

Physical exercise is not only great for your health and lifestyle; it increases mobility, stability, strength and stamina. Physical exercise is also essential for your mental health as exercise releases endorphins which help reduce stress and increases a feeling of happiness & well-being. Endorphins also help to reduce pain.  
Mel, 33, paraplegia

Physical activity and exercise is essential for both a healthy body and a healthy mind. Did you know that the body actually needs activity & exercise to properly function and to help repair from day to day wear and tear?

Exercise has benefit for many types of pain – including both neuropathic and musculoskeletal pain, the two most common types of pain after SCI. Exercise helps to release chemicals called Endorphins that reduce pain and improve the way you feel. By using the body's own pain relieving chemicals in a natural and balanced way, you can help to reduce pain without the side effects of medications. This is even more exciting when we learn that exercise for as little as 3-10 mins at moderately high intensity can get this process started!

Exercise also helps to reverse the effects of de-conditioning on the body and builds strength. Strong muscles help to support your bones and joints and can improve your posture and your ability to do daily tasks with less effort. After SCI, some muscles may be weakened or paralysed because of the spinal cord damage – it is important that you have a personalised exercise program that takes into account your individual needs. A physiotherapist, trainer or exercise physiologist with experience in spinal cord injury can be helpful to set up a program that is safe and effective for you.

*I'm always in pain – but doing gentle regular exercise, is the difference between being in absolute agony and being in pain that I can tolerate! I have to do my exercise – I go to the pool 5 days per week, and I do some light work in the gym about 2 days per week. It means that I can stay as fit and as strong as possible, and it helps to reduce the stiffness and soreness in my muscles – I can't tell you how stiff and sore I get if I don't exercise!*

*Caroline, C2 incomplete tetraplegia*



It is important that your exercise program contains the following components:

- Strengthening
- Aerobic fitness
- Balance and Coordination
- Posture
- Flexibility

**Always remember to keep an eye on your skin; pressure relieve regularly and use pressure relieving equipment that is right for you whether you are at the gym, in the kayak, swimming, skiing or hand-cycling. Good skin care can decrease risks of pressure injury!**

After SCI, whether you use a manual wheelchair, powered wheelchair, crutches or walking sticks, you will be very aware how hard your shoulders and arms need to work just to get around day to day. When you are choosing exercises to include in your routine, choose movements that balance out these forces on the shoulder joint. It is good to include exercises that strengthen the muscles at the back of the shoulder - shoulder stabiliser muscles should be worked at least 3 times per week with light weights or resistance bands at about 40% of your strength, to activate the rotator cuff muscles. Research shows that by regularly doing 3-5 shoulder exercises for your rotator cuff and back muscles in addition to regular stretching & conditioning exercises, shoulder pain can be reduced.

Exercise to increase your overall fitness is also very important. You could consider exercising in a team such as playing wheelchair rugby or basketball; exercising with a trainer; boxing; arm cycling or rowing, swimming or outdoor activities such as hand cycling or kayaking. Choose an activity you enjoy, and start slowly – gradually build up your strength and endurance over time. It can be a good idea to exercise with a friend.



I like to be active – but I have to be careful I don't overdo it! I go for a push at the beach a few times a week, and I see a personal trainer at my gym for weight training. I've been doing Zumba recently – it is so much fun!! I go with my friend Mei. It's great for our core strength and balance and our fitness too!

Michelina, L2 paraplegia

Being active is important to keep the body fit and conditioned, and to keep pain levels under control, but how do you go about setting up a fitness program? To get fit, you need to take time to plan your program and remember the FITT principle!

**F = Frequency, I = Intensity, T = Time, T = Type**

Think about **how often** you want to exercise, **how hard** you will exercise, **how long** you will exercise for and **what type** of exercise to do. Remember to review your goal plan and pacing strategies as you set up your exercise program, and speak to your physiotherapist or exercise professional for more detailed and personalised advice.

## POSTURE

Good posture means that your muscles will work more strongly and with less strain. Good posture means that you use less energy when you move, and good posture even affects things like your breathing and your bowel function! It is very important after spinal cord injury that you strive for the best possible posture. Whether you are using a wheelchair or walking, strong core and postural muscles will mean that that your balance, strength and function, are improved. Being aware of your posture will help you to make your movement as smooth and as strong as possible, and you will feel less tired and sore at the end of the day.

As a person with a physical disability requiring the use of a wheelchair I can say that being physically active is extremely important. I have been training at Cross-fit for almost a year and for the 21 years prior to that I continually had a sore back but now my back feels great! While this sport has been great for me, you should always work within your limits and push those limits as well. It is best to have someone guide you in what is possible. I believe that people underestimate how important it is to build core strength - when you lose the use of your legs you no longer have them to rely on for balance and mobility – your core strength is even more important!!

Mel, paraplegia



*Every person with SCI is different. Consult your healthcare team or exercise professional, to design an exercise program that is safe and most effective for you.*

Most importantly, when considering physical activity to help to manage pain after SCI – choose an activity that you **enjoy**. If you are “not a gym person” don’t sign up to the local gym, if you “hate the water” swimming probably isn’t for you. An active lifestyle has so many benefits for your overall strength, fitness and well-being, and being healthy and active will have a positive effect on your pain.

Take a moment to consider 3 activity goals for the next 6 months.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Exercise puts you in the right frame of mind. If you are in pain, it is difficult to work, to communicate, to do anything!! But exercising puts you in the right frame of mind - that is why I dive, it is my pain relief, it is my exercise, it is my cardiovascular workout, and it is my meditation..... Just add water!

ScubaM8, C7 quadriplegia



You don't need your physiotherapist to tell you that exercise should be fun!!!

Choose an exercise that makes you smile, gets you out with friends and breathing in the fresh air!

Try sailing, or perhaps a round of golf with the crew from Empower Golf! Organise a skiing trip with mates or consider your options for competitive or team sports through your local sporting organisation such as NSW Wheelchair Sports Association.

There are so many options to explore so you can enjoy the rewards of an active lifestyle



**For more accessible exercise ideas...**

### Some local resources to investigate:

Physiotherapy Exercises Database [www.physiotherapyexercises.com](http://www.physiotherapyexercises.com)

D-Ability [www.d-ability.org](http://www.d-ability.org)

NSW Wheelchair Sports Association <http://www.wnsw.org.au/>

Disabled Winter Sports <http://www.disabledwintersport.com.au/>

Empower Golf <http://www.empowergolf.com.au/>

Sailing: <http://www.sailabilitynsw.org/> or <http://www.sailorswithdisabilities.com/home-new>

Surfing <http://disabledsurfers.org/>

### Some international resources to investigate:

National Center on Health, Physical Activity and Disability [www.nchpad.org](http://www.nchpad.org)

Physical Activity Guidelines for Adults with SCI <http://sciactioncanada.ca>

Spinal Cord Injury University <http://sciactioncanada.ca/sciu>



**There are many more resources out there!**

**Go Exploring!!**

**For more information about physical activity and pain visit:**

<http://www.aci.health.nsw.gov.au/chronic-pain/spinal-cord-injury-pain/spinal-cord-injury-pain-physical-activity-and-exercise>