

THE BONE DOCTOR



Cyclists know that protecting their hands and wrists are very important. Your hands keep you going in the right direction. **DR MIKE MULDER** sheds some more light.

HAND AND WRIST INJURIES

"OBVIOUSLY IF YOU HAVE BLOOD POURING OR FINGERS

OFF AT A WEIRD ANGLE, THEN IT IS BEST TO GET IT SEEN

TO AT THE NEAREST EMERGENCY UNIT."

Much time, thought and research is devoted to tyres and their tread patterns, particularly in the uncompromising arena of DH and Enduro mountain biking. They are the contact surface with the terrain and are responsible for grip. The same is true for your hands; they are a key contact point with your rig and it is essential that they maintain their grip, regardless of the terrain.

THE ULTIMATE SUSPENSION DESIGN

Due to the number and complexity of the joints in your hand and wrist, it manages a wide range of, often conflicting, mechanical demands. Your hand is capable of fine, dexterous tasks like putting a contact lens into your eye and controlling your bike as you navigate a drop-off or rock garden at speed. In engineering terms, it is like having one bike which could behave like a Santa Cruz V10 one minute and a short travel, rigid hard tail the next.

Motion is controlled by a combination of small muscles based in the hand and by the larger forearm muscles which exert their effect via strong

tendons. In addition there are nerves which provide sensation and co-ordination to the hand.

It is a testament to the co-ordination and durability of this piece of advanced engineering that we so seldom see problems or injuries of the hand.

NUMB FINGERS

The nerves supplying sensation to your fingers and thumb lie on the palm side of your hand, their blood supply is vulnerable with extended periods of leaning on your hands. This produces the characteristic pins and needles, tingling and sometimes complete numbness. Roadies can alleviate the pressure by changing position, but since the bar ends have become a fashion taboo in mountain biking, the single grip position places us at risk.

Attention to set-up, riding position and grip choice should keep the problem at a minimum, but if the problem of altered hand and finger sensation persists off the bike then rather get it checked out for problems like carpal or

frequency is due to people putting their hands out when they fall. There is a spectrum of severity and treatment options; if the bones are in an acceptable alignment they can be left to heal in a cast and/or splint. Where greater displacement occurs, surgery is required to reset the bone position and it is most commonly held with a plate and screws.

Although the bone may heal in six to eight weeks, the recovery of range of motion, strength and flexibility required for mountain biking may take many months to return. Unfortunately this means your bike may gather dust while you complete the required rehabilitation.

PUZZLE PIECES

The eight small carpal bones of the hands fit together like pieces of a puzzle and are held by a network of strong

ligaments. Injuries to these little buggers can cause untold misery and frustration and are best managed by a specialist.

One of these carpal bones, the scaphoid, is at risk from a fall where you put your hand out. Because of its poor blood supply and potential for serious complications, it demands respect from treating surgeons. If you are unlucky and suffer a fracture of it, you will likely be prescribed a cycling sabbatical. Take heed and stay out of trouble.

FINGERS

Fingers and knuckles are frequently injured and it can be hard to know what is serious and what can be treated with a combination of frozen peas and a cup of cement. Obviously if you have blood pouring or fingers off at a weird angle, then it is best to get it seen to at the nearest emergency unit. But if you have had a bump, bruise, sprain or small cut then start with R.I.C.E (Rest, Ice, Compression and Elevation). Often the swelling and stiffness is worse the following day and so persist with the ice, but get it moving. Fingers need to move to avoid becoming seriously stiff. If the pain prevents you from moving, you need to see someone who can identify the cause. Splinting your finger straight with an ice cream stick is a recipe for disaster, rather "buddy strap" the injured digit to its neighbour as a dynamic splint. If the pain, stiffness and swelling persist for longer than five days, see someone who can identify and treat the cause.

In most cases the treatment will involve a combination of physio- and occupational therapy. They will use a combination of custom made splints, and manual therapy to restore motion safely. This is especially important if you have required surgery to remedy a fracture or torn ligament. Stick with therapists who have experience in treating hand injuries and know that they will be your best friend and worst enemy. Comprehensive rehab is essential to achieve recovery.

The complexity of the hand makes it an impressive structure, and you require its flexibility to ride. Don't ignore injuries that could keep you out of the saddle. **fs**



cubital tunnel. It is common for the sensation to take weeks to normalize after ultra-endurance events like 36One or The Munga. Be patient.

WRIST FRACTURES

Fractures of the wrist are the commonest treated by orthopaedic surgeons, the

Dr Mike Mulder is an orthopaedic surgeon specialising in the treatment of shoulder, elbow and hand disorders and injuries. He is based at Constantiaberg Mediclinic, and is a member of The Cape Shoulder and Elbow Unit. He has a wealth of experience in fixing injured cyclists and is an avid mountain biker. He rides as often as his wife and family let him.

