




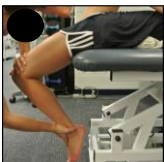






## Appendix A

Order	Test	Starting Position	Instruction	Goniometer Placement/Measurement Guide
1	Ankle Dorsiflexion Unrestricted 	* lunge position	* place test knee into maximum flexion	* align fulcrum with lateral malleolus
		* test leg forward	* stop when test heel begins to lift off of ground	* align baseline arm with the long axis of the fifth metatarsal * align movement arm with the midline of the shank
2	Ankle Dorsiflexion Restricted 	* lunge position	* keep test knee extended	* same as above
		* test leg behind	* participant push hip forward * stop when test heel begins to lift off of ground	
3	MTPJ1 Dorsiflexion Unrestricted 	* participant sits on examination table * foot hangs naturally	* stabilize foot in natural position * place first digit into dorsiflexion (push under the interphalangeal joint)	* align fulcrum with middle of MTPJ1 * align baseline arm with long axis of first metatarsal * align movement arm with long axis of proximal phalange
4	MTPJ1 Dorsiflexion Restricted 	* participant sits on examination table * foot hangs naturally	* participant pushes down on test knee * place test ankle into max dorsiflexion * place first digit into dorsiflexion (push under the interphalangeal joint)	* same as above
5	Hip Extension Unrestricted 	* participant lies supine on table, hips close to the edge * rolled towel under their L-spine * non test leg held in hip and knee flexion * test leg hangs unsupported off of the table	* keep non-test leg in hip/knee flexion * place test leg into hip extension * control for either internal or external rotation * stop when pelvis begins to tilt anteriorly	* align fulcrum with the greater trochanter * align baseline arm with the long axis of the torso * align movement arm with the long axis of the thigh
6	Hip Extension Restricted 	* participant lies supine on table, hips close to the edge * rolled towel under their L-spine * non test leg held in hip and knee flexion * test leg hangs unsupported off of the table	* keep non-test leg in hip/knee flexion * place test knee into 90 degrees of flexion * place test hip into extension * control for either internal or external rotation * stop when pelvis begins to tilt anteriorly	* same as above
7	Hip Flexion Unrestricted 	* participant lies supine with whole body on table * rolled towel under their L-spine * non-test leg straightened and held down	* test hip brought into hip flexion, with knee flexed * control for external rotation * stop when pelvis begins to tilt posteriorly	* align fulcrum with the greater trochanter * align baseline arm with the long axis of the torso * align movement arm with the long axis of the thigh
8	Hip Flexion Restricted 	* participant lies supine with whole body on table * rolled towel under their L-spine * non-test leg straightened and held down	* test knee held in full extension * test hip brought into hip flexion * control for external rotation * stop when pelvis begins to tilt posteriorly, or knee cannot stay extended	* same as above
9	Shoulder Flexion Unrestricted 	* participant sitting on table * feet firmly on floor	* test elbow fully extended * participant raises arm with palm facing medially * stabilize scapula and elbow * control for external rotation	* align fulcrum with approximate location of the head of the humerus * align baseline arm with long axis of the torso * align movement arm with long axis of the humerus
10	Shoulder Flexion Restricted 	* participant sitting on table * feet firmly on floor	* test elbow flexed * participant raises arm with palm facing down * stabilize scapula and elbow * control for external rotation	* same as above