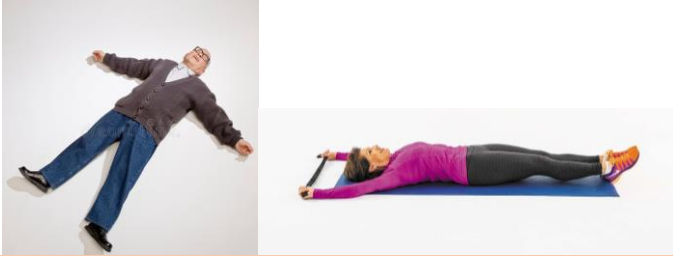



Schedule of Functional Muscle Test by Region


NECK – CERVICAL SPINE			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Active ROM test for the cervical spine	Multiple muscles in the neck. This test assesses potential tight muscles restricting movement.	<p>Your seated client is seated and takes their neck through the following movements to the full ROM possible.</p> <ul style="list-style-type: none"> • Rotation (both sides) • Flexion • Extension (gentle) • Lateral flexion (both sides) <p>The trainer monitors ROM and looks for indications of restriction between sides. The client can also give feedback regarding what feels tight/restricted.</p>	<p>Lack of rotation indicates tight: Sternocleidomastoid, Levator scapulae, upper trapezius on opposite side.</p> <p>Lack of flexion indicates tight: Upper Trapezius, Sub-occipitals, erector spinae</p> <p>Lack of extension indicates tight: Scalenes, longus coli, longus capitis</p> <p>Lack of lateral flexion indicates tight: Levator Scapulae, Scalenes, Sub occipitals</p>
Neck Flexor Endurance Test	Deep neck flexors: Longus Capitis, Longus Coli	<p>Client lies face up on a table and is instructed to lift the head and neck and hold them approximately 2.5 centimeters from the table while keeping their chin tucked in. The trainer places one hand under the back of their client's head and counts the time the client is able to maintain the head lift. The test ends when the skin folds under the chin can not be maintained, or the back of the head touches the trainer's hand for more than a second.</p>	<p>Average mean hold times from research are:</p> <p>Men: 39 secs Females: 29 secs</p> <p>Holding the position for less than this time indicates deep neck flexors have poor endurance</p>



Schedule of Functional Muscle Test by Region

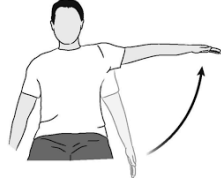
SHOULDER			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
"T" and "Y" tests	Pectoral length (major and minor) T= middle pecs Y = upper fibres of pecs	Have the client lie face up on the floor (or a mat). Instruct the client to horizontally adduct the shoulders to bring the hands to meet directly above the chest (with straight arms). Then have the client drop their arms to the side (horizontal abduction) with palms up. The client should allow their shoulder to fully relax. Repeat the process by dropping arms in a "Y" shape to assess the upper fibres of the pectorals.	A positive indicator of pectoral tightness is if the client can't get their arms to lie completely flat against the ground. If parts of the arms remain above the ground this indicates tight pectorals
			
Pectoral tightness test	Pectoral length (major and minor)	Instruct your client to fully flex their elbows and place their hands behind their head. The trainer then creates a passive stretch on the pectorals by pushing down on the client's elbows.	If the client's elbows are unable to flatten to the bench, this indicates tight pectoral muscles
			

Schedule of Functional Muscle Test by Region



SHOULDER <i>continued....</i>			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
"I" Test	Tests for tightness in Latissimus Dorsi, Rhomboids and Teres Major.	<p>Instruct the client to lie on their back with knees bent and soles of the feet on the ground. Ask them to slowly raise and then lower their arms over their head and let the arms fully relax.</p> 	This test is positive for muscle tightness if the arms cannot fully lay against the ground.
Active ROM test for shoulder	Tests multiple muscles of the shoulder complex. The test assesses where tight or dysfunctional muscles are restricting shoulder ROM	<p>Your standing client takes their shoulders through the following movements to the full ROM possible.</p> <ul style="list-style-type: none"> • Full abduction • Full Flexion • External rotation • Internal rotation [from an abducted shoulder and flexed elbow position] <p>The trainer monitors ROM and looks for indications of restriction between sides. The client can also give feedback regarding what feels tight/restricted.</p>	Rather than indicate specific muscle imbalances, this is a generic evaluation that allows you to see if further shoulder assessment is necessary.

Schedule of Functional Muscle Test by Region

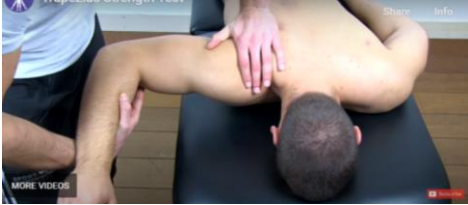

SHOULDER *continued....*

TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Shoulder abduction recruitment test	Tests shoulder recruitment pattern (deltoid/upper trapezius)	<p>The client is either seated or standing. Instruct them to bend their elbows to 90 degrees then slowly abduct the shoulder through to just above 90 degrees of abduction. The trainer monitors the action of the upper trapezius along with ease and smoothness of movement and scapular glide. Trainer can palpate upper trapezius to assess when they fire.</p> <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 10px;"> <p>Note: bent elbow position good too</p> </div> </div>	<p>Normal pattern: Recruitment in the deltoid/supraspinatus muscles. Ease of movement in the arm raise: no stiffness, halting or apparent heaviness. No involvement of ipsilateral upper trapezius until around 80 degrees of abduction. Small lateral shift in the torso away from the movement is normal (i.e., leaning left to raise the right arm).</p> <p>Poor Pattern: Overuse of the upper trapezius in early phases of movement: Excessive lean to opposite side, halting or clunking movements (loss of control) in downward phase through the 70-90 degree zone.</p>

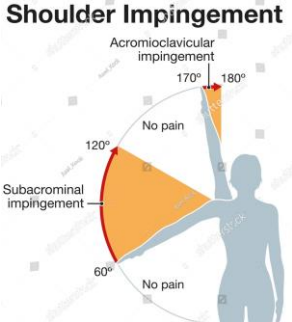
Schedule of Functional Muscle Test by Region

SHOULDER <i>continued...</i>			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Scapula Control Test	Tests ability of the muscles attaching to the scapula to work in synergy – indicates rotator cuff function	<p>Have the client stand and face away from you. Instruct them to slowly and smoothly abduct their shoulders to 90 degrees abduction. The trainer can gently place their thumbs on the inferior border of the scapula to feel when the scapulae abduct.</p> <p>Repeat the test having the client perform full flexion of the shoulders.</p>	<p>Normal control– if subject can raise to 60 degrees abduction without scapula following [abducting]. Positive result if scapula wings prior to 60 degrees of abduction.</p> <p>Positive result for scapula glide during flexion is if scapula abduct prior to 30 degrees of flexion.</p>
			
Rhomboid Recruitment/strength test	A test to see if rhomboids are recruiting as they should.	<p>The client should be lying face down on the table with arms at their sides. Instruct them to place one hand behind their back to try and touch the opposite back pocket (with palm up). The trainer then palpates the medial border of the scapula on the extended arms side (rest index finger just medial to bony border of scapula). Ask the patient to lift the arm and hand away from the body.</p>	<p>Normal strength: When the arm moves, the trainers index finger is pushed away from the body as the rhomboids contract.</p> <p>Weak: If the movement doesn't push against the trainers finger</p>
			

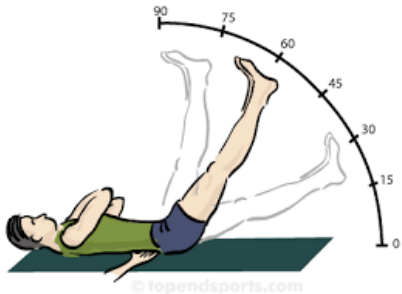

Schedule of Functional Muscle Test by Region

SHOULDER <i>continued....</i>			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Middle trapezius strength test	A test to see if the middle trapezius are recruiting as they should.	<p>The client lies face down. Instruct them to abduct and externally rotate the shoulder with a flexed elbow (as in image). Next, instruct the client to horizontally abduct the shoulder against resistance.</p> 	<p>Strong resistance indicates normal strength.</p> <p>Weak resistance or an inability to horizontally abduct the shoulder indicates weakness of the middle trapezius.</p> <p>Testing both arms will indicate if only one side is affected.</p>
Rotator cuff strength tests	<p>Infraspinatus (external rotation)</p> <p>Subscapularis (internal rotation)</p>	<p>Have the client stand with elbows bent and arms held close to their sides. Have the client externally rotate from the shoulder against resistance. It is important that they don't rotate their torso or abduct the arm away from the side during this assessment.</p> <p>Perform the test exactly as above, but this time the client internally rotates their shoulder against resistance.</p> 	<p>For both tests:</p> <p>Normal – resists strong pressure</p> <p>Good – can hold against firm pressure</p> <p>poor–can hold against weak resistance only</p> <p>Indications of weakness – recruitment of other muscle groups – arm may try to leave side, torso may start to rotate.</p>

Schedule of Functional Muscle Test by Region


SHOULDER <i>continued....</i>			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
The painful arc test	For shoulder impingement	<p>Instruct the client to stand with arms at their side, then slowly fully abduct their arm (one at a time). Look for signs from the client of pain and note the degrees of abduction where pain was evident (the client can inform you of discomfort and pain also).</p>  <p>The diagram, titled 'Shoulder Impingement', shows a human silhouette with the right arm abducted. A circular arc represents the range of motion. The arc is divided into three segments: a red segment from 60° to 120° labeled 'Subacromial impingement', a white segment from 120° to 170° labeled 'No pain', and a yellow segment from 170° to 180° labeled 'Acromioclavicular impingement'.</p>	<p>A positive test for subacromial impingement is if pain is indicated between 60 and 120 degrees of abduction.</p> <p>Positive test for acromioclavicular impingement if pain indicates after 170 degrees of abduction.</p>
Empty Can Test	Tests for supraspinatus strength and also impingement of the supraspinatus	<p>The client stands facing you. Instruct the client to internally rotate the humerus and pronated the forearms so that thumbs point down (as if emptying 2 cans). Instruct the client to raise their arms (from shoulders) against resistance. Do not abduct past 90 degrees abduction.</p> <p>Note, this is a more aggressive test than the painful arc test. If pain is present during the painful arc test, do not perform this test.</p>	<p>Strength test: Normal – resists strong pressure Good – can hold against firm pressure Average – can hold against weak resistance only Poor – may recruit other muscles – superior traps (shrug), or lean neck or torso to one side.</p> <p>Impingement: Positive if pain is felt against resistance</p> <p>If pain occurs without resistance could indicate tendinopathy</p>

Schedule of Functional Muscle Test by Region

CORE			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Straight leg lowering test	Tests recruitment of lower abdominals and indicates over-active hip flexors	<p>Client is lying face up with legs straight. The trainer places their hand under the lumbar spine and lifts the client's legs to 90 degrees of flexion. This should press the trainer's hand firmly into the floor. Instruct the client to slowly lower their legs towards the ground (under control with legs held straight). Note the point at which the lower back leaves your hand.</p> 	<p>Good result: Legs lowered to 30 degrees before lower back arches.</p> <p>Poor: Legs lower to 60 degrees only before back arches.</p> <p>Weak lower abs will force lower back to hyperextend during movement. Also, client will be unable to lower slowly (legs will fall).</p>
Knee hug to extend test	Tests recruitment of lower abdominals and indicates over-active hip flexors	<p>The client sits on the floor and performs drawing in maneuver [brings knees into chest with feet off floor]. Instruct the client to lower their legs slowly by extending the hips and knees until legs are straight out in front around 6 inches from the floor. Encourage them to perform the movement with the least amount of back extension possible [i.e. try not to lean back]. Ask the client to hold that position.</p>  <p>Note: picture shows poor performance [lean back].</p>	<p>Normal recruitment/strong lower abdominals: Client lumbar spine extension is minimal and client can hold position with ease for a number of seconds. Hip flexors are working to aid but force is spread between lower abs and hip flexors.</p> <p>Weak/poor recruitment: client is forced to move into significant back extension to maintain leg position [i.e. lies back]. It is obviously difficult for the client to maintain the hold and most of the force is felt in the hip flexors.</p>


Schedule of Functional Muscle Test by Region

CORE *continued....*


TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS																																												
The undertaker test	Tests recruitment and sequencing of abdominal muscles (upper, middle and lower fibres).	<p>The client is lying face up on floor with arms crossed over chest and legs straight. Instruct the client to try and slowly curl up into a full sit up position. This movement should be slow and controlled, starting with curling the head and neck followed by clearing the shoulder blades and finally the lower back from the floor. Legs and feet should remain in contact with the floor throughout. No momentum should be used in this movement (i.e. swinging yourself up quickly).</p> 	<p>Strong recruitment: Achieves full sit up with trunk flexion followed by hip flexion (in a smooth and controlled manner). Feet and legs remain on floor throughout.</p> <p>Weak abdominals: If trunk remains almost straight and lifting seems to originate from hips (hinge up). Legs will leave the floor as middle and lower abs are bypassed in favour of hip flexors.</p> <p>If head neck and shoulder blades clear floor but client gets stuck (cast). Indicates strong upper abs, weak lower abs and hip flexors.</p> <p>Weak hip flexors: if trunk flexes to achieve clearance but cannot achieve full sit up (can't finish to vertical)</p>																																												
Sit and reach test	This test evaluates back extensor and hamstring flexibility	The client takes off their shoes and places the soles of their feet against the sit and reach box (under the measuring platform). Instruct the client to place one hand over the other (palms down) with their arms straight out in front. Instruct the client to slowly lean forward as far as they can to reach as far long the sit and reach measuring board as they can.	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">men</th> <th colspan="2">women</th> </tr> <tr> <th>cm</th> <th>inches</th> <th>cm</th> <th>inches</th> </tr> </thead> <tbody> <tr> <td>super</td> <td>> +27</td> <td>> +10.5</td> <td>> +30</td> <td>> +11.5</td> </tr> <tr> <td>excellent</td> <td>+17 to +27</td> <td>+6.5 to +10.5</td> <td>+21 to +30</td> <td>+8.0 to +11.5</td> </tr> <tr> <td>good</td> <td>+6 to +16</td> <td>+2.5 to +6.0</td> <td>+11 to +20</td> <td>+4.5 to +7.5</td> </tr> <tr> <td>average</td> <td>0 to +5</td> <td>0 to +2.0</td> <td>+1 to +10</td> <td>+0.5 to +4.0</td> </tr> <tr> <td>fair</td> <td>-8 to -1</td> <td>-3.0 to -0.5</td> <td>-7 to 0</td> <td>-2.5 to 0</td> </tr> <tr> <td>poor</td> <td>-20 to -9</td> <td>-7.5 to -3.5</td> <td>-15 to -8</td> <td>-6.0 to -3.0</td> </tr> <tr> <td>very poor</td> <td>< -20</td> <td>< -7.5</td> <td>< -15</td> <td>< -6.0</td> </tr> </tbody> </table>		men		women		cm	inches	cm	inches	super	> +27	> +10.5	> +30	> +11.5	excellent	+17 to +27	+6.5 to +10.5	+21 to +30	+8.0 to +11.5	good	+6 to +16	+2.5 to +6.0	+11 to +20	+4.5 to +7.5	average	0 to +5	0 to +2.0	+1 to +10	+0.5 to +4.0	fair	-8 to -1	-3.0 to -0.5	-7 to 0	-2.5 to 0	poor	-20 to -9	-7.5 to -3.5	-15 to -8	-6.0 to -3.0	very poor	< -20	< -7.5	< -15	< -6.0
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Schedule of Functional Muscle Test by Region



CORE *continued*...

TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Back extension and hip extension sequencing test	This test helps you assess the strength and recruitment of back extensors and gluteus maximus	<p>The client begins lying in a face down position on the table or floor. The trainer holds down the legs, then instructs the client to extend the trunk as far as the can and hold this position for a couple of seconds.</p> 	<p>Strong pattern and strength: If the client can clear the chest from the table and hold it, back extensors are strong. If the client can clear the abdomen (to the ASIS of the pelvis) then Gluteus maximus is recruiting well.</p> <p>Weak or poor pattern: If the client can't clear the chest from the table (or can but cannot hold it for more than a second) then back extensors are weak. If the client cannot clear the abdomen from the table, then gluteus maximus is weak. (note the presence of excess abdominal fat will make this difficult to determine).</p>



Schedule of Functional Muscle Test by Region

HIPS <i>continued</i>....			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Thomas Test	Hip flexor (and rectus femoris) length	<p>Client starts by lying supine on examination table with legs off the end (the edge of the table should run along the gluteal fold).</p> <p>The client pulls one knee towards their chest (using hands to assist) until lower back is flat against the table.</p> <p>The trainer then takes the other leg (asking the client to fully relax it). After a couple of passive hip and knee flexion and extension movements, allow the leg to drop slowly towards the table (asking the client to fully relax it).</p> 	<p>If the dropped thigh remains raised from the table at the end of the ROM, this indicates hip flexor tightness. The earlier this happens the bigger the issue.</p> <p>If the hanging leg remains straight or only partially bent at the knee in full relaxation, this may indicate tight rectus femoris.</p> <p>Short Tensor fascia Latae (TFL) and of piriformis may be indicated if abduction (hip) occurs (i.e. knee tracks out as it lowers).</p>


Schedule of Functional Muscle Test by Region

HIPS <i>continued....</i>			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Hip flexor Strength Test	Hip flexors	<p>The client is seated at the edge of a table with knees bent with hands placed on the table either side of them. Instruct the client to push their knee up (under firm resistance). Note: For the trainer, It is important to use your dominant hand for both legs to provide resistance.</p> 	<p>Normal – resists strong pressure Good – can hold against firm pressure Average – can hold against gravity [at full flexion] Weak – Cannot hold leg against gravity</p> <p>Watch out for compensation movements:</p> <ul style="list-style-type: none"> • If the client externally rotates and abducts the thigh as pressure increases = sartorius may be strong or TFL weak. • Internal rotation of the hip during the movement shows strong TFL/weak sartorius • Thigh will adduct if adductor group is overactive
Straight leg test	Passive Hamstring length	<p>Client is lying on their back on table (back and sacrum flat to table) legs straight and feet relaxed. The trainer places one hand on the upper thigh and one hand behind the ankle of the client and lifts the leg passively while keeping the knee straight. Continue with passive hip flexion until the client asks you to stop or the knee is unable to remain fully extended.</p> 	<p>Normal ROM would allow at east 80 degrees of flexion with a straight leg.</p> <p>If the knee cannot stay fully extended until 80 degrees of flexion it suggests tight hamstrings.</p> <p>If hip cannot flex past 80 degrees it suggests tight long head of biceps femoris.</p> <p>If tight hip flexors were indicated in earlier testing, place padding under resting knee to see if improved result (tight hip flexors may limit actual hip flexion)</p>


Schedule of Functional Muscle Test by Region

HIPS <i>continued....</i>			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
FABER (Patrick's) test	Hip mobility test that tests length of multiple muscles acting on the hips. Can indicate tight hip adductors and internal rotators of the hip.	<p>The client lies on their back on a table. Instruct them to cross one leg over the other by taking their foot and placing it above the knee of the opposite leg (makes a figure 4 shape). Make sure the ankle is hanging free. The trainer then fixes the pelvis on the opposite side in place by applying gentle pressure while pushing on the inside knee of the crossed leg to try and get the hip to abduct and externally rotate towards the table.</p> 	This test is positive if the tested leg remains above the height of the opposite leg. Can indicate tight adductors, TFL or hip flexor muscles.
OBER's Test	To test length of ITB and TFL	<p>Client lying on side. Leg closest to tabletop is flexed at the knee and hip for stability. Top hip and knee straight. Tester stands behind and places one hand on lateral hip to aide stabilization.</p> <p>Tester passively moves the hip extend and abducts the hip (knee can bend). Tester releases the leg and client told to relax.</p> 	<p>If legs does not adduct to below neutral when released can indicate tight ITB and possibly TFL.</p> <p>You can also perform this test with the client's top leg straight. The client lies on the back edge of the table. If the foot doesn't drop below the table level during the test, this indicates a tight ITB.</p>


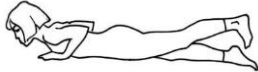

Schedule of Functional Muscle Test by Region

HIPS <i>continued....</i>			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
The Piriformis Test	To test for tight piriformis	<p>The client lies on their side on the edge of the table (facing the trainer). The trainer passively moves the client's leg into 60 degrees of hip flexion, with a flexed knee (the bottom leg remains fully extended). The trainer fixes the pelvis in place with one hand (to stop the client's body rolling forward) and then applies downward pressure on the bent knee (towards the table).</p>  <p>1- The examiner brings the patient's upper leg into 60 degrees of hip flexion.</p> <p>2- The examiner then fixates the pelvis with one hand.</p> <p>3- And finally with the other hand, the examiner applies downward pressure at the knee.</p>	<p>This test is positive if the top knee cannot make it to the level of the table. It is also positive for piriformis syndrome if pain is felt in the buttock or radiating down the leg during the test.</p>



Schedule of Functional Muscle Test by Region

HIPS <i>continued....</i>			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Hip abduction recruitment test	Tests the recruitment of the Gluteus Medius, along with its synergy with the TFL and quadriceps in hip abduction	<p>The client lies on their side facing away from the trainer. The top hip is being tested and must be extended 10-15° (passively). The bottom hip/knee are flexed for stability. Instruct the client to perform a lateral leg raise that abducts the thigh around 30 degrees.</p> <p>The trainer stabilises the pelvis with one hand while palpating over the glute medius with the heel of the other hand and resting the fingers of the same hand over the TFL. Ideally you trainer should also be able to see the lower back.</p> <p>Note: If tight hip flexors restrict hip extension, this will compromise the test position. Stretch them in advance of the test.</p> 	<p>Normal pattern: Active recruitment of the gluteus medius is felt under the heel of the hand. Ease in the leg raise with no appearance of effort, heaviness or strain. The leg remains in the same plane throughout the lifting/lowering movement, i.e., no hip flexion occurs. No activity in the quadratus lumborum (lower lateral back). No raising of the pelvis toward the ribs occurs on leg lift. (these are all compensatory movements suggesting poor recruitment or weakness of the gluteus medius).</p> <p>POOR PATTERN: Substitution use of the quadratus lumborum, the tensor fasciae latae, rectus femoris, iliopsoas or abdominals to raise the leg. These substitutions create problems. A poor hip abduction pattern, over time, will produce lumbar strain, sacroiliac, knee or ankle pain. These stressed areas will be overused to supply the stability that should come from the hip abductors.</p>

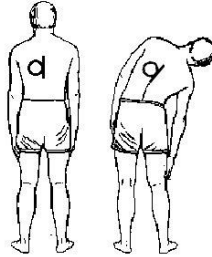
Schedule of Functional Muscle Test by Region

HIPS <i>continued....</i>			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Hip abduction strength test	Tests the strength of the Gluteus medius	<p>Same starting position as the recruitment test above. This time the client pushes in an abduction direction as the trainer applies downward force with their hand.</p> <p>Test both legs to ascertain strength differences</p> 	<p>Normal – resists strong pressure Good – can hold against firm pressure Average – can hold against gravity only Weak – cannot resist against gravity</p> <p>Note: it is ok if slight extension and slight external rotation occur</p>
Janda's prone hip extension recruitment test	Tests gluteus maximus (primary) and hamstrings recruitment	<p>The client lies facing down with legs straight. Instruct the client to extend the hip of one leg without bending the knee (just 15 degrees is fine). The trainer should observe the gluteus maximus and should see it round and pull in from the edges. The trainer should also look out for any compensatory movements at the lower back (including rotation or extension).</p>  <p>A progression of this test can be used for more active people that involves bending the knee and pushing the sole of the foot to the ceiling.</p> 	<p>Normal pattern: Strong and obvious recruitment of gluteus maximus. No rotation in the pelvis to either side. No initiation of movement from the back extensors</p> <p>Poor pattern: Recruitment will be absent or insufficient in the gluteus max., in which case the client will find the thigh/leg too heavy to raise or will hyperextend the lumbar spine as a substitute. They may also rotate the pelvis to help lift the thigh.</p>

Schedule of Functional Muscle Test by Region

HIPS <i>continued</i>			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Hip Extension strength test	Tests gluteus maximus (primary) and hamstring strength	Lying prone with knee straight. Instruct the client to extend the hip against resistance (trainer pushes down on back of thigh). Test both legs to ascertain strength differences 	Normal – resists strong pressure Good – can hold against firm pressure Average – can hold against gravity only Weak – cannot resist against gravity
Pelvic control test	Tests Gluteus Medius ability to maintain pelvic stability during 1 leg stance	Client stands with arms at sides feet just narrower than shoulder width apart. Instruct them to lift one leg off the floor (knee flexes behind them) with as little lateral movement as possible. 	Normal: hips remain almost level and trunk remains vertical. Weak gluteus medius. = Hip drops towards side of lifted leg and opposite hip moves out (lateral shift)

Schedule of Functional Muscle Test by Region

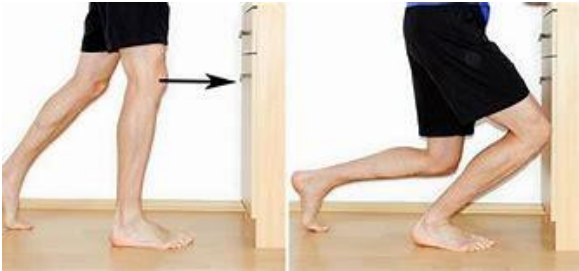
HIPS <i>continued....</i>			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Lateral flexion test	Tests recruitment of gluteus medius (and obliques)	<p>Client stands facing you with hand by sides (palms against thigh). Instruct the client to slide one hand down towards the knee by laterally flexing the trunk. Encourage them to try and keep their pelvis level.</p> 	<p>Normal: Pelvis remains still as trunk leans to one side Positive result Hips move away from the side subject is leaning towards = weak gluteus medius</p> <p>Hip drops on same side as subject is leaning towards = weak obliques</p>
Hip External Rotation Test	This test is designed to see if the external rotators of the hip (e.g.piriformis) are weak	The client is sitting on a high bench or table with the lower legs dangling off (knees flexed). The trainer prepares to resist external rotation then asks the client to externally rotate the hip against resistance (turn the tibia and ankle inwards against resistance). Ensure the force created by the client is external rotation and not abduction of the hip).	<p>Normal – resists strong pressure Good – can hold against firm pressure Weak – cannot hold against gravity or uses additional movements e.g. abduction or trunk lean to generate force.</p>

Schedule of Functional Muscle Test by Region

KNEE			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Knee AROM test	Tests quadriceps length	The client lies on their back with their legs out straight. Instruct the client to bend the tested leg and place the sole of the foot on the table. Next, instruct the client to slide their heel towards their buttocks as far as they can.	<p>Normal: The client can slide the heel until the shin is close to vertical.</p> <p>Tight quads are indicated if the heel cannot bring the shin to near vertical.</p>
Prone knee curl test (Ely's test)	Measures quadricep length	<p>Client is lying face down with legs straight. Instruct the client to flex the knee as far as possible (heel to buttocks) without lifting their pelvis from the table.</p> <p>Can do this test on individual legs. Testing both at once can give a good indication of differences between legs.</p>	<p>Normal – can flex knee to 120 degrees of flexion without movement of hips.</p> <p>Positive If hips move (lift) before 120 degrees = suggests weak obliques</p> <p>If knee can't reach 120 degrees of flexion = suggests tight quads.</p>



Schedule of Functional Muscle Test by Region

ANKLE			
TEST NAME	MUSCLES TESTED/WHAT IT TESTS	TEST PROTOCOL & TIPS	INTERPRETING TEST RESULTS
Ankle Dorsiflexion Test	Tests for tight calves	<p>The client faces a wall. Measure a distance 10 cm from the wall and place a line of tape there. Instruct the client to place the toe of the tested leg on the line of tape. Have them place their non tested foot back a little (for balance). The non-tested foot must remain facing forward throughout the test. The heel of the non-tested foot can leave the ground during the movement. Instruct the client to dorsiflex the ankle and take the knee towards the wall without the knee caving in or the heel of the tested foot lifting from the floor.</p> 	<p>Normal: The client's knee will make contact with the wall with the heel still in contact with the ground. No compensatory movement like the non-tested leg moving laterally, or the knee caving in is used.</p> <p>Positive: The client's knee does not touch the wall, or compensatory tactics are used. This indicates tight calves.</p>