## CHEAT SHEEI

| INJURY | SIGNS \& SYMPTOMS | COMMON CAUSES | TIP |
| :---: | :---: | :---: | :---: |
| Knee Pain | - Pain in/under the kneecap <br> - Worse going up and down hills/stairs <br> - Worse after prolonged sitting | - Poor alignment and tracking of kneecap due to muscle weaknesses and tightness <br> - Increased training intensity, seat too low, riding too long in big gears <br> - Cleat too near inside of shoe | - Address muscle imbalances with strengthening and stretching exercises <br> - Vary your pedal cadence <br> - Raise seat height <br> - Use insert in shoe to stabilise foot and reduce strain on knee <br> - Move cleat outwards |
| Back Pain | - Deep ache across lower lumbar area with stiffness <br> - Can refer into buttocks, groin and hip <br> - Worse after prolonged sitting and on getting up in the morning | - Mechanical factors like poor bike posture, hunching over handlebars <br> - Lack of flexibility <br> - Weak core muscles | - Improve flexibility <br> - Core strengthening <br> - Alternate postures whilst riding to reduce load on spine <br> - Check leg length discrepancy |
| Neck Pain | - Pain along back and sides of neck <br> - Can refer pain to shoulder tips and down between shoulder blades | - Poor bike posture - excessive hyperextension (looking up) of the neck <br> - Weak stabilising muscles of neck | - Strengthen deep neck flexors (stabiliser muscles) <br> - Lengthen trapezius muscles by stretching <br> - Shorten your reach on bike <br> - Raise handlebars <br> - Vary hand positions whilst riding to change neck postures |
| Iliotibial Band (ITB) Pain | - Pain and tenderness on outside of knee <br> - Occasionally swelling <br> - Pain walking up and down stairs <br> - Stiffness after inactivity | - Repetitive rubbing of band over bony condyles <br> - Exacerbated by poor flexibility of thigh, hip and buttock muscles <br> - Weak pelvic stabiliser muscles <br> - Cleat too near outside of shoe | - Raise seat height <br> - If you pronate (flat-footed) get a wedge/orthotic <br> - Don't tuck your knees in too close to stem as this increases tension on ITB <br> - Move cleat inwards <br> - Strengthen weak pelvic stabilisers and stretch ITB, thigh and buttock muscles |
| Achilles Tendon Pain | - Pain at back of ankle <br> - Pain during riding and afterwards <br> - Pain and tightness after inactivity or on rising in the morning | - Increased training intensity, hill training <br> - Lack of flexibility in calf muscles | - Strengthen Achilles tendon and calf muscle <br> - Improve flexibility <br> - Lower saddle to avoid cycling on 'tippy toes' as this loads the tendon |
| Hip Pain | - Deep pain in the hip, thigh, groin and buttock areas. <br> - Can refer pain into leg with possible numbness and/tingling | - Overtraining, pushing high gears <br> - Muscle imbalances in hip/pelvic region | - Strengthen underlying muscle imbalance <br> - Improve flexibility <br> - Gear back and increase cadence |
| Hand Pain 'Handlebar Palsy' | - Numbness, tingling and weakness over outside of hand, little finger and outer half of ring finger <br> - Clumsiness in hand | - Wrist extended on handlebars for prolonged periods, weight of rider pushing through wrist and vibrations from road applies pressure to ulnar nerve | - Alternate hand positions during ride <br> - Shorten stem and sit up more to reduce weight on wrists <br> - Gel padded gloves and padded handlebars reduce pressure |
| Burning Feet 'Metatarsalgia' | - Painful burning feet | - Long hilly rides, hot weather <br> - Tight shoes - compressing nerves and impeding circulation | - Wider shoes <br> - Move cleats closer to the heel to reduce pressure on forefoot <br> - Larger platform pedal <br> - Supportive inner soles and thermo-regulating socks |

