

Stretching and flexibility

Flexibility is the ability to move muscles and joints through their full range of motion.

Flexibility is developed when connective tissues and muscles are elongated through regular, proper stretching. In contrast, flexibility diminishes over time when these tissues are not stretched or exercised.

Flexibility is primarily due to one's genetics, gender, age and level of physical activity. As we grow older, we tend to lose flexibility, usually as a result of inactivity rather than the aging process itself. The less active we are, the less flexible we are likely to be.

Benefits of stretching

- Stretching can reduce the risk of joint sprain or muscle strain
- Stretching can reduce risk of back problems
- Stretching can reduce muscle soreness
- Stretching can reduce muscle tension
- Allows greater freedom of movement and improved posture
- Increases physical and mental relaxation
- Reduces risk of injury.

Fitting stretching into a compressed schedule

Time constraints keep many people from stretching. Some complain they just don't have time to stretch; others hurry out of their fitness classes before the cool down exercises are completed. Ideally, at least 30 minutes, three times per week, should be spent on flexibility training. But even a mere five minutes of stretching at the end of an exercise session is better than nothing. All aerobic activity should be followed by at least a few minutes of stretching.



Here are some tips for fitting stretching into an overstuffed schedule:

- If you don't have time to sufficiently warm up before stretching, try doing a few stretches immediately after a shower or while soaking in a hot tub. The hot water elevates muscle temperature enough to make them more pliable and receptive to stretching
- Try a few simple stretches before getting out of bed in the morning. Wake yourself up with a few full-body stretches by pointing the toes and reaching the arms above your head. This can clear your mind and help jump-start your morning.
- Take a stretching class such as Yoga or Pilates. Scheduling a class will help you to stick with a regular stretching program

How to stretch

When performing any stretch:

- Start each stretch slowly, exhaling as you gently stretch the muscle.
- Try to hold each stretch for at least 10 to 30 seconds.

Avoid these stretching mistakes:

- Don't bounce a stretch. Holding a stretch is more effective and there is less risk of injury.
- Don't stretch a muscle that is not warmed up.
- Don't strain or push a muscle too far. Stretch the point of tension or mild discomfort NOT pain.
- Don't hold your breath.

Importance of stretching the different areas of our body

Stretching the neck

The cervical, or neck area is a storehouse of muscular tension. Many people experience discomfort or pain in this region because of postural stress, job-related activities, or trauma. Stretching these muscles can provide great relief from tightness and pain but can also create pain if done too aggressively. When performing these stretches be careful that you are not stretching to the point of pain.

Thoracic and lumbar area (middle - lower back)

The thoracic and lumbar areas often maintain chronic muscular tension, which can be generally alleviated through effective stretching. Many people experience pain in these areas from trauma, job-related injury, and/or postural stress.

Wrist flexors and extensors

Maintaining good range of motion at the wrist can help reduce the risk of overuse tendinitis or repetitive stress injuries.

Hip abductors

Tightness in these muscles can contribute to pelvic imbalances, which can cause pain not only in the hips, but also in the low back and the knee.

Lower Leg

The lower leg region consists of the calf muscle and the muscle that runs down the front of your shin 'tibialis anterior'. The tibialis anterior assists in maintaining balance. During walking and running, it helps prevent the foot from slapping onto the ground. It is very important to maintain flexibility in the tibialis anterior and calf region. Often walkers and runners complain of pain in their shins, commonly referred to as 'shin splints', but this can often be avoided by effective stretching of these muscles before and after exercise.

Stretches

Hip flexors and upper leg

If your hip flexors are too tight, it can cause an increase in the curve of your lumbar spine, which leads to sway back and low back pain.

The quadricep muscles also cross the hip joint and act as a hip flexor. Short quads can also contribute to lower back pain. The quads are also usually involved in any type of knee pain or instability.

Shortened hamstrings can contribute to low back pain, knee pain, and leg length differences. They can also restrict stride length in walking or running, which means that more work is required to cover a given distance. Runners often have short, weak hamstrings.

The categories above outline the major regions of the body that we should focus on for increased flexibility and reduced risk of muscular tightness / injury. There are a bank of stretches in the pages to follow that cover the above mentioned areas. We should try to conduct these stretches on a daily basis to improve flexibility. Be sure to follow the guidelines for safe stretching listed above.

Quick Quiz

- How should stretching be performed?
 - Hold a stretch, then bounce to increase the stretch.
 - Hold a stretch, then gently increase the stretch once the muscle feels comfortable
 - Use momentum (such as swinging the arms) to push the muscles to stretch as far as possible
- How far should you stretch a muscle?
 - To the point of mild discomfort
 - To the point of pain
 - If you feel any discomfort at all, you've stretched too far
- How long should you hold a stretch?
 - 3 to 5 seconds
 - 5 to 10 seconds
 - 10 to 30 seconds
- How should you breathe while stretching?
 - Breathe in, move into the stretch, and exhale slowly for the duration of the stretch
 - You should just breathe normally
 - Take a deep breath and hold it for the duration of the stretch
- At what point in your warm up routine should you stretch?
 - After your warm up exercises
 - Before your warm up exercises
 - This is a trick question – stretching should only be performed during the cool down



1. Neck Flexion/Extension Stretch
(forward, then back)



2. Neck Lateral Flexion Stretch
(one side, then the other)



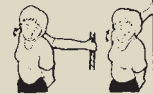
3. Latissimus Dorsi and Posterior Deltoid Stretch
(link hands, push elbows together)



4. Triceps Stretch
(pull elbow across and down)



5. Shoulder Rotator Stretch
(using towel, pull up with the top arm then down with the other)



6. Pectoral Stretch at 90° and 120°
(use a doorway or post)



7. Bicep Stretch
(hands apart)



8. Supraspinatus Stretch
(keep elbow parallel to ground)



9. Wrist Extensor Stretch
(tilt head to opposite side, keep elbow straight)



10. Thoracic Extension Stretch
(reach forward with arms, push chest towards floor, arch back down, backside behind knees)



11. Lateral Flexion Stretch
(one side, then the other, push pelvis across as you bend)



12. Lumbar Extension and Abdominal Stretch
(be gentle if sore)



13. Lumbar Flexion Stretch
(be gentle if sore)



14. Lumbar Rotation Stretch
(rotate legs one side, then the other side, draw in and brace stomach muscles at the same time, breathe)



15. Hamstring Stretch
(straighten leg, with foot pointed in, with foot pulled back towards the knee)



16. Hamstring Stretch
(commence with knee slightly bent, then push knee straight as tension allows, push chest towards foot)



17. Adductor Stretch
(push down with elbows on knees very gently, keep back straight)



18. Gluteal and Lumbar Rotation Stretch



19. Gluteal Stretch
(pull knee and lower leg towards opposite shoulder)



20. Quadriceps Stretch
(keep pelvis on floor)



21. Quadriceps Stretch



22. Adductor Stretch
(keep foot pointing forward, lunge sideways on bent knee, keep back straight)



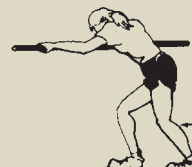
23. Hip Flexor Stretch
(keep back straight, duck hips and/or right leg, bow, or left leg)



24. Tensor Fascia Stretch
(continue to push bottom forward, whilst pushing hip to the side)



25. Gastrocnemius Stretch
(keep knee straight and heel down, feet facing forward)



26. Soleus Stretch
(knee bent over rear foot, feet facing forward)