

## HOME STRENGTH-TRAINING GUIDE

## For people with Tetraplegia



© SCI Action Canada 2012

SCI Action Canada. (2012). Active Homes: Home Strength-Training Guide for People with Tetraplegia. Burlington, ON: Eagle Press. Anatomy images courtesy of Ron Easteal, School of Medicine, Queen's University.

Photos courtesy of Atif Kukaswadia, atif.ak@gmail.com

	Active
TABLE OF CONTENTS	Page
A ] Introduction	3-6
B] Warm-up	7
C ] Resistance Training Exercises	8-18
Back Row	8
Lat Pulldown	9
Bicep Curl	10
External Rotation	11
Internal Rotation	12
Additional Exercises	13-18
D ] Stretching Exercises	19-20
E ] How Do I Reach My Goal?	21-23
How do I increase the difficulty?	21
What should I do?	21
Intensity Classification System Cl	nart 22
How should I plan my exercise se	ssions? 23
Weekly exercise plan worksheet	23
F] Helpful Resources	24-25

## A] INTRODUCTION

This guide serves as a resource manual for individuals with a spinal cord injury who want to incorporate regular physical activity into their daily lives.

The Physical Activity Guidelines for Adults with SCI, released by SCI Action Canada in 2011, are the first evidence-based guidelines to be developed specifically to support people with SCI in living healthier, more active lives. They state that to improve fitness, healthy adults with SCI should participate in at least 20 minutes of moderate-to-vigorous aerobic activity at least two times per week, as well as strength training exercises at least two times per week.

These guidelines are appropriate for all healthy adults with chronic SCI, traumatic or nontraumatic, including tetraplegia and paraplegia, irrespective of gender, race, ethnicity or socioeconomic status. Adults are encouraged to participate in a variety of physical activities that are enjoyable and safe.

For important fitness benefits, adults with a spinal cord injury should engage in: At least 20 minutes of moderate to vigorous intensity aerobic activity 2 times per week, AND Strength training exercises 2 times per week, consisting of 3 sets of 8-10 repetitions of each exercise for each major muscle group.				
How?	Aerobic Activity	Strength Training Activity		
How often?	Two times per week	Two times per week		
How much?	Gradually increase your activity so that you are doing at least 20 minutes of aerobic	Repetitions are the number of times you lift and lower a weight.		
	activity during each workout session.	Try to do 8-10 repetitions of each exercise. This counts as 1 set.		
		Gradually work up to doing 3 sets of 8-10 repetitions of each exercise.		
	These activities should be performed at a moderate to vigorous intensity.	Pick a resistance (free weights, cable pulleys, bands, etc.) heavy enough that you can barely, but safely, finish 8-10 repetitions of the last set. Be sure to rest for 1-2 minutes between each set and exercise.		
How hard?	Moderate intensity: activities that feel somewhat hard, but you can keep doing them for a while without getting tired.			
	Vigorous intensity: activities that make you feel like you are working really hard, almost at your maximum, and you cannot do these activities for very long without getting tired.			
How to?	There are many ways to each this goal, including:	There are many ways to reach this goal, including:		
	<i>Upper Body Exercises:</i> wheeling, arm cycling, sports	<ul> <li>Free weights</li> <li>Elastic resistance bands</li> </ul>		
	Lower Body Exercises: Body weight supported treadmill walking, cycling	<ul> <li>Cable pulleys</li> <li>Weight machines</li> <li>Functional electrical stimulation</li> </ul>		
	<i>Whole Body Exercise:</i> recumbent stepper, water exercise			

*Active Homes* is designed to help you achieve the strength-training recommendations included in these guidelines. Before getting started, please follow this checklist:

**Inform your doctor** - Let your family physician know about your plans for a home exercise program. He/she may have some precautions or recommendations for you to consider.

**Monitor yourself** - Exercising alone means being responsible for yourself. Use the "talk test" throughout your workout – can you talk without gasping for air? If not, it's time to take a break and reduce the intensity of your workout. It is important to listen to your body. If you experience prolonged muscle and/or joint soreness, stop doing the activity that is causing the pain and consult your physician. Know that some initial discomfort is normal. If you feel signs or symptoms of autonomic dysreflexia, stop doing the activity immediately and determine the cause of the reaction.

## Signs and symptoms of autonomic dysreflexia:

- Pounding headache (caused by the elevation in blood pressure)
- Goose pimples
- Sweating above the level of injury (sweating more than is expected from exercise)
- Cold, pale skin below level of injury
- Nasal congestion
- Blotching of the skin
- Restlessness
- Hypertension (blood pressure greater than 200/100)
- Slow pulse (less than 60 beats per minute)
- Flushed (reddened) face (not resulting from participating in physical activity)
- Red blotches on skin above the level of injury
- Nausea

## What to do if you think you are experiencing autonomic dysreflexia:

- Initiate treatment quickly to prevent complications.
- Remain in a sitting position. You may transfer to your bed, but always keep your head elevated.
- Identify and remove the cause A full bladder is the most common cause. Check the urinary drainage system - Bowel and skin might also be a cause.

## If the symptoms do not go away, consult a physician immediately

**Pace yourself** – Start your program slowly and progress at an even rate during each workout and between workouts. Ease into your exercise program to avoid injuries and to minimize pain. If your breathing is uncomfortably fast, be sure to slow down until you start breathing normally again. Remember to use the "talk test" while working out – if you cannot talk without gasping for air, then it is time to take a break and reduce the intensity of your workout.

## If you've never exercised before, note the following:

- First-time weightlifters may suffer from delayed onset muscle soreness following the first few weight training sessions. Delayed onset muscle soreness is the general muscle pain felt usually the day following an initial bout of exercise. For example, if you do arm curls today, tomorrow when you wake up, the muscles in the front of your arm will be sore. This soreness may be felt for up to 48 hours.
- Delayed onset muscle soreness usually resolves in a few days in mild cases, but in more severe cases, pain can persist for up to a week. Severe delayed onset muscle soreness may limit mobility.
- Sufferers of delayed onset muscle soreness often find relief from rest and/or low-intensity activities that warm up the muscles.
- Delayed onset muscle soreness is usually present after the first one or two weight training sessions, and only returns after a long period of inactivity.

Dress the part - Wear comfortable clothing.

Check your environment - Choose a spot in your home that is spacious and clear of obstacles.

**Warm-Up** - Remember to do light endurance work before your strength or flexibility exercises to ensure your muscles are warm.

**Cool-Down** - Complete some gentle stretching at the end of your routine and ensure that your breathing has returned to normal before you stop.

**KEEP HYDRATED!** - Be sure to drink lots of fluids while partaking in activities and after you are done.

## **Tips for Success**

## Using Exercise Bands.

- Before using the band, inspect it to ensure that there are no tears or small holes. Make sure that the band is wrapped firmly (but not too tight) around your hands. You can also tie a loop at each end of the band and put your wrists through the loop. Adjust the length of the band so that there is just enough slack and exercise resistance so that you are able to go through the full range of motion while exercising.
- When using exercise bands to perform exercises, you are using the resistance of the band instead of weights. You can vary the resistance by adjusting your hand/wrist position on the band. To increase resistance (for example, when an exercise becomes easier), grasp or tie loops in the band closer to the centre so to decrease the band's length. You can also try folding the band in half to increase the resistance. To decrease resistance, grasp or tie loops in the band closer to the ends.
- Sometimes when you are working with exercise bands, they creep up and end up out of place. Each time you use an excercise band try to anchor it to something stable such as a doorknob or place it below the push handles on your wheelchair.
- Before beginning an exercise give the exercise band a few tugs to ensure the sturdiness of your anchor.

## Using this manual

The exercises listed in this manual are only guidelines. We recommended that you start with 3 sets of 8-10 repetitions; however, once you feel comfortable you can adapt and modify the sets and repetitions to suit your needs and goals (for more information, see the section on How Do I Reach My Goal). Balance is essential to any exercise regime, it is important to work the left and right sides of the body as well as the front and back to maintain muscle balance and prevent any injuries. It is also recommended to start with large muscle groups such as your chest and back muscles first, and end with the smaller muscle groups such as the muscles in your arms. Once you are comfortable with the first five exercises, you can read more about the Additional Resistance Training Exercises and incorporate those into your plan. The exercises presented are in an order that promotes muscle balance and are separated into body areas. The Active Homes Participant Manual for People with Paraplegia has some additional exercises and stretches. If you have good control of your abdominal and upper body muscles, we encourage you to consult that manual for more exercise ideas.

As with any physical activity, please consult with your doctor before engaging in any of the exercises in this resource manual.

## Have Fun, But Be Safe!

## **B] WARM-UP**

Before engaging in resistance training, it is important to warm-up to increase blood circulation and prepare the body for work. Here is a sample warm-up that can be done. If possible, you can work both sides of the body at the same time to increase difficulty:

- Wheeling forwards and backwards for 2 minutes
- Shoulder rolls forwards 10 times on each shoulder
- Shoulder rolls backwards 10 times on each shoulder
- Arm circles forwards 10 times on each arm
- Arm circles backwards 10 times on each arm
- Wrist rolls to the right 10 times on each hand
- Wrist rolls to the left 10 times on each hand









Wrist rolls

7

## **C] RESISTANCE TRAINING EXERCISES**

(Information adapted from NCPAD - http://www.ncpad.org/exercise/)

## **Back Row**

- Loop exercise band around a sturdy pole or other anchor. Give the exercise band a few tugs to ensure the sturdiness of your anchor.
- Position your chair a few feet away so that the exercise band is not too slack or too tight when reaching for it.
- Sit up straight in the chair with your feet flat on the floor or on your footplates and shoulder width apart. If possible, contract your abdominals for trunk stability.
- Grab one end of the exercise band in each hand or put your wrists through each loop with palms facing down. Position the exercise band so that it is at an equal height with your shoulders. Keep your head, neck, and spine in a neutral position.
- Exhale and pull your hands towards your chest by bending at the elbows. Keep your back upright and straight as you bring your elbows behind you while squeezing your shoulder blades together. Inhale and return to starting position in a slow and controlled manner.
- Repeat this process 8-10 times for 3 sets.
- Note: You can also position the exercise band slightly higher than shoulder height (for a high-row) and slightly lower than shoulder height (for a low-row).

## Upper back muscles

## Start/End position

**Midpoint** 



- Pull open doors
- Transfer
- Sit with good posture
- Get dressed

## Lat Pulldown

- Attach exercise band to a sturdy structure directly above you (i.e. loop it over a sturdy pole or on the edge of a door) so that you can pull the exercise band down.
- Sit up straight in the chair with your feet flat on the floor or on your footplates and shoulder width apart. If possible, contract your abdominals for trunk stability. Keep your head, neck, and spine in a neutral position.
- Grasp each end of the exercise band in each hand or put each wrist through each loop.
- Exhale and pull the exercise band down while bending your elbows and bringing your hands to the sides of your waist. Inhale as you bring the exercise band back to the starting position in a controlled manner.
- Repeat this process 8-10 times for 3 sets.

## Middle back and side

(Latissimus dorsi muscle)

## Start/End position





**Midpoint** 

- Transfer
- Wheel in a manual chair
- Get dressed
- Do personal care



## **Bicep Curl**

- Sit up straight in the chair with your feet flat on the floor or on your footplates and shoulder width apart. If possible, contract your abdominals for trunk stability. Keep your head, neck, and spine in a neutral position.
- Begin by placing the exercise band underneath the chair.
- Grasp the ends of the band with each hand or put each wrist through each loop in band. With your palms facing up, let your arms extend straight down by your sides.
- Exhale as you bend your elbows and bring the exercise band towards your shoulders, taking care to keep the elbows tucked into your side. Inhale as you slowly lower the band back to your side, but don't straighten your arm completely. Keep the tension on the muscle throughout the movement.
- Repeat this process 8-10 times for 3 sets.

## Front of upper arm (Bicep muscle)



Or try with a weight:

## You already do this movement everyday when you:

- Do housework
- Get dressed
- Do personal care
- Lift things off the ground

## Start/End position



Midpoint





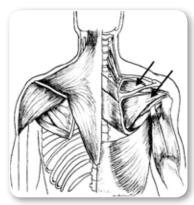
## **External Rotation**

- Position your chair about 1 foot perpendicular to a sturdy pole or other anchor so that when you sit, the side you want to work is facing away from the pole.
  - For example, when working your left rotator cuff muscles, you want your right side to face the anchor while you hold the exercise band in the left hand. Vice versa for your right rotator cuff muscles.
- Loop the exercise band around the pole at waist height and give it few tugs to insure its sturdiness. Hold the exercise band so that it is not too slack or too tight when holding it in the starting position.
- Begin by holding the band or putting your wrists through a loop. Ensure your thumb is facing the ceiling with your elbows at your side bent to a 90 degree angle.
- Exhale as you slowly bring the exercise band outwards, away from your body, while keeping your elbow at your side. Inhale as you bring the exercise band back to the starting position in a controlled manner.
- Repeat this process 8-10 times for 3 sets.
- As another option, you can do this exercise with a small weight held in your palm or secured to your wrist.

## **Rotator cuff muscles**

## Start/End position

Midpoint







- Transfer
- Do personal care

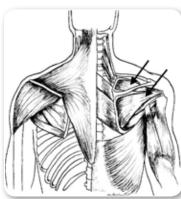
## **Internal Rotation**

- Position your chair about 1-2 feet perpendicular to a sturdy pole or other anchor on the side that you want to work.
  - For example, when working your left rotator cuff muscles, you want your left side to face your anchor. Vice versa for your right rotator cuff muscles.
- Loop the exercise band around the pole at waist height and give it few tugs to insure its sturdiness. Hold the exercise band so that it is not too slack or too tight when holding it in the starting position.
- Hold the band or put your wrist through a loop. Ensure your thumb is facing the ceiling with your elbows at your side bent to a 90 degree angle.
- Exhale as you slowly bring the exercise band in towards your torso, while keeping your elbow at your side. Inhale as you bring the exercise band back to the starting position in a controlled manner.
- Repeat this process 8-10 times for 3 sets.
- As another option, you may do this exercise with a small weight held in your hand or secured to your wrist.

## **Rotator cuff muscles**

## Start/End position

## **Midpoint**







- Transfer
- Do personal care

## ADDITIONAL RESISTANCE TRAINING EXERCISES

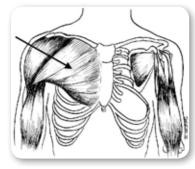
## **Chest Press**

- Bring the exercise band around the back of your shoulders and secure it under your shoulder blades or around the back of your chair and under your handlebars. Grab one end of the band in each hand or put each wrist through each loop.
- Sit up straight in the chair with your feet flat on the floor or on your footplates and shoulder width apart. If possible, contract your abdominals for trunk stability. Keep your head, neck, and spine in a neutral position.
- Bend your elbows and bring your hands up to shoulder level, with palms facing away from you.
- Exhale as you push the exercise band straight out in front of you, taking care not to lock your elbows at the end of the motion. Inhale and bring the exercise band back to starting position.
- Repeat this process 8-10 times for 3 sets.

## Chest (Pectoralis muscle)

## Start/End position

**Midpoint** 







- Push open doors
- Transfer
- Wheel in a manual chair
- Get dressed

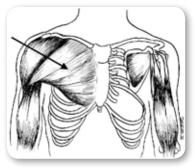


## **Chest Fly**

## Note: This exercise may be difficult if you have limited use of your chest muscles.

- Bring the exercise band around back of your shoulders and secure it under your shoulder blades or around the back of your chair and under your handlebars. Grab one end of the exercise band in each hand or put each wrist through each loop. Alternatively, you can do this exercise with a weight in your hand or secured to each wrist.
- Sit up straight in the chair with your feet flat on the floor or on your footplates and shoulder width apart. If possible, contract your abdominals for trunk stability. Keep your head, neck, and spine in a neutral position.
- Bring your arms out to the sides and up to the level of your shoulders, with palms facing forward. Bend your elbows slightly and maintain this natural curve throughout the motion of the exercise.
- Exhale and bring your palms together until they are almost straight in front of you. Inhale as you return them to starting position.
- Repeat this process 8-10 times for 3 sets.

## Chest Pectoralis muscle



## Start/End position



Midpoint



- Push open doors
- Transfer
- Wheel in a manual chair
- Get dressed
- Do housework

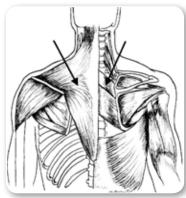
## **Reverse Fly**

- Loop the exercise band around a very sturdy pole or other anchor. Give the exercise band a few tugs to ensure the sturdiness of your anchor.
- Position your chair a few feet away so that the exercise band is not too slack or too tight when in the starting position. Keep your head, neck, and spine in a neutral alignment.
- Sit up straight in the chair with your feet flat on the floor or on your footplates and shoulder width apart. If possible, contract your abdominals for trunk stability. Grab the ends of the band in each hand or put each wrist through each loop. Keep your palms facing each other. Position the band so that it is at an equal height with your shoulders.
- Exhale and pull the exercise band out towards your side in an arching motion, without bending your elbows. When your elbows are in line with your shoulders, inhale and return the exercise band to starting position.
- Repeat this process 8-10 times for 3 sets.

## **Upper back muscles**

## **Start/End position**

## **Midpoint**





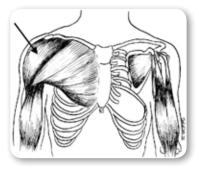


- Pull open doors
- Transfer
- Sit with good posture
- Get dressed
- Do housework
- Do personal care

## Lateral Shoulder Raise

- Put the exercise band underneath your chair and grasp one end of the exercise band in each hand or put each of your wrists through each loop in the band. Alternatively, you can also try this exercise with a weight held in each hand or secured to each wrist.
- Sit up straight in the chair with your feet flat on the floor or footplates and shoulder width apart. If possible, contract your abdominals for trunk stability. Keep your head, neck, and spine in a neutral position.
- Hold the exercise band down at your side with your palms facing in towards your body.
- Exhale and slowly raise both arms straight out to your side until they are at shoulder height. Inhale as you bring them back down to starting position, lowering them in a slow and controlled manner.
- Repeat this process 8-10 times for 3 sets.
- The lateral shoulder raise exercise can be done with both arms simultaneously or by alternating the arms.

## Shoulder (Deltoid muscle)



Or try with a weight:

## You already do this movement everyday when you:

- Do housework
- Transfer
- Lift things off the ground
- Get dressed

## Start/End position

**Midpoint** 









## Front Shoulder Raise

- Sit up straight in the chair with your feet flat on the floor or on your footplates and shoulder width apart. If possible, contract your abdominals for trunk stability. You can also try stabilizing yourself in your chair with a chest strap. Try to keep your head, neck, and spine in a neutral position.
- Hold or secure weights to your wrists. Put your arms down at your side with your palms facing behind you. (As an alternative, an exercise band may be used by securing it underneath your chair. Hold one end of the band in each hand or put each of your wrists through each loop with your palms facing behind you.)
- Exhale as you slowly raise the weights straight out in front of you until they reach shoulder height. When bringing them back down to the starting position, inhale as you lower them in a slow and controlled manner (do not let the weights drop back down).
- Repeat this process 8-10 times for 3 sets.
- The front raise exercise can be done with both arms simultaneously or by alternating the arms.

## Shoulder (Deltoid muscle)



Or try with a weight:

## You already do this movement everyday when you:

- Transfer
- Wheel in a manual chair
- Get dressed
- Lift things off the ground

## Start/End position

Midpoint







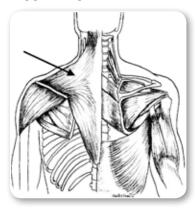
## Shoulder Shrug

*Note:* This exercise is especially important if you use an electric chair, a manual assisted chair, or if you do not spend a lot of time wheeling, as you are not targeting these muscles everyday. If you do a lot of wheeling in a manual chair, then you do not have to perform this exercise as your upper back and neck muscles are sufficiently worked when you wheel.

- Sit up straight in the chair with your feet flat on the floor or on your footplates and shoulder width apart. If possible, contract your abdominals for trunk stability. If not, you should stabilize yourself in your chair with a chest strap.
- Hold or secure weights to your wrists. Place your arms down at the side of your chair with your palms are facing behind you. (This can also be done without using weights.)
- Exhale and slowly raise your shoulders up without bending at your elbows, as if you were shrugging your shoulders. Your hands should continue to be perpendicular to the floor throughout the movement of the exercise. Inhale as you slowly lower your shoulders in a controlled manner.
- Repeat this process 8-10 times for 3 sets.

## Upper back and neck

## (Upper trapezius muscle)



## Start/End position



**Midpoint** 



- Transfer
- Wheel in a manual chair
- Get dressed

## D] STRETCHING EXERCISES – Cool Down

## Lateral Neck Flexion

- Sit up straight in your chair with your feet flat on floor or on your footplates and shoulder width apart.
- If possible, contract abdominals for trunk stability.
- Bring your right ear to your right shoulder, go to the point of tension and not pain.
- Hold for 15-30 seconds, breathing in through your nose and out through your mouth, then switch sides.



## **STRETCHING EXERCISES**

## **Neck Flexion**

*Note:* Avoid this stretch if you have hardware in your neck.

- Sit up straight in your chair with your feet flat on floor or on your footplates and shoulder width apart.
- If possible, contract abdominals for trunk stability.
- Bring your chin down to your chest, go to the point of tension and not pain.
- Hold for 15-30 seconds, breathing in through your nose and out through your mouth.





## **Neck Rotation**

- Sit up straight in your chair with your feet flat on floor or on your footplates and shoulder width apart.
- If possible, contract abdominals for trunk stability.
- Rotate your neck to the right side of your body, go to the point of tension and not pain.
- Hold for 15-30 seconds, breathing in through your nose and out through your mouth, then switch sides.



## **Chest Stretch**

- Sit up straight in your chair with your feet flat on floor or on your footplates and shoulder width apart.
- If possible, contract abdominals for trunk stability.
- Extend your arms straight out to the side, go to the point of tension and not pain (can do both arms at the same time or one arm at a time).
- Hold for 15-30 seconds, breathing in through your nose and out through your mouth.



## E] HOW DO I REACH MY GOAL?

## How do I increase the difficulty of my Home Exercise Program?

We have recommended that you start with 3 sets of 8-10 repetitions. When you begin to feel that your exercise program only requires "mild effort" to complete, you should increase the difficulty of your program. There are two ways to do so:

- Increase the number of repetitions
  - If you started your program with 3 sets of 8 repetitions, work up to 3 sets of 10 repetitions. This will help increase your muscle endurance.
  - If you started your program with 3 sets of 10 repetitions, then increase the weight/ resistance you are using.
- Increase the weight/resistance
  - If you are performing an exercise that uses an object (i.e. soup can, water bottle filled with pebbles, or wrist weight) other than an exercise band, try to find a different object that is 1-2 pounds heavier. Try to perform 3 sets of 8 repetitions with the new weight. If you feel like you are working with moderate to heavy effort, then you have chosen a good weight. If not, try to find an object that is even heavier.
  - If you are performing exercises that use an exercise band, you are going to need to increase the resistance of the band when performing your exercises. An easy way to do this is to grasp the exercise band or tie the loops closer to its attachment point. For example, if performing lat pull downs, reach higher on the exercise band so that there is less distance between the overhead attachment point and your hands.
  - \* If you want, you can use a ballpoint pen to make marks on your exercise band to remember where you should be grasping the exercise band for each exercise. Be sure to mark the attachment point (i.e. the point that gets looped around your pole/banister) and the points at which you hold the band. You can use this marker system as a way to measure your progress as you continue to increase the resistance of the exercises.
  - Once you have increased the weight/resistance, work up from 3 sets of 8 repetitions to 3 sets of 10 repetitions.

## What should I do?

Some information is included below. You can also consult the Physical Activity Guidelines for Adults with Spinal Cord Injury included in the Introduction of this manual. You may also want to refer to the SCI Get Fit Toolkit on the SCI Action Canada website for more activity ideas. Please visit www.sciactioncanada.ca.

### **Endurance** Activities

## (at least 20 minutes twice per week)

- Get your heart pumping and blood flowing
- Wheeling in a manual chair, performing chores/ housework and doing recreational sports
- Included in the Warm-Up section of this manual

## Strength Activities (at least twice per week)

- Work your muscles against some kind of resistance
- Exercises range from lifting weights, using exercise bands, heavy chores
- Focus on the first five exercises in this manual

## INTENSITY CLASSIFICATION CHART

### How hard are you working? 3 4 H D NOTUNIC AT ALL

NOTHING AT ALL	MILD	MODERATE	HEAVY
Includes activities that even when you are doing them, you do not feel like you are working at all.	Includes physical activities that require you to do very light work. You should feel like you are working a little bit but overall you shouldn't find yourself working too hard.	Includes physical activities that require some physical effort. You should feel like you are working somewhat hard but you should feel like you can keep going for a long time.	Includes physical activities that require a lot of physical effort. You should feel like you are working really hard (almost at your maximum) and can only do the activity for a short time before getting tired. These activities can be

exhausting.

## How does your body feel?

	NOTHING AT ALL	MILD	MODERATE	HEAVY
Breathing & Heart rate	Everything is normal	Stays normal or is only a little bit harder and/or faster than normal.	Noticeably harder and faster than normal but NOT extremely hard or fast.	Fairly hard and much faster than normal.
Muscles	Everything is normal	Feel loose, warmed-up and relaxed. Feel normal temperature or a little bit warmer and not tired at all.	Feel pumped and worked. Feel warmer than normal and starting to get tired after awhile.	Burn and feel tight and tense. Feel a lot warmer than normal and feel tired.
Skin	Everything is normal	Normal temperature or is only a little bit warmer and not sweaty.	A little bit warmer than normal and might be a little sweaty.	Much warmer than normal and might be sweaty.
Mind	Everything is normal	You might feel very alert. Has no effect on concentration.	Require some concentration to complete.	Requires a lot of concentration (almost full) to complete.

Martin Ginis, K. A. & Latimer, A. E. (2008) PARA-SCI: The Physical Activity Recall Assessment for People with Spinal Cord Injury. Available from http://www.flintbox.com/public/project/1902/

## How should I plan my exercise sessions?

- Include as much detail as possible in your weekly exercise plan. The more detail you include, the more likely you are to follow your plan. Be sure to write down the activity, where you will do the activity, what day you will do it and at what time.
- For important fitness benefits, schedule at least two strength training sessions per week, consisting of 3 sets of 8-10 repetitions of each exercise for each major muscle group.
- Avoid doing your strength training program 3 days in a row.
- If you need, break up your fitness routine throughout the day (i.e. 15 minutes in the morning, 15 minutes in the evening) .
- Post the calendar somewhere you will see it (i.e. on the fridge or bulletin board).
- Create some sort of reward system for weeks that you complete your exercise plan (i.e. go to see a movie in the theatre or buy that item that you have had your eye on).

## WEEKLY EXERCISE PLAN WORKSHEET

Now use the following calendar to plan out your Weekly Exercise Plan.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
WHEN	WHEN	WHEN	WHEN	WHEN	WHEN	WHEN
WHERE	WHERE	WHERE	WHERE	WHERE	WHERE	WHERE
WHAT	WHAT	WHAT	WHAT	WHAT	WHAT	WHAT
EQUIPMENT	EQUIPMENT	EQUIPMENT	EQUIPMENT	EQUIPMENT	EQUIPMENT	EQUIPMENT
Total number of times Home Exercise Plan completed: Total minutes of strength activities completed:						

### Week 1

Total minutes of strength activities completed: \_\_\_\_\_\_ Notes:

## F] HELPFUL RESOURCES

Groups who encourage physical activity among people with SCI:

## SCI Action Canada (www.sciactioncanada.ca, 905-525-9140 ext 21374)

An ongoing, collaborative endeavour bringing together university-based researchers, knowledge mobilization specialists, support networks, service groups and community members focused on advancing physical activity, knowledge and participation among Canadians living with spinal cord injury. Check the website often as there are ongoing updates to the physical activity resources.

*Get in Motion* is a free physical activity counseling service associated with SCI Action Canada for Canadians with spinal cord injury. This Canada-wide service is supported by the SCI Translational Research Network in partnership with the Rick Hansen Institute. Get in Motion is designed to provide you with the information and support you may need to answer questions and meet personal physical activity goals. You will receive a free physical activity toolkit that includes two exercise bands and information on physical activity for people with SCI. You will also be invited to participate in a research study on the effectiveness of the service. Whether you are considering becoming physically active, have just begun a physical activity program, or have been engaging in physical activity for a while, you can benefit from this service, as physical activity counseling sessions are created to meet your specific needs. To participate or receive more information, please call the voicemail line at 1-866-678-1966 or visit our website at www.sciactioncanada.ca

*The SCI Get Fit Toolkit* is a Canadian resource to help adults with spinal cord injury meet physical activity guidelines. You can download your free copy in the "Toolkit" tab at www.sciactioncanada.ca.

*The Active Homes Manual for Adults with Paraplegia* provides additional strength training and stretching exercises. You can download your free copy in the "Active Homes" tab at www.sciactioncanada.ca. In the "Active Homes" tab, you will also find links to videos that demonstrate how to do the exercises in the Active Homes manuals.

## Canadian Paraplegic Association (CPA) (www.canparaplegic.org)

Mission is to assist persons with spinal cord injuries and other physical disabilities to achieve independence, self reliance and full community participation.

## Spinal Cord Connections (http://www.spinalcordconnections.ca/)

An online Canadian source of the most current and reliable information about spinal cord injury and disease. This website is also your online connection to people in the spinal cord community. It is a new and innovative e-resource centre for people with SCI, their families, and communitybased health and service providers.

## **Canadian Paralympic Committee (CPC)** (www.paralympic.ca, 613-569-4333) A non-profit, private organization with 43 member sports organizations. Check out their "Get Involved Portal" which provides a listing of all opportunities for individuals to become involved in Para-sport across Canada.

## National Center for Physical Activity and Disability (NCPAD)

(www.ncpad.org, 1-800-900-8086 voice and TTY)

An information center concerned with physical activity and disability. Being physically active is good for every body. Their goal is to provide you with options and information to help you pursue whatever kind of activity you think you would enjoy. The important thing is not what you do, but that you do something. Indoor or outdoor, recreational or competitive, solo or team, easy or intensive, NCPAD has the resources, contacts, and assistance you need. \*\*Check out their exercise videos\*\*

## Active Living Alliance for Canadians with a Disability (www.ala.ca, 1-800-771-0663)

Goal is to promote inclusion and active living lifestyles of persons in Canada with disabilities by facilitating communication and collaboration among organizations, agencies and individuals.

## Canadian Wheelchair Sports Association (CWSA) (www.cwsa.ca/en/site)

Mission is to promote excellence and develop opportunities for Canadians in wheelchair sport. In addition to its role as a developer of elite athletes, CWSA is a national and international voice for Canadian wheelchair athletes. CWSA also provides a national link for the development of wheelchair athletes and sports, at all levels and in all areas of the country.

## Map My Ride (www.mapmyride.com)

A website that allows users to map a specific route or course. Distance is calculated between start and finish points. A great tool to help keep track of distances wheeled over time. You can register for a free account to keep track of your progress.

## Adaptavie (www.adaptavie.org)

Adaptavie Inc. est un organisme sans but lucratif qui offre une programmation d'activités physiques et sportives adaptées à l'intention des personnes présentant une déficience physique ou intellectuelle.