

USTA KY ASK THE DOCS- STRETCHING

QUESTION:

I hear a lot of talk about stretching. Is stretching important for tennis players, and if it is, how should I stretch for tennis.

ANSWER:

Stretching is very important for tennis players. It is one of the “4 S’s” (stretching, strength, speed or power, and stamina or endurance) of a comprehensive conditioning program for tennis players at all age, skill and activity levels. Because tennis requires repetitive starts, stops, direction changes, twists, turns, and large ranges of motion, a flexible or pliable muscle is much better equipped than a tight or stiff muscle to respond to these tennis demands with optimum performance and minimal risk of injury. There are 3 main reasons to do regular stretching. First, stretching can reduce the risk of injuries to muscles and joints that may occur as a result of repetitive use and overuse. Second, it can loosen up tight muscles so you can have increased joint motion and reach some of those wide balls. And third, stretching helps you overcome the effects of strenuous play which cause muscles to get tight after the match.

There are 2 general types of stretching programs, with different effects on and different goals for the muscles, the static and the dynamic stretch. The static stretch is performed slowly, reaching the point of maximum muscle length, and then holding in that position for 15- 20 seconds. Its purpose is to reset the muscle’s resting length in a longer position, so it will become more pliable over time. It is effective in improving flexibility after injury or when inflexibility is known to be a risk factor for injury or deleterious for performance. Examples would include a **tight hamstring muscle** after a muscle pull, a **tight trunk muscle** in low back pain, **decreased shoulder range of motion** as a risk factor for shoulder injury, or to maintain flexibility over a tournament season. While static stretching will increase flexibility, it will also result in a short term (15- 30 minutes) decrease in muscle strength, **so it should be performed on days when you are not practicing or playing matches.**

The dynamic stretch is performed faster and more rhythmically, reaching the end point of the stretch and then moving smoothly away from it within 2- 5 seconds. Its purpose is to quickly decrease the resting tension in the muscle, making it pliable and preparing it for the activity. It also increases the internal muscle temperature. It is effective when performed within 10- 15 minutes prior to play, as a “warm up” to loosen up key parts of the body, but is just as, or even more, important immediately after play, in the “warm down”, helping to decrease the muscle tightness and soreness that results from repetitive motions during play. Dynamic stretching does not result in long term changes in muscle flexibility, so it must be used with static stretching in the overall program.

Static stretches are most commonly used for muscles that are known to frequently develop tightness, such as **the hamstrings, hip rotators, back flexors, trunk rotators, shoulder rotators, and elbow flexors.** Dynamic stretches may address individual muscles but are also commonly used as warm ups for muscles that are active in patterns of motions. Examples would include **arm rotation overhead and by the side, combined trunk and hip rotation, combined knee and ankle rotation,** and the entire motions of the serve, forehand, and backhand.

Stretching exercises may be done daily in order to maintain baseline flexibility. They should be utilized as part of an integrated and balanced conditioning program that includes all of the “4 S’s”, which will be covered in other Ask the Doc segments.

There are many web sites and apps that provide detailed information regarding many types of stretching exercises. It is best to know your goals for your stretching program- improving certain tight areas, maximizing certain motions, working on previously injured areas, providing overall improved flexibility- and pick a variety of exercises that will address these needs and goals. We will provide samples of exercises that have worked in our experience and will be glad to discuss them with you.

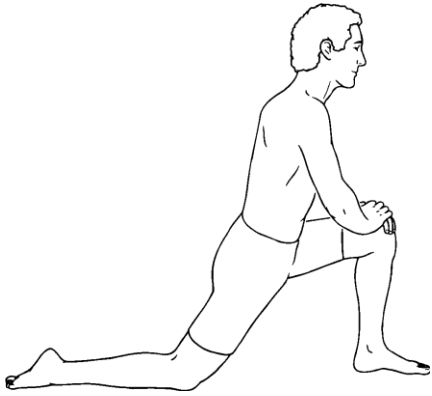
Static Stretches:

Hamstrings



Place sheet or belt around the ball of your foot. Start with your knee bent and then straighten knee until a comfortable stretch is felt in back of thigh. Pull down on sheet until a comfortable stretch is felt in your calf. Secondly, turn foot inward and pull down. Then turn foot outward and pull down. Repeat __3-4__ times per set. Hold __20__ seconds. Do 1 set per session. __1-2__ sessions per day.

Hip Flexor



Kneeling on right knee, slowly push pelvis down while slightly arching back until stretch is felt on front of hip. Hold 20 seconds.

Repeat 3-4 times per set. Do 1 sets per session. Do 1-2 sessions per day.

Piriformis Stretch-Hip Rotators



Cross legs, right on top. Gently pull other knee toward chest until stretch is felt in buttock/hip of top leg. Hold 20 seconds.

Repeat 3-4 times per set. Do 1 sets per session. Do 1-2 sessions per day.

Sleeper Stretch



Lying on your ____ side, bring your elbow up to shoulder level and with elbow bent at 90 degrees use your other hand to push ____ hand toward table.

Repeat 10 times; Hold 5 seconds each; 1 set

Dynamic Warm Up Stretches:

External Rotation/Internal Rotation with Racquet at neutral



Keep arm against body, gently use RACQUET to rotate arm away from body and toward body. Keep elbow bent and against your side as you do this. Hold for __5__ sec. Repeat __10__x __1__ session/day

External Rotation/Internal Rotation with Racquet at 90/90 position



Place arm into 90 degrees shoulder elevation and 90 degrees elbow flexion as pictured. Use RACQUET to rotate arm away from body and toward body. Keep elbow bent and as you do this. Hold for __5__ sec. Repeat __10__x __1_session/day

Pronation/Supination:



Stand tall, start with racquet in neutral, rotate forearm each direction as pictured slowly. Hold 3 count each way.

Repeat __10__ times and HOLD for 5 SECONDS __1-2__ Sets __1_session/day

Eccentric Biceps



1. Begin with elbow bent and forearm supinated (Palm facing you)
2. Slowly lower weighted ball, moving forearm to a pronated (palm away position)
3. Slowly lower for a count of 5 Seconds
4. Repeat 10 times 1 Sets 1 session/day

Seated Thoracic Rotation/Extension



1. Start sitting in chair with elbow touching opposite knee
2. Rotate shoulder/elbow and look to ceiling
3. Repeat 10 times Hold 5 seconds 1 Sets 1 session/day