

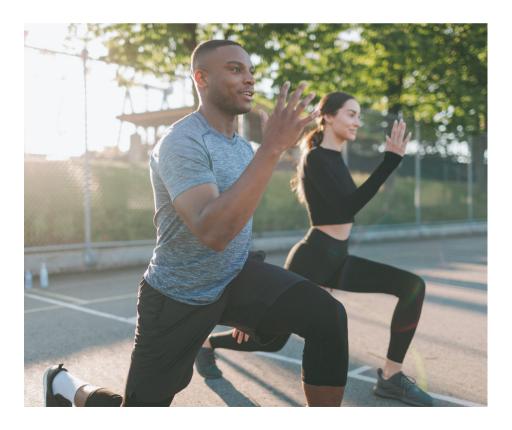


(+ A Full-Body Mobility Plan)

#### | INTRODUCTION

Mobility exercises are an integral part of any well-structured workout program. Being mobile thorough your whole body means that you'll move easier and probably avoid most of the pain associated with our modern lives.

Since almost everybody is deskbound for most of the day, the average human being isn't a great example of a mobile human. Having joints that move freely is a blessing, and by the end of the article, you'll be one step closer to being blessed.





**Before we** get further into the discussion about mobility, we must clear up some confusion about mobility. Many people, including coaches, use the terms mobility and flexibility interchangeably. And while flexibility may be a part of mobility, the two terms don't mean the same thing.

Flexibility is defined as the ability of a muscle to passively go through a range of motion. On the other hand, mobility is defined as the ability of a joint to move actively through its normal range of motion. It refers to the amount of usable motion in a particular joint.

You can't have good mobility without a good level of flexibility since flexibility is a major part of mobility. If your muscles don't allow you to enter a specific range of motion, it's obvious that your joints won't be able to move through it.



## The Benefits of Mobility Exercises

There are many benefits to having enough mobility, but let us briefly talk about the most important one-injury prevention.

Doing mobility exercises doesn't mean you'll be bulletproof and won't be able to injure yourself, but we have robust data relating to mobility and injury.

Dr. Reiman and Dr. Matheson showed a strong correlation between limited hip mobility and hip, low back, and lower extremities injuries. Ann M. Cools and her colleagues proved that the decreased range of motion in the shoulder's external rotators increased the risk of chronic shoulder injuries for overhead athletes. It is also widely known that limited ankle mobility increases the chances of a knee injury.

Mobility work will increase your range of motion, helping you with your form in the gym and transferring to every other part of your life. Of course, improving your posture and potentially reducing stress is a huge plus too!

## The Science Behind Mobility and Flexibility

Our body doesn't allow us to get to specific ranges of motion not because we're tight, but because our central nervous system (CNS) says no. We can't stretch our tendons and fascia, and it's debatable whether or not we can actually stretch a muscle and increase its length long-term

Muscle spindles are found in every skeletal muscle, and they give our CNS information about the speed and the amount of stretching occurring in a muscle. The CNS uses that information to decide where our extremities are in space. Although they have numerous functions, the one that interests us the most is the fact that the muscle spindles force our muscles to contract to prevent further stretching. This happens when a stretch is happening too quickly or when we are going really deep into a stretch.

This may sound bad, but the muscle spindles help us prevent injuries. For example, if you slip on a banana peel, your muscle spindles will contract certain muscles in your legs and torso to prevent muscle tears and potentially a date with the asphalt.

Another essential structure related to mobility is the Golgi tendon organ (GTO). Its function is the opposite of the muscle spindle because it prevents a muscle from contracting. The GTO senses muscular tension when a muscle is being stretched or contracted. When activated during a stretch, it inhibits the muscle spindles within the working muscle, allowing for a deeper stretch. You can feel this happening after the first seven seconds or so when holding a stretch. After that, your muscles will start to relax a bit, and you'll be able to go deeper into the stretch.



## What Influences Mobility?

Mobility and flexibility are influenced by a lot of anatomical and physiological factors. Although we can directly affect some of these, quite a few are set in stone.

The most apparent factors relating to the amount of mobility and flexibility are age and gender.

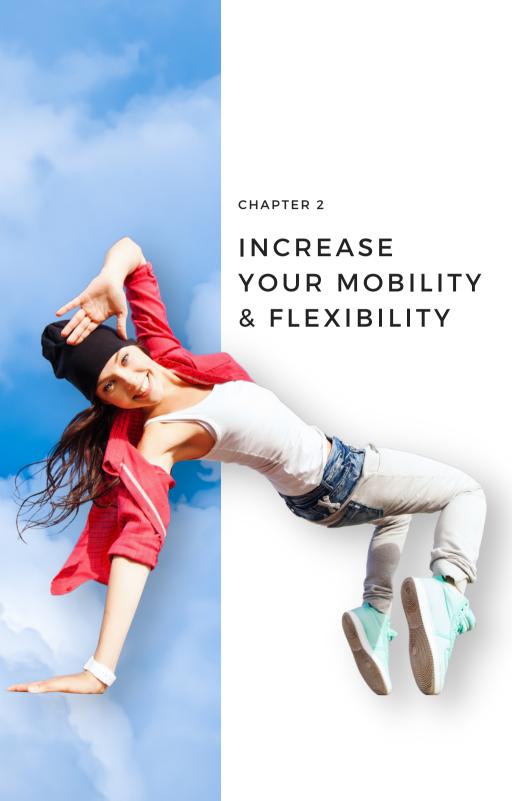
Our range of motion decreases with age because of a process called fibrosis. Fibrosis causes our muscle and connective tissue to get less elastic. While you can increase your mobility and flexibility at any age by being physically active and including mobility exercises in your routine, losing flexibility with age is natural. Regarding gender, the average female tends to be more flexible than the average male.

Another major factor is our injury history. Muscle and connective tissue injuries can also cause fibrosis. That's one reason why getting your full range of motion back after a muscle or joint surgery is important.

Our flexibility and mobility also oscillate during the day. Our mobility is at a low point immediately after waking up.

The outside temperature and body temperature also influence our ROM. Cold temperatures generally stiffen us up, while hot environments increase our ROM.





# How To Increase Flexibility?

Some people like to say that flexibility work is useless, but that's far from the truth. Flexibility, along with strength and stability, is a part of mobility. There's no mobility in a place where there's no flexibility.

For example, a person having difficulties with the overhead position in the overhead squat might have restrictions in the thoracic spine and have stiff lats. In this case, mobility work for the thoracic spine would help, but lat stretches are also needed.

Before we continue any further, it's important to note that you shouldn't push yourself beyond pain. Mobility and flexibility work will probably always be uncomfortable, but there's a difference between discomfort and pain.

The most well-known method of increasing flexibility is static stretching. There's not much to explain here since everyone is familiar with it. You hold a stretch anywhere from 20 seconds to 2 minutes, taking deep breaths while relaxing into the stretch

Static stretching for more than 30 seconds decreases your power output. This means your strength and explosiveness will go down after prolonged static stretching. If you decide to incorporate it into your routine, do it at the end of the workout

On the other hand, dynamic stretches don't decrease your power output. In fact, it seems like they might enhance it. That's why most coaches love using them before a training session

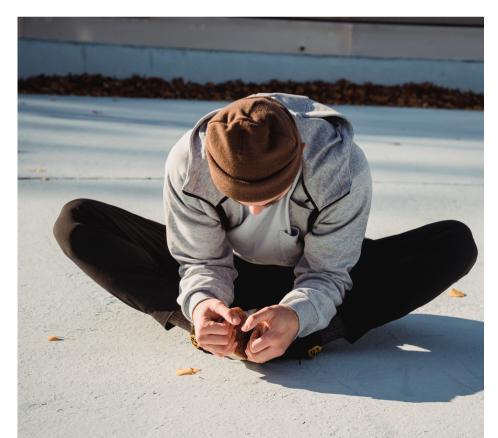


While it's true that they increase flexibility, they also increase your mobility. You do them by actively moving through the muscles' or joints' full range of motion. Front swings and cross-side swings are great examples of dynamic stretches.

Another excellent method for increasing flexibility is called PNF. It's short for proprioceptive neuromuscular facilitation. A mouthful, I know. It's a more advanced form of flexibility and mobility training, but it works wonders.

There are three main PNF methods, and they are usually done with a partner. The most used one is called the hold-relax method. Firstly, you passively stretch your muscle for about 5 seconds. Then you isometrically contract the muscle being stretched for around 10 seconds. This means you're contracting your muscle without moving. After 10 seconds, relax into the stretch again, sinking deeper into the stretch. Hold this stretch for 10 to 15 seconds. You can repeat these two to three times per stretch.

The isometric contraction shouldn't be too forceful. You should use about 50% of your maximum strength during it.



# How To Increase Mobility?

Mobility exercises vary a lot. We have methods using lacrosse balls, resistance bands, foam rollers, FRC, mobility flows, etc.

Let's start with FRC. It stands for Functional Range Conditioning. Developed by Dr. Andreo Spina, it's a joint health and mobility training system based on scientific research. It increases the dynamic, usable range of motion of a joint.

The most common tool used by the FRC system is called CAR's, short for Controlled Articular Rotations. CAR's are made up of active rotational movements, taking place at the outer limits of your range of motion. They teach kinesthetic awareness, maximum range control, and articular adaptation.

Flow is defined as "the action or fact of moving along in a steady, continuous stream." A mobility flow is a set of mobility and flexibility exercises designed to be done continuously, shifting smoothly from one exercise to another. They can target the whole body, shoulders, hips, ankles, or any other joint.

You can use lacrosse balls and foam rollers to break up the knots in your muscles. It's basically a form of deep massage, so it will help us unlock the areas of our bodies that feel particularly stiff.

Resistance bands of great for creating some distraction in your joints. Especially useful for ankles, hips, and shoulders.





## **Full-Body Mobility Plan**

Every body is unique and has its mobility flaws. Here are a few mobility exercises that you can do in succession, designed to hit every crucial part of your body. You can either do one exercise after the other and then repeat that for two sets, or do two sets of every drill before moving on to the next.

### 1. Hip Flexor to Hamstring Stretch

- 1.Get in a half-kneeling position with your front knee bent at around 90° and your foot on the ground.
- 2.Place your back knee on the ground. Having a towel or a yoga mat makes it a bit more comfortable.
- 3. Squeeze your back glute and shift your hips slightly forward until you feel a stretch in your back leg.
- 4. Hold for 30 seconds, then switch sides.
- Your lower back should be perfectly flat, with no rounding occurring.



#### 2. Shoulder CAR's

- 1.Get in the same position as for the drill above.
- 2.Start rotating your arm up and around its full range of motion.
- 3. You should fully extend the arm.
- 4.Do this for 30 seconds, then switch sides.



### 3. Ankle Dorsiflexion

- 1.The starting position is the same half-kneeling position as in the previous two drills.
- 2.Rest your hands on your front knee.
- 3. Without lifting your front heel off the ground, try bringing your front knee as far in front of your toes as possible.
- 4. Hold for a few seconds, feeling a stretch in your Achilles and calves.
- 5.Repeat for 30 seconds, then switch sides.



#### 4. World's Greatest Stretch

- 1.Get into a deep lunge with your front leg bent at around  $90^{\circ}$  and your back leg fully extended behind you.
- 2.Place the arm opposite to your front leg on the ground.
- 3. While keeping your free arm straight, rotate your torso to the side of the bent knee.
- 4.Look at the palm of your free arm while rotating.
- 5. Hold it for a few seconds, then get back to the starting position.
- 6.Repeat for 30 seconds, then switch sides.
- The rotation should be occurring at the middle to upper part of your spine, not with your lower back or shoulders.



#### 5. Open Book Stretch

Lay down on your side with your knees bent to 90°.

- 2.Place your arms out straight in front of you.
- 3. While keeping your knees, hips, and arm in place, twist your free arm towards the back, trying to touch the floor with the outside of your elbow and shoulder blade.
- 4. You must also rotate your torso along with the arm.
- 5.After holding the position for a few seconds, get back to the starting position.
- 6.Repeat for 30 seconds, then switch sides.

As with the world's greatest stretch, the rotation should be done through your upper back and spine, keeping your lower back in place.



### 6. T-Spine Rotation

- 1. Start this drill on all fours, with your hips and shoulders at  $90^{\circ}$ .
- Make sure to keep your back straight.
- 2.Place one of your arms behind your head.
- 3.Rotating through your upper back, face your elbow to the ceiling.
- 4.Hold the position for a few seconds, and then bring your elbow down to face the ground.
- 5.Repeat for 30 seconds, then switch sides.



## 7. Kneeling Thoracic Extension and Lat Stretch

- 1.Kneel in front of a chair or a bench, putting your elbows upon it.
- 2.Put your elbows shoulder-width apart.
- 3.Sit back on your heels, letting your chest drop.
- 4. Press the chest down to extend even further.
- 5.Hold for 30 seconds.



#### Hi!

I hope that you enjoyed and take advantage of this resource! I ask that you please do consider my fitness behaviour change program.

Think of it like a specialized type of health coaching. This is a great way to help individuals gradually change habits in a sustainable way.

I would welcome a chat with you.

Please use this link:

https://tidycal.com/sjgfitness/30-minute-meeting

## Compliments of:







Sartre Jean-Gilles MHA, PKin, CSEP-CPT Fitness Behaviour ChangeCoach Certified Kinesiologist Personal Trainer