

**Note:** This is Online Appendix 1 of Quinn, S-L., Olivier, B. & McKinon, W., 2023, 'The efficacy of injury screening for lower back pain in elite golfers, *South African Journal of Physiotherapy* 79(1), a1843. <https://doi.org/10.4102/sajp.v79i1.1843>

**Online Appendix 1: Description of screening tests**

**Section 1**

Test Image	Test description
<p data-bbox="204 555 475 589"><i>Single leg squat test</i></p> 	<p data-bbox="802 555 1390 808">The participant was asked to stand on one leg and perform the single leg squat with the non-stance leg in neutral as shown in figure (Olivier et al., 2019). Scoring was based on Crossley et al. (2011).</p> <p data-bbox="802 887 1390 920">In order for a participant to be scored as good:</p> <ul data-bbox="853 943 1390 1648" style="list-style-type: none"> <li>• The participant needed to not lose their balance</li> <li>• The movement needed to be smooth.</li> <li>• The squat needed to be performed to at least 60 degrees of knee flexion.</li> <li>• There was no trunk deviation during the squat.</li> <li>• There was no pelvic lateral shift.</li> <li>• No hip adduction during the squat.</li> <li>• No apparent knee valgus during the squat.</li> <li>• The knee needed to remain over the centre of the foot.</li> </ul>
<p data-bbox="204 1675 496 1709"><i>Deep over head squat</i></p>	<p data-bbox="802 1675 1390 1984">The participant was asked to stand with their feet shoulder width apart while holding a dowel overhead. Then the participant was asked to squat while maintaining an upright torso, keeping the heels on the floor and the dowel above their head. Then the participant</p>

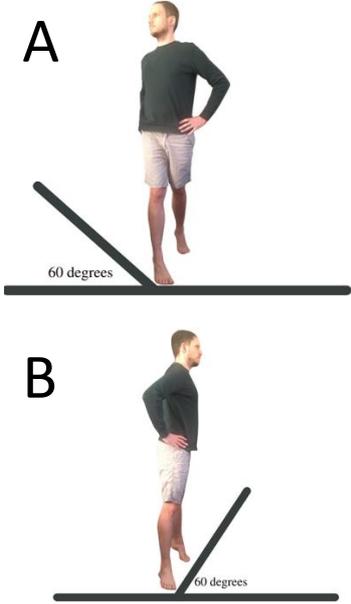
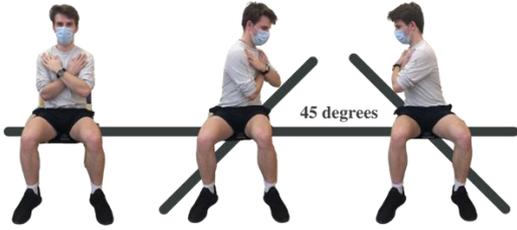
	<p>stood upright again. The scoring was based on Cook et al. (2014a).</p>
<p>Test Image</p>	<p>Test description</p>
<p><b><i>Hurdle step test</i></b></p> 	<p>The participant was asked to stand in front of the hurdle. The hurdle was adjusted to the height of the participant's tibial tuberosity. The participant was asked to hold the dowel with both hands and place it behind his neck. The participant was then asked to step over the hurdle while maintaining upright posture and maintaining alignment between their foot, knee and hip. The participant placed their foot on the other side of the hurdle, without accepting weight transfer onto that foot. The moving leg was then returned to its starting position. The scoring was based on Cook et al. (2014a).</p>
<p><b><i>In line lunge test</i></b></p> 	<p>A measurement was made from the floor to the participant's tibial tuberosity. The participant was asked to stand on a line with one foot in front and the other foot behind. The distance from the toes of the back foot to the heel of the front foot was the same as the distance from the floor to the participant's tibial tuberosity. The participant stood with their toes facing forward while he grasped the dowel behind his back (perpendicular to the</p>

	<p>floor). The participant was then asked to lunge. The scoring was based on Cook et al. (2014a).</p>
Test Image	Test description
<p><b><i>Straight leg raise</i></b></p> 	<p>The participant was asked to lie in supine. A goniometer was then placed with the stationary arm parallel to the edge of the table and the movable arm was placed parallel to the lateral shaft of the thigh. The axis was placed over the superior half of the greater trochanter (Hsieh et al., 1983). The participant was then asked to actively lift their leg while keeping their knee straight. A goniometer measurement was then taken by the physiotherapist.</p>
<p><b><i>Trunk stability push up test</i></b></p> 	<p>The participant was asked to assume a prone position with their feet together, knees fully extended and their hands placed at the level of their forehead. The participant was then asked to perform a push up in this position. The participant's body should ideally move as a single unit with no lag. The scoring was based on Cook et al. (2014b).</p>
<p><b><i>Spinal extension clearing test</i></b></p>	<p>The participant was asked to assume a prone position with his hands at forehead height and then he was asked to perform a push up while keeping his hips on the floor. The scoring was based on Cook et al. (2014b)</p>

	
<p>Test Image</p>	<p>Test description</p>
<p><b><i>Rotatory stability test</i></b></p> 	<p>The participant was asked to assume a four point kneeling position. He was then asked to extend his left hand and left leg. He was then asked to bring his left elbow towards his left knee while maintaining his balance on his right hand and right knee. The same movement pattern is performed on right side. The scoring was based on Cook et al. (2014b).</p>
<p><b><i>Spinal flexion clearing test</i></b></p> 	<p>The participant was asked to assume a four point kneeling position. He was then asked to rock backward until his buttocks touched his heels and his chest touched his thighs. The scoring was based on Cook et al. (2014b).</p>
<p><b><i>Pelvic tilt test</i></b></p> 	<p>The participant was asked to assume a golf set up posture. The participants posture was assessed in this golf set up position. He was then asked to anterior tilt his pelvis (arch their lower back) and posterior tilt his pelvis (flatten their back). Both the quality of the movement and the range of motion was assessed. The movement was demonstrated to the participant if he did not understand how to perform the test. The scoring was based on</p>

	Titleist Performance Institute (2021e).
Test Image	Test description
<p data-bbox="201 696 456 730"><i><b>Pelvic rotation test</b></i></p> 	<p data-bbox="804 696 1391 1167">The participant was asked to stand in golf posture with his arms crossed. He was then asked to keep his torso as still as possible while rotating his pelvis left and right (as he would during the golf swing). The scoring was based on Titleist Performance Institute (2021d). Stability during this movement, range of motion and quality of movement was assessed.</p>
<p data-bbox="201 1196 456 1229"><i><b>Torso rotation test</b></i></p> 	<p data-bbox="804 1196 1391 1666">The participant was asked to stand in golf posture with his arms crossed. He was then asked to keep his pelvis as still as possible while rotating his torso left and right (as he would during the golf swing). The scoring was based on Titleist Performance Institute (2021h). Stability during this movement, range of motion and quality of movement was assessed.</p>
<p data-bbox="201 1688 392 1722"><i><b>Toe touch test</b></i></p>	<p data-bbox="804 1688 1391 1935">The participant was asked to stand and place his feet together. He was then asked to bend as far forward as possible. The scoring was based on Titleist Performance Institute (2021g).</p>

	
<p>Test Image</p>	<p>Test description</p>
<p><b><i>90/90 test in standing</i></b></p> 	<p>The participant was asked to stand upright and position his shoulder in 90 degrees of abduction and maximum external rotation. The scoring was based on Titleist Performance Institute (2021a). Scoring was based on whether or not the forearm achieved a position parallel to the spine (i.e. perpendicular to the floor).</p>
<p><b><i>90 90 test in golf posture</i></b></p> 	<p>The participant was asked to stand in the set up position and then position his shoulder in 90 degrees of abduction and maximum external rotation. The scoring was based on Titleist Performance Institute (2021a). Scoring was based on whether or not the forearm achieved a position parallel to the spine.</p>
<p><b><i>Single leg bridge with leg extension test</i></b></p> 	<p>The participant was asked to ly supine and assume the crook lying position. The participant was then asked to perform a bridge. Once in this position he was asked to extend one knee while maintaining a good pelvic alignment. The scoring was based on Titleist Performance Institute (2021b).</p>

	<p>Participants were scored as weak if they were unable to perform the test or they if they found it difficult maintain the position or if they shook while holding this position. Glutes were considered inhibited if the participant cramped during the exercise.</p>
<p>Test Image</p>	<p>Test description</p>
<p><b>Lower quarter rotation test</b></p>  <p>Figure A: A participant stands on their right foot with their left foot dorsiflexed behind it. A line is drawn from the center of the right foot to the center of the left foot, forming a 60-degree angle with the ground. The participant is rotating clockwise.</p> <p>Figure B: A participant stands on their right foot with their left foot dorsiflexed behind it. A line is drawn from the center of the right foot to the center of the left foot, forming a 60-degree angle with the ground. The participant is rotating anti-clockwise.</p>	<p>The participant was asked to stand with their hands on their hips. The participant was then asked to shift all their weight onto the right foot and move their left foot behind the right foot and place it on the floor in a dorsiflexion position. The participant was then asked to rotate as far as he could both clockwise (Figure A) and anti-clockwise (Figure B) on his right leg. Markers on the floor were used to determine if the participant achieved a 60 degree angle while rotating both clockwise and anti-clockwise. The movement was repeated on the left leg. The scoring was based on Titleist Performance Institute (2021c).</p>
<p><b>Seated trunk rotation test</b></p>  <p>Figure A: A participant is seated on a chair with their arms crossed. A line is drawn from the center of the chair to the center of the participant's chest, forming a 45-degree angle with the ground. The participant is rotating clockwise.</p> <p>Figure B: A participant is seated on a chair with their arms crossed. A line is drawn from the center of the chair to the center of the participant's chest, forming a 45-degree angle with the ground. The participant is rotating anti-clockwise.</p>	<p>The physiotherapist marked out two lines 45 degrees from the horizontal and placed a chair over the line. The participant was asked to sit on the chair and crosses his arms across his chest. He was then asked to rotate his thorax clockwise and anticlockwise. Using markers on the floor the physiotherapist determined if the participant was able to rotate to a 45 degree angle both a clockwise</p>

	<p>and anti clockwise direction. This test was then repeated with the golf club or dowel placed behind the participants shoulders. The scoring was based on Titleist Performance Institute (2021f).</p>
<p>Test Image</p>	<p>Test description</p>
<p><b><i>Seated trunk rotation test with club behind shoulders</i></b></p> 	<p>The physiotherapist marked out two lines 45 degrees from the horizontal and placed a chair over the line. The participant was asked to sit on the chair and with the golf club or dowel placed behind his shoulders. He was then asked to rotate his thorax clockwise and anticlockwise. Using markers on the floor the physiotherapist determined if the participant was able to rotate to a 45 degree angle in both a clockwise and anti-clockwise direction. The scoring was based on Titleist Performance Institute (2021f).</p>
<p><b><i>Plank endurance test</i></b></p> 	<p>The participant was asked to assume the plank position, which is a prone bridge supported by the forearms and feet. Then at various times points the participant was asked to lift a leg or an arm or both (see functional screen scoring table). The scoring was based on Tong et al. (2014).</p>
<p><b><i>Sit up test</i></b></p> 	<p>The participant was asked to perform as many sit ups as he could in one minute. The participant was permitted to stabilise his legs during the sit up if he wished.</p>

Test Image	Test description
<p data-bbox="204 696 373 730"><i>Push up test</i></p> 	<p data-bbox="802 696 1390 786">The participant was asked to perform as many push ups as he could in one minute.</p>
<p data-bbox="204 893 448 927"><i>Oblique sit up test</i></p> 	<p data-bbox="802 893 1390 1095">The participant was asked to perform as many oblique sit ups as he could in one minute. The participant was permitted to stabilise his legs during the sit up if he wished.</p>

## Section 2

**Page 1 of 3: Table of functional tests scoring and the type of data each that each functional movement test yields.**

Test	Type of data	Test scoring	Numerical value assigned to score
Single leg squat	Ordinal (ranking tests)	Good	1
		Fair	2
		Poor	3
Deep overhead squat	Ordinal (ranking tests)	Pain while performing this test	0
		Unable to complete the movement pattern or assume the start position	1
		Able to perform the movement pattern, but requires compensation	2
		Correct movement pattern without compensation	3
Hurdle step	Ordinal (ranking tests)	Pain	0
		Unable to complete the movement pattern or assume the start position	1
		Able to perform the movement pattern, but requires compensation	2
		Correct movement pattern without compensation	3
In line lunge	Ordinal (ranking tests)	Pain while performing this test	0
		Unable to complete the movement pattern or assume the start position	1
		Able to perform the movement pattern, but requires compensation	2
		Correct movement pattern without compensation	3
Straight leg raise	Continuous	Goniometer measurement in degrees	Continuous measurement
Trunk stability push up	Ordinal (ranking tests)	Pain	0
		Unable to complete the movement pattern or assume the start position	1
		Able to perform the movement pattern, but requires compensation	2
		Correct movement pattern without compensation	3
Spinal extension test	Nominal (Categorical tests)	Pain in this position	None
		No pain in this position	None
Rotational stability test	Ordinal (ranking tests)	Pain while performing this test	0
		Unable to complete the movement pattern or assume the start position	1
		Able to perform the movement pattern, but requires compensation	2
		Correct movement pattern without compensation	3
Spinal flexion clearing test	Nominal (Categorical tests)	Pain while performing this test	None
		No pain	None
Pelvic tilt test at address posture at set up score	Nominal (Categorical tests)	Neutral	None
		Excessive anterior	None
		Excessive posterior	None

## Section 2

**Continued Page 2 of 3: Table of functional tests scoring and the type of data each that each functional movement test yields.**

Test	Scoring of test	Test scoring	Numerical value assigned to score
Pelvic tilt test at set up amount of motion score	Nominal (Categorical tests)	Normal motion	None
		Limited posteriorly	None
		Limited anteriorly	None
		Both limited	None
Pelvic tilt test at set up quality of movement score	Nominal (Categorical tests)	Smooth movement	None
		Shaking movement	None
Pelvic rotation test stability score	Nominal (Categorical tests)	Good stability	None
		Limited stability left side	None
		Limited stability right side	None
		Both stability limited	None
Pelvic rotation test mobility score	Nominal (Categorical tests)	Good mobility (full active range of motion)	None
		Limited mobility when moving to the left side	None
		Limited mobility when moving towards the right side	None
		Both sides show limited movement (reduced active range of motion).	None
Pelvic rotation test quality of movement score	Nominal (Categorical tests)	Good rotatory movement	None
		Participant tends to perform a more lateral movement than a rotatory movement.	None
Torso rotation test stability score	Nominal (Categorical tests)	Good stability	None
		Limited stability when moving to the left side	None
		Limited stability right side	None
		Stability limited towards both sides	None
Torso rotation test mobility score	Nominal (Categorical tests)	Good mobility or active range of motion during this test	None
		Limited mobility left side	None
		Limited mobility right side	None
		Both sides mobility limited	None
Torso rotation test quality of movement score	Nominal (Categorical tests)	Good rotatory movement	None
		More lateral movement	None
Toe touch test	Nominal (Categorical tests)	Full range of motion	None
		Decreased toe touch on the left	None
		Decreased toe touch on the right	None
		Decreased toe touch bilaterally	None

## Section 2

**Continued Page 2 of 3: Table of functional tests scoring and the type of data each that each functional movement test yields.**

Test	Scoring of test	Test scoring	Numerical value assigned to score
90/90 shoulder in standing	Nominal (Categorical tests)	Standing<spine	None
		Standing=spine	None
		Standing>spine	None
90/90 shoulder in golf posture	Nominal (Categorical tests)	Standing<spine	None
		Standing=spine	None
		Standing>spine	None
Single leg bridge with leg extension	Nominal (Categorical tests)	Glut normal	None
		Gluts weak	None
		Glut inhibited	None
lower quarter rotation test internal rotation measurement	Nominal (Categorical tests)	>60°	None
		=60°	None
		<60°	None
lower quarter rotation test external rotation measurement	Nominal (Categorical tests)	>60°	None
		=60°	None
		<60°	None
Seated trunk rotation with arms crossed	Nominal (Categorical tests)	>45°	None
		=45°	None
		<45°	None
Seated trunk rotation with club behind back	Nominal (Categorical tests)	>45°	None
		=45°	None
		<45°	None
Plank test	Ordinal (ranking tests)	Hold basic plank for 60 sec	1
		Then lift right arm off the ground for 15 sec	2
		Then return the right arm to the start position and lift the left arm off the ground for 15 sec	3
		Return the left arm to the starting position and then lift right leg off the ground for 15 sec.	4
		Then return the right leg to start position and lift the left leg off the ground for 15 sec	5
		Then lift the left leg and right arm off the ground for 15 sec.	6
		Return the left and right arm to the start position, then lift the right leg and left arm off the ground for 15 sec.	7
		Return to the basic plank position for 30 sec.	8
		Repeat until failure steps 1-8 and record the number of steps achieved.	9
Sit up test	Continuous	Maximum number of sit ups the golfer is able to achieve in 1 minute	Continuous measurement
Push up test	Continuous	Maximum number of push ups the golfer is able to achieve in 1 minute	Continuous measurement
Oblique sit up test	Continuous	Maximum number of oblique sit ups to the golfer is able to achieve in 1 minute	Continuous measurement

### Section 3

**Page 1 of 4: Table comparing categorical screening test results for those with lower back pain compared to those without lower back pain**

Variable	Score	No lower back pain group n	No lower back pain group per category n(%)	Lower back pain group n	Lower back pain group per category n(%)	Comparison between no lower back pain and lower back pain group p value	Comparison between no lower back pain and lower back pain group effect size
Spinal extension clearing test	Pain	24	0 (0%)	17	3 (17.65%)	0.06	0.33
	No pain		24 (100%)		14 (82.35%)		
Spinal flexion clearing test	Pain	24	0 (0%)	17	1 (5.88%)	0.42	0.19
	No pain		24 (100%)		16 (94.12%)		
Pelvic tilt test posture at set up score	Neutral	24	22 (91.67%)	17	15 (88.24%)	0.41	0.06
	Excessive anterior		1 (4.17%)		1 (5.88%)		
	Excessive posterior		1 (4.17%)		1 (5.88%)		
Pelvic tilt at set up posture amount of motion score	Normal motion	24	15 (62.5%)	16	11 (68.75%)	0.41	0.27
	Limited posteriorly		2 (8.33%)		2 (12.5%)		
	Limited anteriorly		0 (0%)		1 (6.25%)		
	Both limited		7 (29.17%)		2 (12.5%)		
Pelvic tilt at set up posture quality of movement	Smooth movement	24	5 (20.83%)	17	4 (23.53%)	1	0.03
	Shaking movement		19 (79.17%)		13 (76.47%)		
Pelvic rotation stability score	Good stability	24	21 (87.5%)	17	15 (88.24%)	0.53	0.23
	Limited stability left side		2 (8.33%)		1 (5.88%)		
	Limited stability right side		1 (4.17%)		0 (0%)		
	Both sides stability limited		0 (0%)		1 (5.88%)		
Pelvic rotation test mobility score	Full mobility	24	15 (62.5%)	17	31 (76.47%)	0.49	0.24
	Limited mobility to the left side		1 (4.17%)		0 (0%)		
	Limited mobility to the right side		2 (8.33%)		0 (0%)		
	Both sides showed limited mobility		6 (25%)		4 (23.53%)		
Pelvic rotation quality of movement score	Good rotatory movement	24	16 (66.67%)	17	11 (64.71%)	1	0.02
	Lateral movement more than rotatory movement		8 (33.33%)		6 (35.29%)		

Table notes: Data presented as number (n) per category and percentages. p value calculated using Pearson Chi Squared Test and Fishers exact test.

### Section 3

**Continued Page 2 of 4: Table comparing categorical screening test results for those with lower back pain compared to those without lower back pain**

Variable	Score	No lower back pain group n	No lower back pain group per category n(%)	Lower back pain group n	Lower back pain group per category n(%)	Comparison between no lower back pain and lower back pain group p value	Comparison between no lower back pain and lower back pain group effect size
Torso rotation test stability score	Good stability	24	24 (100%)	17	16 (94.12%)	0.41	0.19
	Limited to the left side		0 (0%)		1 (5.88%)		
Torso rotation test mobility score	Full mobility	24	20 (83.33%)	17	16 (94.12%)	0.65	0.20
	Limited mobility to the left side		1 (4.17%)		0 (0%)		
	Limited mobility to the right side		1 (4.17%)		0 (0%)		
	Both sides showed limited mobility		2 (8.33%)		1 (5.88%)		
Torso rotation test quality of movement	Good rotatory movement	23	20 (86.96%)	17	17 (100%)	0.25	0.25
	More lateral movement		3 (13.04%)		0 (0%)		
Toe touch test score	Full range of motion	24	13 (54.17%)	16	12 (75%)	0.37	0.28
	Decreased toe touch on the left		2 (8.33%)		2 (12.5%)		
	Decreased toe touch on the right		1 (4.17%)		0 (0%)		
	Decreased toe touch bilaterally		8 (33.33%)		2 (12.5%)		
90/90 non dominant in standing	Standing <spine	24	2 (8.33%)	16	3 (18.75%)	0.5	0.19
	standing=spine		11 (45.83%)		8 (50%)		
	Standing>spine		11 (45.83%)		5 (31.25%)		
90/90 dominant in standing	Standing <spine	24	2 (8.33%)	17	3 (17.65%)	0.62	0.15
	standing=spine		14 (58.33%)		8 (47.06%)		
	Standing>spine		8 (33.33%)		6 (35.29%)		
90/90 shoulder in set up posture dominant score	Standing <spine	24	1 (4.17%)	17	4 (23.53%)	0.13	0.32
	standing=spine		11 (45.83%)		8 (47.06%)		
	Standing>spine		12 (50%)		5 (29.41%)		
90/90 shoulder in set up posture non-dominant score	Standing <spine	24	3 (12.5%)	17	4 (23.53%)	0.65	0.15
	standing=spine		14 (58.33%)		9 (52.94%)		
	Standing>spine		7 (29.17%)		4 (23.53%)		

Table notes: Data presented as number (n) per category and percentages. p value calculated using Pearson Chi Squared Test and Fishers exact test.

### Section 3

**Continued Page 3 of 4: Table comparing categorical screening test results for those with lower back pain compared to those without lower back pain**

Variable	Score	No lower back pain group n	No lower back pain group per category n(%)	Lower back pain group n	Lower back pain group per category n(%)	Comparison between no lower back pain and lower back pain group p value	Comparison between no lower back pain and lower back pain group effect size
Single leg bridge non-dominant score	Glutes normal	24	20 (83.33%)	17	12 (70.59%)	0.4	0.21
	Glutes weak		4 (16.67%)		4 (23.53%)		
	Glutes inhibited		0 (0%)		1 (5.88%)		
Single leg bridge dominant score	Glutes normal	24	22 (91.67%)	17	13 (76.47%)	0.3	0.24
	Glutes weak		2 (8.33%)		3 (17.65%)		
	Glutes inhibited		0 (0%)		1 (5.88%)		
Lower quarter rotation non-dominant: internal rot score	>60 degrees	24	11 (45.83%)	17	8 (47.06%)	0.32	0.24
	=60 degrees		11 (45.83%)		5 (29.41%)		
	<60 degrees		2 (8.33%)		4 (23.53%)		
Lower quarter rotation non-dominant: external rot score	>60 degrees	24	19 (79.17%)	17	15 (88.24%)	0.73	0.12
	=60 degrees		3 (12.5%)		1 (5.88%)		
	<60 degrees		2 (8.33%)		1 (5.88%)		
Lower quarter rotation dominant: internal rot score	>60 degrees	24	1 (4.17%)	17	12 (70.59%)	0.14	0.31
	=60 degrees		11 (45.83%)		3 (17.65%)		
	<60 degrees		3 (12.5%)		2 (11.76%)		
Lower quarter rotation dominant: external rot score	>60 degrees	23	15 (65.22%)	17	14 (82.35%)	0.34	0.23
	=60 degrees		6 (26.09%)		3 (17.65%)		
	<60 degrees		2 (8.7%)		0 (0%)		

Table notes: Data presented as number (n) per category and percentages. p value calculated using Pearson Chi Squared Test and Fishers exact test.

### Section 3

**Continued Page 4 of 4: Table comparing categorical screening test results for those with lower back pain compared to those without lower back pain**

Variable	Score	No lower back pain group n	No lower back pain group per category n(%)	Lower back pain group n	Lower back pain group per category n(%)	Comparison between no lower back pain and lower back pain group p value	Comparison between no lower back pain and lower back pain group effect size
seated trunk rot non-dominant score	>45 degrees	24	21 (87.5%)	17	17 (100%)	0.32	0.24
	=45 degrees		1 (4.17%)		0 (0%)		
	<45 degrees		2 (8.33%)		0 (0%)		
Seated trunk rot dominant score	>45 degrees	23	20 (86.96%)	17	17 (100%)	0.3	0.25
	=45 degrees		1 (4.35%)		0 (0%)		
	<45 degrees		2 (8.7%)		0 (0%)		
Seated trunk rot non-dominant: club behind back score	>45 degrees	24	21 (87.5%)	17	17 (100%)	0.32	0.24
	=45 degrees		1 (4.17%)		0 (0%)		
	<45 degrees		2 (8.33%)		0 (0%)		
Seated trunk rot dominant: club behind back score	>45 degrees	24	22 (91.67%)	17	17 (100%)	0.47	0.19
	=45 degrees		1 (4.17%)		0 (0%)		
	<45 degrees		1 (4.17%)		0 (0%)		

Table notes: Data presented as number (n) per category and percentages. p value calculated using Pearson Chi Squared Test and Fishers exact test.

## Section 4

**Table comparing continuous screening test results for those with lower back pain compared to those without lower back pain**

Test	No lower back pain				Lower back pain				Comparison between lower back pain and no lower back pain group p value	Comparison between lower back pain and no lower back pain group effect size
	n	Mean (SD) or median (IQR)	95% CI lower	95% CI Upper	n	Mean (SD) or median (IQR)	95% CI lower	95% CI upper		
Straight leg raise non-dominant (range of motion) <sup>n</sup>	24	68.58 (12.10)	63.48	73.69	16	74.19 (18.56)	64.30	84.07	0.25	0.37
Straight leg raise dominant (range of motion) <sup>n</sup>	24	69.83 (11.37)	65.03	74.64	16	71.38 (16.94)	62.35	80.40	0.73	0.11
Sit ups (no.) <sup>n</sup>	24	37.13 (11.26)	32.37	41.88	17	37.76 (8.05)	33.63	41.90	0.84	0.06
Push ups (no.)	24	38.50 (16.00)	31.27	43.56	17	32.50 (15.00)	30.04	41.09	0.38	0.51
Oblique sit up to non-dominant shoulder (no.) <sup>n</sup>	24	29.46 (9.37)	25.50	33.42	16	31.44 (7.10)	27.65	35.22	0.48	0.23
Oblique sit up to dominant shoulder (no.) <sup>n</sup>	24	28.04 (10.75)	23.50	32.58	16	28.94 (5.95)	25.77	32.11	0.74	0.1

Table notes: <sup>n</sup> indicates that data that was normally distributed. All other data was not normally distributed. Normally distributed data presented as means and standard deviations. Data not normally distributed presented as medians and interquartile range (IQR). p values calculated using independent T tests (normally distributed data) and Mann Whitney U tests (data not normally distributed). n=number of participants

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