PHYSIO ROOM

INJURIES

MOUNTAIN BIKING

GUIDE
Mountain biking injuries have increased with the rise in popularity of the sport. Competitive mountain biking involves off road riding over tracks with variable surface conditions. The high speeds achieved during downhill sections can lead to falls and serious injury.

There are several published reports of serious head injury as a result of falls, which makes a helmet essential.

Thankfully, most mountain biking injuries are not serious, the majority of falls result in relatively minor cuts and grazes. Abrasions on the outside of the knees, hips and elbows are common when a rider falls, especially on a hard surface.

The majority of mountain biking injuries occur during downhill riding, with the shoulder region, upper arm and wrist most often injured. A broken collar bone and acromioclavicular joint sprain (shoulder separation) are two frequent mountain biking injuries.

Not all mountain biking injuries are traumatic. Overuse injuries can occur due to the repetitive nature of cycling.

If the bike set up is incorrect for the rider, then it is quite easy to suffer from back and knee pain. Some research suggests that 25% of cyclists suffer from knee pain that comes on due to overuse on a bike that is not set up properly.

This PhysioRoom.com guide is intended to inform you of the common mountain biking injuries and how you can best avoid them. We’ll also recommend some suitable products along the way.…

**Things to remember when buying a brace or support:**

- **What type do I need?** Mountain Biking appropriate braces come in different shapes and sizes, but can usually be categorised in to four types, sleeves, supports, stabilisers and hinges. Sleeves easily slip over the leg or arm, while supports are adjustable and usually wrap around the knee. Stabilisers offer advanced support by featuring steel springs either side of the joint. While hinged braces allow the joint to move in a natural motion while offering the most support.

- **What style do I want?** There are two standard styles of braces, the slip-on or the wraparound. Slip-ons are used by putting your limb through the brace and pulling up the hand/leg. While wraparound braces, of course, wrap around and can usually be adjusted by straps made of such material as Velcro.

- **What size do I need?** This all depends on which brace or support you choose. Typically, each will feature a size guide, but may require some DIY measuring for products such as knee braces. If you are between sizes, it’s often recommended you go for the larger size, but this may vary from product to product.
What are they?

Cuts and Grazes are damage to the skin and superficial soft tissues and are the most common injuries to occur following a fall from a mountain bike.

A cut or ‘laceration’ is a penetrating tear in the skin. A shallow cut will usually heal quickly without any problems, while deeper cuts may cause more serious damage to nerve tissue or larger blood vessels, which would mean that they require hospital treatment.

A graze or ‘abrasion’ occurs when the skin is scraped off. Usually this only affects a small area and the wound heals very quickly. However, large grazes that penetrate beyond the skin layers can be serious injuries, requiring input from a doctor.

How can you prevent them?

Staying on your bike and avoiding falls is the surest method of steering clear of cuts and grazes. Always maintain a balanced posture with your weight shifted back and look out for tree stumps and rocks that could cause a fall.

Wearing protective padding over the elbows, hips and knees can help to reduce the extent of any cuts and grazes. Elbow pads, neoprene knee supports and padded shorts can be all provide protection to prevent cuts and grazes, even if there is a fall.

Treatment

Always carry a first aid kit. Any profuse bleeding, loss of sensation, or signs of infection (pain, redness, swelling) should be checked out by a doctor. If bleeding is controlled and there are no complications, then most cuts and grazes can be treated at home. The wound should be cleaned thoroughly then dressed with a sterile dressing.

For some padded shorts, check out the below product…

• The PhysioRoom.com core stability shorts feature an innovative cross design elastic support system and have been specifically designed for the treatment and prevention of sports hernia, Gilmore’s Groin, Pubalgia, Osteitis Pubis, hamstring injuries and groin and thigh injuries. They are also great for protecting from cuts and bruises.

• The coreshorts reduce muscle vibration and provide compression to help provide physical support to the groin and pelvis.

• The lightweight, four-way stretch material improves movement and ensures that moisture is quickly wicked away from the skin, while the breathable material allows ventilation to evaporate any moisture. By providing functional support to the core anatomy the revolutionary coreshorts with cross design not only provide protection but will enhance your muscle performance to increase your efficiency as well as aiding in the recovery.
**BROKEN COLLAR BONE**

**What is it?**

The collar bone or Clavicle is one of the most frequently broken bones in the body. A broken collar bone (broken Clavicle) is a very common shoulder injury in mountain bikers. A broken collar bone usually occurs during a downhill section if the rider falls onto an outstretched hand. The force transmitted up the arm is often enough to cause this painful shoulder fracture.

**How can you prevent it?**

Try not to fall! If the front wheel comes to an abrupt halt the rider typically goes over the handlebars - this is known as an ‘Endo’. Be aware that this is more likely to happen on a descent, because you’ll be moving faster and you’re tilted forward.

Look out for rocks and tree stumps as these are the obstacles that will cause a sudden stop. Also make sure that your pedals are level with weight distributed evenly between left and right pedal, because if you’re unbalanced then you’re more likely to go over the handlebars.

**Treatment**

Apply ice packs (never apply ice directly to the skin) to the shoulder for pain relief. Pain killing drugs prescribed by a doctor can provide relief for the intense shoulder pain. Any suspected fractures should be assessed and treated at hospital. A figure of 8 shoulder support and sling can immobilise the shoulder and provide pain relief.

Once the treating doctor is satisfied that the collar bone is sufficiently healed then shoulder range of movement exercises can be progressed to gradually increase shoulder movement. These exercises may be a little uncomfortable, but with some encouragement from a Physiotherapist this discomfort should quickly resolve as normal movement returns. Shoulder strengthening should then begin using resistance bands to regain full function.

For a sling option, check out the below product...

- The **PhysioRoom.com** Arm and Shoulder Sling is a shoulder sling that features comfortable straps and is designed for use following shoulder injuries and shoulder surgery.

- Made from non-woven material, this shoulder sling has an adjustable webbing shoulder strap, which can immobilise the shoulder joint in the most comfortable position for healing. The sling features a neck pad for extra patient comfort and Velcro closures for greater stability. Keeping the shoulder still and supported relieves shoulder pain and encourages healing following shoulder surgery or shoulder injuries.

- This sling is folded and arranged with the strap at the back and velcro’d through the two links at the front. The Velcro can be taken apart allowing you to buckle it through either the front links or the back depending on the type of injury. The sling is suitable for both the left or right arm.
ACRIMO CLAVICULAR (AC) JOINT SPRAIN

What is it?

The Acromio Clavicular joint (AC joint) is part of the shoulder complex. It is situated at the outer side of the collar bone where it is attached to the front of the shoulder blade with strong ligaments.

An AC joint sprain (shoulder separation) refers to damage to these ligaments. The AC joint ligaments are most commonly damaged through a fall onto either the tip of the shoulder or a fall onto an outstretched hand.

How can you prevent it?

Similar to a broken collar bone - try to make sure you don’t fall! Avoiding an ‘Endo’ is very important, especially during fast descents. If your front wheel comes to an abrupt halt then you’re likely to go flying over the handlebars.

Treatment

Apply ice packs (never apply ice directly to the skin) to the shoulder for pain relief. Pain killing drugs prescribed by a doctor can provide relief for the intense shoulder pain.

A shoulder brace will push the collar bone downwards and provide the support of a sling. When returning to activity the shoulder stabiliser will provide support and protection that can help to prevent re-injury.

For a shoulder support/brace, check out the below product...

• This PhysioRoom.com Shoulder Support Strap is a custom fit shoulder strap that helps injuries such as bursitis, myositis and tendonitis. It can be worn by either men or women over long periods without causing irritation or cutting in to the skin. Fitting either shoulder, it offers a combination of compression and heat therapy to the affected area.

• You can use this brace to improve the healing process of the shoulder joint from conditions like torn muscles or ligaments, rotator cuff injuries or impingement syndrome.

• By retaining heat, this support helps ease shoulder pain while reducing stiffness in the muscles. It is designed to apply pressure where it is most needed, to the deltoid and rotator, which is around the ‘ball’ of the shoulder.
KNEE PAIN

What is it?

It may sound strange but Runner’s Knee is the most common knee injury in cyclists. Runner’s Knee is the common term for Ilio Tibial Band Friction Syndrome (ITBFS). Runner’s Knee is a painful overuse knee injury that affects the outer part of the knee. It is fairly common in cyclists due to the repetitive nature of cycling.

During cycling, where there is repeated bending and straightening of the knee joint, the IlioTibial Band can ‘impinge’ upon the prominent outside of the knee and the resultant friction can lead to inflammation of the tissues.

How can you prevent it?

The most important consideration to prevent knee injury during cycling is the set-up of the bike. The frame should be the correct size, with 1” to 2” of clearance between the crotch and top tube of the frame. In mountain bikes, this is not normally an issue as the top tube is lower. If the saddle is too high or too low then the stresses on the knee can lead to injury. The knee shouldn’t be over extended when the pedal reaches the bottom of its revolution. Another bad habit is to point your toes inwards when cycling as it increases the risk of developing IlioTibial Band Friction Syndrome.

Treatment

Physiotherapy treatment is effective for most cases of IlioTibial Band Friction Syndrome. It aims to reduce the amount of inflammation using ice therapy (never apply ice directly to the skin) and can be assisted by anti-inflammatory medication prescribed by a doctor. Anti-Inflammatory gel may be more appropriate where anti-inflammatory tablets are not well tolerated. For those who want to continue to cycle a knee strap can relieve symptoms and provide support.

For a knee strap option, check out the product below...

- The PhysioRoom.com Elite Jumpers Knee Patella Strap is a high quality adjustable knee strap that has been designed to help provide relief from the symptoms of patella tendonitis (jumpers knee), osgood schlatters disease and runners knee. The patella strap provides adjustable and comfortable compression, while the hook and loop closures adjust for an easy, custom fit.

  - The patella strap is also ideal for using during the recovery process following a knee injury and helps to reduce inflammation of the knee joint caused by incorrect patella alignment.

  - Featuring Coolmax fabric lining the patella strap keeps you cool and ensures of total comfort, while the gel pad provides patella compression. The patella strap is comfortable to wear and is easily adjustable with the Velcro strap, which applies pressure to the patella tendon. Reducing the width of the patella tendon with the pressure that is applied by the patella strap prevents maximum force being transmitted through the tendon.
LOW BACK PAIN

What is it?

Repeated overuse and prolonged bending during cycling can lead to low back pain. A flexed posture while on the bike can lead to degeneration of the outer layer of the disc, which allows the gel-like centre of the disc to prolapse out. This is known as a Herniated Disc. This presses against structures in the back and can cause back pain and even pain down the back of the legs, which is known as Sciatica.

How can you prevent it?

It’s important that the bike is comfortable, with a correct set up. If the frame is too big then over reaching for the handlebars can lead to low back pain. Being hunched up on a frame that is too small can also lead to lower back pain.

Research has shown that specific back exercises, known as core strength and stability exercises, can help to prevent low back pain. More advanced core strength exercises using Swiss Balls can then be used to relieve and prevent back pain.

Treatment

Pain-relieving medication prescribed by a doctor and heat packs are usually necessary during the first few days with low back pain. Research has shown that patients with low back pain should remain as active as they possibly can, so long as their symptoms are not aggravated. A back brace can be helpful to improve posture and relieve pain by preventing aggravating movements.

For a support option, check out the below product...

• The PhysioRoom.com Neoprene Back Support is a back support with enclosed magnets for the treatment and prevention of sciatica and back pain.

• It provides support and light compression to the lower back region, which reduces pressure on the discs in the lower back - this can reduce the symptoms of sciatica. There are 10 strip sections that each have 5 button like magnets.

• The combination of neoprene material and magnets used in the support provides therapeutic heat and improves circulation, which relieves muscle spasms in the back and breaks the cycle of back pain.
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