



# *Motion in Action: Home Exercise Program*

## **Introduction Booklet**

Currans Heart Center

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### How to Guide on Using the Exercise Booklets

1. Please read all the introduction booklet explaining how you will track your exercise using the Borg Scale. The Borg Scale is intended to measure how easy or difficult the exercise is for you.
2. All three booklets will begin with a pre-exercise checklist and a goal setting sheet to keep for yourself and help motivate you along the way.
3. **All three booklets will then include:**
  - a. A 5-minute dynamic warm-up routine
  - b. Recommended Exercise Routine: This booklet includes both a structured routine to help those starting out or who would rather have a set routine, and also includes a statement to continue whatever exercise you enjoy if you are already an avid exerciser.
  - c. A 5-minute cool-down routine
4. **A breakdown of the booklets include:**
  - a. Booklet #1: Aerobic Routine (walking, swimming, hiking)
  - b. Booklet #2: Aerobic Routine and Strength Routine WITH progressions
  - c. Booklet #3: Aerobic Routine and Strength Routine WITH progressions
5. At the last section of the booklet, you will see two months worth of tracking sheets to help you keep track of your exercise and Borg Scale Rating – it is asked that you complete these in order to track improvement and progress throughout the 6 months.



## **Mission**

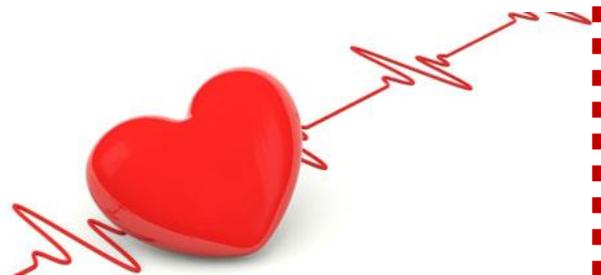
*Delivering a client-centered home exercise program with a focus on heart health to the population of Northwestern Ontario, grounded in the core values of teamwork, respect, integrity, and evidence-based education.*

## **Vision**

*Increasing cardiovascular health one heart at a time.*

## **Values**

*Teamwork, respect, and integrity.*





## Welcome

*Congratulations on your decision to participate in the **Motion in Action, Home Exercise Program!** If you are participating in this program, it means you are interested in keeping your heart healthy, wanting to stay educated on heart disease, and want to participate in regular exercise with us.*

*This program can assist in helping you create a daily exercise routine, increase physical fitness and endurance, change behaviours that may put you at an increased risk for heart disease or slow the progression of heart disease.*



*It is important to remember, you are the most important member of the Motion in Action:  
Home Exercise team!*

*You have the powers within yourself to achieve your lifestyle and risk reduction goals.*



## Cardiovascular Disease and Northern Ontario

*Heart disease is a major cause of mortality and morbidity although exercise has been shown to have beneficial effects.*

*Participation at most rehab centres is low with people either not accepting the invitation to attend due to accessibility and parking issues at most hospitals and clinics with the increased anxiety of group exercise and commitment.*

*These issues can be overcome by using home-based programmes to widen and increase participation.*

*At-home exercise programs are safe and effective in improving health related quality of life outcomes in patients and the idea of a home-based program versus a traditional supervised centre should reflect the preference of the individual patient.*

Heart disease was the leading cause of death for those aged 85 and older and the second leading cause of death for those aged 45 to 84.

(Statistics Canada, 2020)



If you live in **Northwestern Ontario** there is a greater chance that you or someone you love is at risk for **heart disease**. The **Thunder Bay District** has: 50% higher rate of **heart disease** than the rest of the province. the highest death rate from **heart disease** in **Ontario**.

(Thunder Bay Regional Health Sciences Centre, 2019)



## Heart Warning Signs

### Early Signs of a Heart Attack

*Chest discomfort:* Most heart attacks involve discomfort in the center of the chest that lasts more than a few minutes – or it may go away and then return. It can feel like uncomfortable pressure, squeezing, fullness or pain.

*Discomfort in other areas of the upper body:* Symptoms can include pain or discomfort in one or both arms, the back, neck, jaw or stomach.

*Shortness of breath:* This can occur with or without chest discomfort.

*Other signs:* Other possible signs include breaking out in a cold sweat, nausea or light-headedness.

### Symptoms Differ Between Men and Women

As with *men*, women's most common heart attack symptom is chest pain (angina) or discomfort.

But *women* are somewhat more likely than men to experience some of the other common symptoms, particularly shortness of breath, nausea/vomiting, and back or jaw pain.

(American Heart Association, 2020)

### Common Heart Attack Warning Signs





## What does my Heart Rate mean?

*Your heart rate is the number of beats your heart takes per minute. During exercise, your heart rate is an objective measure of how hard you are working: the higher the intensity, the higher your heart rate should be. Ensuring you are working out at the correct intensity will help you meet your fitness goals and avoid injury and burn-out. Remember, different activities have a different impact on your heart rate, ensure to monitor it throughout exercise and stay within your proper range.*

### What is heart rate reserve (HRR)?

*Your heart rate reserve (HRR) is the difference between your resting heart and your maximum heart rate. This calculation is primarily used to gauge exercise intensity or heart “zones” when performing exercise. Multiplying the calculation by a specific % allows you to gain insight into the target heart rate regarding that %.*

### Example: Calculating your HRR for a healthy general population

- Subtract your age from 220 to get your maximum heart rate ( $\text{MaxHR} = 220 - \text{Age}$ ).
- Calculate your resting heart rate
  - 1: look at your resting heart rate on your watch
  - 2: calculate your resting heart rate by counting how many times your heart beats within 1 minute. This can be done by feeling your pulse on your wrist, timing yourself for 30s and multiplying the number you counted by 2, or by timing yourself for 15 seconds and multiplying the number by 4.
  - Calculate your HRR by subtracting your resting heart rate from your max ( $\text{HRR} = \text{MaxHR} - \text{RestingHR}$ ).
  - Multiple your HRR by 0.4 (40%), and add to your resting Hr to get an exercise value for 40% of your HRR
  - Multiple your HRR by 0.6 (60%), and add to your resting to get an exercise value for 60% of your HRR, and so on (0.5=50%, 0.8=80%, 0.85=85%...etc.)



## The Borg Scale

Another method of measuring exercise intensity is the Borg Scale. The Borg scale is a method of gauging how hard you are working during exercise. The scale matches numbers with how hard you FEEL you are working, and ranges from 6-20. If you were to multiply your Borg scale number by 10, it should give a rough estimate of your approximate heart rate for that particular level of activity. The Borg scale can be found on page 14 of your exercise book. If your peak heart rate or HRR is unknown, the RPE method should be used to guide activity. When referring to the Borg scale:

- <12 represents light activity (40% of HRR)
- 12-13 represents somewhat hard activity (40-59% of HRR)
- 14-16 represents hard activity (60-80% HRR)

Rating	Descriptor
6	No exertion at all
7	Extremely light
8	
9	Very light
10	
11	Light
12	
13	Somewhat hard
14	
15	Hard (heavy)
16	
17	Very hard
18	
19	Extremely hard
20	Maximal exertion

(Centers for Disease Control and Prevention, 2020)



## What Does my Blood Pressure Mean?

*Your blood pressure is the measure of the pressure or force of blood against the walls of your blood vessels (known as arteries). Having a normal blood pressure is an important indication of your overall health.*

***High blood pressure** is the number one risk factor for issues such as stroke and heart disease. High blood pressure is when the blood pressure in your arteries is elevated, causing your heart to work harder than normal, risking complications with your heart. On the other hand, **low blood pressure** is when the pressure in your arteries drops below the normal range causing some dizziness or fainting.*

### **Blood pressure is recorded as two numbers:**

- *Systolic blood pressure (the first number)* – indicates how much pressure your blood is exerting against your artery walls when the heart beats.
- *Diastolic blood pressure (the second number)* – indicates how much pressure your blood is exerting against your artery walls while the heart is resting between beats.

**Which number is more important?** Typically, more attention is given to systolic blood pressure (the first number) as a major risk factor for cardiovascular disease for people over 50. In most people, systolic blood pressure rises steadily with age due to the increasing stiffness of large arteries, long-term buildup of plaque and an increased incidence of cardiac and vascular disease.

BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120 – 129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130 – 139	or	80 – 89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

(American Heart Association, 2020)



## Pre-Exercise Checklist

1. Am I feeling well?
2. Form of hydration, preferably water
3. Supportive shoes
4. Ensure your monitors are working properly
5. Taken heart rate and blood pressure
6. Made yourself aware of the Borg Scale and how it is used in order to exercise safely



### Tips for Staying Motivated

- Choose a place and time that is convenient for you and accessible daily
- Because of the duration of this program, you will want to find a time that works for all seasons and a place that you can access during warm and cold months
- Make it as enjoyable as possible! Focus on your goals and reasons on why you started this in the first place
- Ensure it is safe for you
- Remember the benefits you will experience after each exercise session

**Believe in yourself!**



## Exercise Guidelines

*Did you know that the American College of Sports Medicine Journal (2017) sets out specific guidelines for adults to follow in regards to cardiovascular disease? It is recommended adults achieve 150 minutes of moderate physical activity or 75 minutes of vigorous physical activity weekly, however, any exercise counts and our goal for this program is to help you get moving at your own pace!*

Condition	Guidelines		
	Aerobic	Resistance	Flexibility
<b>CVD (hypertension, coronary artery disease, atherosclerotic arterial disease)</b>	Min 3. Max >5 days per week.  With exercise test: 40-80% HRR  Without: HR <sub>rest</sub> =20-30 beats.min <sup>-1</sup> . Or Borg scale 6-20, 12-16.	2-3 non-consecutive days per week.  10-15 reps, RPE 11-13 on Borg scale, 40-60% 1-RM.  1-3 sets, 8-10 reps focusing on different major muscle group	2-3 days per week, daily most effective.  15s hold for each static stretch, >4 reps of each exercise.  Consider: static, dynamic and PNF.

## Signs of Overexertion

*These are warning signs you are exercising too hard.*

- Being unable to exercise and talk at the same time
- Prolonged fatigue 30 to 60 minutes after exercise
- Continuous muscle or joint soreness
- Light-headedness
- Nausea
- Pounding in your head
- Feeling faint or weak
- A heart rate after cool-down more than 20 beats-per-minute above your resting heart rate



## Assistive Resources

### *Diet and Nutrition; Smoking Cessation; Mental Health Supports*

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#### *Diet and Nutrition*

Healthy eating means enjoying a variety of foods each day to maintain your health. In addition to eating well, being active and following other healthy behaviours can help lower your risk of disease and make you feel your best.

Eating well doesn't mean we need to give up the foods we enjoy, but to choose our foods wisely **and listen to our body's hunger and fullness cues**. At the Thunder Bay District Health Unit, our role is to encourage healthy eating by:



- Improving the food environment (places where foods can be accessed) so that healthier options are more accessible
- Providing information on healthy, tasty, affordable meals
- Helping ensure Thunder Bay District has secure access to healthy foods such as by participating in the Thunder Bay and Area Food Strategy

If you would like to access an Outpatient Registered Dietitian in Thunder Bay for general nutrition counselling, use this document to find the most appropriate service: [Outpatient Registered Dietitian in Thunder Bay](#). If you would like to access a Registered Dietitian for a specific condition (such as diabetes, cancer, heart disease, mental health, etc.), speak to your health care provider for a referral.

#### **For Further Information**

If you're looking for more information or have a question about nutrition, call Telehealth Ontario and ask to speak to a Dietitian. It's free! Toll-free number: 1-866-797-0000.

For information on our nutrition programs, please call 807-625-5900 or toll-free 1-888-294-6630

**This information was taken from the Thunder Bay District Health Unit Website at <https://www.tbdhu.com/health-topics/healthy-eating>**



## *Diet and Nutrition; Smoking Cessation; Mental Health Supports*

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### ***Smoking Cessation***

Quitting smoking is the single best thing that you can do for your health, but it can be very difficult to quit. That is why there are many different quit smoking supports and resources available to you.

#### **Take Control: Personal Tobacco-Free Counselling:**

At the Thunder Bay District Health Unit, you can access free, individual cessation counselling (nicotine replacement therapy (NRT) voucher system available for eligible clients) with a Tobacco Treatment Specialist. For more information, call (807) 625-5982 or visit. [www.tbdhu.com](http://www.tbdhu.com).

#### **Smokers' Helpline:**

Smokers' Helpline is a service operated by the Canadian Cancer Society. They offer free personalized advice, counselling and a quit plan that suits you. They are accessible by phone, online and even text. Smokers' Helpline often holds annual quit smoking contests (e.g. Driven 2 Quit and Leave the Pack Behind). For more information call 1-877-513-5333 or visit [www.smokershelpline.ca](http://www.smokershelpline.ca).

#### **Community Pharmacists and Family Health Teams:**

Pharmacists' practice has expanded to include smoking cessation counselling and they can prescribe and dispense medications for quitting smoking. Family Health Teams have also been hosting quit smoking clinics and packages for their patients. These are great opportunities to work with your healthcare providers to make a plan to quit smoking. As an added bonus, these opportunities may also easily align with your work benefits plan if smoking cessation coverage is included.

#### **NWQuit.com:**

This is a new website developed by the Thunder Bay District Health Unit that shares quit smoking stories from people who have quit smoking, as well as a full directory of quit smoking services and resources across Northwestern Ontario. Visit, [www.nwquit.com](http://www.nwquit.com).

#### **STOP on the Road Study:**

The 'STOP on the Road Study' is part of a quit smoking study offered through the Centre for Addictions and Mental Health. It is offered a few times each year through the Thunder Bay District Health Unit, and their workshops being offered this February and March. Eligible participants will attend a short education session for tips on quitting smoking (e.g. how to make a quit smoking plan that will work for you), and then they will receive 5 weeks of free nicotine replacement therapy (NRT). In order to participate, you must call to find out if you are eligible





and to register. Call (807) 625-8340 to register today! You can also follow the Thunder Bay District Health Unit on Facebook or Twitter to receive up-to-date news and information.

**Other Helpful Resources:**

Sometimes the decision to quit smoking is based on timing. For patients at Thunder Bay Regional Health Sciences Centre who have decided ‘now’ is the time to quit, there are supports. Ask your health care provider about your quit smoking options. For anyone who visits the hospital who wants to quit smoking, free resources are available. Simply go to the Information Desk and ask for a ‘Care Kit’.

**For more information on smoking cessation resources available in our region,**  
visit: [www.tbrhsc.net/smokefree](http://www.tbrhsc.net/smokefree).

**This information was taken from the Thunder Bay Regional Health Sciences Centre  
Website at <https://tbrhsc.net/community-quit-smoking-supports-2/>**



## ***Diet and Nutrition; Smoking Cessation; Mental Health Supports***

### ***Mental Health Services***

Thunder Bay Counselling is a safe and judgment free place to work through substance use and mental health issues. If your substance use or mental health are having a negative impact on your life, relationships, career, finances or general well-being, please get in touch.

Our counsellors can provide confidential assessments and help you identify what makes you vulnerable to addictive substances and behaviours.

We understand that making changes can be difficult, but with our support, you can learn new ways of dealing with life challenges and reduce the negative impact of your use of substances.

Call us at (807) 684-1880 to learn more and to make an appointment.

#### **Addiction & Mental Health Services:**

- Alcohol & Drug Assessment
- Treatment Planning & Referral
- Pre-treatment Stabilization
- Case Management Support
- Counselling & Psychotherapy

#### **IT'S OK TO REACH OUT - HELP IS AVAILABLE IN THUNDER BAY**

<b>HOPE FOR WELLNESS HELPLINE</b> INDIGENOUS SUPPORT  CALL: 1-855-242-3310  CHAT: HOPEFORWELLNESS.CA  24/7 SUPPORT	<b>TALK 4 HEALING</b> SUPPORT FOR INDIGENOUS WOMEN  CALL: 1-855-554-HEAL  CHAT: TALK4HEALING.COM  24/7 SUPPORT	<b>KIDS HELP PHONE</b> YOUTH SUPPORT  CALL: 1-800-668-6868  CHAT: KIDSHELPHONE.CA  24/7 SUPPORT	<b>CANADIAN MENTAL HEALTH ASSOCIATION</b>  CRISIS RESPONSE  CALL: 807-346-8282  24/7 SUPPORT
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This information was taken from the Thunder Bay Counselling Website at <https://www.tbaycounselling.com/addiction-mental-health/>



## The 6-Minute Walk Test for Participants of the Hearts at Home: Home Exercise Program

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The 6-min walk test (6 MWT) is an exercise test that entails measurement of distance walked over a span of 6 minutes. The 6-minute walk distance provides a basic measure of health for those going to be involved in an exercise program.



The 6 MWT provides information regarding overall health and heart health for individuals participating.

Although the 6 MWT is very safe, emergency equipment should be at hand. Such equipment can include chairs, and other personal available to help if you start to feel unsteady.

**To set up your course:** A 30-meter distance course is recommended. A turnaround point should be identified with a cone or other object. At three-meter interval measurements, you can mark with colored tape on the floor. If you only have an area of 15-meters, ensure you count every two laps then rather than one.

*The **purpose** of this exercise for the Hearts at Home clients is to provide a standardized measurement to compare before and after the 6-month program to look for improvements or no improvements from the program. This will allow the facilitators to gain a sense of the program's effectiveness.*

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### Required Equipment

1. Stop watch or timer
2. Two small cones/pieces of identification to mark the lap boundaries
3. Measurement scale for floor measurement
4. Mechanical lap counter or notepad if you are counting manually

The track should be marked at 3-m intervals so that accurate measurement of the walking distance can be performed.

Chairs can be available at 30-m intervals in case the patients become so symptomatic that they have to stop and sit.

This test can be done in a driveway, on the sidewalk, on a quiet street, in a gym facility on the track, or in a home hallway.

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### Patient preparation

1. Comfortable clothing should be worn
2. Environment temperature should be comfortable
3. Shoes should be comfortable and any walking aids that the patient ordinarily uses should be used
4. Light meals are acceptable before morning and afternoon tests
5. Fill out the “before 6-min test result section on page 18)

### Technique

1. Don't perform a warm up before the test.
2. The patient should rest comfortably for 10 minutes prior to the test. During this time blood pressure and heart rate should be measured.
3. Before the test starts, the patient should stand up and rate his/her fatigue. The **Borg** scale may be used for this (*See Page 8*).
4. Set the lap counter to zero or notepad if you are counting manually, and timer to 6 minutes. Assemble all necessary equipment and move to starting point.
  - ♥ Resting *during* the test is allowed, but don't stop the clock. If the patient cannot go any further, the test should be stopped and distance covered recorded.
  - ♥ Stop the test if you develop chest pain, staggering, intolerable cramps, and/or ashen appearance.
5. At the conclusion of the test, ask the patient to rate fatigue levels. If patient had to stop, record the reason for stopping the test.
6. **How to record results?** *Please see sheet on Page 4 that will be emailed back to Kayla at [kwaddington@curans.com](mailto:kwaddington@curans.com)*

*The end goal of the test to get as many laps as you can within 6-minutes but please go at your own pace, it is not a race, just for us to gain a base-line measure of your health, so we can compare to your test at the end of the program!*

**Video of Test for Visual Inspection:** <https://www.youtube.com/watch?v=kwdlFN8BeLE>

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***Good Luck and Have Fun!***



# My Results Sheet

Send to Kayla once completed: [kwaddington@curans.com](mailto:kwaddington@curans.com)

## Before 6-Min Test

*Heart Rate Measure:*

*Borg Scale Rating:*

## After 6-Min Test

*Heart Rate Measure:*

*Borg Scale Rating:*

*Number of Laps Completed:*

*Stopped Before 6-minutes: (yes/no)*

*Reason for Stopping:*



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