NON TRAUMATIC CYCLE RELATED INJURIES

Specifics

**Cervical spine** (neck) Pain is often caused by the extended position the neck is held in. This can lead to major muscle imbalance affecting the neck. Also this position can be made worse if your lower cervical spine/upper thoracic spine is stiff, if you have a kyphotic (curved) thoracic spine, by spending long periods on tri bars or by poor bike set up.

*Advice:* Mobilise your thoracic spine to gain more extension (straightening), perform neck exercises to maintain flexibility and improve strength in the neck anterior muscle groups. Check your riding position. Gradually build up time spent on the bike.

**Thoracic spine** (mid back) A kyphotic posture (flexed mid back) can contribute to many problems including neck pain, protracted shoulders and weakness in the lumbar/pelvis “core” muscles.

*Advice:* Off the bike, work at improving posture and strengthening your spinal extensor muscle group. Check your riding position to ensure correct length.

**Lumbar spine** pain can be linked to the poor support from the “core” muscles, poor posture on the bike and tight hamstrings.

*Advice:* Off the bike, improve your flexibility in your spine and hamstring muscles. Work at developing a good “core” muscle co-contraction and ensure your saddle height is not too low or high.
**Over reach position** can lead to wrist/hand pain and numbness. It also contributes to poor posture in particular rounded shoulders and a kyphotic spine. Dominance of the muscles at the front of the shoulder/chest region will contribute to a round shoulder/kyphotic posture often seen in over reaching cyclists.

*Advice:* Work at ensuring full neck movement and correct any muscle imbalance around the shoulders and mid-upper back. Ensure your bike fit is correct and wear gloves with padding in the palm. Also, could try extra bar tape or improve bar grips.

**Core control**: Poor core is not always about weakness, it is often linked to poor recruitment of muscles and poor co-contraction. Your spinal posture will also affect how efficient your “core” is. Cyclists often use diaphragmatic breathing which combined with poor posture on the bike can contribute to having a poor ineffective “core”

*Advice:* Perform regular core exercises or attend Health Rooms Pilates classes.

**Tight hamstrings** can contribute to the under development of the gluteal muscles and contribute to low back pain symptoms.

*Advice:* Perform regular flexibility exercises to reduce tightness in the hamstring muscles. Regular core/Pilates exercises will help in developing your gluteal strength. Strength and conditioning programme will also improve your hamstring flexibility and gluteal strength.

**Quadriceps/hamstring muscle ratio:** This measures the strength of the quadriceps muscle comparing it to hamstring strength. Cycling can lead to an imbalance of muscle strength in which the quadriceps power is far greater than the hamstrings. This can lead to potential hamstring injuries and poor performance.

*Advice:* A strength and conditioning programme can address any muscle imbalance, improve strength and performance.
Rotational knee movements during cycling can lead to numerous knee joint problems including patella tendinosis, anterior knee pains and ITB issues. Rotational knee movements can also be related to poor control at the hip or lumbar spine, tightness within muscles and muscle imbalances. Poor bike set up can also be a cause.

Advice: Addressing muscle imbalances, flexibility issues, improve training and any bike fit issues can correct causes of knee pain.

Numbness in foot/toes can be linked to tight fitting shoes, poor cleat position and saddle height. Problems with back pain and reduced flexibility in muscles and sciatic nerve problems can also contribute to foot/toe numbness.

Advice: Ensure there is no underlying spinal issues contributing to your numbness and foot issues. Addressing lower limb flexibility, wearing correctly fitting shoes and having good bike fit/cleat function will help ease and prevent foot issues.

If you are unfortunate to suffer from any of the above you should seek help from the Health Rooms Physiotherapy staff.

The Health Rooms Physiotherapy staff have the experience, expertise and skills to diagnose your cycle specific injury and offer you the “best evidence” treatments to help you back on your bike as quickly as possible.

To keep you on your bike the Health Rooms recommend you perform a regular flexibility programme aimed at improving spinal, hip joint, hamstring and calf muscle flexibility. Ensure good “core control” which should include neck, lumbar and pelvic areas. Perform a regular strength and conditioning programme to address any muscle imbalance issues and improve muscle strength. Ensure you have a good bike fit.
Not injured, the Health Rooms can offer you pre injury screening that will identify areas of reduced flexibility, weakness and muscle imbalance that may make you more susceptible to injury or that may be limiting your performance.

The Health Rooms have staff educated to level 3 strength and conditioning and can offer you specific strength and conditioning programmes tailored to your race season. We believe strength and conditioning performed through out the year will improve your performance and help prevent injury.

The Health Rooms also run PILATES 1.1 tuition and PILATES classes which is an excellent form of exercise to improve your “core control” and body strength.

For further information call:

The Health Rooms on 07745211950
Email at info@thehealthrooms.co.uk
or visit our web site
www.thehealthrooms.co.uk

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The Health Rooms
8 Silverbirch Studios, Cavalry Park Peebles EH45 9BU
www.thehealthrooms.co.uk