Gregory Fisher Coaching

www.gregoryfisher.co.uk

Registered In England And Wales
Registered Company 12541958

Client Physical Assessment Protocol

Pre-Requisites

Before starting the fitness assessment, make sure you have had time to stretch out and have taken a few moments to warm up. You should wear comfortable trainers that offer foot support and comfortable clothing that is easy to move in, but not baggy.

Equipment

To do all these tests you will need:

- Clear floor space
- Chin up bar for bent arm hangs or pull-ups.
- Mat or towel for crutches
- Stopwatch
- Heart Rate Monitor
- 12-inch step
- Weights for overhead press
- Rowing Machine.

1. Fitness Assessment

Protocol and Proper Form for Push-Ups

Get on all fours, and place your hands on the floor slightly wider than and in line with your shoulders.

Your body should form a straight line from your ankles to your shoulders. Draw your abs inward as tight as possible and keep them contracted for the entire exercise.

Lower your body until your chest nearly touches the floor (6 inches from the ground, comparable to the size of a fist). Pause, and then push yourself back to the starting position.

1. Set your timer for 1 minute

2. Begin doing push-ups

3. When the timer stops, enter in the number of push-ups you completed.

Note: Push-ups performed with knees on the floor cannot be counted for this test. If you are unable to complete one regular push-up, the score should be entered as "0"

Protocol and Proper Form for Squats

Stand as tall as you can with your feet shoulder-width apart, toes pointed straight ahead. Keep arms in front of you at chest height to help maintain balance.

Drop your hips and sit back until your thighs are parallel with the floor.

Pause, then drive through the whole foot and lift body upwards back to the starting position, squeezing the glutes at the top of the movement.

1. Set your timer for 1 minute

2. Begin doing squats continually, but stop if:
    - You reach 44 reps (females) or 50 reps (males)
    - The timer is done
    - If timer has not stopped, but you have to pause for more than two seconds between reps (*For example, if you have completed 30 squats, the timer has not gone off, but you can no longer do a squat without resting for two seconds, then you must stop doing squats and 30 will be the number you enter*).

3. When you are done, enter the# of squats you were able to complete.

Protocol and Proper Form for Overhead Press

Stand with the bar on your front shoulders, and your hands next to your shoulders

Press the bar over your head, until it's balanced over your shoulders and mid-foot

Lock your elbows at the top, and shrug your shoulders to the ceiling.

Hold the bar for a second at the top. Then lower it back to your front shoulders and repeat. Don't use your legs, keep them straight.

The Overhead Press is a full body, compound exercise. Your shoulders and arms press the weight over your head while your legs, lower back and abs balance you. The Overhead Press is one of the best exercises to build strong, muscular and healthy shoulders with bigger arms.

To avoid shoulder pain, Overhead Press with a narrow grip so you don't flare your elbows. Then shrug your shoulders at the top. Press the bar over your head, lock your elbows and shrug your shoulders towards the ceiling. This engages your traps and prevents shoulder impingement.

Protocol and Proper Form for Crunches

Lie flat on your back, placing your hands across your chest.

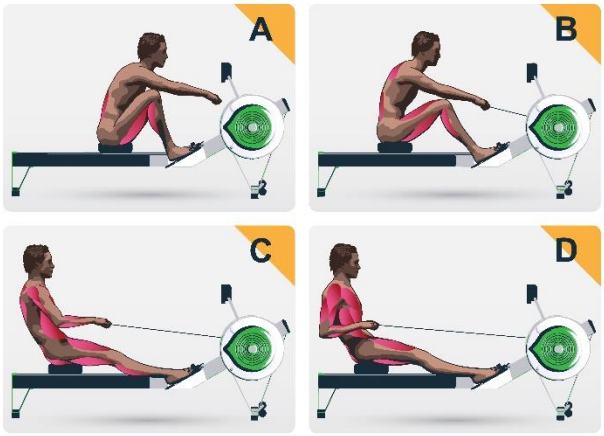
Bring your feet close to your glutes so your knees are bent and your feet are flat on the ground.

Tighten your abs and lift your shoulders and upper back off of the ground.

Pause, and then return to the starting position.

1. Set your timer for 1 minute
2. Begin doing crunches
3. When the timer stops, enter in the number of crunches you completed.

Protocol and Proper Form for Rowing Stroke



The drive is the work portion of the stroke; the recovery is the rest portion that prepares you for the next drive.

The body movements of the recovery are essentially the reverse of the drive.

The Catch - arms are straight; head is neutral; shoulders are level and not hunched. Upper body is leaning forward from the hips with the shoulders in front of the hips. Shins are vertical, or as close to vertical as is comfortable for you. Shins should not move beyond perpendicular.

The Drive - start the drive by pressing with your legs, and then swing the back through the vertical position before finally adding the arm pull. Hands move in a straight line to and from the flywheel. Shoulders remain low and relaxed.

The Finish - upper body is leaning back slightly, using good support from the core muscles. Legs are extended and handle is held lightly below your ribs. Shoulders should be low with wrists and grip relaxed. Wrists should be flat.

The Recovery - extend your arms until they straighten before leaning from the hips towards the flywheel. Once your hands have cleared your knees, allow your knees to bend and gradually slide the seat forward on the monorail.

For your next stroke, return to the catch position with shoulders relaxed and shins vertical.

Protocol and Proper Form for Broad Jump

Starting Position - your feet are shoulder width apart the arms hang down at the sides posture is upright

Correct Execution - bend the knees and tilt the upper body forward a bit meanwhile, move the arms backwards push back the hip, so that the knees do not protrude the toes. Swing your arms forward while you push yourself off the ground and jump forwards

Land - on the balls of your feet absorb the power with your bent knees turn around and jump again or do three little jumps backwards

Protocol and Proper Form for Pull Ups

Step up and grasp a pull-up bar with an overhand, shoulder-width grip.

Pull yourself up until the chin clears the bar. Be sure to pull through the elbows while keeping the head position neutral and eyes forward.

Lower the body until shoulders and arms are fully extended and in the starting position.

1. Set your timer for 1 minute

2. Begin doing pull-ups

3. When the timer stops, enter in the number of pull-ups you completed

Protocol and Proper Form for Dead Hang

1. Grip an overhead bar or rings and hang with feet suspended from the floor with arms extended.

2. Sustain the dead hang hold for as long as possible without starting to lose form, to strengthen your grip.

Protocol and Proper Form for Bench Step Test

1. Stand facing your 12-inch step.

2. When ready to begin start the stopwatch or timer and begin stepping on and off the step following a cadence of up, up, down, down.

3. Try to keep a pace of 24 sets per minute-you have completed a set when you step up one foot up, step up other foot (so both feet are on box) then lower first foot then other foot (so both feet are on ground).

4. Try to alternate lifting right foot first then left foot first. Continue for 3 minutes. When you reach 3 minutes, stop immediately and sit down on your step.

5. Perform a manual pulse reading* and count the number of beats for an entire 60 seconds. If wearing a heart rate monitor record your heart rate 1 minute from when you sit down.

6. Record your pulse when you have reached 1 minute and then enter your BPM.

Note: If you are unable to complete 3 minutes of continuous stepping, the 1 minute rest will begin when the participant is no longer able to maintain the 24 sets per minute pace. Begin measuring the heart rate after the 1 minute rest.

Cardiovascular Function Heart Rate Zones

BEATS PER MINUTE	EXERCISE ZONES									
	AGE									
	20	25	30	35	40	45	50	55	65	70
100%	200	195	190	185	180	175	170	165	155	150
	VO_2 Max (Maximum effort)									
90%	180	176	171	167	162	158	153	149	140	135
	Anaerobic (Hardcore training)									
80%	160	156	152	148	144	140	136	132	124	126
	Aerobic (Cardio / endurance training)									
70%	140	137	133	130	126	123	119	116	109	105
	Weight Control (Fitness training / fat burning)									
60%	120	117	114	111	108	105	102	99	93	90
	Moderate Activity (Maintenance / warm up)									
50%	100	98	95	93	90	88	85	83	78	75

2. Functional Tests

Protocol and Proper Form for Single Leg Hop Test

In this test, the aim is to jump as far as possible on a single leg, without losing balance and landing firmly. The distance is measured from the start line to the heel of the landing leg. The goal is to have a less than 10% difference in hop distance between the injured limb and uninjured limb.

Protocol and Proper Form for Walking Lunge

Stand with your feet roughly hip-distance apart. Check your posture before starting—your torso should be upright and tall, core engaged, your shoulders back and chin lifted. Look straight ahead.

Take a wide step forward with your right foot—plant it roughly two feet ahead, allowing your left heel to lift naturally as you step forward. You may want to put your hands on your hips, or you may want to swing your arms naturally—elbows bent at 90-degrees—as you take each step.

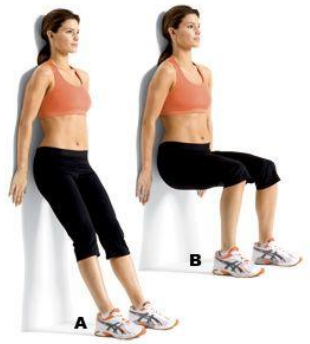
Keep your core engaged and upright. Bend both knees and lower your back knee toward the floor. Stop just before it touches down. Breathe in during the lowering (or eccentric) phase of the exercise.

Press firmly through your right heel and extend your right knee to rise to stand as you lift your left foot from the ground, swinging your left foot forward to plant it about two feet ahead of your right foot. Avoid leaning your torso forward from your hips as you take this step. Breathe out as you rise to stand (the concentric phase of the exercise).

Continue stepping forward with each lunge, alternating sides as you do. If you find yourself losing balance as you walk, pause at the top of each lunge when your feet are next to each other. Gather your balance, then continue.

Finish your set by bringing your back foot to meet your front foot on the final lunge.

Protocol and Proper Form for Wall Squat



Stand comfortably with feet shoulder width apart and about 2 feet from the wall, with your back against a smooth vertical wall. Slowly slide your back down the wall to assume a position with both your knees and hips at a 90° angle. Move the feet distance from the wall if required. Ensure that the feet are flat on the ground, the back flat against the wall, and the knees and hips are at right angles. The knees should be directly above your ankles (rather than over your toes), and the thighs parallel to the ground. The timing starts when the correct position is assumed, and is stopped when the subject cannot maintain that position.

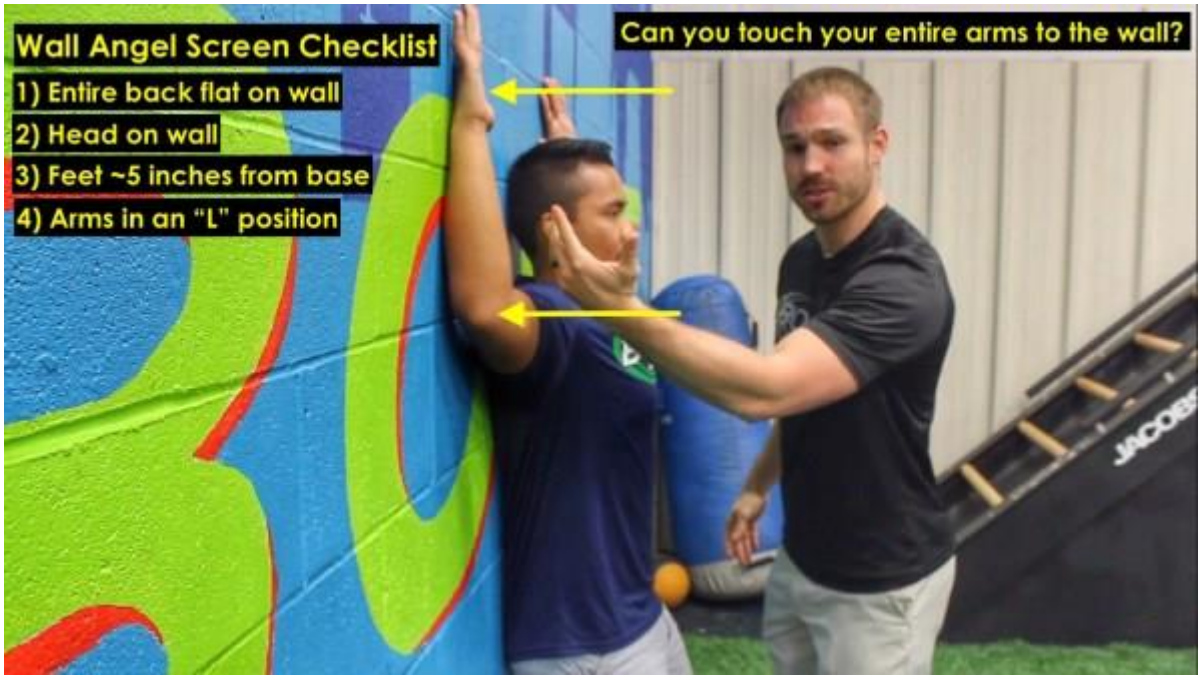
Protocol and Proper Form for Hip Hinge

Stand either 3-5 inches off a wall or place a foam roller 3-5 inches behind the glutes.

Push the hips directly back and make note when they make contact with the object.

If you notice the torso breaking or knees shifting excessively forward before making contact with the wall or foam roller, then your hip hinge sequencing is probably off.

Protocol and Proper Form for Wall Angel Test



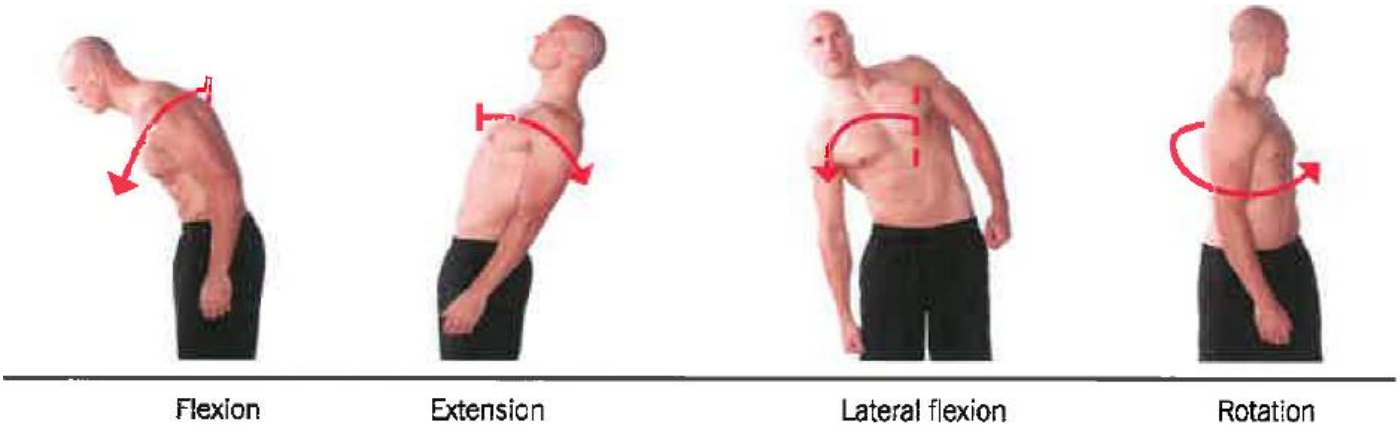
To start the screen, find a wall, and stand with your back to it. Your head and entire back should be in contact with the wall. Your feet should be a 4-5 inches from the base.

Next, raise both of your arms to the side in an "L" position (as if you're making a football goal post with your arms). Without moving your head or lower back from the wall, try to flatten the back of your arms and hands against the wall. Don't let your lower back pop off the wall!

To pass, you must have your entire back flat against the wall. The elbows, forearms and hands should be resting comfortably against the wall. Your head should also be in contact with the wall.

3. Range Of Motion Testing

Spine



Slump Test (Normal = Negative Result)

This test is used to identify sciatic nerve impingement indicating potential intervertebral disc involvement when in spinal flexion.

The client sits on the couch, flexes their chin onto their chest and then flexes their lumbar spine.

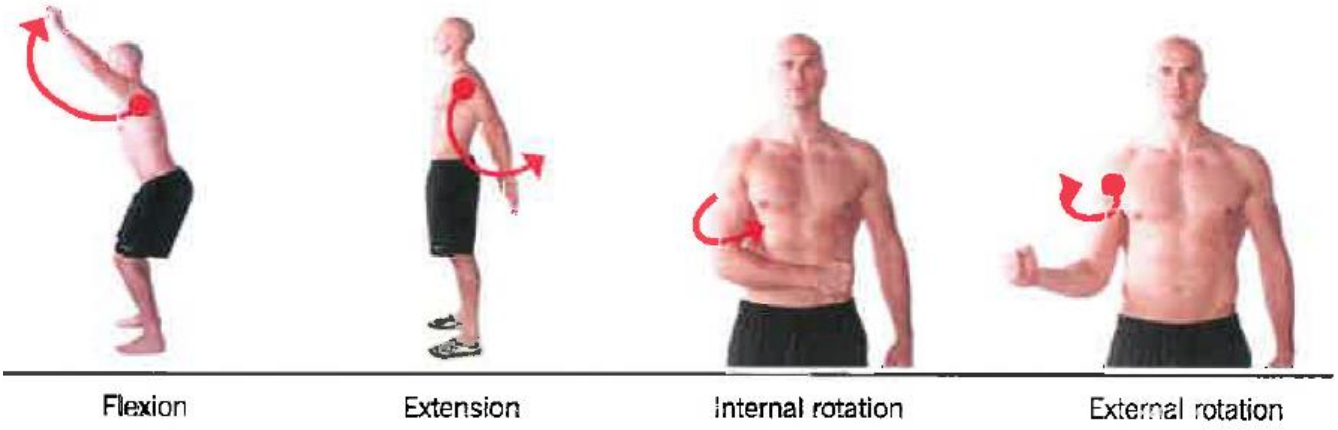
The client then slowly and actively extends the knee.

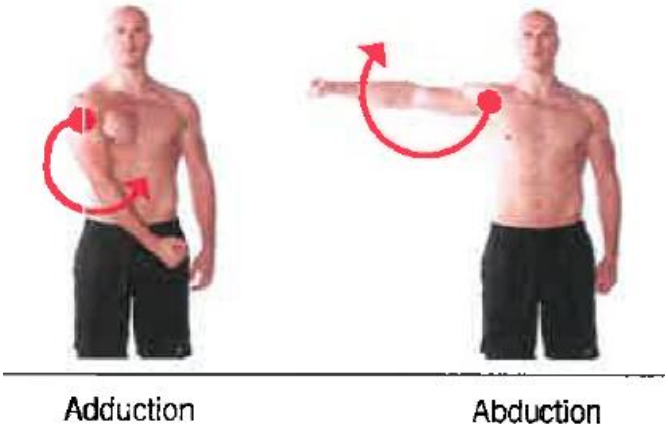
A positive test result will be the client reporting pain, weakness or increased heat in the back or radiating into the legs. They may indicate other concerning symptoms.

Observation and Posture Analysis Video: https://youtu.be/Zp5iC3Ioq7U

Slump Test Video: https://youtu.be/HFGfP84uwEo

Shoulder





Shoulder Active ROM Testing Video: https://youtu.be/cP4LLJie9kw

Shoulder Passive ROM Testing Video: https://youtu.be/n9HQIw1LHDY

Shoulder Resisted ROM Testing Video: https://youtu.be/zW8SE6WOxD0

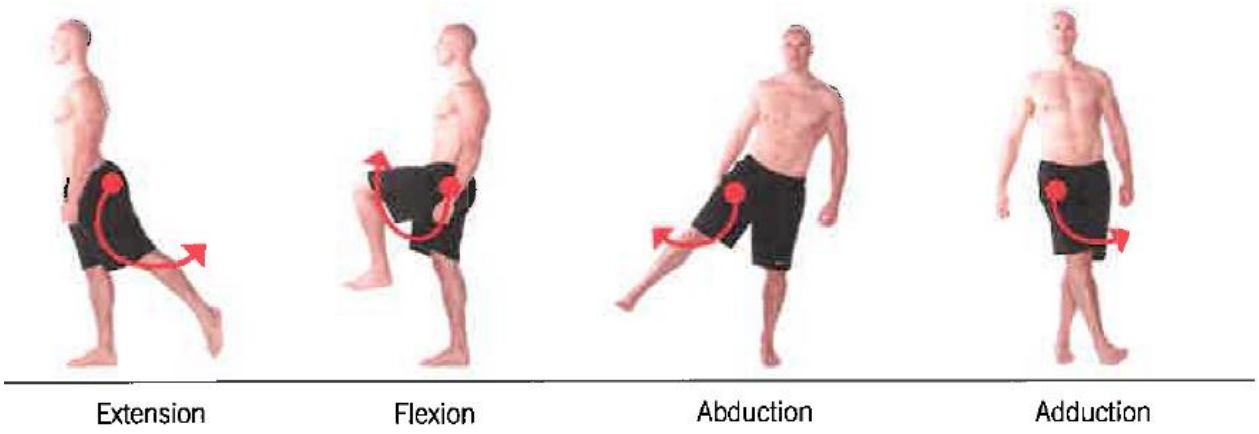
Neer Test (Normal = Negative Result)

The examiner should stabilize the patient's scapula with one hand, while passively flexing the arm while it is internally rotated.

If the patient reports pain in this position, then the result of the test is considered to be positive.

Neers Test Video: https://youtu.be/bXA8cblZUok

Hip



Active ROM Testing Video: https://youtu.be/3OiJqAtPQUc

Passive ROM Testing Video: https://youtu.be/3lTv4gpRWxg

Resisted ROM Testing Video: https://youtu.be/k12rDoTog4w

Modified Ober's Test (Normal = Negative Result)

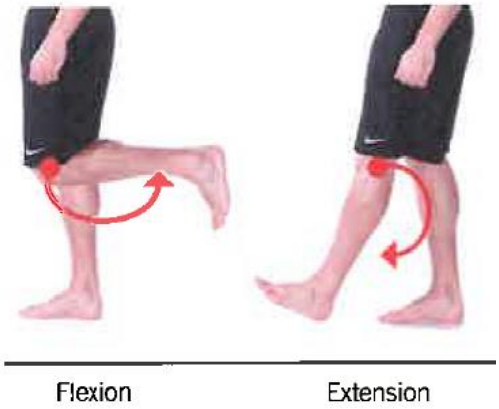
This assessment is used to test for a tight ITB.

The client is side-lying with the legs flexed to approximately 90 degrees at the hip and knee for stability. The SMT passively mobilises the hip, aligns the pelvis (one greater trochanter above the other) then takes the leg into abduction and extension. The knee is then release whilst maintain hip stabilisation.

If the leg does not lower towards the couch (to horizontal), the tensor fasciae latae, vastus lateralis and ITB are tight.

Ober's Test Video: https://youtu.be/Amjv6FzDeLE

Knee



Active ROM Testing Video: https://youtu.be/G6eDhgTmNIA

Passive ROM Testing Video: https://youtu.be/SeF3Hmw7k3U

Resisted ROM Testing Video: https://youtu.be/F7LRQARxCpQ

Anterior Drawer Test (Normal = Negative Result)

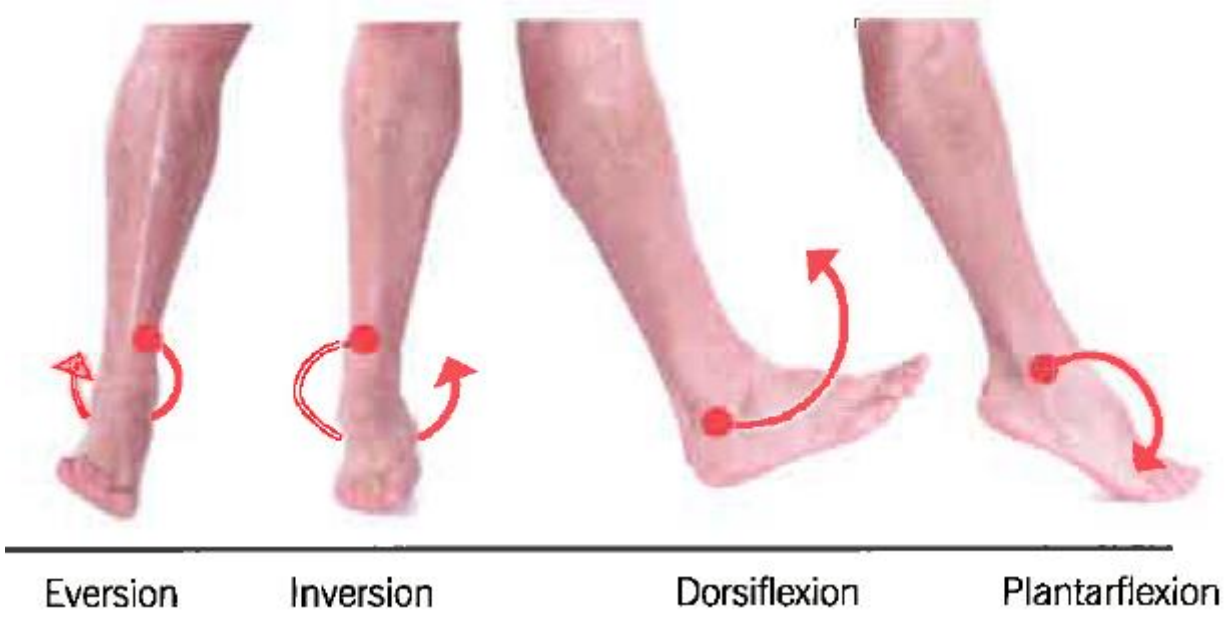
The patient lies supine on a plinth with their hips flexed to 45 degrees, his/her knees flexed to 90 degrees and feet flat on the plinth.

The examiner sits on the toes of the tested extremity to help stabilize it.

The examiner grasps the proximal lower leg, just below the tibial plateau or tibiofemoral joint line, and attempts to translate the lower leg anteriorly. The test is considered positive if there is a lack of end feel or excessive anterior translation relative to the contralateral side.

Anterior Drawer Test Video: https://youtu.be/IdnBKv38EEQ

Ankle



Active ROM Testing Video: https://youtu.be/ViRsbvnL6uQ

Passive ROM Testing Video: https://youtu.be/VYH9HKSNxoA

Resisted ROM Testing Video: https://youtu.be/MBseUN2KcJ8

Thompson Squeeze Flipper Test (Normal = Negative Result)

This test is used to identify a potential Achilles rupture.

The client lies prone with their ankle hanging just over the end of the massage couch. The SMT squeezes the belly of the calf muscle.

The foot should plantarflex when the calf is squeezed. No movement indicates a positive test and referral for medical diagnosis is advised.

Thompson Test Video: https://youtu.be/z-7cJ7LpCqY

4. Muscle Classifications

Area Of Body	Predominantly Tonic (Shortening)	Predominately Phasic (Lengthening)
Shoulder Girdle	Pectoralis Major	Rhomboids
	Levator Scapulae	Lower Trapezius
	Upper Trapezius	Mid Trapezius
	Biceps Brachii	Triceps Brachii
	Neck Extensors	Neck Flexors
Trunk	Lumbar & Cervical Erectors	Thoracic Extensors
	Quadratus Lumborum	Abdominals
Pelvic Girdle	Biceps Femoris	
	Semitendinosus6	Vastus Medialis
	Semimembranosus	Vastus Lateralis
	Iliopsoas	Gluteus Maximus
	Rectus Femoris	Gluteus Mimimus
		Gluteus Medius
	Adductors	
	Piriformis	
	TFL	
Lower Leg	Gastrocnemius	Tibialis Anterior
	Soleus	Peroneals

5. Muscle Shortening / Lengthening

Area Of Body	Postural Issue	Possible Tightness/ Shortening	Possible Weakness / Lengthening
Head	Head / Neck Tilt Cervical Vertebrae Laterally Tilted	Upper Trapezius Levator Scapulae Sternocleidomastoid	Serratus Anterior Latissimus Dorsi
	Head Rotation	Sternocleidomastoid	Longus Capitis, Rectus Capitis Anticus
	Head Forward	Neck Extensors Upper Trapezius	Neck Flexors Serratus Anterior Muscle Latissimus Dorsi
Shoulders	Elevated	Levator Scapulae	Serratus Anterior
	Protracted	Pectorals	Rhomboids Latissimus Dorsi
Scapula	Protraction Of The Scapula (greater distance from the spine)	Serratus Anterior	Rhomboids
Spine	Kyphosis	Pectorals	Thoracic Extensors
	Lumbar Spine Lordotic	Lumbar Extensors	Rectus Abdominis
Arm Placement	Gap Between arm and body	Supraspinatus Deltoid	Latissimus Dorsi
Skin Creases	Lateral Flexion To Side With Skin Creases	Quadratus Lumborum	Gluteus Medius
Pelvis	Anterior Pelvic Tilt	Erector Spinae Quadratus Lumborum Iliopsoas Recut Femoris	Hamstrings Gluteus Maximus
	Posterior Pelvic Tilt	Rectus Abdomininus External Obliques Gluteus Maximus Hamstrings	Hip Flexors
Knee	Flexed	Hamstrings	Quadriceps
	Hyperextended	Quadriceps	Hamstring
Foot Position	Turned Out	Lateral Rotators (of the hip)	Gluteus Minimus Gluteus Medius
	Turned In	Medial Rotators	Piriformis Iliopsoas Gluteus Medius

6. Contraindications Checklist

Please read the following carefully and inform us if you currently have, or if you have had in the last 6 months, any of the following symptoms or conditions:

Musculoskeletal Issues

Strains
Sprains
Fractures
Myositis
Joint Replacement
Arthritis
Osteoporosis
Bursitis
Tendonitis

Circulatory Issues

Heart Condition
Hypertension
Hypotension
DVT
Phlebitis
Varicose Veins
Haemophilia
CV Disease

Neurological Issues

Epilepsy
Sciatica
Neuralgia
MS
Parkinson's

Immune Issues

Cancer
Rheumatoid Arthritis
HIV / AIDS

Skin Issues

Eczema
Acne
Athletes Foot
Warts
Dermatitis
Psoriasis
Impetigo
Cuts
Bruises
Burns
Undiagnosed Lumps

Respiratory Issues

Asthma
Pneumonia
Bronchitis
Sinusitis
Cold
Cough
Flu

Digestive Issues

IBS
Constipation
Diarrhoea
Gall Stones
Kidney Stoney
Urinary Tract Infection

Miscellaneous Issues

Diabetes
Allergies
Recent or Major Operations
Pregnancy or Unstable Pregnancy
Glandular Fever
Headaches
Psychological Issues
Menstrual Issues
Substance Abuse
Feeling Unwell

Shoulder movements

Flexion

Extension

Internal rotation

External rotation

Adduction

Abduction

Horizontal extension

Horizontal flexion

Spinal movements

Flexion

Extension

Lateral flexion

Rotation

Shoulder girdle movements

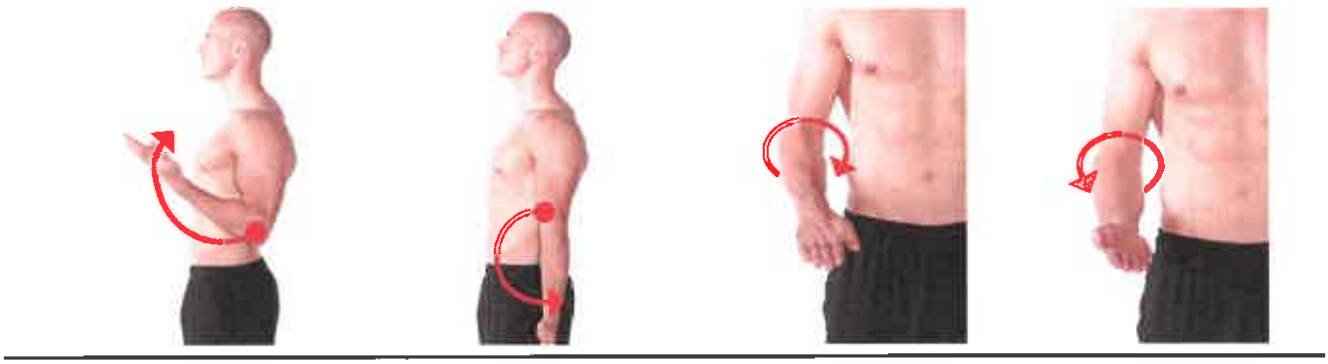
Elevation

Depression

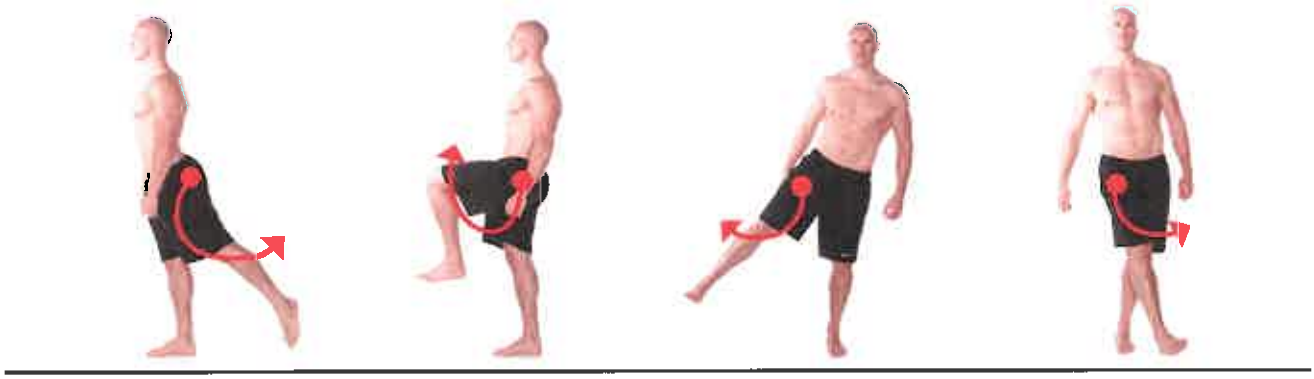
Protraction

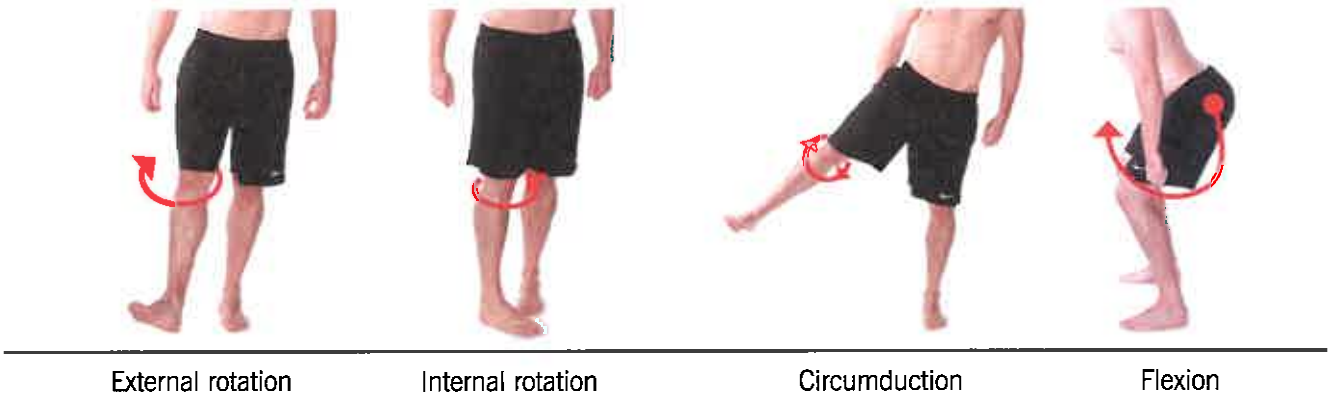
Retraction

Elbow movements



Hip movements





Knee movements

Ankle movements

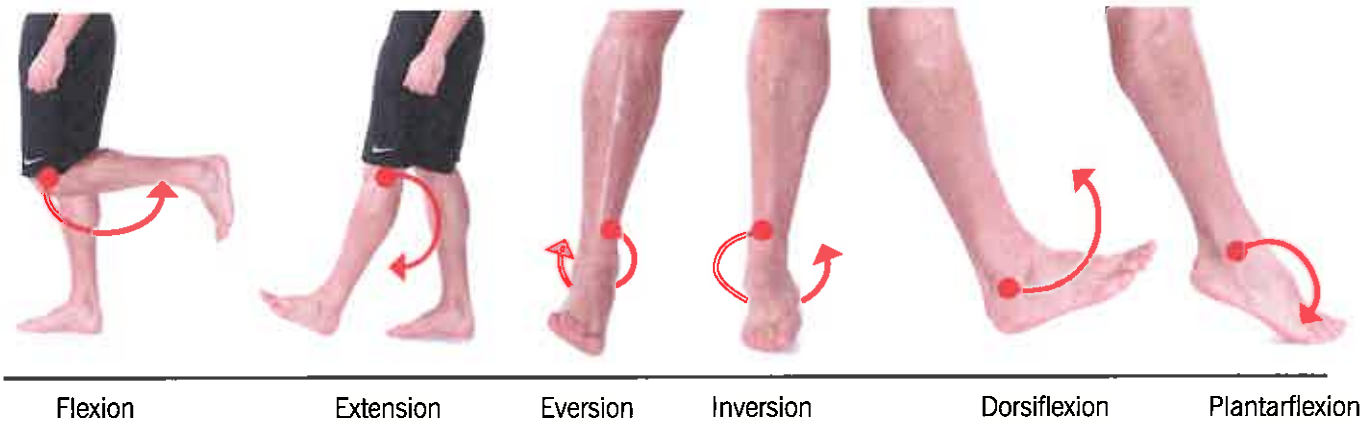


Figure 4.2 Joint actions at the major synovial joints

Special tests

The application of special tests should follow the palpation section of the assessment procedure. A range of special tests need to be completed for each joint.

Some tests check for conditions that require deferral or referral before treatment and others assess soft tissue dysfunction. The findings of these tests can also affect the level of treatment given. The SMT must consider the findings of each special test and take the appropriate action. If there is any doubt about the appropriate action or treatment, referral to another healthcare professional is recommended.

Back condition safety checks

For any client who reports back pain, one of the special tests in table 4.2 should be carried out. If either test is positive, no treatment should take place and referral to a medical professional is advised. The client may be referred back once further investigation has clarified whether there is any serious underlying pathology (e.g. prolapsed disc).

SPECIAL TEST	PROTOCOL	FINDINGS
Slump test  This test is used to identify sciatic nerve impingement indicating potential intervertebral disc involvement when in spinal flexion.	The client sits on the couch, flexes their chin onto their chest and then flexes their lumbar spine. The client then slowly and actively extends the knee.	A client demonstrating a positive test will report pain, weakness or increased heat in the back or radiating into the legs. The client may also report a range of other symptoms that raise concern and indicate a positive test.
Straight leg raise  This test is used to identify impingement of the sciatic nerve when taking the body into flexion.	The SMT slowly raises each leg in turn (unaffected side first) and asks the client to report any changes in sensation in the back, leg or foot. If the client reports any pain, the therapist slowly lowers the leg until the pain ceases. Holding the leg in this position, the SMT passively dorsiflexes the foot.	A positive result is indicated by the return of the pain during dorsiflexion of the foot.

Table 4.2 Back condition special tests

Special tests for the lower body

SPECIAL TEST	PROTOCOL	FINDINGS
Bump/percussion test  This test is used to identify a possible lower extremity fracture.	The client lies supine with their ankle hanging just over the end of the massage couch. The SMT passively dorsiflexes the foot with the knee in extension and then strikes the heel bone (calcaneus) with the heel of the hand.	A positive test is indicated if the client reports significant pain in the heel as it is struck. A positive test can also be indicative of other underlying pathologies that may need medical investigation. Referral for medical diagnosis is advised.
Thompson squeeze (flipper test)  This test is used to identify a potential Achilles rupture.	The client lies prone with their ankle hanging just over the end of the massage couch. The SMT squeezes the belly of the calf muscle.	The foot should plantarflex when the calf is squeezed. No movement indicates a positive test. Referral for medical diagnosis is advised.
Gastrocnemius length test  This test is used to assess the length of the gastrocnemius.	There are two options for this test: Standing length test: The client takes a gastrocnemius stretch position (does not move into a stretch). The SMT kneels behind the calf to be stretched. Ensuring proper alignment is maintained, the client moves into the stretch. The SMT measures the angle at which the heel begins to lift (gastrocnemius has reached its full extension). Lying length test: The client lies supine with their ankle hanging just over the end of the massage couch. The SMT passively dorsiflexes the foot with the knee in extension. The SMT records the angle at which no further dorsiflexion is possible.	A tight gastrocnemius is indicated if the available dorsiflexion is less than 20° (tibia and foot are said to be at 0 when at right angles to one another). The client may report pain. Unusual joint end-feels may also need to be recorded and considered.

SPECIAL TEST	PROTOCOL	FINDINGS
Soleus length test 	The test is completed in the same way as the gastrocnemius length test above, but with the knee supported in flexion (use a prop or bolster).	As above.
Patella tap/suprapatellar pouch effusion test  This test is used to identify any swelling in the knee.	If swelling is obvious, this test may be painful and may not be required. The client lies supine with the knee in extension. The patella tap: The SMT presses (taps) down on the patella. The suprapatellar pouch effusion test: The SMT supports the inferior pole of the patella with one hand and presses down towards the superior pole with the other hand.	The SMT will be able to see increased swelling with either test as they press onto/along the patella. The patella will feel as though it is floating on a mattress. As the SMT pushes the suprapatellar pouch, the swelling will distort the knee under and around the patella.
Lateral pull test  This test is used to identify any maltracking of the patella.	The client lies supine with the knee in extension and the ankle just hanging over the end of the massage couch. The SMT places their hands either side of the superior pole of the patella. The client is guided to contract their quadriceps.	The patella should move smoothly in the patellar groove as the quadriceps contract (upwards and slightly laterally). Any deviation from normal patella movement indicates a positive test.
Modified Ober's test  This assessment is used to test for a tight ITB.	The client is side-lying with the legs flexed to approximately 90° at the hip and knee for stability. The SMT passively mobilises the hip, aligns the pelvis (one greater trochanter above the other) then takes the leg into abduction and extension. The knee is then released whilst maintaining hip stabilisation.	If the leg does not lower towards the couch (to horizontal), the tensor fasciae latae, vastus lateralis and ITB are tight.

SPECIAL TEST	PROTOCOL	FINDINGS
Noble's test  This assessment is used to test for a tight ITB.	The client lies supine with legs supported on the massage couch. The leg to be tested is flexed to approximately 90°. The SMT palpates and applies pressure to the ITB just proximal to the lateral femoral condyle. The SMT passively extends the knee and hip (lowering the leg towards the couch).	If the client reports an increase in painful symptoms as the leg is extended and lowered, this indicates a positive test.
Trendelenburg test This test is used to identify any weakness in the gluteus medius. 	The client is asked to stand in a single-leg balance (the outcomes can also be observed during gait analysis in less able clients). Left and right PSIS are monitored from a rear view.	A positive test is indicated by a drop in the hip towards the lifted side (during gait or in a single-leg balance). 
Thomas test  This test is used to identify tight hip flexors and rectus femoris.	The client stands at the end of the couch and leans back until the ischium are in contact with the couch. The client holds one knee up and, supported by the SMT, rolls back onto the couch. The unsupported leg is being tested.	If the tested hip is flexed (higher than the couch), the hip flexors and rectus femoris may be tight. If the knee extends during extension, the rectus femoris may be the tighter structure. To test if the rectus femoris is tight, extend the knee and repeat the test. If the hip flexion reduces, the rectus femoris is the tighter structure.

SPECIAL TEST	PROTOCOL	FINDINGS
Leg length  This test is used to identify any discrepancies in true or apparent leg length from left to right legs.	Before any measurements take place, ask the client to perform a glute bridge exercise. True leg length – the measurement from the ASIS to the medial malleolus. Apparent leg length – the measurement from the umbilicus to the medial malleolus.	If there is a true leg length discrepancy of more than 1.5-2cm, the client should be referred to a healthcare professional. An apparent leg length discrepancy will have a cause that can be further investigated by assessing hip and leg muscle tightness and pelvic alignment.
Piriformis length test  This test is used to identify any tightness or shortness in the external rotator (piriformis).	The client lies supine with props supporting their ankles. The SMT passively flexes the knees to approximately 90°. Supporting the lower legs throughout, the SMT allows the legs to drop slowly outwards (internally rotating the hips).	If the client cannot drop their legs to approximately 45°, this is an indicator that the piriformis is tight. The SMT should also note any discrepancy between the left and right legs.

Table 4.3 Lower body special tests

Special tests for the upper body

SPECIAL TEST	PROTOCOL	FINDINGS
Arm drop test  This test is used to identify any rotator cuff tears, typically in the tendon of the supraspinatus.	In a seated or standing position, the SMT passively abducts the client's arm to 90°. The SMT lets go of the client's arm and instructs them to slowly lower their arm to the side of the body under control.	The client will report pain or may be unable to continue the movement if there are any rotator cuff tears. Movement should also be smooth – any juddering or sticking indicates a positive test.
Painful arc test  This test is to identify subacromial impingement.	In a seated or standing position, the client is instructed to slowly abduct the arm in the scapular plane. Movement should be full, with the aim of taking the arms above the head and all the way down to the side of the body.	If pain is experienced between 60 and 120°, the test is positive and suggests impingement.
Empty can / Jobe and Full can tests **Empty can test**  **Full can test**   These tests are used to identify and differentiate impingement or integrity of specific rotator cuff muscles.	**Empty can test** Whilst standing or sitting, the client rotates their arms so their palms face forwards and abducts their arms to 90° in the scapular plane. The client is then instructed to internally rotate the arms so that their thumbs face downwards. The SMT then applies pressure on top of the forearms, whilst the client attempts to lift their arms upwards. **Full can test** The same position and protocol is repeated, however this time, the arms are externally rotated so that the thumbs point upwards.	If pain and/or weakness is identified, this results in a positive test.

SPECIAL TEST	PROTOCOL	FINDINGS
Apley scratch test  This test is used to assess shoulder mobility.	This test can be completed one arm/one movement at a time or both arms together. The client lifts their arm overhead and reaches down the back with the palm facing towards the body. This tests shoulder abduction, flexion and external rotation. The client reaches up their back with their palm facing away from the body. This tests shoulder adduction, extension and internal rotation.	The SMT observes for any pain signals/reports and any impingement to movement. The action should be smooth and controlled. If the test is completed with both arms at the same time, the fingers of opposing hands should be able to touch. This test is useful for a comparative baseline that can be reassessed as treatment progresses. The distance between fingertips can be measured and this distance should become smaller over time.
Speed's test  This test is used to assess the biceps brachii tendon and muscle.	The client starts with the arm by their side. The SMT applies some opposing pressure and asks the client to lift their arm to shoulder height, keeping the arm straight throughout. This test is completed with the hand supinated and repeated with the hand pronated.	The client will report pain at the origin to the biceps brachii if the test is positive. Pain will increase when the test is completed with the arm in supination compared to pronation if the biceps brachii or its tendon is injured/inflamed.
Gerber's lift-off test  This test is used to assess subscapularis weakness or damage.	The client is guided to place their hand in the small of their back, palm facing away from the body. The SMT places their hand over the client's hand and resists the outward motion. The client tries to lift their hand away from the small of their back.	The test is positive if the client cannot lift their hand off their back or if they feel pain whilst trying to complete the action.

SPECIAL TEST	PROTOCOL	FINDINGS
Hawkins-Kennedy test  This test is used to assess supraspinatus weakness or damage.	The client's arm is flexed and raised to shoulder height, with the hand pronated in front of the body. The SMT supports the upper arm and passively internally rotates at the shoulder (moving the forearm downwards).	The test is positive if pain is felt during the movement or the movement is impinged.
Mill's test  This test is used to passively assess for tennis elbow. Cozen's test is the resisted version of this assessment.	The SMT palpates the lateral epicondyle. The client clenches their fist, with their arm extended and hand pronated. The wrist is passively flexed as far as possible. Cozen's test: The SMT resists the client as they attempt to extend the wrist.	The test is positive if pain is felt in the lateral epicondyle of the humerus or if movement is limited by the pain.
Golfer's elbow test  This test is used to check for medial epicondylitis.	The SMT palpates the medial epicondyle. The client extends the arm and supinates the hand. The SMT passively extends the wrist as far as possible.	The test is positive if pain is felt in the medial epicondyle of the humerus or if movement is limited by the pain.
Tinel's percussion test This test is used to assess median nerve compression and/or carpal tunnel syndrome.	The client's arm is placed palm upwards in a relaxed position on a flat surface in front of the body. The SMT uses two fingers to lightly tap along the median nerve.	The test is positive if there is some tingling or numbness felt in the thumb, index or middle finger or the lateral aspect of the ring finger.

SPECIAL TEST	PROTOCOL	FINDINGS
Phalen's test  This test is used to assess carpal tunnel syndrome and compression of the median nerve.	The client flexes their wrists, placing the backs of the hands together with the arms at shoulder height to elicit maximal wrist flexion. This position should be held for 30-60 seconds.	The client will feel some numbness or tingling if this position is held for the 30-60 seconds.
Reverse Phalen's test  This test is used to assess carpal tunnel syndrome and compression of the median nerve.	The palms of the hand are placed together, holding the wrists in maximum extension for 30-60 seconds.	The client will feel some numbness or tingling if this position is held for the 30-60 seconds.
Scaphoid compression test  This test is used to identify if the scaphoid bone has been fractured or damaged.	The SMT stabilises the scaphoid by pinching either side of the bone just below the thumb. With the other hand, the SMT applies a load by pushing the thumb towards the scaphoid. The joint can be further tested by shifting the thumb anteriorly and posteriorly whilst stabilising the scaphoid.	A positive test, indicating a potential scaphoid fracture, will occur when pain is felt during any of these movements.
Trigger finger test  This test is used to assess for inflammation of the tendinous sheaths along the fingers.	The client is asked to flex the finger(s).	The flexion and extension movement should be smooth and controlled. A positive test can be observed as the movement (especially the extension back to straight) sticking, flicking or popping.

SPECIAL TEST	PROTOCOL	FINDINGS
Jersey finger sign This test is used to assess whether the tendons of the finger flexors are torn or damaged.	The client's hand is observed with palm facing upwards.	A positive test, indicating that there is damage to the tendons, occurs when a finger cannot flex from the distal interphalangeal joint (DIP).
Mallet finger test  This test is used to assess if there has been a fracture in the DIP.	The SMT observes the client's finger.	If the finger is in forced flexion (looks like the head of a mallet), there may be some damage to the extensor tendons or the bones of the DIP.
Finkelstein test   This test is used to identify De Quervain's syndrome in the thumb.	The client places their thumb in a closed fist (thumb upwards) and attempts to abduct the hand by tilting the hand downwards.	The test is positive if pain is felt along the line of the thumb.

Table 4.4 Upper body special tests