

Keys to Stretching

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Of the four key areas of physical activity, flexibility training is by far the most critical. Stretching should be woven in with aerobic conditioning, resistance training and core stabilization. One of the challenges with stretching is sorting through the diverse opinions that exist about the appropriate way to stretch. The more confusing issue to the uneducated and educated alike is that many of these different opinions are correct in different circumstances. For the stretches provided to you during your care in this office the procedure we recommend you follow is called 'first tension stretching'.

To understand 'first tension stretching' you need to understand that there are two major elements that make up your muscle; the contractile element and the elastic element. These components should work in concert to allow for ease of motion. During regular motion the elastic element stretches and recoils like a sling-shot allowing the contractile element to have some momentum and contract with less effort. Without adequate flexibility the elastic part of the muscle is ineffective and the contractile element has to do more work. The more the contractile element has to work the more energy is used and more breakdown occurs in the muscle. Muscle breakdown creates chemical byproducts that produce the sensation of pain. This pain is what is normally felt if a muscle is used in a new and unique way but should not be felt if a muscle is used in a typical and frequent manner.

During stretching the goal is to warm up the elastic element while minimally involving the contractile element. Many people stretch much too aggressively and unknowingly breakdown the contractile element creating a pain cycle that they don't recognize. When doing 'first tension stretching' the concept is that you bring your muscle only to the point of the stretch where the first slight tension is felt. This tension should release within 15-30 seconds if done properly. The stretch can then be repeated and the 'first tension' location should have moved further into the range of motion allowed by the muscle.

The misconception that a stretch should be held for 30 seconds should be replaced by the idea that a stretch should release within that same 30 seconds so that no more tension is felt at that range of motion. The stretch can then be repeated for as many repetitions as time allows. A very tight muscle can be worked through this way, whereas a properly conditioned muscle may only require one or two cycles of this sort of stretching to get an appropriate elastic stretch.

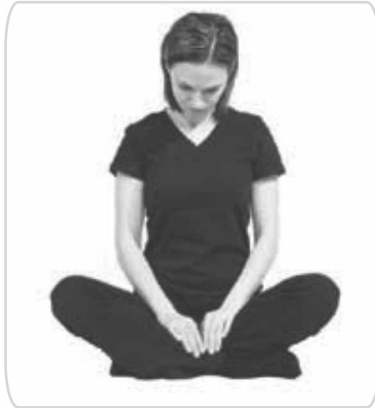
All static stretching should be done following a short warm-up of 2-5 minutes to avoid injury or complication. Gentle movements within the range of motion of the joint/muscle you are about to work on can accomplish this in a simple and pain free manner.

Neck Flexion with Rotation

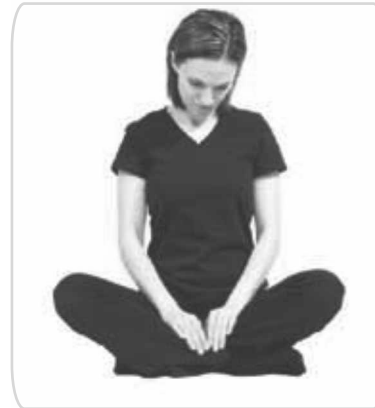
INSTRUCTION: Duration 2-3 min

Start seated comfortably; gently nod your head forward stopping as you feel the stretch develop in the back of your neck and possibly into your upper back. Hold for 15-30 seconds. Finish this stretch by lifting your head back to a neutral position.

Part I



Part II



Rotate your head slightly (1 cm) away from the side of greater tension felt during Part I. From this position again gently nod your head forward stopping as you feel the stretch develop in the back of your neck and possibly into your upper back. This stretch should be felt more on the side you are turning away from if done correctly. Hold for 15-30 seconds. Finish this stretch by lifting your head back to a neutral position. Repeat on opposite side.

Part III



Rotate your head, further than in Part II, away from the side of greatest tension. From this position again gently nod your head forward stopping as you feel the stretch develop in the back of your neck and possibly into your upper back. This stretch should be felt more on the side you are turning away from if done correctly. To accentuate this stretch bend your elbow on the side you are turning away from and drop the shoulder toward the ground. Hold for 15-30 seconds. Finish this stretch by lifting your head back to a neutral position. Repeat on opposite side.

Hip Flexor Stretch

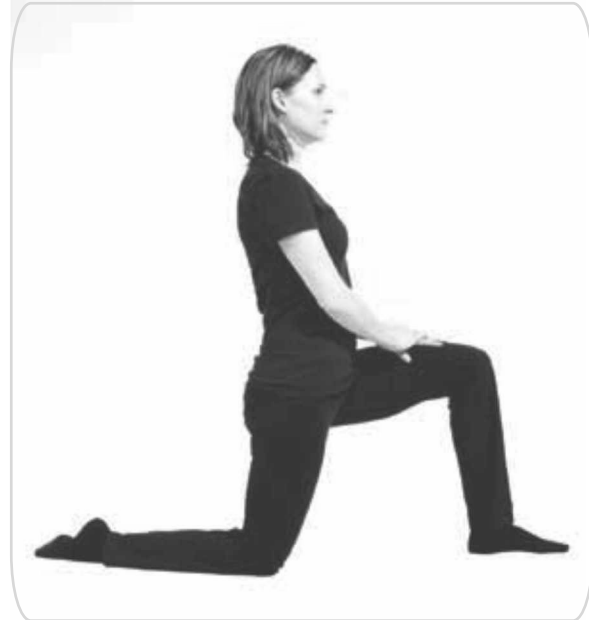
INSTRUCTION: Duration 1 min

Start by kneeling on the floor in a lunge position. Shift your body forward allowing a stretch to develop at the upper portion of the kneeling leg. Your forward knee should not move past your toes and be careful not to allow your pelvis to twist before or during this exercise.

Part I



Part II



Hold for 15-30 seconds.

Hand's Up Stretch

INSTRUCTION: Duration 30 seconds

Lay on your back with both knees bent and feet flat on the ground. Bring your arms into the 'cowboy surrender' position. Keeping your wrists on the ground and your fingers extended. You should feel this stretch across your chest and/or into your upper arm.



Hold for 30 seconds.

Stretch out

INSTRUCTION: Duration 30 seconds

Gently stretch the arms and the feet in opposite directions being careful not to strain your neck.



Hold for 30 seconds.

External Rotator Cuff Stretch

INSTRUCTION: Duration 30 seconds

Lay on your back with both knees bent and feet flat on the ground. Place your hands palm down under your lower back. Lift your elbows slowly off the ground until a stretch is felt in the back of your shoulder.



Hold for 30 seconds.

Supine Frog

INSTRUCTION: Duration 30 seconds

Lay on your back with both knees bent and feet flat on the ground. Place soles of feet together and allow both legs to fall gently apart. Do not strain but allow gravity to gently pull the legs apart.



Hold for 30 seconds.

Single leg knee grasp

INSTRUCTION: Duration 30 seconds

Laying on your back, pull one knee towards your chest as you straighten the other leg. Be sure not to strain knee, you can grasp your thigh instead of the knee to reduce the difficulty of this stretch.



Hold for 30 seconds.

Supine Spine Twist

INSTRUCTION: Duration 1 min

Lay on your back with both knees bent and feet flat on the ground. With both knees together, gently roll the knees to one side while maintaining shoulder contact with the floor.



Hold for 30 seconds and repeat on other side.

Supine Piriformis Stretch

INSTRUCTION: Duration 1 min

Lay on your back with both knees bent and feet flat on the ground. Cross one ankle over your opposite thigh (close to the knee). If a stretch is not yet felt grab your thigh and pull it towards your chest. This stretch should be felt in the buttock (piriformis muscle) of the leg that is crossed.



Hold for 30 seconds and repeat on other side.

Supine Hamstring

INSTRUCTION: Duration 1 min

Lay on your back with both knees bent and feet flat on the ground. Bring one thigh towards your chest and place a strap in the arch of the lifted foot while holding one end of the strap in each hand. Gently begin to straighten that knee as a stretch begins to form on the back of your thigh (Hamstring muscle).



Hold for 30 seconds and repeat on opposite side.

Cat Stretch

INSTRUCTION: Duration 30 seconds

Begin on hands and knees in the quadruped position breathing slowly. As you inhale, arch your back, lowering your belly towards the floor and bring your head slightly up. During your exhale, draw your belly button towards your spine as you hunch your back toward the ceiling and draw your chin towards your chest.

Part I



Continue slowly alternating between these positions 3-4 times.

Part II



Child's Pose

INSTRUCTION: Duration 30 seconds

While on hands and knees stretch your arms forward. Keeping chin tucked towards chest push your buttocks down towards your feet. This stretch should be felt along your side just below your arms.



Hold for 30 seconds.