AFL SCREENING TEST INSTRUCTIONS

EQUIPMENT

30cm steel ruler
rigid tape
stopwatch (phone)
metronome (phone)
sphygmomanometer or dynamometer
1 goniometer
long measuring tape
plinth

THE MUSCULOSKELETAL TESTS

Knee to wall

Tape the steel ruler on floor, perpendicular to a wall. Ask the player to place their big toe and heel on the steel ruler and lunge forward so that their knee touches the wall without the heel leaving the ground. If the heel lifts, ask the player to move their foot forward and re-do the test. Measure the distance (cm) from big toe to wall. Ensure this is the limit of the ankle range. Also make sure the pelvis has not rotated during the test.

Single leg stance

Ask the player to stand on one leg with their arms crossed over their chest and with eyes closed. Time for 30 seconds. Count the number of touches to the floor the player makes with the free leg during the 30 seconds. Players are not to shuffle or move their standing foot. It they do, re-start the test. They are allowed one “practice” test if they shuffle their standing foot, or move their trunk excessively. Give feedback, then re-start the test.

Single leg squat

Ask the player to stand on one leg with their arms crossed over their chest. Ask the player to slowly squat as low as possible without lifting the heel. Repeat 5 times. Look for hip and knee alignment and ankle strategy. Grade the quality of squat as poor, average or good.

Single leg calf raise

With bare feet, ask the player to perform a single leg calf raise through full range of motion. Continue this movement at a rate of 60bpm until the player is unable to move through full range of motion. Record the number of calf raises performed.

Squeeze Test 1 (bent knees)

With the player supine, ask them to bend one knee, bringing the heel level with the opposite knee and leave the foot there, then bend the other knee and place that foot at the same level as the first foot. Use a dynamometer or fold the pressure cuff of the sphygmomanometer in thirds and pre-inflate to 10mmHg. Place it between the knees, inline with the shaft of the femur. Ask the player to slowly squeeze the dynamometer/ pressure cuff as hard as they can and hold for 5 seconds. Record the maximum pressure. Ask and record whether there was any pain on a scale from 1 to 10. You may also record the location of the pain.

Squeeze Test 2 (straight knees)
Begin the test with the player supine and legs straight (hips and knees at 0 degrees). Use a dynamometer or fold the pressure cuff of the sphygmomanometer in thirds and pre-inflate to 10mmHg. Place it vertically between the knees. Ask the player to slowly squeeze the pressure cuff as hard as they can and hold for 5 seconds. Record the maximum pressure. Ask and record if there was any pain on a scale from 1 to 10. You may also record the location of the pain.

Supine passive hip internal rotation at 90deg
With the player in supine, passively take their leg to 90deg hip flexion. Internally rotate the leg passively and visually estimate the range of internal rotation into the following categories <20deg, 20-45deg or >45deg. (A goniometer may also be used to measure this range.)

Hip quadrant / hip impingement test
With the player in supine, take the leg into full hip flexion, passively internally rotate and adduct the thigh with moderate over-pressure. Record whether the player reports pain in the hip or not.

Supine active hip internal rotation
Place the player supine, hip in a neutral position and lower leg over the edge of the plinth. Ask the player to rotate their foot out as far as possible. Record the angle of the lower leg with the goniometer along the line of the tibial shaft. Ensure the pelvis stays level throughout the testing.

Supine active hip external rotation
Place the player supine, hip in a neutral position and lower leg over the edge of the plinth. Have the opposite leg abducted out of the way. Ask the player to rotate their foot in as far as possible. Record the angle of the lower leg with the goniometer along the line of the tibial shaft. Ensure the pelvis stays level throughout the testing.

Modified Thomas test for 1) hip flexor
Have the player supine in the Thomas test position, with gluteal fold of the testing leg at the edge of the plinth. Ask the player to pull the opposite leg to their chest. Allow the test leg to hang passively over the edge of the plinth and record whether the line of the femur is above horizontal, horizontal or below horizontal.

Modified Thomas test for 2) quadriceps length
Have the player supine in the Thomas test position, with gluteal fold of the testing leg at the edge of the plinth. Ask the player to pull the opposite leg to their chest. Allow the test leg to hang passively over the edge of the plinth and record the flexion angle at the knee with a goniometer.

Elevated single leg bridge
Have the player lying supine on the floor with one heel on a box or plinth at 60cm high. The knee of the test leg is slightly bent at 20deg and opposite leg is bent to 90deg hip and knee flexion with their arms crossed over chest. Ask the player to elevate the hips as high as possible and the assessor places a hand at this height. The player repeats this action as many times as possible, and touches the assessors hand each time. The first time the player fails to touch the assessor's hand, a warning is given, the second time the test is stopped and the number of repetitions recorded. The player may also stop the test due to fatigue or hamstring discomfort.

MHFAKE (Maximal hip flexion and knee extension)
Have the player lying supine on the floor or plinth. The athlete hugs one thigh to chest and performs active knee extension, without moving their thigh away from their chest, until reaching maximal tolerable stretch or the onset of pain/discomfort. Range of motion (i.e. knee extension angle) is measured by hand held goniometer.

Hamstring outer range eccentric strength
The athlete is lying supine with ASIS/pelvis and the contralateral leg fixated. The clinician passively flexes the player's leg to 90deg knee flexion, holding the dynamometer or folded sphygmomanometer (folded in thirds and pre-inflated to 10mmHg) under the athlete's heel. The athlete performs 3 isometric knee flexions for 3 seconds. (Maximal effort – hard as possible). The clinician applies an eccentric brake test in an upward direction. Record the best of three tests.

Single leg triple hop test
Jump as far forward as possible on a single leg three consecutive times, without losing balance and landing firmly. The distance is measured from the start line to the heel of the landing leg. Recored the best of 3 attempts. The goal is to have a less than 10% difference between the injured and uninjured limb.

Single leg cross over hop test
Jump as far as possible on a single leg three consecutive times, without losing balance and landing firmly. Between each hop, the athlete has to jump across a midline (zig zag over outstretched measuring tape), hence including side-to-side movement in this test. 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 between the injured and uninjured limb.

20m Beep test
A multi-stage fitness test in which you must do 20 metre shuttle runs in time with the pre-recorded bleeps until the bleeps get too quick. It is a maximal test. Record the highest level that was successfully completed.

AFL Screening Questionnaire

Players name: **DOB:** **Assessor Name:** **Date:**

Family history of ACL injury:
Has anyone in your family injured their ACL or had an ACL reconstruction?
YES / No
Details:

Operative history:
Have you had any operations for injuries related to football?

What was the injury?

What was the surgery?

When did you have the surgery?

Footedness:
Do you prefer to kick with your right or left leg?

RIGHT LEFT NO PREFERRED

Groin pain:
Do you suffer from groin pain during or after activity?
YES / No
Details:

Injury/Illness:
Have you had any injuries/illnesses that have interfered with your sporting career?
Yes / No
Details:

Current injuries/symptoms:
Do you have any current injuries or symptoms?
Yes / No
Details:

Investigations:

Training schedule:
How many training hours/sessions/games do you participate in per week?

Test	Description	Rating
Knee to wall	Standing lunge. Measure from toe to wall (cms).	Right: Left: Comment:
Single leg stance	30 seconds eyes closed. Hands across chest. Instruction: stay upright, do not move foot, or put other foot down.	No. of touches/hops: Left: Right: Comment:
Single leg squat	Arms crossed over chest. Squat as low as possible without lifting heel. 5 times, slowly.	R: Poor Average Good Comment: L: Poor Average Good Comment:
Single leg calf raise	Number to loss of full ROM at a rate of 60bpm.	Right: Left: Comment:
Squeeze tests	1) Supine, hips at 60deg flexion. Sphygmomanometer (10mmHg) or dynamometer between knees. 2) Supine, hips at 0deg flexion.Sphygmomanometer (10mmHg) or dynamometer between knees.	Pain: /10 Pressure: mmHg/Kgs Comment/location of pain: Pain: /10 Pressure: mmHg/Kgs Comment/location of pain:

Test	Description	Rating
Supine passive hip internal rotation at 90deg	Supine, passive at 90deg hip flexion. Visually estimate or use a goniometer.	Right: <20deg 20-45deg >45deg Left: <20deg 20-45deg >45deg
Hip quadrant/impingement test	Supine position, passive full hip flexion, adduction and internal rotation	Pain Right: Yes No /10 Pain Left: Yes No /10
Supine active hip internal rotation and external rotation	Supine, hip neutral, leg over edge of plinth. Stable pelvis. Active movement. Measure with goniometer.	Right:IR ER Total Comment: Left:IR ER Total Comment:
Thomas test	Modified Thomas Test position for: 1) Hip flexor length 2) Quads length	Hip flexor (psoas) length- passive hang: Above horizontal R L Horizontal R L Below horizontal R L Quads length- passive hang (goniometer): Right: Left:
Elevated single leg bridge	Foot on 60cm stand/plinth. Hands across chest, test leg slightly bent (20deg). Lift hips to full extension. Repeated to fatigue/loss of form.	Right: Comment: Left: Comment:
MHFAKE (Maximal hip flexion and knee extension)	The athlete hugs thigh to chest and performs active knee extension until reaching maximal tolerable stretch or the onset of pain/ discomfort. Range of motion (i.e. knee extension angle) is measured by hand held goniometer.	L Deg R Deg

Test	Description	Rating
Hamstring outer range eccentric strength	The athlete is lying supine with ASIS/pelvis and the contralateral leg fixated. The player's hip and knee is flexed to 90° while the clinician holds the dynamometer or folded sphygmomanometer (pre-inflated to 10mmHg) under the athlete's heel. The clinician applies an upward eccentric brake force against the athletes isometric knee flexion. Maximal effort. Record the best of three tests.	L Kgs/mmHg R Kgs/mmHg
Single leg triple hop test (straight line)	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 between the injured and uninjured limb.	L m R m
Single leg cross over hop test (zig-zag)	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 between the injured and uninjured limb.	L m R m
20m Beep test	A multi-stage fitness test in which you must do 20 metre shuttle runs in time with the bleeps. Record the highest level that was successfully completed.	Level: