

- WARM UP -

In general, you should begin your workout session by warming up the body with a light aerobic activity for about 8 minutes. Examples of aerobic exercisers commonly found in gymnasiums are treadmills, stationary bicycles, stair step machines, and jump ropes. Next perform a series of warm up stretching movements to limber the muscles in the body. At this point the actual workout session can now begin. Finish any workout session with a long aerobic exercise to revitalize stressed muscles.

Caution: Always endeavor to breathe properly during any form of physical exertion!

- - - - -

Muscles need to be warmed and stretched, or you risk the possibility of tearing muscles and ligaments. Limber neck and back muscles are a major factor in preventing physical injuries, and their warm up should always be incorporated as a part of any exercise.

A warm up should always be performed shortly before commencing any conditioning or practice training. Do not pause excessively between the warm up and the start of training or the muscles may cool too much. In a self-defense scenario you obviously would not have time to do a warm up first, so to keep your body limber, you should perform static stretching exercises at least once a day as a part of your daily routine.

Always stretch a muscle in a slow and gradual manner. Never stretch by bouncing the muscle. Never force a stretch beyond what feels comfortable, stopping the amount of the stretch even if you have not reached the suggested final position of the stretch. For muscles being stretched under their own contractive effort, a muscle should be held in stretch for about 6 seconds. For other kinds of stretching, the muscle should be held in stretch for about 20 seconds, and you should mentally attempt to relax the muscle during the hold. Muscles need only to be stretched for 2 to 4 repetitions.

Note that Isometric exercises are NOT stretching exercises, and should not be substituted.

The world is a dirty place, and the area in which you may need to perform your warm up may be covered with grime, detritus, or other nastiness that you might find undesirable to sit upon, and certainly never want to lie upon. With this in mind, every one of the warm ups listed below were chosen because they can be executed in their entirety while standing unsupported, and so can be performed nearly anywhere. These warm ups are intentionally of a low enough intensity that they can be performed by nearly anyone, including persons who are currently fleshy, weak, or inflexible.

Although this is only a basic warm up routine, it targets most of the major muscle groups. Avoid skipping parts of this warm up, as only in its entirety will it provide the minimal safeguard against work out injuries. You may always delve into more intense stretching exercises immediately after this basic warm up is finished. Try to proceed through all the warm up exercises in the order they are introduced below. Proceeding in this progressive order will minimize both muscle trauma and the required time for the warm up.

Caution: caffeine causes a persistent contracture of muscle fibers that works against the goal of stretching. Therefore, try to reduce the quantity and frequency of your caffeine intake, and try to stay off caffeine completely on the day of a training workout. Cold also causes involuntary contracture of muscle fibers, so avoid training in too cool a gymnasium, and be especially conscientious not to allow a cold draft to blow across your body.

BEGINNING

Before beginning any stretching, the muscles first have to be warmed and nourished. A brief aerobic activity is best, but it must be of low enough impact so as to not injure the sedentary muscles that are not yet prepared for rapid extension.

Relieve your bowels and bladder before a warm up. Also wait for at least 30 minutes after eating a large meal so as to avoid involuntary reflux, and because the process of digestion keeps blood flow away from the muscles you will be trying to nourish during warm up.

If cloths are worn during warm up, make sure they are loose fitting so as to not restrict a stretch, cut off circulation, pinch a nerve, or prevent the body from regulating temperature. For maximum benefit, perform your warm up in an area that is of a comfortable temperature and which has an environment that is calm, quiet, and lacks offensive odors.

Caution: Never force any part of the warm up routine. If you feel dizzy or nauseous, stop. If your heartbeat becomes too rapid or you begin to hyperventilate, stop. If you can't fully stretch a muscle, or you feel pain, stop at whatever point you can comfortably stretch to.

Sinus Stretch

Before you even begin to warm your muscles, you must first open a clear pathway for oxygen to enter your lungs for the use of your muscles.

Blow your nose to clear the nasal air passages of excess mucus and filtered debris. Allow your body to sneeze if it feels necessary. Cough out any phlegm in your throat.

Now open your mouth as wide as possible and push out your tongue. At the same time, open your eyes into as wide a stare as you can manage. You should feel your sinus open. Hold position for 6 seconds.



Muscle Warming

Marching-in-place is an excellent low impact aerobic activity to begin a warm up. For motivation, march-in-place to the rhythm of an actual fast tempo marching song. Muscle warming is the most important step in the warm up, even more important than stretching.

Stand with your feet together. Arms should be slightly bent at the elbow with hands loosely clenched. March-in-place by moderately lifting your knees in an alternating fashion. Do NOT stomp. At the same time, moderately pump the arm on the opposite side of your raised knee upward. Remain in the same spot on the floor. Perform the march for approximately 3 minutes, increasing your arm pump and leg lift heights as the muscles warm and your heartbeat elevates.

When marching take full, regulated breaths to the 4:4 rhythm (in for 4 beats, out for 4 beats). Inhale and exhale through the nose only if possible. Nose breathing has several benefits over mouth breathing. Along with being easier to consciously control your breath rate, nose breathing better regulates CO2 saturation in the blood during exertion. It also filters and warms inhaled air better, reducing stress on the lungs. From a self-defense perspective, a nose breather also appears less winded, providing an intimidation factor.



Relaxation Breathing

After the aerobic activity, it is important to relax the body in preparation for stretching. A warm up begins in the mind. Numerous studies have shown that the power of visualization has an enormous effect on the physical body. This is because our bodies do not actually distinguish between what we visualize and reality itself. When we visualize a situation, the body will release the appropriate chemicals to respond. It is therefore important to quiet the mind and visualize the warm up goal, in order to help manifest it on the physical level. Proper breathing helps the mind focus, and it aids muscle stretching by oxygenating the blood and relaxing tenseness.

Sit or stand comfortably allowing your heart rate to stabilize. Quiet your mind by casually thinking about your warm up. Spread the fingers of your right hand, then fold over the first and middle finger, so that the thumb, ring finger and little finger are still extended. With palm towards your face, place the thumb of your right hand on your right cheek, and the ring finger on your left cheek. Exhale your breath fully, then move your hand slightly to the side so that the thumb closes off your right nostril and your left nostril is wide open. For the remainder of this exercise, do NOT breathe through your mouth.

Now with right nostril closed, breath deeply in through your left nostril, by extending your diaphragm into your belly. Complete the full breath on a slow count of four. At the end of the breath pause momentarily while moving your hand slightly to the side so that the right nostril is now wide open, and the ring finger closes off your left nostril. Exhale your breath fully through your right nostril on a slow count of four. At the end of the exhale pause momentarily, then breath deeply in through your right nostril, by extending your diaphragm into your belly. Complete the full breath on a slow count of four. At the end of the breath pause momentarily while moving your hand slightly to the side so that the left nostril is again open, and the thumb again closes off your right nostril. Exhale your breath fully through your left nostril on a slow count of four, then pause momentarily. You have now returned to the start position. Repeat this cycle for a total of 7 repetitions.



STATIC NECK STRETCHING

A stiff neck will limit your situational awareness, which directly translates into a defensive vulnerability. A stiff neck will also eventually lead to problems with posture and balance.

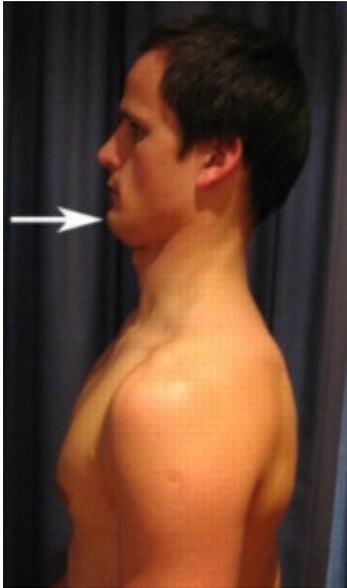
Note that crackling sounds will often occur in necks that are not moved much. See your doctor if concerned, but this is usually normal and will diminish as you restore mobility.

Caution, do NOT perform Head/Neck Rolls as they can pinch anterior nerves, grind on disks, and produce dizziness. The vertebrae of your neck are not shaped for motion through a circular path, and repeated head rolling will lead to neck issues over time.

- 1) Chin Tuck
- 2) Shoulder Blade Squeeze
- 3) Shoulder Blade Stretch
- 4) Shoulder Rolls
- 5) Neck Flexion
- 6) Neck Extension
- 7) Lateral Flexion
- 8) Neck Rotation

Chin Tuck

Stand or sit in an erect posture. Keep your head level and facing forward. Without turning or tilting your head, retract your chin straight back, tucking chin. It is allowable to assist the movement by pressing your hands against your chin. You should feel a mild to moderate stretching sensation at full retraction. Hold position for 6 seconds, then return to starting position. Repeat for a total of 3 repetitions.



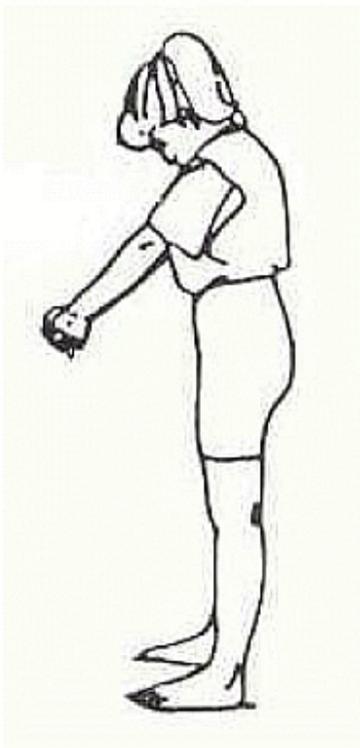
Shoulder Blade Squeeze

Stand or sit in an erect posture with head facing forward and arms at sides. Bend elbows and raise hands to ear level with palms facing forward. Squeeze your shoulder blades together as far and as hard as possible, allowing hands to naturally sweep to the side. Hold position for 6 seconds, then return to starting position. Repeat for a total of 3 repetitions.



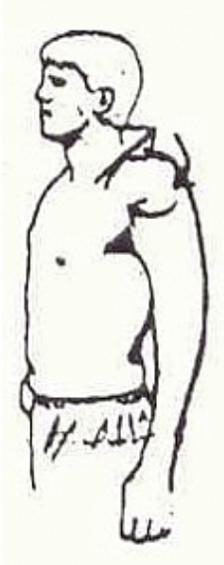
Shoulder Blade Stretch

Stand or sit in an erect posture with head facing forward, hands together in front of your body with fingers interlaced. Drop chin, round shoulders and stretch arms out and down in front of you. Your shoulder blades should feel as if they are pulling apart. Hold position for 6 seconds, then return to starting position. Repeat for a total of 3 repetitions.



Shoulder Rolls

Stand or sit in an erect posture with head facing forward and arms relaxed at sides. Roll shoulders 3 times in large, exaggerated backward circles, allowing popping sounds. Repeat in opposite direction. Try to be as symmetrical as possible when rolling the shoulders.



Neck Flexion

Stand or sit in an erect posture with head facing forward. Keep shoulders relaxed. Slowly tuck your chin and allow your head to drop forwards towards your chest. Now increase the stretch further by applying a slight pressure to the back of the skull with your hands. You should feel a mild to moderate stretching sensation at full extension. Hold position for 20 seconds, then return to starting position. Repeat for a total of 3 repetitions.



Neck Extension

Stand or sit in an erect posture with head facing forward. Keep shoulders relaxed and back slightly. Slowly lift your chin and allow your head to drop backwards towards your back. Now increase the stretch further by applying a slight pressure to the front of the skull with your hands. You should feel a mild to moderate stretching sensation at full extension. Hold position for 20 seconds, then return to starting position. Repeat for a total of 3 repetitions.



Lateral Flexion

Stand or sit in an erect posture with head facing forward. Keep shoulders relaxed. Slowly tilt you head to the right and allow your right ear to drop sideways towards your shoulder. Now increase the stretch further by applying a slight pressure to the left of the skull with your hand. You should feel a mild to moderate stretching sensation at full extension. Hold position for 20 seconds, then return to starting position.

Reverse the direction of the stretch by slowly tilting you head to the left and allowing your left ear to drop sideways towards your shoulder. Now increase the stretch further by applying a slight pressure to the right of the skull with your hand. You should feel a mild to moderate stretching sensation at full extension. Hold position for 20 seconds, then return to starting position. Repeat for a total of 3 repetitions.



Neck Rotation

Stand or sit in an erect posture with head facing forward. Keep shoulders relaxed. Slowly rotate your head to the right. Now increase the stretch further by applying a slight pressure to the left of your forehead with your hand. You should feel a mild to moderate stretching sensation at full extension. Hold position for 20 seconds, then return to starting position.

Reverse the direction of the stretch by slowly rotating your head to the left. Now increase the stretch further by applying a slight pressure to the right of your forehead with your hand. You should feel a mild to moderate stretching sensation at full extension. Hold position for 20 seconds, then return to starting position. Repeat for a total of 3 repetitions.



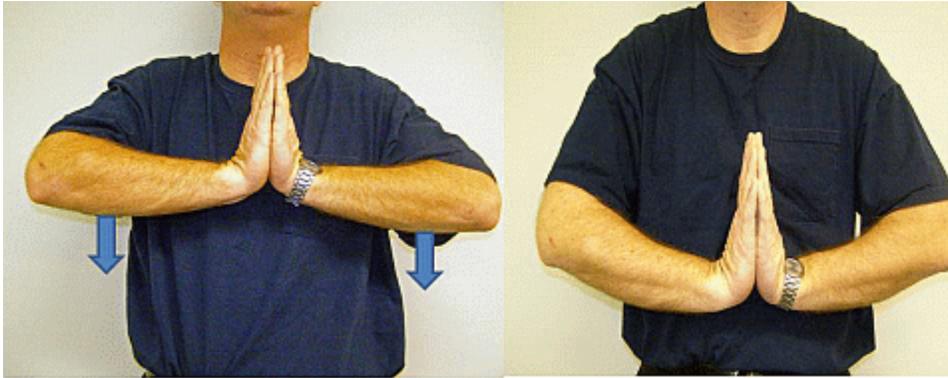
STATIC BODY STRETCHING

A flexible body is necessary not only for good posture and balance, but also in order to execute a proper dodge or parry in a self-defense situation. Athletes and martial artists are aware of this, and therefore engage in body stretches before a match. The following stretches taken together will sufficiently loosen most of your major body muscles.

- 1) Forearm Stretch
- 2) Triceps Stretch
- 3) Biceps Stretch
- 4) Foot Stretch
- 5) Calf Stretch
- 6) Hamstring Stretch
- 7) Quadriceps Stretch
- 8) Chest Stretch
- 9) Back Stretch
- 10) Lats Stretch
- 11) Abdominal Stretch
- 12) Adductor Stretch

Forearm Stretch

Start by standing or sitting erect, with head facing forward. Extend arms while bending elbows so that hands are placed in front of body with palms touching, as if in prayer. Fingers should be pointing upwards with the tips just below the chin, and the thumbs close to the chest. Now lower wrists so that the upward pointing fingers drop away from your chin. You should feel a moderate stretching sensation in your forearms. Hold position for 6 seconds, then return to starting position. Repeat for a total of 2 repetitions.



Triceps Stretch

Start by standing or sitting erect, with head level and facing forward. Keeping arms close to body, raise elbows forward and high. Without bending wrists, crossover palms against the upper back where it connects with the neck, then splay hands wide with fingers outstretched and separated. Do NOT push your head forward. You should feel a mild stretching sensation in your hands and a moderate stretching sensation in your triceps. Hold position for 20 seconds.



Biceps Stretch

Start by standing erect, hands behind back, palms upward, with interlace fingers. Now turn palms downward and lift hands away from back while bending forward slightly. You should feel a mild stretching sensation in your biceps. Hold position for 6 seconds, then return to starting position. Repeat for a total of 2 repetitions.



Foot Stretch

Start by standing erect with feet flat on ground, naturally separated. Place hands on hips. Fully raise heels so you are standing on your bent toes. Hold position for 6 seconds, then return to starting position. Repeat for a total of 3 repetitions.

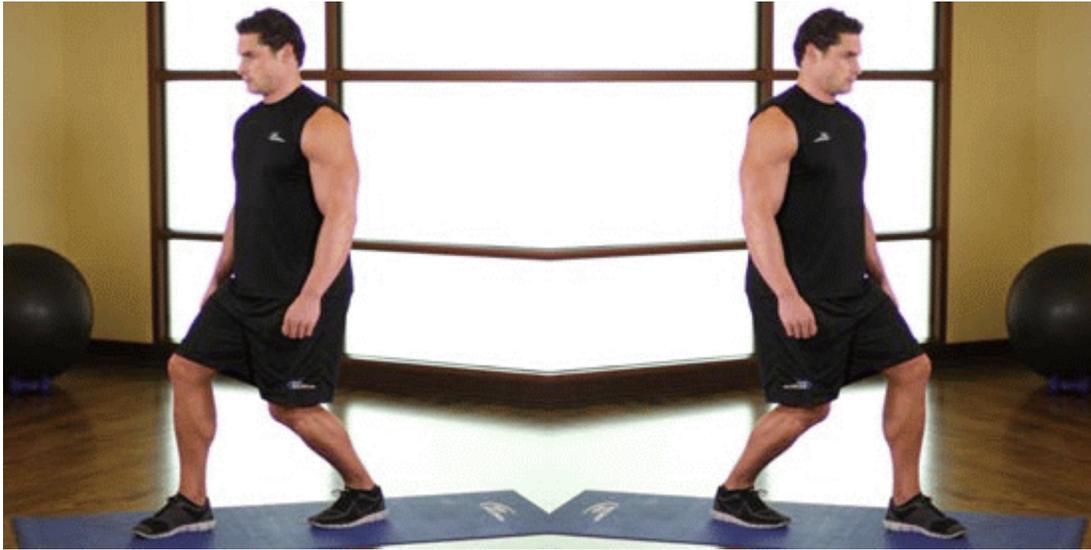


* The ideal is to perform this stretch while keeping your balance naturally. However if until you develop your sense of balance it is initially necessary, you may loosely finger a support, as long as you do not compromise your erect body posture.

Calf Stretch

Start by standing erect with feet naturally separated. Place the right foot slightly ahead of left foot. Now drop upper body slightly downward by bending both knees, while keeping your left heel on the floor. You should feel a mild stretching sensation in your calves. Hold position for 6 seconds, then return to starting position.

Switch the positions of your feet, so your left foot is now slightly ahead of your right foot. Now drop upper body slightly downward by bending both knees, while keeping your right heel on the floor. Hold position for 6 seconds, then return to starting position. Repeat for a total of 2 repetitions.



Hamstring Stretch

Start by standing erect with feet naturally separated and flat on floor, keeping back straight. Bend the knees slightly and lean over from the waist somewhat, so the arms can dangle outstretched in front of legs. Now while still keeping your knees slightly bent and the back straight, bend further from the waist, grasping the middle of your shins with your hands. You should feel a moderate stretching sensation in your calves and a mild stretching sensation in your hamstrings. Hold position for 20 seconds.



Quadriceps Stretch

Start by standing erect with feet flat on ground, naturally separated, with arms hanging down. Balance on your right leg and raise left foot backwards by bending left knee so that heel swings upwards towards buttocks. Grasp top of left foot with your left hand. You should feel a mild stretching sensation in your left quadriceps. Hold position for 6 seconds, then return to starting position.

Now balance on your left leg and raise right foot backwards by bending right knee so that heel swings upwards towards buttocks. Grasp top of right foot with your right hand. Hold position for 6 seconds, then return to starting position. Repeat for a total of 2 repetitions.



* The ideal is to perform this stretch while keeping your balance naturally. However if until you develop your sense of balance it is initially necessary, you may loosely finger a support, as long as you do not compromise your erect body posture.

Chest Stretch

Start by standing erect with feet flat on ground and heels together, arms hanging down, head level and facing forwards. Exhale all the air from your lungs. Stooping over very slightly will help. Tightly suck in your gut and keep it sucked in for the remainder of the stretch. Now while avoiding using your diaphragm, expeditiously inhale deeply into the upper and middle of sections of your lungs. Simultaneously slide into an attention-like pose with your chest thrown out as far as possible, your shoulders pulled well back, and your lower back fully tucked in. You should feel a moderate stretching sensation in your chest cavity. Hold both your breath and position for 20 seconds.



Back Stretch

Start by standing erect with feet naturally separated, hands resting on hips. Now twist your waist fully to the right. Hold stretch for 6 seconds, then return to starting position.

Now twist your waist fully to the left. Hold position for 6 seconds, then return to starting position. Repeat for a total of 3 repetitions.



Lats Stretch

Start by standing erect, heels together. Hold arms downward towards the knees, with the palms of the hands along the sides of the legs. Now while keeping right arm down, extend left hand high into the air overhead, palm facing forward. Keep head relatively level, but allow waist to bend upper body to the right. You should feel a mild stretching sensation in your pelvis. Hold position for 6 seconds, then return to starting position.

Now switch arm position, placing left arm down and extending right hand high into the air overhead. This time allow waist to bend upper body to the left. Hold position for 6 seconds, then return to starting position. Repeat for a total of 3 repetitions.



Abdominal Stretch

Start by standing erect with feet naturally separated and flat on floor, hands together behind your body with fingers interlaced. Now curl your body backwards at the waist, so that your shoulders are leaning as far backwards as possible. Hold position for 20 seconds.



Adductor Stretch

Start by standing erect with feet wide apart, toes turned outward. Now while keeping back straight, drop upper body slightly downward and to the right side, by bending right knee and keeping left leg straight. You can rest your arms or hands on hips or thighs for balance. You should feel a mild stretching sensation in your groin. Hold position for 20 seconds, then return to the starting position.

Now while keeping back straight, drop upper body slightly downward and to the left side, by bending left knee and keeping right leg straight. You can rest your arms or hands on hips or thighs for balance. Hold position for 20 seconds, then return to the starting position.



FINISHING

To finish off your warm up let your whole body go completely floppy, and then gently shake your limbs to release any residual tension.

Next, wipe any sweat off your head and limbs so as not to accidentally slip or catch a chill; while at the same time allow your breathing and heart rate to stabilize.

Finally, sip some cool (*not cold*) water to replace any dehydration.

Remember that the warm up is just a prelude to a workout, and not the workout itself!