



Exercise

Most people seem to exercise for one or more of four reasons: to improve flexibility, increase strength, increase endurance, or aerobic conditioning, or improve body shape. Although a spinal cord injury can make any or all of these harder, it doesn't need to make any of them completely impossible.

Flexibility

In your initial rehab, you may remember “range of motion” or stretching exercises. Both of these can reduce pain and stiffness, improve posture, and allow you to use the muscles that you do have working to their maximum.

Sometimes, however, your ordinary activities can cause one muscle, like your biceps (which is in the front of your arm) to grow stronger than the muscle that balances it, like your triceps (which is in the back part of your arm). If this happens, you can develop stiffness and lose range of motion.

The position that you're in most of the time, your spasticity, and even gravity can work together to cause you to lose flexibility, too. For example, sitting all day can increase the odds of your hips getting tighter; gravity and position can make your heels or ankles get tight; and poor posture or spasticity in your trunk can cause spinal curvature and difficulty breathing, and can make transfers, reaching, and weight shifts harder.

So what can you do?

Consider stretching exercises. Personal trainers or fitness center employees, as well as therapists can assess your needs and give ideas for useful stretching exercises.

Passive range of motion, perhaps with the help of someone else, may be needed for those muscles you can't move. Even certain yoga exercises that have been adapted to you can be useful.

There are some things to be cautious about when working to increase your flexibility.

- Be careful in stretching areas you can't feel very well.
- Over-stretching can result in muscle and ligament sprains and tears or even in broken bones.
- Also, it's possible to chronically over-stretch, and end up just too loose. The result: it's harder to balance, your posture may be affected, and other joints can become unstable. For example, your hips or shoulders may "sag out of joint."

You don't have to be a pretzel to be flexible enough. Remember: there's no easy way to tighten a muscle or ligament that's gotten too loose.

Strengthening

More strength makes it easier to get up those hills or into bed. Strength lets you work longer or harder with fewer complaints from out-of-shape muscles. It helps you feel better; it may even increase your resistance to disease. Doing work with your muscles – moving them against resistance, weight, or a counter force – is generally how you build strength. For some people, just getting around in a wheelchair is enough of a strength exercise. However, if weight lifting is your choice, how you lift weights is important.

Lots of repetitions with light weights build muscle tone and endurance. Heavier weights and fewer repetitions result in bigger, stronger, more powerful muscles – but heavier weights also increase the chance of injury. Using a variety of exercises works many muscles while reducing the risk of overuse. If you're a beginner, it's important to get some ideas from a trainer or therapist

Special Cautions

When you're lifting weights, make sure you're stabilized, so that only the body parts you're exercising are moving. That way you can really target the muscles you're interested in, and you'll be less apt to hurt yourself, fall, or tip over your chair.

Also, since you use these same muscles every day for virtually everything you do, make sure you don't overuse them with exercise. Strong muscles and blown out joints aren't very useful. Pain and fatigue are good warning signs that you may be doing too much.

Looks (appearance & self-image)

Your personal appearance can be a combination of weight, posture, physique and many other things. Luck and genes may be key factors, but you can improve your own appearance with things like diet, flexibility, posture, and strength. In other words, exercise can change how you look! The key to improving your looks is having realistic expectations. Few of us will ever be mistaken for models no matter how hard we work. But things like toning and posture can go a long way to improving appearance and self-image.

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What can you do?

While it may be pretty straightforward to tone up those arm muscles with weights, getting that perfect tummy or washboard abs may be a lot trickier. Exercises aren't useful if your abdominal muscles aren't working to begin with. While beer guzzling can make a pot belly worse, and dieting is good, weight loss alone may not solve the problem, since gravity and poor muscle tone have a habit of ganging up on many SCI survivors. So, while you work on shedding a few pounds, try to improve your posture as well. Good posture might make your stomach look better, will make you seem taller and more commanding, and will help others think of you as healthy, attractive, fit and in-charge.

Cardio-vascular or Aerobic Fitness

One common image of cardiovascular or aerobic fitness programs comes from TV ads showing people in leotards doing what looks like a cross between military drills and line dancing. Fortunately, these aren't the only aerobic activities that can strengthen your heart, improve your endurance, and potentially lessen your risk of heart disease.

For an aerobic workout, you've got to work the large muscles of your body hard enough to get your heart rate and breathing rate up. Unfortunately, the largest muscles – the leg muscles – are often most affected by a spinal cord injury. This makes it hard to get your pulse up really high. For people with injuries above T6, autonomic nervous system dysfunction adds to the difficulty in raising your pulse, and it may make it harder for your body to sweat and keep cool during exercise.

Luckily, new research is showing that moderate exercise makes an aerobic difference too. Even exercise that feels about as strenuous as going for a brisk walk felt like before your injury can increase endurance and cardiovascular fitness. You don't need to push yourself to incredible limits to have a benefit. You can try hand-cycles, swimming, wheelchair sports groups, fitness videos for wheelchair users, or an aerobics class. Even pushing around the park can be good.

The important thing here is safety. If you haven't exercised in a while, check with your doctor first. In addition, watch for things like headaches, chest pain, joint pain, cramping, and high blood pressure during exercise. These could be signs of things common in all people – mild dehydration or poor nutrition. Or, they can be signs of more serious things for people with SCI – like autonomic dysreflexia. Be careful not to overdo it; your muscles and joints have to last a lifetime.

Finally, pay attention to where you do your workout. If outside, dress appropriately for the weather, exercise in daylight or well-lit areas, and be aware of what's around you – traffic, crowds, etc. Take drinking water with you.

So what should you do?

If you already know what you want to get out of your fitness program and how to get it, go for it! If not, get advice from a trainer, therapist, or other expert. While your spinal cord injury may get in the way of achieving the perfect fitness program, don't let it be the reason not to exercise. Getting part way to the perfect program is better than getting nowhere at all.

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