

Experimental Exercise for Golfers, Part 3

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As I've emphasized in the first two parts of this series [[Oct. 21](#) and [Dec. 2](#), 2011 issues, respectively], I've noticed that every golfer wants two things related to the sport. One is to drive the ball further, and the other is to keep playing golf without injury. Some players are missing mobility, some stability, and others are ready for strength and power training. Some players come in and need corrective exercise to help an injury along, and some are OK and need exercise to get "bigger, stronger and hit the ball further." Whatever the case may be, assessments are key to individualizing rehab programs and training programs for golfers.

Assessment Protocols

One such assessment is the total-rotation assessment. This evaluates a client's core mobility by observing the functional relationship of the muscles and joints of the core:

Assessment #1: The golfer stands with feet shoulder-width apart and, looking over one shoulder, rotates in that direction as far as possible without moving the feet. The test is conducted in both directions with the key observation points as follows:

- Pelvis movement accounts for approximately 50 percent of total motion.
- Upper torso can rotate through at least 90* (can see opposite anterior shoulder).
- Symmetry of left and right movement is evident (Kiesel, et al., 2004, page 39).



In this assessment, you are looking for lack of motion and any asymmetry between the right and

left sides. The most common areas of tightness are in the ankles, hips and thoracic spine. If there are deficits in the key observation points listed above, I suggest you also check thoracic rotation in a seated posture:

Assessment #2: I like to measure the ability to rotate the torso in one of two ways. 1) In a seated crossed-legged position. Sit upright on the floor, back straight, with legs crossed. Cross the arms in front of the shoulders and rotate right and left. Compare both sides. 2) The client sits on a treatment table or the edge of a chair with both feet flat on the floor (lumbar region neutral). Place a pillow or foam roll between the knees and ask the client to squeeze the pillow together between the knees. This helps brace the pelvis while rotating. Ask the client to sit upright with the arms crossed in front of the shoulders and rotate right and left.

By visual analysis from assessment # 1 and #2, determine which area (pelvis or torso) requires mobility training. If you notice restrictions or asymmetries, then the client should be given functional home retraining exercises to release joint and soft-tissue restrictions. This is how we provide injury prevention and performance enhancement.

If a client wants to increase their driving distance, then they will need to create increased rotational separation between the hips and shoulders. It is not unusual to see middle-aged, weekend golfers lacking mobility or flexibility in the hips or thoracic spine. Without knowing it, to achieve rotation some golfers put excess torsional pressure on the knees, and this extra stress on the knees sets them up for a knee injury.

Knee Injuries in Golf: Assessment and Prevention Exercises

The most common [knee injuries](#) related to golf include golfer's knee - right medial meniscus injury due to the tension and torque created in the backswing; tendinopathy - patellar, quadriceps, hamstrings; iliotibial band (IT band) syndrome; patellofemoral pain - tracking, imbalances; ligament Injury - ACL, PCL, MCL, LCL; meniscus injury - medial and lateral tears; and arthritis - joint mouse, cartilage degeneration.

Begin by creating baseline assessments and then introduce clients to a conditioning program, starting with some of the following core mobility exercises. Increase mobility and then strength and stability training. Here is how I apply this concept to the knee.

Knee injury prevention includes checking ankle mobility. A hypomobile ankle can cause the knee to become hypermobile; you can tell from the list of knee-related injuries how this relates. Manually check the ankle/foot for hypomobile joints and perform manipulation/mobilization to induce motion. Then give your client a repatterning exercise to maintain the motion gained from your hands-on work.

One of my favorite self-mobilization maneuvers for the ankle is having the client stand in a staggered stance, with both arms extended out front of the body at shoulder height with the palms together. Have them weight-shift to the forward leg with very little weight on the back leg. At the same time, rotate the palms / arms side to side, moving through the ankle, hips and torso. They should really feel the foot/ankle going into pronation/supination.

Another [self-mobilization](#) exercise is to have the client stand on one leg (this will be the base leg or non-moving leg). The other leg is the moving leg. The moving leg sweeps outward into abduction (in the frontal plane or from medial to lateral) and then straight out in front of the body. Have your client really reach with the big toe.

Imagine you have a quarter under the big toe and you want to slide it along the floor. The weight-

bearing leg goes into dorsiflexion. This is similar to a one-leg balance hold with foot reach (forward, side, behind). Ankle mobility training is a key to the knee injury rehab plan of action.

The next progression could include some mobility coupled with strength. I often recommend clients perform the step-up. Tell the client to grab a pair of dumbbells and hold them at arm's length at their sides. They should stand in front of a bench and place their left foot on it. Instruct them to press the left heel into the bench and push the body up until their left leg is straight and they're standing on one leg on the bench. Then tell them to lower their body until the right foot touches the floor. That's one rep. Clients can complete about 10 reps with their left leg, switch to the right leg and repeat.

In the final article in this series, I will provide a home retraining exercise program that helps to enhance rotation mobility and core stability.

Resource

- Kiesel K, Burton L, Cook G. Mobility screening for the core. *Athletic Therapy Today*, 2004;9(5):38-41.

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