

exercises to stretch your X

by Scott Lephart and Joseph Myers

THE DATA

350 golfers of various skill levels, including 26 Tour pros, underwent biomechanical analysis while swinging their drivers. The following elements were measured: shoulder-turn rotation and velocity, hip-turn rotation and velocity, and X-factor and X-factor velocity (speed at which you uncoil during the downswing) at the top of the swing, halfway down, 40 milliseconds prior to impact and at impact.

THE FINDINGS

The more separation you can achieve between your shoulders and hips at the start of your downswing—stretching the "X"—the faster you can uncoil at impact. By turning their hips toward the target while still rotating their shoulders to the top, our test subjects had significant increases in ball speed and driving distance. Also, those golfers who had a bigger shoulder turn than hip turn in the backswing had greater rotational speeds and hit the ball farther than those with minimal separation between the two.

THE WORKOUT TO STRETCH YOUR X

Use this program four days a week for eight weeks. It helped 15 golfers (average age of 48; average handicap of 13.1) increase their driving distance by 19 yards, from 226 yards to 245 yards. It's important to do these exercises in the sequence shown here. With the exception of the Wood Chop, start with one repetition (holding the stretch for 30 seconds) and increase that number by one each week. Do not exceed four reps.

■ VISIT www.pitt.edu/-neurolab/ FOR MORE INFORMATION ABOUT THE GOLF FITNESS LAB AT UPMC AND THE PAR WITHOUT PAIN™ CONDITIONING PROGRAM.

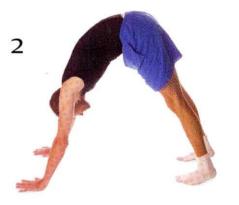
EXERCISE 1

The Bridge

How to do it

- Kneel with your hands directly below your shoulders and both arms extended. Your toes should point down.
- Straighten both knees to raise your rear up toward the ceiling, forming a "bridge."
- Rock your heels backward to the floor.
 (Note: It may take several reps or weeks before you can get your feet flat).
- Hold this position for 30 seconds, keeping your heels as close to the floor as possible.





Why it works: Stretches your hamstrings, calf muscles and Achilles tendon. Having these muscles loose gives your hips a better chance to resist your shoulder turn, so that you can create more torque in your backswing.

EXERCISE 2

Hip Flexor Stretch

How to do it

 Kneel on your right knee and extend your left leg out in front of you at a 90-degree angle.

• Keeping your back straight, push your hips forward until you feel a good stretch in



the front of your right leg.

 Hold for 30 seconds, squeezing your right glute muscle for a deeper stretch in the hip. Repeat on the other side.

Why it works: Stretches your hip flexor muscles, which need to be lengthened because they sit in a shortened, or flexed, state most of the time.

EXERCISE 3

Seated Rotational Stretch

How to do it

 From a seated position on the floor, cross your right leg over your left.

• Rotate your torso to the right and place your left elbow over the outside of your right knee.

 Using your left elbow as a lever, push against your right leg to stretch your torso as far as your range of motion will allow.

 Hold the end position for 30 seconds, then repeat on the opposite side.

Why it works: Increases your shoulder turn and torso flexibility while providing resistance from your hips, thus mirroring the X-factor stretch in the backswing.

EXERCISE 4

Seated Club Stretch

How to do it

Sit on the edge of a chair or an exercise ball, securing a club behind your back with both arms.

• Slowly rotate to your right side until your left arm is directly in front of you, and hold the position for 30 seconds.

• Place your left hand on either thigh—depending on your flexibility—to assist in rotating your shoulders farther behind you.

• Rotate back to center and repeat with your left side.

What it does: Maximizes your X-factor and coil in the backswing, which will increase the rotational speed of your shoulders and your hips in the downswing.



EXERCISE 5

Wood Chop

How to do it

• Secure some resistance tubing or a stretchable band by looping one end around a sturdy object or sticking it in a doorjamb.

• Stand as if you were at the top of your swing and grasp the end of the tubing with both hands.

• Pull the tube down diagonally toward the floor as you rotate your torso to your golf impact position. Pose there for two to three seconds then slowly return the tube to the top. Do 10 reps and then switch sides.

• When you start to feel less resistance, move farther away from the door to add tension to the tube.

What it does: Encourages the correct sequence of motion in the downswing to give you the greatest X-factor stretch: the hips rotate first, then the shoulders and finally the arms.

• Scott M. Lephart, Ph.D., is director of the Neuromuscular Research Laboratory at the UPMC Center for Sports Medicine. Joseph B. Myers, Ph.D., is the associate director of the Neuromuscular Research Laboratory.





