

How do I use the Knee and Ankle Sports Injury Assessment Trainer?

Purpose

How to use the Knee and Ankle Sports Injury Assessment Trainer.

Prerequisites

- Knee and Ankle Sports Injury Assessment Trainer
- Downloaded participant activities from curriculum
- Flat surface

Steps to Perform

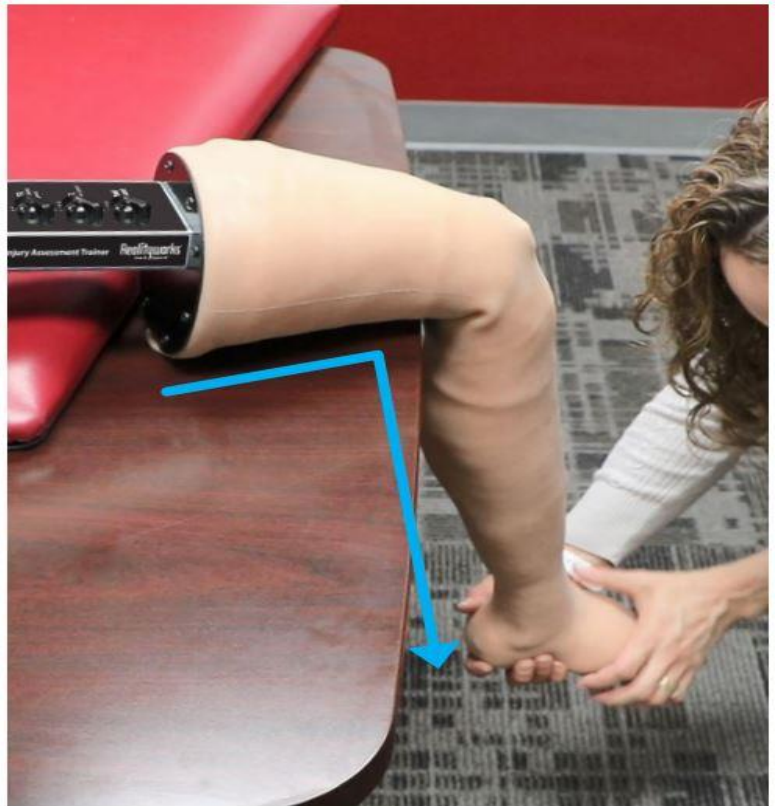
1. Set the trainer on a flat surface and have students work in pairs to complete the assessment exercises.
2. Turn the dials above the leg to select the type and degree of injury you want to assess. ONLY test for one injury at a time, make sure all other dials are set to zero.



3. Assess the injury using accepted best practices for each injury's corresponding test. See the chart below for the list of injuries this trainer can simulate and the appropriate test for each.

Joint	Injury	Description	Test
Knee	ACL	Grades 1-3 of ACL ligament tears	Lachman and Anterior Drawer Tests
Knee	MCL	Grades 1-3 of MCL ligament tears	Valgus Stress Test
Knee	LCL	Grades 1-3 of LCL ligament tears	Anterior Drawer Test
Ankle	ATFL	Sprain to anterior talofibular ligament	Anterior Drawer of the Ankle
Ankle	CFL	Sprain to the calcaneofibular ligament	Talar Tilt Test
Ankle	Deltoid Ligament	Normal and complete disruption	Eversion Stress Test
Ankle	Achilles Tendon	Nominal and full rupture	Calf Squeeze Test and Palpation

4. Flip the leg over or rotate it off the board if needed for specific tests.



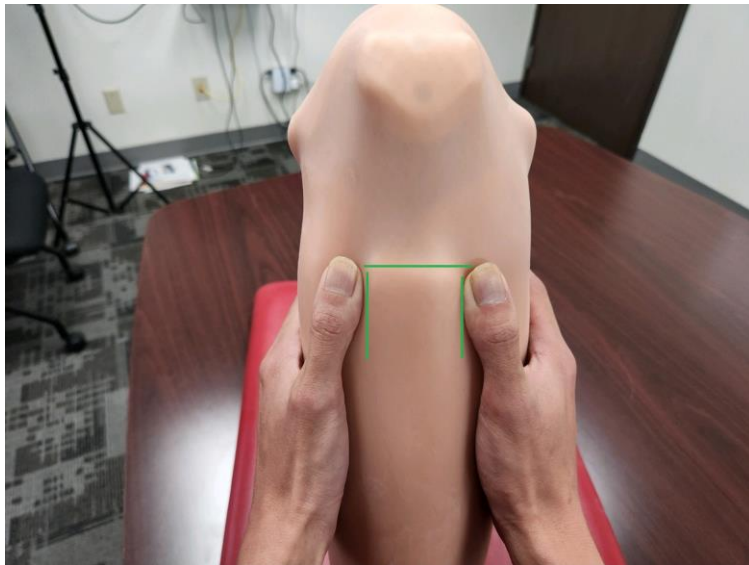
Knee

ACL – Anterior Drawer Tests

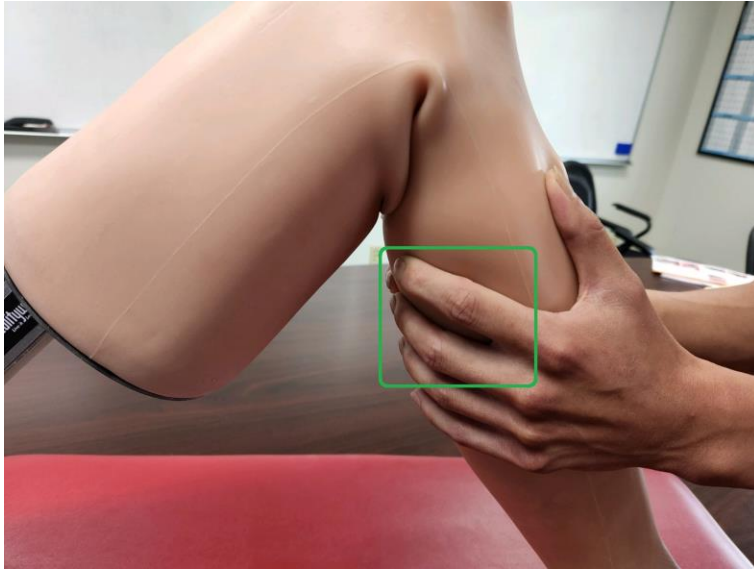
1. Flex knee to 90 degrees.



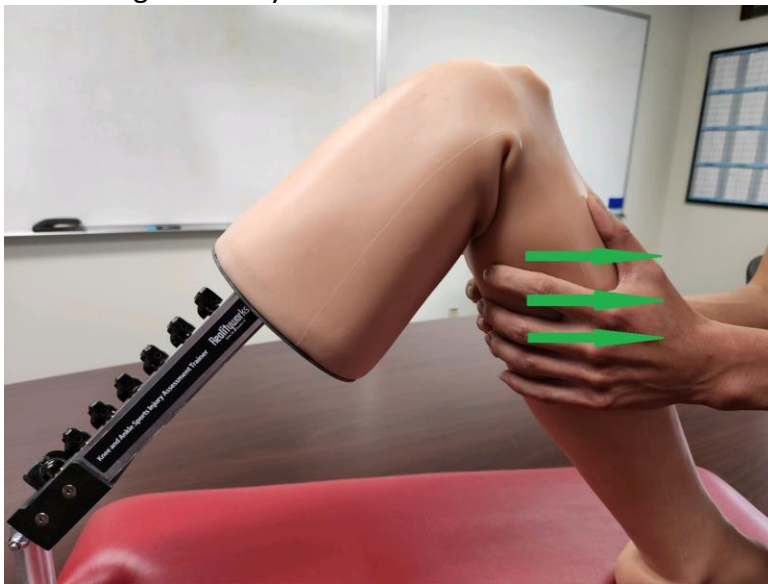
2. Grasp with both hands, thumbs on both sides of the “femur” bone, tips of thumbs at the top line on the bone.



3. Fingers clasp the “calv” and you should feel a plate with your first 3 fingers.



4. Pull the leg towards you.



- a. Each turn of the dial the leg should give about a millimeter towards you, becoming more noticeable each degree.

ACL – Lachman Test

1. Position leg in a 30 degree of flexion.



2. Hold with left hand at the knee, and with right hand at either the inside of the ankle or just below the inside of the knee, slightly rotate the leg towards you.



3. Hold with left hand at the knee to keep the leg above the knee from moving, and with right hand just below the inside of the knee, move the leg below the knee towards you.



- a. Each turn of the dial the leg at the knee should give about a millimeter, becoming more noticeable each degree.

MCL – Valgus Stress Test

1. With the right hand, grasp the ankle joint just above the ankle. Place the left hand on the outside of the leg just above the knee.



2. Hold with left hand at the knee to keep the leg above the knee from moving, and with the right hand rotate the lower leg towards you.



3. Stabilize the knee with the left hand, and with the right hand holding the inside of the ankle move the lower leg towards you.



- a. Each turn of the dial the leg at the inside of the knee should give about a millimeter, becoming more noticeable each degree.

LCL – Anterior Drawer Test (Varus)

1. Raise the leg slightly, and with the right hand hold the inside leg above the knee to stabilize the upper leg. With the left hand hold onto the outside of the ankle.



2. Stabilize the upper leg with the right hand and grasping the ankle with the left hand move the lower leg to the inside.



- a. Each turn of the dial the leg at the outside of the knee should give about a millimeter, becoming more noticeable each degree.

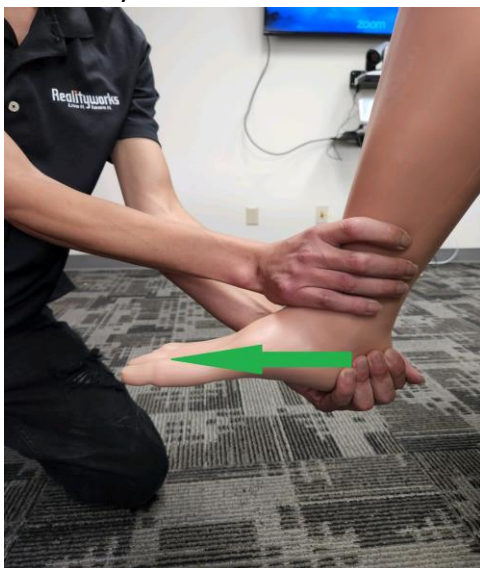
Ankle

ATFL – Anterior Drawer of the Ankle

1. With the leg draped over the side of the table, grasp just above the ankle with the inside hand, and grasp the bottom of the heel or back of the heel with the outside hand.



2. Stabilize the leg with the inside hand, and while grasping the heel with the outside hand pull the foot towards you.



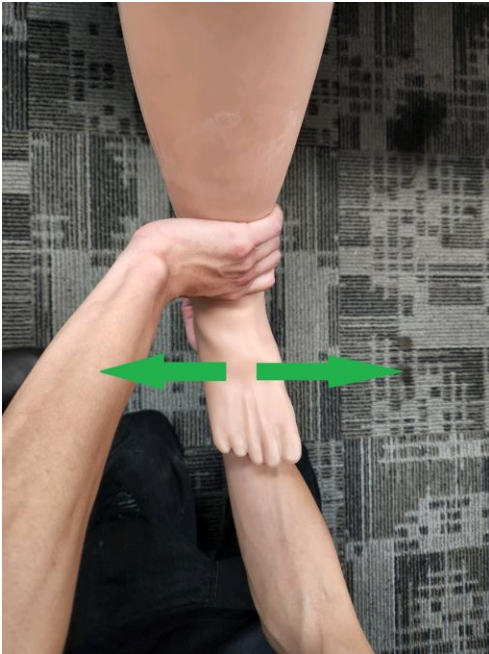
- a. Each turn of the dial the ankle should give towards you about a millimeter, becoming more noticeable each degree.

CFL – Talar Tilt Test

1. With the outside hand grasp the leg just above the knee and with the inside hand grasp the heel and rest the foot on your forearm.



2. Stabilize the leg with the outside hand and swing the heel and foot to the inside and outside with the inside hand.



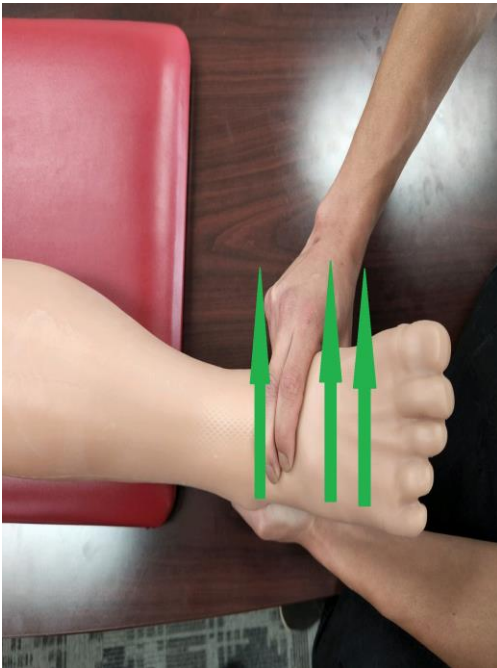
- a. Each turn of the dial the ankle should give to the sides about a millimeter, becoming more noticeable each degree.

Deltoid Ligament – Eversion Stress Test

1. With the leg straight grasp the heel with the left hand and with the index and middle finger of right hand grasp the top of the foot where the leg and the foot connect.



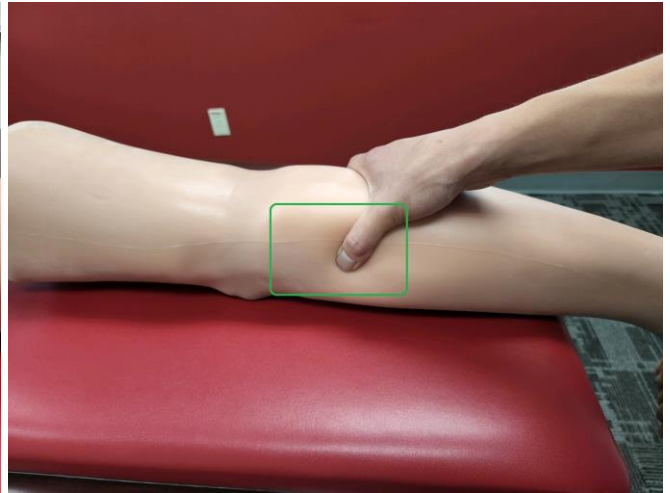
2. With the foot straight up and down, and with both hands rotate the entire foot inwards.



- a. Each turn of the dial the ankle should give inwards about a millimeter, becoming more noticeable with each degree.

Achilles Tendon – Calf Squeeze Test

1. Place the leg facing down and the foot dangling off the table.
2. Grasp the left and right side towards the of the calf with your hand. It will feel “solid” on both sides.



3. Squeeze the calf and the foot and toes should flex back.



- a. Each turn of the dial the foot should flex less, until the foot will no longer flex.

For additional assistance and video tutorials visit our website:

www.realityworks.com/support/