



# Chiropractic Corner

## Hip Mobility: A Game Changer

Dr. Warren Hefford



The golf swing, like other rotational sports (ie; throwing and racket sports), requires adequate hip and thoracic spine mobility to not only generate and transfer energy for optimal performance; but to also decrease the potential for injury:

- When hip mobility is poor or inadequate, we attempt to get that movement somewhere else – the lower back!
- When thoracic spine mobility is poor or inadequate, this can often times lead to shoulder and elbow issues

Thoracic spine mobility has been addressed in a previous issue so we will concentrate on hip mobility for the purpose of this article. Low back pain has been documented as the most common musculoskeletal complaint among professional and amateur golf athletes causing a restriction in normal golf activities for up to 10 weeks. But how does hip mobility influence golf performance and low back health?

There is an intricate coordinated movement pattern between the hips, torso, shoulders and arms that must all be optimal to truly allow for the greatest performance effect and least risk of injury during the golf swing. The mobility/stability model of human movement states efficient movement of the body occurs in an alternating pattern of mobile and stable joints. If our mobility joints (ie; hips and thoracic spine) lack adequate motion, we are more likely to put rotational stresses on the stabilizing joints (ie; lumbar spine). Our stabilizing joints are designed to provide a stable base for efficient energy transfer and not designed for mobility. The hips are primarily responsible for mobility and power, the lumbar

spine for stability. Lack of proper hip mobility can lead to unwanted tissue stress throughout the low back and shoulders increasing potential for repetitive strain injuries.

Increases in hip internal rotational mobility has also been shown increase overall performance during a golf swing. With timely, efficient movement, an additive effect is seen in force production initiated by the hips transferring through the torso and arms into the club head. The ability to rotate the hips greater during the downswing has been shown to position the hips in a better line with intended direction of the ball flight at impact. Improved hip mobility has also been shown to allow the shoulders to stay closed on the downswing more than in individuals without adequate hip mobility during club contact with the ball.

So now for the million dollar question; how do we increase our hip mobility? The following mobilization drills have been proven to increase and maintain hip mobility. The purpose of these drills is to gradually gain increased hip mobility over an extended period of time. As with any other mobility drills, slight discomfort and feeling of stretch is acceptable, however, never push to the point of pain or dysfunction. Move towards the end range of motion and lightly push through the end range barrier holding for a 2 second count and then release the mobilization. The goal is to gently increase the range of motion with each successive repetition. These drills should only be implemented after activity when our hips are warm and the tissue is susceptible to lengthening. Trying to mobilize cold tissue may increase risk of injury.

### 1. Medicine Ball Rotations

To perform Medicine Ball Rotations grasp a 3-6 lb. medicine ball with both hands in front of your torso with the elbows bent. Stand with the feet shoulder width apart, knees slightly bent, and eyes looking forward. Rotate the hips, torso, and shoulders to the left. Rotate as far as possible to the left, pause briefly at your end range of motion and repeat the movement pattern to the right. Alternate the rotations left and right for 8-12 repetitions (Fig. 1).

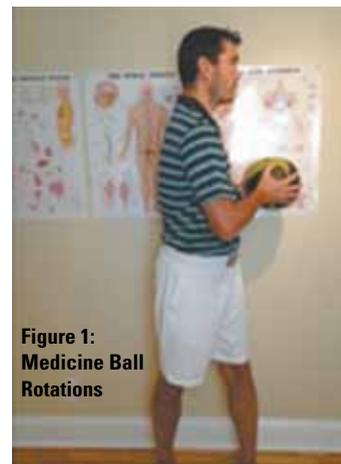


Figure 1:  
Medicine Ball Rotations

### 2. Lying Knee-To-Knee Mobilizations

To perform lying knee-to-knee mobilizations, lie on your back with your feet flat on the ground, with your heels on the floor about shoulder width apart. Slowly slide your feet away from one another while dropping your knees in toward each other until you feel a slight stretch deep in your hips. Hold this end range for a 2 second count and then pull your knees back out as wide as possible. Repeat for 8-12 repetitions (Fig. 2).



Figure 2:  
Lying Knee-To-Knee Mobilizations

### 3. 90:90 Mobilizations

To perform the 90:90 mobility drill sit as pictured with right angles to hips, knees, and feet, so back calf is parallel to front foot, and front calf is parallel to back thigh and foot (hence the name "90:90", right angles everywhere). The goal is to mobilize in numerous directions including over both the front and back legs. Gently lean your body out over your front leg. Make sure, however, that instead of rounding over the knee or foot, you press your chest forward and buttocks away, to maximize the stretch for hips and legs rather than lower back. Hold the mobilization for a 2 second count. Return to the beginning position and then continue mobilizing in various directions while maintaining the position of your front and back legs (Fig. 3).



Figure 3: 90:90 Mobilizations

### 4. Frog Drill

To perform the frog mobilization drill, start in the quadruped position (on knees and forearms) with your knees positioned shoulder width apart. Slowly slide your knees away from your body while your feet are rotated outwards. Once you begin to feel a stretch deep in your hip joints, slowly lean back bringing your buttocks closer to your heels. Maintain end range for a 2 second count and return to the starting position. Repeat for 8-12 repetitions (Fig. 4).



Figure 4: Frog Drill

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