

**Supplementary Table 2. Tests and Their Procedures**

***ONE LEG HOP FOR DISTANCE-** The hop test is a measured maximal leap test where the subject starts on 1 leg, jumps as far forward as possible and lands on the same leg. Arm swing is allowed. The comparison between legs is often performed by dividing the lesser value by the greater value and multiplying by 100 to produce a symmetry index (DANIEL 1982 IS ORIGINAL ARTICLE)*

<b>STUDY &amp; YEAR</b>	<b>TEST NAME</b>	<b>ALTERNATE TEST DESCRIPTION</b>	<b>WARM-UP</b>	<b>FINAL SCORING MECHANISM</b>
Augustsson 2004	Single leg hop	Hands on hips throughout the test	Stationary bike for 10 minutes, 15 squats, and 20 toe raises followed by 2 practice trials	Mean of 3 successful trials
	Fatigued single leg hop	Knee extension to fatigue at 50% of a 1 repetition max (RM) then testing with hands on hips throughout the test	Stationary bike for 10 minutes, 15 squats, and 20 toe raises followed by 2 submaximal sets of knee extension	Mean of 3 successful trials
Barber 1990	One-legged hop for distance	In accordance with the usual	None identified	Mean of 2 attempts
Battaglia 2007	Single leg hop	No description provided	None identified	Mean of 3 attempts
Bjorkland 2006 and 2009	One leg hop for distance	The patient jumps one-leg hop for distance, 10 hops in rapid succession as far as possible, starting with the healthy leg	Stationary bike for 10 minutes	The patient and physiotherapist each rate performance. 1-2 points the patient performs a few short hops then stops 3-4 points involved leg hops

				25% of the uninvolved leg 5-6 points involved leg hops 50% of the uninvolved leg 7-8 points involved leg hops 75% of the uninvolved leg 9-10 points hopping is the same distance bilaterally with equal springiness and rhythm
Brosky 1999	Single hop	Must hold the landing for 2 seconds	1 sub-maximal trial	Mean of 3 trials
Carter 1997	Single hop	In accordance with the usual	None permitted	Best of 3 attempts
Crossley 2007	Hop for distance	In accordance with the usual	Unspecified sub-maximal warm-up	Best of 3 attempts
Eastlack 1999	Single hop	Not described	Followed isokinetic strength testing	Injured limb/non-injured limb x 100
	Triple hop	Not described	Followed isokinetic strength testing	Injured limb/non-injured limb x 100
Gauffin 1990	One-leg long hop	Arms behind the back	None described	Best of 3 attempts
Grindem 2011	Single hop for distance	In accordance with the usual	1 practice trial	Mean of 2 attempts
	Triple hop for distance	3 hops on same leg	1 practice trial	Mean of 2 attempts

Holm 2004	1-leg hop	Not described	None described	Mean of 2 attempts
Hurd 2008	Single leg hop for distance	Not described	2 practice trials	Mean of 2 attempts
	Triple hop for distance	Not described	2 practice trials	Mean of 2 attempts
Jerre 2001	1-leg hop test	Not described	None described	Lesser value/greater value x 100
Koutras 2009	Single jump	Arms behind back	None described	Best of 3 attempts
Logerstedt 2012	Single hop for distance	Landing must be controlled and if not, the tests is to be repeated	None described	Mean of 2 attempts
	Triple hop for distance	3 hops on same leg Landing must be controlled and if not, the tests is to be repeated	None described	Mean of 2 attempts
Myer 2011	Single hop	Start in a crouched position on 1 leg, use of arm swing, must hold landing for 1 second	Practice trials until proper technique was achieved (usually 1 trial)	Best of 2 trials.
	Triple hop	Start in a crouched position on 1 leg, use of arm swing, leap 3 times on the same leg, must hold landing for 1 second	Practice trials until proper technique was achieved (usually 1 trial)	Best of 2 trials
Noyes 1991	Single hop	In accordance with the usual	None described	Mean of 2 trials
	Triple hop	3 hops on the same leg	None described	Mean of 2 trials
Ostenberg 1998	One leg hop for distance	Hands behind back. Must control the landing	Sub-maximal effort on a lower extremity ergometer for 5	Best of 3 trials

			minutes	
Ross 2002 and 2010	Single leg hop for distance	Start with toe behind the baseline and measure distance to the heel	Stationary bike for 5 minutes followed by quadriceps, hamstring, and calf muscle stretching and 1 practice trial	Mean of 3 trials
Svensson 2006	Single leg hop	Not described	None described	Not stated
Tegner 1986	One-leg hop	Hands behind back	Stationary bike for 10 minutes	Best of 3 trials
Vandermeulen 2001	Forward hop	Tested barefoot with the most posterior part of the foot in front of the starting line. Must maintain balance for 5 seconds	Maximum of 3 progressively longer hops	Mean of 3 successful trials
Wilk 1994	Single leg hop for distance	Start with toe behind the baseline and measure distance to the heel	None described	Mean of 3 trials
Witvrouw 2002	Triple jump	Hop 3 times on 1 leg and provide a pain score	None described	Not stated
Zouita 2009	Single hop	Arm swing allowed	Unspecified 5 minute warm up	Best of 3 trials
<b>SIX METER TIMED HOP-</b> <i>The 6-meter timed hop test measures the time it takes for a subject to traverse 6 meters hopping on one leg. The comparison between legs is often performed by dividing the lesser value by the greater value and multiplying by 100 to produce a symmetry index. (BARBER 1990)</i>				
Barber 1990	One-legged timed hop	In accordance with the usual	None described	Mean of 2 trials
Brosky 1999	Single leg timed hop	In accordance with the usual	1 sub-maximal trial	Mean of 3 trials

Crossley 2007	6-meter hop	In accordance with the usual	None identified	Best of 3 trials
Eastlack 1999	Timed hop	Not described	Followed isokinetic strength testing	Injured limb/non-injured limb x 100
Grindem 2011	6-meter timed hop	In accordance with the usual	1 practice trial	Mean of 2 attempts
Hurd 2008	6-meter timed hop	Not described	2 practice trials	Mean of 2 trials
Logerstedt 2012	6-meter timed hop	In accordance with the usual	None described	Mean of 2 attempts
Noyes 1991	Timed hop	In accordance with the usual	None described	Mean of 2 trials
Skaara 2013	6-meter timed hop	Not described	1 practice trial	Mean of 2 trials
Wilk 1994	Single leg timed hop	In accordance with the usual	None described	Mean of 3 trials
<b><i>CROSSOVER HOP FOR DISTANCE-</i></b> <i>The crossover hop test is a measured maximal leap test. The subject must hop back and forth across a 15 cm wide, 6 meter long tape 3 times. The comparison between legs is often performed by dividing the lesser value by the greater value and multiplying by 100 to produce a symmetry index. (NOYES 1991 IS THE ORIGINAL ARTICLE)</i>				
Bjorkland 2006 and 2009	Crossover hop	The patient jumps as wide and long as possible in rapid succession on a track of 8m at a width of 30cm and 60 cm	Stationary bike for 10 minutes	The patient and physiotherapist each rate performance. 1-2 points the subject stops after a few attempts to hop 3-4 points 25% of the length of the uninjured leg or stops after 50% of the distance

				5-6 points 50% of the length of the uninvolved leg but without rhythm and flow 7-8 points 75% of the length of the uninvolved leg but with restricted springiness and rhythm 9-10 points 100% of the distance, springiness, and rhythm of the uninvolved leg
Eastlack 1999	Crossover hop	Not described	Followed isokinetic strength testing	Injured limb/non-injured limb x 100
Grindem 2011	Crossover hop for distance	In accordance with the usual	1 practice trial	Mean of 2 attempts
Hurd 2008	Crossover hop for distance	In accordance with the usual	2 practice trials	Mean of 2 trials
Logerstedt 2012	Crossover hop for distance	Landing must be controlled and if not, the tests is to be repeated	None described	Mean of 2 attempts
Myer 2011	Crossover hop for distance	Start in a crouched position on 1 leg, use of arm swing, leap 3 times on the same leg, must	Practice trials until proper technique was achieved (usually 1 trial)	Best of 2 trials

		hold landing for 1 second		
Noyes 1991	Crossover hop for distance	In accordance with the usual	None described	Mean of 2 trials
Skaara 2013	Triple crossover hop	Not described	1 practice trial	Mean of 2 trials
Wilk 1994	Single leg crossover triple hop for distance	In accordance with the usual	None described	Mean of 3 trials
<b>FIGURE OF EIGHT RUN-</b> <i>The figure of eight is a timed agility test that involves straight ahead running of curves. There is no standardization of distance or severity of curves.</i>				
<b>STUDY</b>	<b>TEST NAME</b>	<b>TEST DESCRIPTION</b>	<b>WARM-UP</b>	<b>FINAL SCORING MECHANISM</b>
Bjorkland 2006 and 2009	Figure of 8 jog	Jog straight 2 x 20 meters then in a figure of eight around 2 circles, 4 meters in diameter. After ½ the distance, speed and stride length should be increased to normal	Stationary bike for 10 minutes	The patient and physiotherapist each rate performance. 1-2 points the patient stops jogging 3-4 points jogging is asymmetrical 5-6 points symmetrical jogging but figure 8 is asymmetrical 7-8 points involved leg hops 75% of the uninvolved leg 9-10 points

				hopping is the same distance bilaterally with equal springiness and rhythm
Carter 1997	Figure of 8 run	Each subject completes five timed circuits of a figure of eight constructed by placing cones at each corner of a rectangle 8 m by 5 m in a gymnasium	None permitted	Best of 3 trials
<b>TRIPLE JUMP-</b> <i>The triple jump is a maximal leap test involving both single leg hopping and double leg jumping. The subject begins in bilateral stance, jumps and lands on 1 leg, hops and lands on the same leg again, then hops and lands on 2 legs.</i>				
Holm 2004	Triple jump	In accordance with the usual	None identified	Mean of two trials
Koutras 2009	Triple jump	In accordance with the usual	None identified	Best of 3 trials
Ostenberg 1998	Triple jump	If subjects increased distance in all 3 trials, additional trials were conducted until improvement stopped	Sub-maximal effort on a lower extremity ergometer for 5 minutes	The best trial
<b>VERTICAL JUMP-</b> <i>The vertical jump is a maximum jump height test. A standing reach height is measured. Standing in place on either 1 (single leg) or 2 legs, the subject squats then leaps as high as possible as marked by a finger tip reach at the apex of the jump. The reach height is subtracted from the apex height to determine the jump height.</i>				
Barber 1990	One-legged vertical jump	Chalk is applied to subjects' fingertips so that a mark is left on a wall. Must take off and	None identified	Mean of 2 trials



		land on the same leg.		
Bjorkland 2006 and 2009	Single leg vertical jump	5 vertical hops in rapid succession as high as possible with springiness	Stationary bike for 10 minutes	The patient and physiotherapist each rate performance. 1-2 points the patient stops the attempt to jump 3-4 points short jumps without springiness 5-6 points 50% of the springiness and height of the uninvolved leg 7-8 points 75% of the springiness and height of the uninvolved leg 9-10 points 100% of the springiness and height of the uninvolved leg
Brosky 1999	Single leg vertical jump	Used a slatted device on vertical pole with arms free	1 sub-maximal trial	Mean of 3 trials
Koutras 2009	Modified vertical jump	A tape measure is	None identified	Best of 3 trials

		secured around the subject's belt who is then instructed to jump vertically and maximally on one leg.		
Ostenberg 1998	Vertical jump	A tape measure is secured around the subject's belt who is then instructed to jump vertically and maximally on both legs. If subjects increased distance in all 3 trials, additional trials were conducted until improvement stopped	Sub-maximal effort on a lower extremity ergometer for 5 minutes	Best of 3 trials
Purdam 2003	Single leg hop	Jump and land on the same leg on a 25 degree decline board	5 minute warm-up on a bike followed by stretching of quadriceps, hamstrings, and calf muscles	2 repetitions and rate pain on a 0-10 scale
<b><i>SINGLE LEG SQUAT-</i></b> <i>The single leg squat is a test of motor control, balance and strength that involves standing on 1 leg and squatting to a point where the thigh is near parallel to the floor then returning to standing again.</i>				
Bjorkland 2006 and 2009	Single leg squat	3 maximum squats in succession	Stationary bike for 10 minutes	The patient and physiotherapist each rate performance. 1-2 points the patient makes an attempt to squat

				<p>with the affected knee</p> <p>3-4 points can squat 25% of the unaffected knee</p> <p>5-6 points can squat 50% of the unaffected knee</p> <p>7-8 points can squat 75% of the unaffected knee</p> <p>9-10 points can squat 100% of the unaffected knee</p>
Bjorkland 2006 and 2009	Single leg rise from chair	Seated with the knee flexed to 90 degrees or the angle that the subject can rise from with the healthy knee, the patient must stand and then sit again using only 1 leg	Stationary bike for 10 minutes	<p>The patient and physiotherapist each rate performance.</p> <p>1-2 points the patient is able to move slightly</p> <p>3-4 points able to stand halfway</p> <p>5-6 points stands with great difficulty and sits without control</p> <p>7-8 points stands with certain</p>

				arm assistance and sits with limited control 9-10 points stands without difficulty and sits with control
Purdam 2003	Single leg squat on the decline board	On a 25 degree decline board	5 minute warm-up on a bike followed by stretching of quadriceps, hamstrings, and calf muscles	2 repetitions and rate pain on a 0-10 scale
Ostenberg 1998	One-leg rising	Seated on a height-adjustable bench with one foot on a stool and the other one in the air. A successful rise from the seated position without the use of the arms	Sub-maximal effort on a lower extremity ergometer for 5 minutes	The best trial-distance between the bench seat and the foot stool.
Witvrouw 2002	Unilateral squat test	A full squat is listed as asymptomatic	None identified	The maximum angle achieved without pain
<b><i>OTHER TESTS- These are unique tests examined in only 1 study or by 1 author/set of authors</i></b>				
<b>STUDY</b>	<b>TEST NAME</b>	<b>TEST DESCRIPTION</b>	<b>WARM-UP</b>	<b>FINAL SCORING MECHANISM</b>
Barber 1990	Shuttle run	Sprint in circles around 2 cones 6 meters apart with first, one leg on the	One, half-speed trial with each circling leg	Mean of 2 trials

		inside (circling limb) and then the other		
Barber 1990	Cutting type shuttle run	Over a 6 meter course, sprint from beginning to end, decelerate rapidly, change direction and sprint to the starting point. 2 laps are completed with each limb as the lead.	None identified	Mean of 2 trials
Bjorkland 2006 and 2009	Acceleration/Deceleration	Sprint 2 x 20 meters with deceleration required within 5 meters	Stationary bike for 10 minutes	The patient and physiotherapist each rate performance. 1-2 points the patient is unable to sprint 3-4 points can sprint but not accelerate or decelerate 5-6 points limping during acceleration, is unable to reach full speed, decelerate mostly with the uninjured leg 7-8 points can accelerate to full

				<p>speed but decelerate unevenly or exceeds the 5 meters</p> <p>9-10 points accelerates to full speed and decelerates evenly with the 5 meters</p>
Holm 2004	Stair hop	Stand on 1 leg, hop up 22 steps, then hop down 22 steps	None stated	Time to completion in seconds
Myer 2011	Broad jump	Start with the toes of both feet on a line and to use arm swing to leap forward as far as possible. Distance was measured from the start line to where the closest body segment touched on the test mat. Athletes were allowed 2 trials to achieve maximum broad jump distance to be recorded for analysis	Practice trials until proper technique was achieved (usually 1 trial)	Best of 2 trials
Nagano 2010	Star excursion balance test	Custom-made device with 3 measuring cords running in an anterior, posteromedial, and posterolateral direction.	3 practice trials in each direction	The greatest reach of 3 in each direction. Also, the greatest reach in each direction was

		Distance in each direction measured by a sliding device on each cord move with the foot.		added together for a composite score which was normalized to leg length as measured from ASIS to medial malleolus in standing.
Ostenberg 1998	Square hop test	One leg, clockwise hopping over the sides of a 30 x 35 centimeter square	Sub-maximal effort on a lower extremity ergometer for 5 minutes	Maximum number of touches inside the square for each leg in 30 seconds
Tegner 1986	Running up and down a staircase	Running up and down a 25-step spiral staircase	Stationary bike for 10 minutes	Time measured by a stopwatch
Tegner 1986	Running up and down a slope	Running up a 55 meter long slope with a 180 turn halfway up, then running down the same slope	Stationary bike for 10 minutes	Time measured by a stopwatch
Vandermeulen 2001	Lateral hop	Tested barefoot with the most medial part of the foot in front of the starting line. Must maintain balance for 5 seconds	Maximum of 3 progressively longer hops	Mean of 3 successful trials
Witvrouw 2002	Step test	Step up and down a 10-centimeter step. If no pain experienced, the step increases 5 centimeters until pain	None identified	Height of step where pain occurred

		occurs		
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