

COMMON RUGBY INJURIES Quick Reference Guide

INJURY TYPE AND AREA **MECHANISM OF INJURY** **SYMPTOMS** **TREATMENT** **REHABILITATION** **PREVENTION**

Upper Limb

A/C Joint

- Acromioclavicular (A/C) joint
- Collarbone (clavicle) meets the shoulder blade in front and top of shoulder
- Direct force to the joint with a tackle (often the tackler) or landing on the ground
- Pain on top of shoulder
- Pain lifting arm overhead or across body
- Swelling
- Loss of shoulder movement and strength
- Hard, visible lump on top of shoulder
- RICE immediately
- Immobilise arm in sling
- Physical therapy to reduce pain and swelling, increase shoulder motion and range
- Surgery only in severe cases where bones have moved out of place
- Up to 6 weeks
- Strengthen muscles of shoulder (rotator cuff) and shoulder girdle (the back of the shoulder by the shoulder blade)
- Correct shoulder posture
- Shoulder proprioception
- Ensure strong shoulder girdle and good shoulder movement patterns
- Shoulder proprioception exercises
- Warm up

Shoulder Dislocation or Subluxation

- The head of the humerus (top of the arm that forms the ball in the shoulder joint) comes out of the socket (formed by the shoulder blade)
- Arm in an outstretched position to the side
- Tackle
- Fall onto arm in poor position
- Sensation of the shoulder 'coming out'
- Shoulder pain
- Visible depression on top of shoulder
- Pins and needles, numbness, weakness in arm
- Apprehension in certain arm positions
- Relocate the shoulder by medical professional and x-rays to ensure no complications
- Physical therapy for pain relief, swelling reduction, ice, electrotherapy, massage
- Sling to support arm between 2-6 weeks
- Surgery to stabilise the shoulder only in repeat cases of dislocation or if complications like fracture, or cartilage damage
- Shoulder strengthening primary goal to restore stability
- Strengthen rotator cuff and shoulder girdle (upper back)
- Once strong, add flexibility and movement to shoulder exercises
- Primary prevention is key – that is to prevent first dislocation
- Good tackle techniques
- Strengthen shoulder girdle and rotator cuff
- Essential to continue strengthening following a dislocation as subsequent injuries are very common with shoulders

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INJURY TYPE AND AREA **MECHANISM OF INJURY** **SYMPTOMS**

TREATMENT

REHABILITATION

PREVENTION

Lower Limb

Knee Ligament Injury

MCL Sprain

- Medial collateral ligament (inner side of the knee)

Or

LCL Sprain

- Lateral collateral ligament (outer side of the knee)

- Sharp change in direction
- Twisting the knee,
- Landing badly from a jump
- Blunt force hit to the knee, like a tackle

- Pain
- Audible 'pop' sound
- Difficulty bending and straightening
- Difficulty walking
- Swelling
- Knee 'gives way' or buckles

- RICE immediately
- Bracing
- Crutches to reduce load on knee if severe
- Physical therapy to increase mobility and joint range, reduce pain and swelling

- Can take between 2 weeks up to 4 months for full recovery depending on degree of injury severity
- Strengthening quadriceps and hamstring muscles
- Strengthen the pelvis, including gluteals or buttock muscles
- Functional exercises with squats, lunges, step-ups
- Wanting to increase stability around knee with balance and co-ordination exercises
- Ultimately plyometric (jumping loads) and drills with running, changing direction etc.

- Adequate warm up
- Correct any muscle imbalances or weaknesses around pelvis and thigh/knee/calf area.
- Improve flexibility in lower limb
- Conditioning specific to rugby – practicing running drills with change in direction, side steps

ACL

- Anterior cruciate ligament (inside the joint)
- Critical stabiliser of the knee

- Pivoting with your weight on the leg
- Landing from a jump
- Less often a tackle forcing the knee into hyperextension

- Audible 'pop'
- Severe pain and swelling
- Unable to bare weight
- Feeling of knee collapsing/giving way

- RICE immediately
- Bracing
- Crutches to reduce load on knee if severe
- Physical therapy to increase mobility and joint range, reduce pain and swelling
- Depending on sporting demands surgery is not always necessary

- Can take between 3-9 months until full sporting recovery with or without surgery
- Strengthening quadriceps and hamstring muscles
- Strengthen the pelvis, including gluteals or buttock muscles
- Functional exercises with squats, lunges, step-ups
- Wanting to increase stability around knee with balance and co-ordination exercises
- Ultimately plyometric (jumping loads) and drills with running, changing direction

- Adequate warm up
- Correct any muscle imbalances or weaknesses around pelvis and thigh/knee/calf area
- Improve flexibility in lower limb
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Lower Limb

Knee Ligament Injury

Meniscus (cartilage)

- Shock absorber of the knee
 - As speed of running or jumping increases the amount of force to be dissipated increases exponentially
 - Traumatic from tackle or landing and twisting the knee
 - Chronic degeneration common in older people
 - Clicking, popping or locking joint
 - Dull aching pain
 - Pain after activity
 - Stiffness after long sitting
 - Not always swollen
- Depending on type of meniscus tear, age and demands of sports, surgery may or may not be necessary

Traumatic injury

- RICE immediately
- Bracing
- Physical therapy to increase mobility and joint range, reduce pain and swelling

Recovery can take between 3-8 weeks (with or without surgery)

- Strengthening quadriceps and hamstring muscles
- Strengthen the pelvis, including gluteals or buttock muscles
- Functional exercises with squats, lunges, step-ups
- Wanting to increase stability around knee with balance and co-ordination exercises
- Ultimately plyometric (jumping loads) and drills with running, changing direction

- Adequate warm up
- Correct any muscle imbalances or weaknesses around pelvis and thigh/knee/calf area
- Ensure good biomechanics of lower leg
- Improve flexibility in lower limb
- Conditioning specific to rugby – practicing running drills with change in direction, side steps

Ankle

Lateral Ankle Sprain

- Tearing the ligaments on the outside of the ankle
- Severe pain
- Swelling
- Inability to walk or bear full weight
- Bruising
- Cracking noise at time of injury
- Rolling over the outside of the ankle
- Sudden change in direction, twisting
- Uneven ground
- RICE immediately
- Bracing
- Crutches to reduce load on ankle if severe
- Physical therapy to increase mobility and joint range, reduce pain and swelling
- 'Moon' boot to restrict ankle movement and load, may be worn for few days or weeks

Strengthen ankle and calf muscles

- Eccentric strength important
- Balance and proprioception critical
- Functional movements including squats, lunges, agility drills
- Sports-specific drills

- Warm up
- Balance and proprioception exercises, especially if you have a history of ankle sprain
- Eccentric strength on calf and shin muscles

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Lower Limb

Hip/Groin

- Common with running, changing direction, jumping, kicking
- Very complex area with multiple possible structures to be injured
- Acute: sudden lunge, kick or change in direction can strain a muscle or ligament
- Chronic overloading of structures causing tendinopathy, inflammation, strain
- Pain in the groin, hip, buttock, side of the thigh, up into the abdomen
- Clicking or snapping in the hip
- Pain doing sit ups, running or jumping
- Stiffness in hip
- Pain whilst coughing or sneezing
- RICE if acute injury
- Require thorough assessment for accurate diagnosis, including possible scans/x-rays
- Reduce training load, cross train (do other sports that are not painful eg. cycling or swimming)
- Physical therapy to reduce pain and swelling, massage, increased joint mobility
- Can take anywhere from 2 weeks to months
- Strengthen core
- Strengthen pelvis including buttocks and hamstrings
- Correct lower limb alignment
- Functional exercises with good body position
- Training load and intensity correction
- Technique of kicking
- Muscle imbalances and weakness from core strength to pelvis and hip
- Assess foot biomechanics
- Functional strength for entire lower limb
- Warm up

Spine

Neck Pain

- Why neck, joint strain
- Muscle spasm or strain
- Disc or nerve injury
- Acute collapsed scrum or tackle
- Whiplash injury during tackle
- Collision with another player
- Chronic overloading, poor technique in scrum
- Pain
- Stiffness
- Headache
- Pins and needles, numbness down arms
- Physical therapy includes:
 - Massage, dry needling, electrotherapy, joint mobilisation, trigger point therapy, stretching, nerve mobilisation
- Strengthening deep neck flexors that stabilise neck
- Strengthen upper back
- Stretching
- Proprioception exercises
- Correct technique in tackle and scrum
- Strengthening deep neck flexors that stabilise neck
- Stretching
- Strengthen upper back
- Proprioception exercises
- Strengthen upper back
- Stretching
- Warm up

Lower Back

- Muscle strain or spasm
- Disc injury
- Ligament injury
- Acute injury from tackle or falling incorrectly
- Accidental kick in the back during a ruck
- Chronic overloading, scrum
- Pain across lower back, buttocks, down the legs
- Pins and needles, numbness into legs
- Stiffness moving
- Physical therapy includes:
 - Massage, dry needling, electrotherapy, joint mobilisation, trigger point therapy, stretching, nerve mobilisation
 - Pilates
- Strengthening your core
- Strengthening pelvis including buttocks/gluteals
- Improve flexibility and nerve stretches
- Core and pelvis strengthening
- Stretching
- Warm up
- Good technique in scrum and tackles