



Be Flexible

by Steve Ramsbottom and Scott Hays

Flexibility is measured by the range of motion at a particular joint or group of joints. A limited range of motion when pushing a wheelchair, for example, will decrease “pushing” power and raise the center of gravity while seated — placing more stress on the shoulders and neck and ultimately potentially causing other types of physical and psychological setbacks.

It takes a lot more than simple stretching, though, to keep a body at peak performance. It also takes the three Rs — reach, recover, and regenerate.

For openers, research indicates that permanent lengthening of the muscles, tendons, and ligaments occurs when holding a stretch for at least one min-

It takes a lot more than simple stretching to keep a body at peak performance.

.....

ute at 30–40% intensity; think of this as the “reach” portion of your stretching routine. It takes about 20–30 seconds for the body to relax and accept the stretch. It’s in the final 30 seconds or more where flexibility improves. Holding a stretch too long, on the other hand, can do more damage than good.

Comparison studies of low- versus high-intensity stretching indicate that the lower the intensity the greater the permanent lengthening of the muscle.

Low-intensity stretching or “micro-stretching” is relevant to the recovery and regeneration process



90-Degree Pec Stretch

because it depresses the responses of the nervous system and helps the muscles and tendons from becoming too inflamed. By contrast, aggressive stretching inflames the musculoskeletal tissue and prevents athletes from improving their performances.

STATIC STRETCHES

Hold each stretch for one minute at 30–40% intensity. Stay relaxed, breathe deeply, and focus on the muscle being stretched. Feel the muscles relax and then continue to hold the stretch for an estimated minute or more. Remember, this is not the time to push harder — but smarter. For best results, repeat up to three sets on each stretch.

90-Degree Pec Stretch (Pecs/Deltoids)

- Rest one arm against a wall with your elbow just below shoulder height at approximately 90 degrees.
- Gently turn your body away from the wall until you feel a gentle chest/shoulder stretch.
- Maintain good posture and hold for one minute.

Shelf Stretch (Pecs/Deltoids/Biceps)

- For this stretch you'll need to be creative; we generally use a shelf, but you could also use the back of a couch, recliner, countertop, etc.
- Rest your arms behind you with your palms facing down, maintaining a slight bend in your elbows.
- Rest your arms at a level that allows you to maintain good posture, with your shoulders back and your head up tall.
- Remember to hold the stretch one minute at 30–40% intensity.

Lying Towel Stretch (Pecs/Deltoids/Biceps)

- Lie on your back with a towel rolled up down the length of your spine.
- Support your neck with a pillow or pad.
- Keep your legs supported to help keep your lower back flat.
- Allow your arms to rest at the sides of your body with your palms facing up.
- Don't force your arms into any particular position to increase the stretch.
- The idea is to create some traction to help increase the mobility of the upper thorax (area between neck and abdomen).
- Hold this stretch for three minutes.

Rotational Neck Stretch

- Sit up tall in your chair.
- Place your left arm behind your body.
- Tuck your chin back, like making a double chin.
- Using just two fingers, grab your chin with your right hand.



Shelf Stretch



Rotational Neck Stretch



Lateral Neck Stretch



Posterior Capsule Stretch



Triceps Stretch

- Gently rotate your head to the right side and hold for one minute.
- Slowly turn to the other side and repeat.
- Make sure not to laterally rotate your head or shrug your shoulders.

Lateral Neck Stretch

- Sit up tall in your chair.
- Place your left arm behind your body.
- Tuck your chin back, like making a double chin.
- Using two fingers, grab your head with your right hand.
- Gently stretch to the right side, bringing your ear toward your shoulder without shrugging your shoulders and hold for a minute.
- Slowly turn to the other side and repeat.
- Make sure not to drop your head forward.

Posterior Capsule Stretch (Posterior Deltoid/Capsule)

- Grab behind the back of one elbow.
- Gently pull the arm across the body until you feel a slight pull in the back of the shoulder.
- Do not shrug your shoulder as you pull the arm.
- If you feel any pinch in the front of the shoulder, bend your elbow and pull it down toward your lower sternum as a modification.

Overhead Lat Stretch (Lats/QL's)

- From a seated position, lean to the left with your arms overhead.
- Rest your left arm against the wheel of your chair.



Overhead Lat Stretch

A limited range of motion when pushing a wheelchair will decrease “pushing” power and raise the center of gravity while seated, potentially causing other types of physical and psychological setbacks.

- Hold your right arm out against a wall.
- Try to lean out to one side without rotating your body.

Triceps Stretch (Triceps)

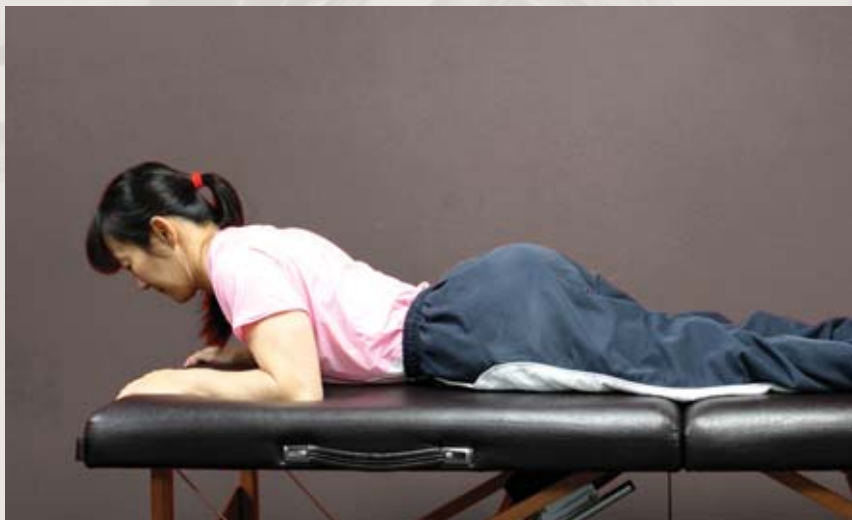
- Reach one arm overhead, allowing your hand to rest down toward the back of your shoulder.
- Rest the back (triceps) of the outreached arm against a squat rack or door jamb.
- Try not to poke your head forward.
- Hold one minute and then switch sides.

McKenzie Press-up (Hip Flexors/Abdominals)

- This stretch is more of a dynamic movement but still a great stretch for abs and hip flexors. Note: This stretch will not work if you have rods.
- Lie face down and gently press up.
- Try to keep your hips on the floor.
- If you're tight you may only be able to rest your forearms, but when you become more flexible try to gradually press up on to your hands.
- Hold for 20 seconds, rest for 10 seconds, and repeat for three sets.

Thomas Stretch (Hips Flexors/Quads)

- Lie on the edge of your bed with one leg hanging off the end.
- Grab behind the knee of the opposite leg and gently pull it up toward your chest.
- Allow gravity to stretch out the hip flexor of the hanging leg.
- Some people will get muscle spasms when they



McKenzie Press-up



Thomas Stretch (Hips Flexors/Quads)

first try this, but as your flexibility improves the spasms generally seem to diminish.

- Hold one minute on each side and repeat for three sets.
- Perform three sets of this stretch per day until your thighs stay in line with your hips, and then maintain your flexibility with one set per day.

For more information on Steve Ramsbottom and his book *Wheelchair Training*, visit performanceforsport.com.

