

Test	Indication / Observation / Problems	Corrective Techniques / Exercises / Q:
Dorsi-flexion (knee to wall)  Normal: 15cm from wall	→ Reduced ankle and calf flexibility <i>Compare left vs right</i> <ul style="list-style-type: none"> • <u>Compensatory increase in sub-talar pronation</u> - Lower leg 'overuse' symptoms (e.g. shin splints, plantar fasciitis, Achilles tendonitis) • <u>Calf muscle tightness</u> - Muscle strains & tears, early heel rise in gait • <u>Lateral Pelvic Shift, Hip and Knee internal rotation in Squat</u> - Patellofemoral pain and Hip conditions 	<ul style="list-style-type: none"> • Stretch Calves (Bent and Straight knee) • Avoid running on inclines • Choose Lunges and Step-ups instead of loaded Squats and loaded Deadlifts • Instruct to keep Knee in-line with 2nd toe during leg exercises • Care with duration of treadmill Q: <i>Previous ankle sprains or surgery?</i> Q: <i>Pain with running?</i> → Refer to Physio for assessment
Lumbar Flexion (fingers to floor)  Normal: fingers to floor	→ Reduced Lumbo-pelvic ROM <ul style="list-style-type: none"> • <u>Compensatory bending of knees</u> - Hamstring and Gluteal tightness • <u>Lumbar spine pain with movement</u> - Joint / ligament tightness, Disc injury or lesion, muscle spasm • <u>Pain into posterior knee / calf or pins n' needles</u> - Neural tension problems • <u>Lumbar spine held in lordosis / thoracic kyphosis</u> - Lumbar extensor tightness or over-activity 	<ul style="list-style-type: none"> • Stretch Hamstrings (Bent knee) • Stretch Gluteals and Quadratus Lumorum • Avoid deadlifts and heavy squats • Level One Core Stability activation exercises • Check pelvic posture during squat exercises Q: <i>Previous or current disc injuries?</i> Q: <i>Low back pain?</i> Q: <i>Sciatic tension or Sciatica pain?</i> → Refer to Physio for assessment
'McKenzie' Lumbar Extension  Normal: elbows straight, pelvis on floor	→ Loss of Lumbar Lordosis <ul style="list-style-type: none"> • <u>Unable to straighten arms / pelvic rises off floor</u> - Deep lumbar ligament tightness • <u>Pain during movement</u> - Disc protrusions and pressure problems • <u>Pain at end of range, poor lordotic curve</u> - Degenerative spinal conditions - Sacro-iliac Joint dysfunction 	<ul style="list-style-type: none"> • McKenzie Lumbar spine extension stretches • Promote correct lordotic posture with all exercises and sitting posture Q: <i>Sedentary occupation / poor sitting posture?</i> Q: <i>Previous or current disc injuries?</i> Q: <i>Low back pain with sitting or lifting?</i> → Refer to Physio for assessment
'Thomas Test'  Normal: Thigh level and knee 90°	→ Hip Flexor tightness <i>Compare left vs right</i> <ul style="list-style-type: none"> • <u>Hip in flexion</u> - Iliopsoas; - Hip pain, clicking hip, bursitis - Increased lumbar lordosis, anterior pelvic tilt - lumbar posture and core stability inhibition • <u>Rise in knee with knee flexion</u> - Rectus femoris; - patellofemoral pain • <u>Thigh abducted</u> - ITB (TFL); - knee pain, ITB friction syndrome 	<ul style="list-style-type: none"> • Stretch Hip Flexors: Iliopsoas and rectus femoris • Stretch TFL / ITB • Promote neutral pelvic posture correction with all exercises – watch for Anterior pelvic tilt • Level one Core stability activation exercises Q: <i>Pain with running in hip or knee?</i> Q: <i>Painful snapping hip?</i> → Refer to Physio for assessment
Swimmer's Stop Sign  Normal: hands against wall	→ Tight GHJ posterior capsule, subscapularis and pectoralis major <i>Compare left vs right</i> <ul style="list-style-type: none"> • <u>Reduced Glenohumeral joint external rotation</u> - straining of rotator cuff to perform abduction-external rotation position / movement - rotator cuff tendon impingement, tendinopathy - labral and long head Bicep tendon damage • <u>Compensatory increase in thoracic and lumbar extension</u> 	<ul style="list-style-type: none"> • NO overhead bar shoulder press • Care with all overhead activity • Stretch posterior capsule, pectoralis minor & major, subscapularis Q: <i>Pain with overhead movement or pressing exercises?</i> Q: <i>Previous rotator cuff injury, dislocations or surgery?</i> → Refer to Physio for assessment
Rotator Cuff (hand-behind-back)  Normal: Fingertips to Level of T4	→ Tightness of external rotators <i>Compare left vs right</i> <ul style="list-style-type: none"> • <u>Reduced Glenohumeral joint internal rotation</u> - rotator cuff tendon impingement, tendinopathy • <u>Compensatory protraction of scapula and Scapula winging</u> - tightness of Pectoralis Minor, weakness of scapular stabilizer muscles • <u>'Stiffness' in Anterior GHJ capsule</u> - capsular restriction 	<ul style="list-style-type: none"> • Correct instruction of hand-behind-back stretches with scapular retraction • Care with pressing movements (e.g. Bench press and Shoulder press) Q: <i>Pain with overhead movement or pressing exercises?</i> Q: <i>Previous rotator cuff injury, dislocations or surgery?</i> → Refer to Physio for assessment
Active Thoracic Extension  Normal: Hands together to 180° flexion	→ Stiff Thoracic spine, fixed Thoracic kyphosis <ul style="list-style-type: none"> • <u>Reduced shoulder flexion</u> - Shoulder injuries (see: Swimmer's Stop Sign) • <u>Compensatory increase in Lumbar extension</u> - poor abdominal stability • <u>Protracted scapula / rounded shoulders</u> - Tight Pectoralis Minor • <u>Forward head posture</u> - Cervical and thoracic spine joint and muscle strains 	<ul style="list-style-type: none"> • Care with overhead pressing exercises • Promote upright posture with all exercises • Strengthen Rhomboids and Lower traps • Stretch thoracic spine into extension over swiss ball or towel • Active Thoracic superman extension with ball • Stretches as for Swimmer's Stop Sign Q: <i>Sedentary occupation / poor sitting posture?</i> Q: <i>Scheurmann's Disease or compression #?</i> Q: <i>Thoracic Spine pain or stiffness?</i> → Refer to Physio for assessment