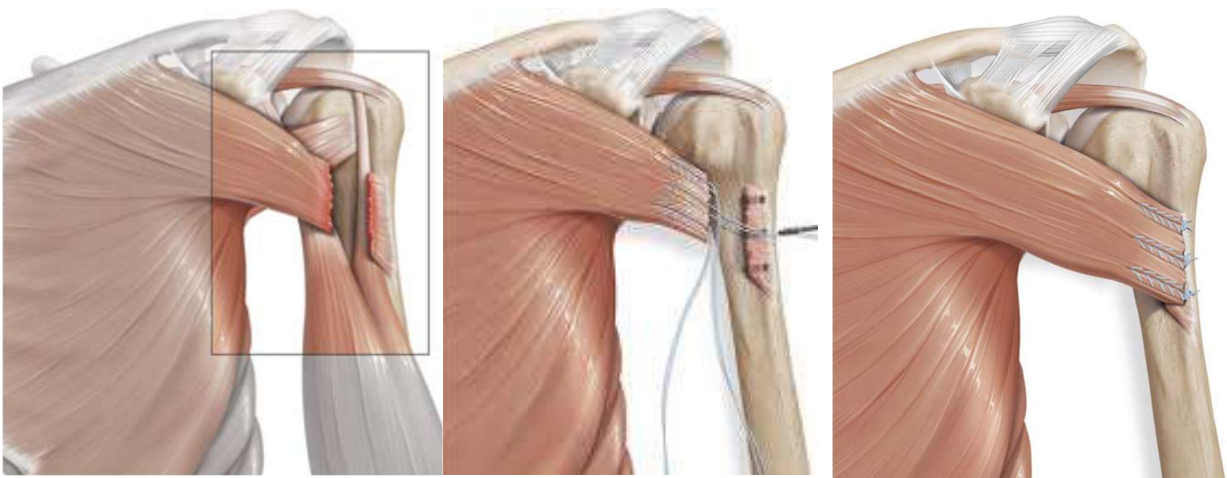
Symptoms

- Weakness and discomfort
- Pain
- Deformity in chest structure
- Bruising and swelling
- Immobility in severe tears.

Treatment

It is generally recommended to surgically repair these ruptures as they tend to cause significant weakness in the long term if left unrepaired. Non-surgical management may be considered in the lower demand, elderly individuals with other health problems. If surgical intervention is considered, the **surgery should be conducted within 3 weeks of the injury**, otherwise the tendon will start to retract, scar down and degenerate as the body starts to break down the tendon. The risks of the surgery will then start to outweigh the potential benefits.

Dr Dao performs a pec major repair by making a small incision approximately 5-8cms long across the anterior axillary fold (just above the armpit towards the shoulder). Dr Dao then uses special instruments to retract the tissue and muscle away from the injured site. The tendon is then repaired by reattaching it to the humeral bone with anchors that contain special sutures and buttons. The wound will be closed with skin stitches and small adhesive dressings. An ice pack can be applied in recovery to help defuse swelling and ease pain. Your arm will be placed in a shoulder immobilizer sling.



Recovery and Follow Up After Surgery

After your procedure you will be in a sling for approximately 6 weeks. Dr Dao will see you 2 weeks after your procedure to remove your stitches and assess your wound, he will then advise you of a gentle exercise routine. You should not lift anything more than a cup of water with the affected arm. After 6 weeks you will be seen again by Dr Dao and he will assess your progress. You can start to come out of the sling at that stage and start some gentle physiotherapy. It takes 3 months for the tendon to heal adequately before strengthening exercises can commence. It can take up to 6 months to be fully recovered and during this time it is important to be careful with your shoulder and avoid heavy lifting, overhead activity and all sports. You will have physiotherapy to help you regain muscle strength gradually. After 6 months most people are able to return to normal daily activities.

Frequently Asked Questions

Q: Will the rupture heal by itself?

A. No, the tear in the muscle will not likely heal by itself, the sooner it is repaired the better the outcome. The outcome is much worse if more than 3 weeks elapses between injury and repair.

Q: Will I need surgery to repair the rupture?

A. Yes in most cases where the muscle has torn off the humeral bone surgical intervention is required.

Q. Is there any risks associated with the surgery?

A. All surgery has risks. Dr. Dao will discuss this with you, including anaesthetic risks, the risk of wound infection or deeper infection which may require further surgery, slow healing, bleeding, post-op stiffness and re-rupture of the tendon if the rehab protocol is not adhered to. There is also a risk of the damage to nerves and blood vessels close to the surgical area.

Q. Will the pain and discomfort in my pec muscle resolve?

A. Yes the pain and discomfort will resolve, however it can take up to 6 months for a full recovery.

Q. What do I do if there is severe pain, discharge, increased swelling, worsening flexibility or urgent concerns regarding the surgery?

A. During business hours, please contact the rooms on 8078 0633 or outside business hours please attend your local emergency department.