

Tighten-Relax-Stretching Method

This stretching method replaces the conventional bounce-stretch exercises currently being practiced by most athletes. These have turned out to be mostly ineffective and in many cases even harmful to the body. As used in this manual, stretching includes three parts:



1) TIGHTEN the muscle or group of muscles with resistance and using as much force as possible without shortening the muscle (isometric muscle tension);

2) RELAX the muscle or group of muscles for 2-3 seconds;

3) STRETCH out the muscle gently as far as you can and stay in this position for as long as you tightened the muscle (10-30 seconds).



This is the most gently method of stretching, while at the same time giving a surprisingly fast and effective increase in flexibility.

The methods outlined in this manual have been long used by physical therapists and bodyworkers and have recently been adopted by athletic trainers and coaches.

The exercises included in this method are easy to learn and can be done year round without equipment.

Stretching exercises should be part of all training programs, both during warmup and during relaxation after workouts. Since these smooth, harmonic exercises also contribute to psychological relaxation, the flexibility training becomes even more effective.

What is unique about this stretching method is that it also has proven to be helpful in preventing injuries. There is a definite correlation between tight shortened muscles and the origin of injuries. When stretching is done according to the tighten-relax-stretch method, the risk of injuries- sprains, strains and inflammation- in muscles and tendons is greatly reduced.



THE DEEP BACK MUSCLES - EXTENSORS

Erector spinae and various back muscles

A. Tighten

Stand up leaning slightly forward so that your back doesn't sway. Lean with your lower back against a wall with your knees slightly bent. Clasp your hands behind your neck and press your back backwards as hard as possible using your hands and for example the wall behind as resistance for 20-30 seconds.



B. Stretch

Bend your back forward (with some help from your hands) and feel the tightening along the spine. Keep in this position for 20-30 seconds.

THE BACK EXTENSORS MUSCLES

Various back muscles and trapezius



A. Tighten

Sit down and grab the seat of the chair, the gym horse top, etc. Fold your body backwards and try as hard as possible to move the seat back under your body for 20-30 seconds.

B. Stretch

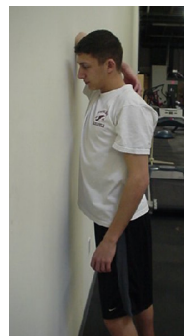
Fold your upper body forward and downward, and hang passively in this position for 20-30 seconds.

Muscles in upper arm and upper side of the back

Triceps, latissimus dorsi, deltoid, teres major

A. Tighten

Stand in front of a wall and raise the elbow, keeping the forearm straight back from the wall. Press the elbow as hard as possible against the wall for 15 seconds.

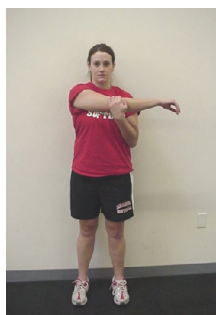
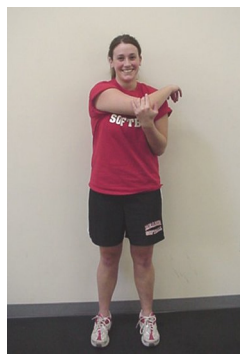


B. Stretch

Bend the arm backward and down toward the back using the other hand to press the elbow backward and downward. Keep the stretch for 15 seconds and feel the stretch in the back of the upper arm and upper part of your chest, feel the stretch in your chest. You can make the stretch more distinct by slightly bending your knees.

Muscles in the back of the Shoulder

Deltoid, latissimus dorsi, trapezius



a. Tighten

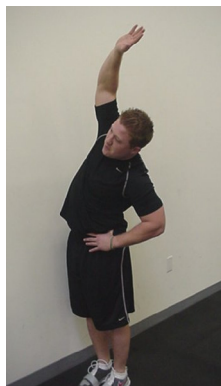
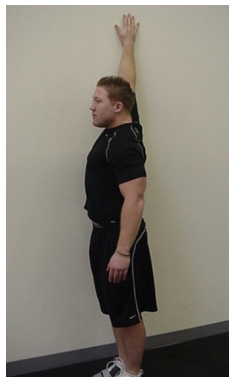
Pull one elbow across the chest toward the other shoulder. From this position, press the elbow forward and out as hard as possible for 10-15 seconds using the other hand as resistance.

b. Stretch

Press your elbow as far as possible toward the other shoulder using your other assistant hand. Keep the stretch for 10-15 seconds.

THE MUSCLES ON THE SIDE OF YOUR BODY

Obliques, quadratus lumborum, spinalis



A. Tighten

Stand with your side against a wall. Keep your feet shoulder-width apart. Lift the arm next to the wall as high up as possible and press your hand back and arm against the wall for 10-15 seconds.

B. Stretch

Bend slowly at the waist away from the wall, keeping your arm straight over your head. Place the other hand on your hip and keep the stretch when you can feel it in your side. Hold for 10-15 seconds. Breathe out when going into the stretch.

NECK MUSCLES

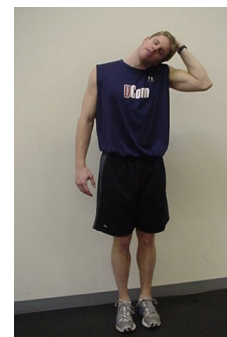
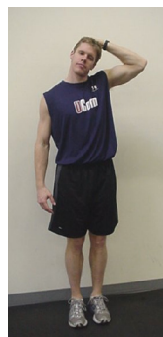
Scalenius, semispinalis, etc.

A. Tighten

Bend your head a little sideways and then press it back toward the other side. Resist by using the hand on the same side to hold your head. Maintain the tension for 20 seconds.

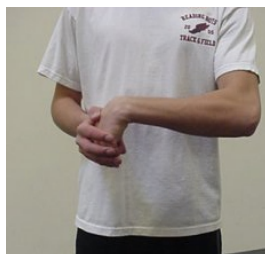
B. Stretch

Pull your head to the same side that you did the slight side bend to, using the hand or your head. Pull carefully until you can't go any further, feel the stretch and keep in that position for 20 seconds.



The Forearms (outside)

Extensors, supinators



A. Tighten

Press your slightly tightened fist as hard as possible against the other arm or against the edge of a table, bar or such for approximately 20 seconds. Keep the elbow bent at a 90 degree angle.

B. Stretch

Three steps: First bend the wrist downward as far as possible. Next extend the elbow and finally rotate the forearm inward as far as possible. Then lift the arm in front of your body and hold on to the upper three fingers with the other hand and pull carefully up and back toward the body. Hold this position approximately 20 seconds.

Forearm Muscles (inside)

Flexors

A. Tighten

Sit on a chair, vaulting horse or a bench, placing your hands on the seat, close to your sides fingers pointing backwards and with the thumbs straight out to the side. Press your fingers downward and try to lift the body up and back for 20 seconds.



B. Stretch

Push the palms down onto the bench in the same position as before. Lean your upper body slowly backwards with your arms straight. Feel the tightening on the inside of the forearms. Keep for 20 seconds.

Forearm muscles (inside benders)**Flexors****A. Tighten**

Bend the wrist backwards and then press your fingers forward as far as possible using the other hand as resistance for 15 seconds.

B. Stretch

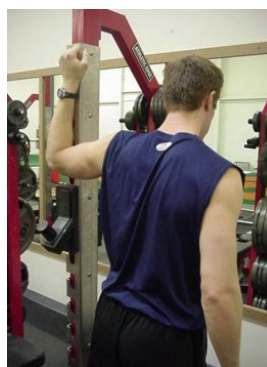
Bend your wrist backwards using the other hand to pull your fingers back and up. Keep in the furthest position for 15 seconds. Then switch and do the same exercise with the other hand. Moving your upper body slowly backwards with your arms straight. Feel the tightening on the inside of the forearms.

Pectorals**A. Tighten**

Stand with your side against a door frame and press your hand or your forearm against the door frame as hard as possible for 20 seconds.

B. Stretch

Keep your forearm in the same position and maintain a stable base with your feet. Turn your body out and forward so that the chest is pushed forward as far as possible. Feel the tightening in your chest up toward the front of your shoulder. Keep the position for 20 seconds.

**Pectorals, Teres Major****A. Tighten**

Bend forward with legs somewhat apart and with hands wide apart against the bar. Press your hands and arms downward as far as possible and push against the bar for 20 seconds. Feel the chest muscles tighten.

B. Stretch

Press the upper body slowly downward while holding on to the bar with straight arms for 20 seconds. Feel the stretch in your chest. You can make the stretch more distinct by slightly bending your knees. By placing your hands at different heights you also change the stretching area.

Muscles in the back of the thighs, lower back, and buttocks

biceps femoris, adductors, gluteus maximus

A. Tighten

Lie down on your back with your lower back straight and your head on the floor. Bend one leg and clasp your hands around your knee. Press the knee downward as much as possible against the resisting hands for 20-30 seconds.

**B. Stretch**

Pull the bent leg up toward your head as far as possible with help from your clasped hands. Keep your lower back straight and keep your head on the floor. Keep the position for 20-30 seconds.



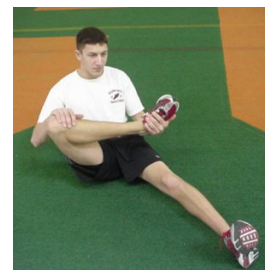
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B. Stretch

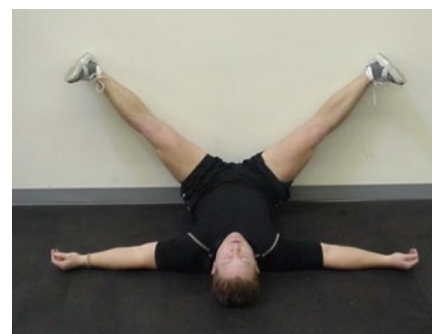
Pull the bent leg up toward your head as far as possible with help from your clasped hands. Keep your lower back straight and keep your head on the floor. Keep the position for 20-30 seconds.

The Inside Groin Muscles

adductors, gracilis, pectineus

A. Tighten

Lie down on your back with your legs straight up against the wall. Press your legs together as hard as possible with (for example) your hands between your knees for 20-30 seconds.



B. Stretch

Spread your legs slowly as far as possible. "hang" passively with straight legs and your heels against the wall for 20-30 seconds. The support from the wall makes it possible to keep the stretch longer in a stable relaxed position.

The Inside Groin muscles

Adductor longus, gracilis, pectineus

A. Tighten



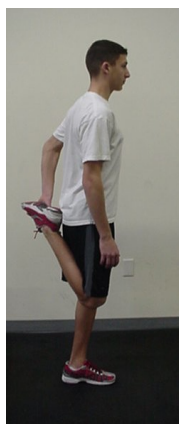
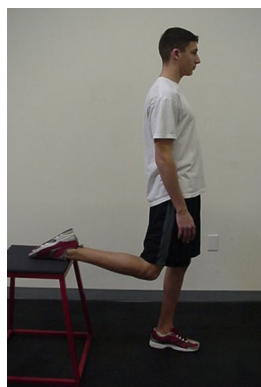
Sit on the floor with knees bent and move your feet back toward your buttocks. Keep your knees apart by holding your ankles or placing a ball between your knees or (as in the picture) placing your forearms straight across. Press your knees against each other as hard as possible for 20-30 seconds.

B. Stretch

Move your heels toward your buttocks by pulling your ankles closer. Push lightly with your elbows to move your knees out to the side as far as possible. Bend your upper body slightly forward and keep the stretch (which will be felt along the insides of the thigh and buttocks) for 20-30 seconds

The muscles in the front of the thigh and the hip

quadriceps, iliacus, psoas, and iliopsoas



A. Tighten

Stand on one leg and with the other knee bent, put the foot up behind you on a chair or bar. Press your foot downward as much as possible. Try to “push the chair into the floor” for 20-30 seconds. Keep supporting the other leg slightly bent at the knee.

B. Stretch

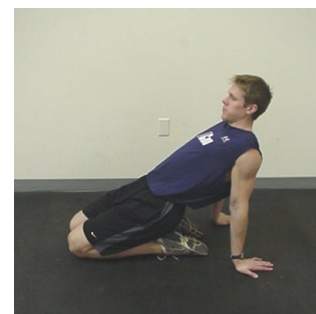
Bend the knee and grab your ankle with the opposite hand. Move the foot backward and up as far as possible so that your heel touches the buttocks and you can feel a tightening on the front of your thigh. Keep the stretch for 20-30 seconds.

The Muscles in the front of the thigh and hip

Quadriceps, iliopsoas

A. Tighten

Stand on your knees with your ankles stretched backwards. (Point your toes straight back.) Fold your straight upper body backwards and keep it in a position where you can feel the tension in the front of the thigh for 20-30 seconds.



B. Stretch

Fold your upper body further backwards and support yourself with your hands on the floor behind the body. Move your hips up as far as possible and feel the tightening on the front of the thigh and stay in that position 20-30 seconds.

The muscles in the back of the Thighs (hamstrings)

biceps femoris, gracilis, sartorius, semitendinous, semimembranosis



A. Tighten

Stand with one leg on a stool, or similar object, with your knee straight. Keep your body fairly straight but bend the other knee slightly. Press your heel against the stool as hard as possible and try to “push the chair through the floor” 20-30 seconds. Feel the tightening on the back side of the thigh.



B. Stretch

Bend forward at the hip keeping your back straight, which will be easier to do if you keep your head up and your hands on your back. The stretch is more effective if you bend the supporting leg more. Keep the position for 20-30 seconds.

The Muscles in the Back of the Thighs (hamstrings)

Biceps femoris, semitendinosus, semimembranosus

A. Tighten

Stand on one knee and keep the other leg almost straight out in front of you with your heel against the floor (hurdle sitting). Press the stretch out leg as hard as possible against the floor for 20-30 seconds and possibly support yourself with the other hand. Feel that the back of the thigh is tightening.



B. Stretch

Fold your upper forward over the straight leg and keep your back as straight as possible. Keep your hands on your back if you like. Feel the stretch in the back of your thigh. Keep there for 20-30 seconds.

Outside Hip muscles

Tensor fasciae latae, gluteus, piriformis



A. Tighten
Lie down on your back and bend your leg to a 90-degree angle. Press your thigh out



to the side as much as you can for 20 seconds using both hands or a wall as resistance. Keep your feet and ankles relaxed.

B. Stretch

Pull your leg up over the other one and down toward the floor using the opposite hand. Keep the position for 20 seconds with your shoulders still touching the floor. Rest the other hand straight out to the side and turn your head the same way so that you can watch that hand.

The Deep Hip bending muscles

Psoas, iliacus, quadriceps, adductors



A. Tighten

Stand with one foot relatively far behind you and rest your hands on the other knee, bar, chair, etc. Press the back leg "through the floor" as hard as possible for 20-30 seconds.

B. Stretch

Move your hip forward, keeping the upper body straight up and



the back leg stretched out. Feel the tightening in the hip and keep the position for 20-30 seconds. The stretch can be accentuated by putting the back knee on the ground.

The Muscles Bending the Hips

Iliopsoas, quadriceps



A. Tighten

Stand with one foot on a gym horse or a chair resting your hands on the knee of the same leg. Press the foot of the other leg forward and downward "through the floor" for 20-30 seconds.

B. Stretch

Push your hip forward as far as possible keeping your feet in the same position. Feel the tightening in the groin/hip. Stay in that position 20-30 seconds.

The Calf muscles

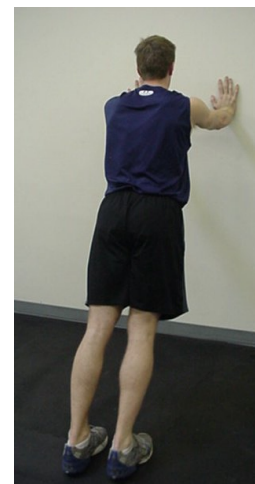
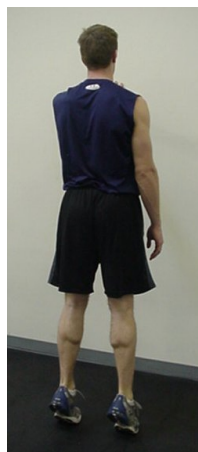
Gastrocnemius, fibularis longus, tibialis posterior, hallucis

A. Tighten

Stand as high as possible on the tip of your toes for 20-30 seconds, preferably with hand support for better balance. To get maximum results, push in the opposite direction with your arms up against a door-frame, bar or similar object.

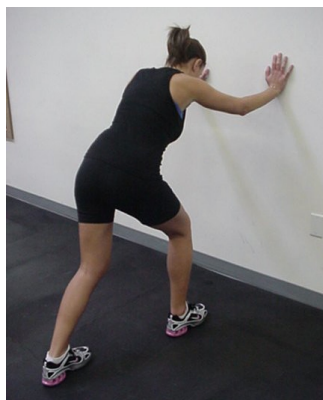
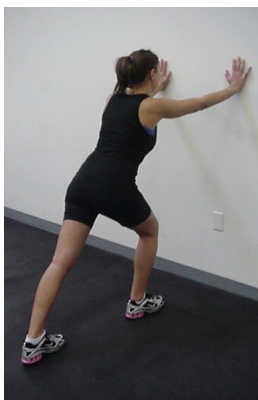
B. Stretch

Stand with your feet close together and lean your straight body forward against a wall, a tree, etc. supporting against the wall far enough down so that the tightening can be felt in the calf, and keep it there for 20-30 seconds



CALF MUSCLES AND ACHILLES TENDON

Soleus, fibular, flexors



A. Tighten

Lean in a "walking-standing" position against a wall, bar or tree with the back leg bent and the foot approximately 2 feet away from the object. Press your toes against the ground as hard as possible for 20-30 seconds.

B. Stretch

Sink down at the hip and move the back knee forward so that a tightening is felt in the lower portion of the calf. Keep the heel on the ground.

