# Bronson Cardiac Rehabilitation
## Home Exercise Program Guidelines

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Introduction

This book has been designed to help you with your home exercise activities. This book will give you specific information so that you may follow your exercise program safely. Some of these activities include walking, swimming, bicycling and jogging. The information is based on your performance in our Cardiac Rehabilitation program.
Words to Know

**Aerobic activity:** physical exercise of low to moderate intensity performed for a period of time.

**Angina:** discomfort caused by lack of blood flow to the heart muscle. This may feel like pressure, tightness, or heaviness in the chest, arm, neck, jaw or back.

**Cool-down:** activity after exercise such as an easy walk and stretching to help bring the body back to a resting state.

**Ejection fraction (EF):** percent of blood pumped by the heart muscle with each heartbeat.

**High-density lipoprotein (HDL):** considered good cholesterol and used to help carry away cholesterol.

**Low-density lipoprotein (LDL):** considered bad cholesterol and associated with an increased risk of heart disease.

**Metabolic equivalent (MET):** a way to indicate the amount of activity you can safely perform. This is calculated by the amount of oxygen your body consumes per unit of body weight per minute of time.

**Peripheral artery disease (PAD):** blockage of the blood vessels in the legs making it painful to walk for long periods.

**Rating of perceived exertion (RPE):** your feeling of how hard you are working based on a 6 to 20 scale. For example, 6 is seated at rest, and 20 is the hardest work you can imagine.

**Resistance training:** exercise focused on specific muscles to improve strength.

**Shortness of breath (SOB scale):** rating system where 0 is no shortness of breath, and 4 you are so short of breath you need to stop your exercise. See talk test on page 10.

**Target heart zone (THZ):** a range for your heart rate to maintain while you exercise.

**Warm-up:** activity before exercise such as an easy walk and stretching. It improves blood flow to the body and helps prevent injury while exercising.
Exercise Is Medicine

An inactive lifestyle and poor diet habits are two of the biggest causes of health problems. Exercise is like another medicine to take daily. There are many positive health benefits. Some of these benefits are:

- lower blood pressure
- higher HDL good cholesterol and lower LDL bad cholesterol
- weight loss
- better control of diabetes and blood sugar
- reduced fatigue and more energy
- better sleep patterns
- decreased bone mineral loss
- better joint function
- increased exercise capacity and the ability to better complete daily tasks
- over time you can increase the amount of activity you can do before having pain from PAD and angina
- return to work sooner

Your active role in an exercise program can help reduce the number of times you visit the hospital as a patient. It can make your daily activities more enjoyable and allow you to live a longer more satisfying life.

Think of exercise as good medicine! Don’t stop exercising because you are feeling good. Following your exercise prescription will help you continue to feel good and give you control over your health.
Exercising at Home

Warming Up

Warming up prepares your body for physical activity. The warm up should include a 3-5 min period of low level activity such as an easy walk or easy pedaling on a bike. This will help warm up the muscles, lubricate the joints and slowly increase blood flow. Be sure to warm up prior to your activity every time.

Aerobic Training

The word aerobic means needing air or oxygen. Your body uses oxygen during exercise to produce fuel so you may continue the activity. Aerobic exercise is low to moderate physical activity performed for a period of time. It usually involves large muscle groups, such as the legs. Examples of aerobic exercise are:

- walking
- bicycling
- swimming
- rowing
- jogging
- cross-country skiing

People also refer to these activities as doing cardio or cardiovascular exercise (involving the heart, arteries, and veins). These activities may involve the use of exercise equipment like treadmills, elliptical machines or stair steppers. We encourage you to try activities that you will enjoy and will most likely continue on your own.
Exercising at Home

Target Heart Rate

During cardiac rehabilitation, you may wear a heart monitor. The monitor gives feedback on how fast your heart is beating and if it is in a normal rhythm for you. We develop a target heart zone range (THZ range) during this time to help you exercise within an appropriate and safe level. We want you to continue with your exercise at home in the same manner. This is the THZ range we feel is best for you.

Your THZ range for home exercise: ____________ to ________________.

You can track this THZ range by counting your pulse for 15 seconds and multiplying by four. You can use the table on page seven for quick reference. You may want to memorize the numbers that relate to your heart rate range to more easily check if you are in your target range.

You can find your pulse on your wrist by turning your palm upward. Lightly press on the thumb side between the bone and the tendon with the first two fingers of the opposite hand. You should feel a pulsation against these fingers. Count the number of times you feel this in 15 seconds.

If you have trouble feeling your pulse, consider buying a heart rate monitor or activity tracker with the ability to track your heart rate. There are many options available. Talk to the staff about what option would be best for you.
## Exercising at Home

### Conversion Table for 15 Second Pulse

Beats/15 Seconds = Beats/Minute

<table>
<thead>
<tr>
<th>10 = 40</th>
<th>26 = 104</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 = 44</td>
<td>27 = 108</td>
</tr>
<tr>
<td>12 = 48</td>
<td>28 = 112</td>
</tr>
<tr>
<td>13 = 52</td>
<td>29 = 116</td>
</tr>
<tr>
<td>14 = 56</td>
<td>30 = 120</td>
</tr>
<tr>
<td>15 = 60</td>
<td>31 = 124</td>
</tr>
<tr>
<td>16 = 64</td>
<td>32 = 128</td>
</tr>
<tr>
<td>17 = 68</td>
<td>33 = 132</td>
</tr>
<tr>
<td>18 = 72</td>
<td>34 = 136</td>
</tr>
<tr>
<td>19 = 76</td>
<td>35 = 140</td>
</tr>
<tr>
<td>20 = 80</td>
<td>36 = 144</td>
</tr>
<tr>
<td>21 = 84</td>
<td>37 = 148</td>
</tr>
<tr>
<td>22 = 88</td>
<td>38 = 152</td>
</tr>
<tr>
<td>23 = 92</td>
<td>39 = 156</td>
</tr>
<tr>
<td>24 = 96</td>
<td>40 = 160</td>
</tr>
<tr>
<td>25 = 100</td>
<td>41 = 164</td>
</tr>
</tbody>
</table>
Exercising at Home

Duration
When starting an exercise program you need to start slow to see what you can tolerate. If you are a person who has never exercised you may want to start with 5-10 minutes of activity 2-3 times a day. It is important to not overdo the activity. As you increase your exercise over time, you will increase your tolerance and you can exercise longer. We suggest adding five minutes to your routine every week or every other week, depending on how you feel. Over time, you should increase your activity to exercising all at one time and without breaks (continuous exercise), and for durations of 45 – 60 minutes a day.

Your Time: ________________________________.

Frequency
How often you exercise when you start an exercise program is also important. Frequency of exercise refers to the number of days each week you will exercise. You are scheduled to exercise at Cardiac Rehabilitation Monday, Wednesday and Friday. We want you to increase the number of times you exercise each week. We want you to exercise on the days you are not here. You can leave yourself one to two days each week without exercise.

Your frequency: _________________________.
Exercising at Home

Rating of Perceived Exertion

Some people have trouble finding their pulse. If you are unable to feel your pulse, you can use the rating of perceived exertion (RPE) to help track your exercise level. This scale starts at the number six, which you can think of as being seated in a chair doing no work at all. The scale progresses to the number 20, which is the hardest work you can imagine. You need to stay between 11 and 13 on the RPE range.

Perceived exertion refers to the total amount of physical effort you experience. Take into account all feelings of exertion, physical stress and fatigue. This includes leg fatigue, discomfort, labored breathing and total effort you are exerting.

<table>
<thead>
<tr>
<th>Rating of Perceived Exertion</th>
<th>6</th>
<th>7…. very, very light</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>9…. very light</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>11…. fairly light</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>13…. somewhat hard</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>15…. hard</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>17…. very hard</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>19…. very, very hard</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>
Exercising at Home

Talk Test
It is important to monitor your breathing. For home exercise, we want you to monitor your breathing during exercise by using a talk test. With the talk test, you should be able to carry on a conversation without needing to stop to catch your breath during your activity. If you are unable to talk, you need to slow down or decrease your effort.

Pain
Be sure to monitor your pain level. Stop exercise and report any unusual pain to your cardiologist or primary doctor. The scale below is the scale used in cardiac rehabilitation and will help you to better report your pain.

<table>
<thead>
<tr>
<th>Pain</th>
<th>Are you in pain?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No Pain</td>
</tr>
<tr>
<td>1</td>
<td>Mild Pain</td>
</tr>
<tr>
<td>2</td>
<td>Moderate Pain</td>
</tr>
<tr>
<td>3</td>
<td>Severe Pain</td>
</tr>
<tr>
<td>4</td>
<td>Very Severe Pain</td>
</tr>
<tr>
<td>5</td>
<td>Worst Possible Pain</td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>
Setting your Equipment

For some of your exercises you may be using adjustable exercise equipment. At home your equipment may be different than at Cardiac Rehabilitation. The settings may not be the same. We will try to help you with settings for your equipment for home. Try to adjust your equipment so it feels the same at home as it does at rehabilitation. This is especially true with bicycles. We can give settings for treadmills and Schwinn Airdyne® bikes.

Treadmill settings: _______________ MPH ______________ % Grade

Other equipment settings: _____________________________________________

Resistance Training

While you are in the Cardiac Rehabilitation program, we will use weights to create a resistance training routine. While you are coming to Cardiac Rehabilitation, you will not need to use the weights at home. Once you have completed the Cardiac Rehabilitation program you will need to continue the weight routine at home on Monday, Wednesday and Friday. Your muscles need a rest day to avoid over use. Do not do these exercises every day.

The goal of resistance training is to increase the amount of lean muscle on your body. This will improve your ability to complete your daily activities such as shopping, house cleaning, yard work and hobbies. By increasing muscle tone and mass, your body will burn more calories during the day (even at rest) since muscles burn calories and fat does not. This will also improve your muscle tone so that you both look and feel better.

Start your routine by completing one set of each exercise and add a set when you can tolerate more, up to three sets of each exercise. Use a weight that will allow you to complete 12-15 repetitions without too much straining. Breathe normally throughout the routine. Do not hold your breath. This can cause you to be lightheaded and possibly pass out.

Use slow, smooth motions through each movement. Do not let the weights drop or use fast motions. These motions can cause damage to the tendons and ligaments that attach your muscles to your bones. You may also consider using Thera-bands® instead of weights. Your exercise therapist can help you with a program using these bands.

Use the pictures and explanations of the exercises on the following pages to help guide you through the weight activities.
Biceps Curl
Start with your arms at your sides and your palms facing forward. Bending at your elbow, bring your hands up to your shoulders keeping the upper arms still. Slowly return your hands to the starting position and repeat.

Repetitions: 12-15

Sets: one to three as you can tolerate.

Shoulder Press
Start with your hands next to your ears with your palms facing forward. Push your hands straight up over your head and then slowly return them to the starting position next to your ears and repeat.

Repetitions: 12-15

Sets: one to three as you can tolerate.

Upright Pulls
Start with your arms at your sides and palms facing your body. Pull your hands up your sides to your chest level, and then slowly return them to the starting position at your sides and repeat.

Repetitions: 12-15

Sets: one to three as you can tolerate.
Triceps
Start with your arms straight up over your head. Slowly lower the weights behind your head keeping your elbows pointed up toward the ceiling, and then return them to the starting position up over your head and repeat.

Repetitions: 12-15
Sets: one to three as you can tolerate.

Lateral Fly
Start with the weights at your side. With a smooth motion bring your hands outward from your body and straight up to your shoulder level. Follow the same motion returning the weights to your sides and repeat.

Repetitions: 12-15
Sets: one to three as you can tolerate.

Front Deltoid Raise
Start with your hands at your sides. Raise your hands up in front of you to your shoulder level keeping your arms straight. Slowly return them to the starting position at your sides and repeat.

Repetitions: 12-15
Sets: one to three as you can tolerate.
Cool Down and Stretching

The purpose of the cool down is to:

- gradually return your heart rate to pre-exercise levels
- prevent blood from pooling in your legs and to help avoid dizziness
- improve your flexibility by stretching the muscles you have been using
- help you avoid muscle soreness

The cool down period should begin by lowering the intensity of your exercise to a slow walk or easy pedaling on a bicycle with little resistance. Following two to five minutes of this lower intensity, perform the stretches listed below. They will help to relax the muscle, improve and maintain flexibility, and help to prevent injuries and soreness. This cool down process should take between five to 10 minutes.

Stretching may help prevent muscle soreness and improve your flexibility. It should be performed after your exercise. Research shows stretching does not help prevent injury when performed before exercise. Breathe normally as you stretch, do not hold your breath or bounce while you stretch. You should stretch to the point that you feel a light pull in the muscle you are stretching, and hold the stretch for 30 seconds. The following are some examples for stretching the legs; you can consult the Cardiac Rehab staff for alternative or more appropriate stretches.

**Calf Stretch**

*Starting Position:* Stand an arm’s length away from a wall or chair using your hands for support. Your toes should point straight ahead. Place your right foot forward and your left foot back.

*Exercise:* Bend your right knee, keeping the left knee straight and your left heel flat on the floor. As your hips move forward, you should feel a stretch on the lower left leg. Hold this position for 30 seconds, and then repeat with the other leg.
Achilles Stretch

Starting Position: Stand in the same position as with the calf stretch.

Exercise: This time bend both knees, keeping both heels flat on the floor. Bend until you feel a stretch behind the ankle of the leg that is back. Hold this position for 30 seconds and then repeat with the other leg.

Lower Back and Hamstring Stretch

Starting position: Stand with your feet shoulder width apart or in a comfortable position for you. You may stand next to a table or chair to help you with your balance.

Exercise: Bend at the hips, keeping your knees straight but not locked until you feel a pull in the back of the legs and in the lower back. Hold this position for 30 seconds. Bend your knees slightly and slowly return to the standing position.
Thigh Stretch

Starting Position: Stand by a chair or wall where you can hold on for balance.

Exercise: Bring your right knee up with your right foot behind you. With your right hand grab either your right foot or ankle and gently pull it further behind you until you feel a pull on the muscles on the front of your leg. Hold this position for 30 seconds, and then repeat with the left leg.
The MET (metabolic equivalents)

A MET is a measure based on the amount of oxygen and energy your body uses during exercise. This measure helps define your fitness level and the amount of exercise or work that is safe for you to do.

Knowing your MET level can help you determine the activities you should be able to complete at home. For example, someone who is able to walk on level ground at 4 mph (about four METs) would be able to: stock shelves, do plumbing, do general housework, bowl, golf with a pull cart, or climb stairs. The following chart may help you to determine the activities that would be safe for you based on the level of exercise you are doing in Cardiac Rehabilitation.

Your MET Level: ____________________
<table>
<thead>
<tr>
<th>Activities of Daily Living</th>
<th>Occupational</th>
<th>Recreational</th>
<th>Exercise</th>
<th>METs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breathing/teeth/limbs, light housework, cooking, dining, car, shopping, laundry, swimming, sex, house, window, washing, cleaning, sawing, lamps, painting, lighting, carpentry, mechanical work</td>
<td>Dockyard, crane operation</td>
<td>Kettlebell, planking, serving</td>
<td>Walking, biking, swimming</td>
<td>1.5-2.0</td>
</tr>
<tr>
<td>Confusion, dressmaking</td>
<td>Cutting, drone, fork, standing, standing for 10 min.</td>
<td>Riding bike, bowling</td>
<td>Walking, cycling, running</td>
<td>2.0-3.0</td>
</tr>
<tr>
<td>Drying clothes</td>
<td>Cutting, drone, fork, standing, standing for 10 min.</td>
<td>Playing cards, bowling, tennis</td>
<td>Walking, cycling, running</td>
<td>3.0-4.0</td>
</tr>
<tr>
<td>Eating, dressing</td>
<td>Cutting, drone, fork, standing, standing for 10 min.</td>
<td>Playing cards, bowling, tennis</td>
<td>Walking, cycling, running</td>
<td>4.0-5.0</td>
</tr>
<tr>
<td>Emotional stress</td>
<td>Cutting, drone, fork, standing, standing for 10 min.</td>
<td>Playing cards, bowling, tennis</td>
<td>Walking, cycling, running</td>
<td>5.0-6.0</td>
</tr>
<tr>
<td>Finishing</td>
<td>Cutting, drone, fork, standing, standing for 10 min.</td>
<td>Playing cards, bowling, tennis</td>
<td>Walking, cycling, running</td>
<td>6.0-7.0</td>
</tr>
<tr>
<td>Grooming</td>
<td>Cutting, drone, fork, standing, standing for 10 min.</td>
<td>Playing cards, bowling, tennis</td>
<td>Walking, cycling, running</td>
<td>7.0-8.0</td>
</tr>
<tr>
<td>Haircut, cutting</td>
<td>Cutting, drone, fork, standing, standing for 10 min.</td>
<td>Playing cards, bowling, tennis</td>
<td>Walking, cycling, running</td>
<td>8.0-9.0</td>
</tr>
<tr>
<td>Housework</td>
<td>Cutting, drone, fork, standing, standing for 10 min.</td>
<td>Playing cards, bowling, tennis</td>
<td>Walking, cycling, running</td>
<td>9.0-10.0</td>
</tr>
<tr>
<td>Mechanics</td>
<td>Cutting, drone, fork, standing, standing for 10 min.</td>
<td>Playing cards, bowling, tennis</td>
<td>Walking, cycling, running</td>
<td>10.0-11.0</td>
</tr>
</tbody>
</table>

**METs:**
- 1.5-2.0: Light activities, such as leisure activities and some household tasks.
- 2.0-3.0: Moderate activities, such as light housework and leisure activities.
- 3.0-4.0: Moderate to vigorous activities, such as yard work and some light household tasks.
- 4.0-5.0: Vigorous activities, such as heavy household tasks and some yard work.
- 5.0-6.0: Very vigorous activities, such as heavy household tasks.
- 6.0-7.0: Extremely vigorous activities, such as heavy household tasks.
- 7.0-8.0: Very vigorous to extremely vigorous activities, such as heavy household tasks.
- 8.0-9.0: Extremely vigorous activities, such as heavy household tasks.
- 9.0-10.0: Very vigorous to extremely vigorous activities, such as heavy household tasks.
- 10.0-11.0: Extremely vigorous activities, such as heavy household tasks.
Other Considerations

Clothing
Choose clothing that is suitable for the activity. Consider the location and weather. Wear shorts and a t-shirt in warm conditions and layered clothing in cool to cold conditions. You may consider clothing that wicks sweat away from your body as you exercise. This will help to keep your body cooler in warm conditions and warmer in cooler conditions. Layering your clothing allows you to remove layers as your body heats up during your activity.

Drinking water
It is important to drink water before and while you exercise. You may not feel thirsty but your body still needs water. Your body needs water to continue to keep you cool and function properly. Sweating is the body’s way of naturally keeping your temperature at about 98.6 degrees. Sweat evaporates from your skin causing a cooling effect so that you don’t overheat. As you continue to exercise, you need to replace the water that is evaporating. If you cannot sweat, your body will overheat. This can lead to heat exhaustion, heat stroke and even death. A good rule of thumb is to drink eight ounces of water for every 15 minutes of activity that you do. Do not drink more than your doctor has prescribed. There are many options for carrying the water with you from water bottles to back pack type containers.

Shoes
A quality well-fitting walking or jogging shoe is important. Buy your shoes for how they fit rather than the style, color, brand name, or price. Your shoes should provide support and cushioning. They should fit snugly but be comfortable. Use this checklist to help you make the best choice.

1. Try on shoes at the end of the day. Your feet are the biggest at this time and will allow you to more accurately size your shoes.
2. Wear the same thickness of socks that you will be wearing during your exercise.
3. The flex joint of the shoe (where the sole bends) should bend where your foot bends. If the shoe bends back near your arch, your feet will be sore from stiff fitting shoes.
4. The heel should fit snugly. The ankle should be above the top of the shoe collar.
5. The heel counter should be rigid to help stabilize your heel. A notched heel tab takes pressure off your Achilles tendon during the heel and toe motion.
6. Walk in the shoes before buying them. Take them for a good test walk. Walk on different surfaces.
7. Buy your shoes from a store with a reliable reputation and with trained personnel fitting you.
8. Take the time to try on different models and different brands to help find the shoe that make your feet feel good. Don’t be afraid to ask questions.

Cold Weather Exercise

We recommend exercising indoors when outside temperatures are less than 30 degrees (including the wind chill factor). The cold air can cause your blood vessels to constrict. This can cause angina (heart pain), and can cause an asthmatic reaction for people with asthma. Snow and ice could mean injuries from falling. If exercising outside in cold weather, layer your clothing. Wear layers that wick away sweat, insulate against the cold and provide a shell to guard against the wind. A hat and gloves are recommended. Use a scarf or mask that will cover your face and nose in weather below 30 degrees to help warm the air you breathe in. Forty percent of your body’s heat loss occurs through the head, arms and legs.
**Hot Weather Exercise**

During hot weather, we recommend exercise in the cooler parts of the day (early in the morning or late in the evening), or exercise indoors in an air-conditioned or cooler environment. Drink plenty of water before and after your workout. Try to drink 8-16 ounces of water for every 15 minutes of exercise while you are active. Do not drink more than your doctor has prescribed. Do not exercise in temperatures that “feels like” 92 degrees. Stop exercising if you are feeling light headed, have extreme thirst or feel as if you are overheating.

During exercise on warm or humid days, more blood is directed toward the skin to aid the body in staying cool. Less blood is available for your working muscles and your heart rate will increase in response to this. You will find that you will need to lower your intensity of work to maintain your THZ; otherwise, your heart rate may get too high and make you more likely to have unsafe heart rhythms.

Be aware of ozone and carbon monoxide levels. These may cause constriction of the bronchial tubes and decrease the amount of oxygen transported to the muscles by the blood. During ozone action days or when the air quality is poor, avoid outdoor activity especially if you have asthma or emphysema.

**Illness**

If you are ill, rest and allow your body time to recover. Avoid exercise if your illness includes any of the following: fever, body aches, nausea and vomiting, and chest congestion. If you miss three or more consecutive days of exercise, restart your program at a lower level of intensity, and at a shorter duration. As you feel better you can slowly increase to your previous level of activity.
Time of Day
You should exercise each day at a time that works best for you. Try to exercise each day at the same time.

- Morning is typically when people are the most motivated to complete an exercise program. This helps to avoid scheduling issues that may put off exercise for another time.
- Noontime may work well for some. It can add a much-needed break to the day and helps to avoid a heavy lunch.
- Early evening exercise may help you to unwind and relax after a hard day.
- Things to consider:
  - Try to avoid exercise immediately after a meal (for at least one hour) due to the body’s high demand for blood during digestion. Exercising after eating may increase your heart rate and reduce the level of exercise you can do.
  - Medicines you take and how they affect you (heart rates, blood sugar levels and bathroom breaks).
  - Try to avoid exercising right before bedtime. This may make getting to sleep difficult.

Avoid Injury
Too much exercise too soon is the most common cause of exercise related aches and pains. The risk of injury can be decreased by starting the program at a lower level and gradually increasing your time and how hard you work. Add five minutes to your exercise time per week or every other week, and try to remain in your THZ or RPE level. Non-weight bearing activity (cycling, swimming and rowing) instead of weight-bearing activity (running or jumping-type activities) can help lower the risk of injury.

The Best Form of Exercise
The best form of aerobic exercise is the one that keeps you motivated and the one you will continue to complete every day. Though this may be true, a variety of activities will help to keep the exercise fresh and interesting. As long as the exercise is matched in terms of THZ and RPE level, the benefits will be very similar.
Hot Tub Use

If you have had open chest surgery, do not use a hot tub until the doctor gives the OK. This is usually three months after surgery. Do not lift yourself with your arms if your surgery was within the last three to six months.

Hot tub safety

- The temperature of the water is best kept under 104 degrees and exposure time should be limited to five minutes or less especially if you are taking medicine to lower your blood pressure.
- If you begin to feel lightheaded or dizzy, it’s a sign you should carefully get out of the pool, cool off and drink some water.
- Always be accompanied by another person.
**Nutrition Information**

**Healing Phase: Eating to Heal**

- You need good nutrition in order to heal. Keep this in mind even if you don’t feel hungry.
- You may prefer 5 to 6 small, soft meals rather than eating large meals.

Foods high in protein help heal your body and prevent infection. Foods high in protein include:

<table>
<thead>
<tr>
<th>Milk Products</th>
<th>Drink skim, ½% or 1% milk.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Add low-fat natural cheese (like Swiss and Mozzarella) on sandwiches, baked potatoes, vegetables, meat, and fruit; or eat as a snack.</td>
</tr>
<tr>
<td></td>
<td>When cooking cereal and making low sodium cream soups use skim, ½%, or 1% milk in place of water.</td>
</tr>
<tr>
<td></td>
<td>Add powdered milk or Carnation Instant Breakfast to milk.</td>
</tr>
<tr>
<td></td>
<td>Try Greek yogurt or regular yogurt.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eggs, meats, poultry, and fish</th>
<th>Lean white meat chicken or turkey, pork, or beef.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eggs (egg white is the protein source) or egg substitutes.</td>
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<tr>
<td></td>
<td>Have hard-cooked eggs in refrigerator for snacks or chop and add to salads, casseroles, and low sodium soups.</td>
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<tr>
<td></td>
<td>Add leftover meats and poultry to soups, casseroles, salads, and omelets.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Beans, legumes, nuts, and seeds</th>
<th>Soy products: Tofu, soy milk and soybeans</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Lentils and beans</td>
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<tr>
<td></td>
<td>Sprinkle unsalted nuts and seeds on vegetables, salads, and pasta.</td>
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<tr>
<td></td>
<td>Spread nut butters on toast, English muffins, and fruit; or blend it in a milk shake or smoothie.</td>
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<td></td>
<td>Add beans, peas, and lentils to salads, soups, casseroles, and vegetable dishes.</td>
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</tbody>
</table>

When recovering from surgery, fiber can help keep your bowels moving. Foods high in fiber include:

<table>
<thead>
<tr>
<th>Fruits and Vegetables</th>
<th>Eat fruits and vegetables with the skin on.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Add raisins, grated carrots, or chopped apple or pear to salads, cereal, or bread and muffins.</td>
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</table>

<table>
<thead>
<tr>
<th>Grains and Legumes</th>
<th>Whole grain bread or cereal, brown rice, whole wheat pasta, or barley.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Add wheat germ, wheat bran, rice bran or flaxseed to foods like cereal, soup, and smoothies.</td>
</tr>
</tbody>
</table>
What you eat can affect the build-up of fluid around your heart. One of the most important things you can do is limit sodium in your diet.

**AVOID foods high in sodium:**

| Milk Products  | • Cottage Cheese  
|                | • Processed cheeses: Velveeta, Cheese Whiz, American, or anything labeled “processed cheese food” |
| Meats, poultry, and fish | • Regular canned meats, poultry, or fish  
|                          | • Smoked or cured meats, poultry, or fish such as: ham, sausage, bacon, smoked fish and jerky  
|                          | • Processed lunch meats such as: salami, bologna, ham, bratwurst, and hot dogs  
|                          | • Packaged/Canned meals or frozen dinners  
| Vegetables            | • Regular canned vegetables  
|                       | • Frozen vegetables with a sauce  
|                       | • Regular vegetable juices  
|                       | • Vegetables preserved in brine such as: sauerkraut  
|                       | • Instant Potatoes  
| Grains                | • Packaged foods such as: seasoned noodles, macaroni and cheese, rice dishes, or stuffing mix  
|                       | • Pancakes, waffles, biscuits, cornbread or other foods made with baking mix  
| Condiments            | • Mustard, regular ketchup, dips, salad dressings, and relishes  
|                       | • Sauces such as: barbeque, cheese, chili, hot sauce, pizza, soy, steak, or Worcestershire  
|                       | • Pickles and olives, including the juice  
|                       | • Gravies  
| Soup                  | • Soups: all kinds of canned, frozen, or instant soups including those that are labeled “lower in sodium” or “reduced sodium”  
| Other foods           | • Mixes such as: pudding, cake mixes, or pie crust  
|                       | • Salted snacks such as: crackers, pretzels, potato chips, corn chips, nuts, or popcorn |
Heart Healthy Eating Lifestyle

These guidelines can help improve your lipid profile and your overall heart health for life:

<p>| | |</p>
<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Saturated Fat Intake</td>
<td>• Limit to less than 5 to 6 percent of the day’s total calories.</td>
</tr>
<tr>
<td></td>
<td>• About 11 to 13 grams or less daily</td>
</tr>
<tr>
<td>Trans Fat Intake</td>
<td>• Limit to less than 1 percent of the day’s total calories.</td>
</tr>
<tr>
<td></td>
<td>• Less than 2 grams daily</td>
</tr>
<tr>
<td>Omega-3 Fat Intake (heart healthy fat)</td>
<td>• Try to eat more.</td>
</tr>
<tr>
<td></td>
<td>• Good sources include: fish, walnuts, canola and soybean oil, and flaxseed.</td>
</tr>
<tr>
<td>Sodium Intake</td>
<td>• Limit to 2000 milligrams daily</td>
</tr>
<tr>
<td>Fiber Intake</td>
<td>• Increase to 25 to 35 grams daily</td>
</tr>
</tbody>
</table>

- Try to eat more plant-based meals, using beans and soy foods for protein.
- Limit alcohol intake. Talk to your doctor.
- Talk with your dietitian or doctor about healthy weight goals.
- If you have diabetes, keep your blood sugars well controlled. Know the carbohydrate content of the foods you eat. Measure your blood sugar levels regularly. Take your diabetes medicine as prescribed by your doctor.
# Suggested Foods for a Heart Healthy Diet

<table>
<thead>
<tr>
<th>Category</th>
<th>Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy</td>
<td>- Skim, ½ %, or 1 % milk&lt;br&gt;- Natural and hard cheeses that are “reduced fat”, “low fat”, or “part skim.” Make sure to check sodium content on nutrition facts label.&lt;br&gt;- Low-fat or Non-fat yogurt</td>
</tr>
<tr>
<td>Meats, poultry, fish, beans, eggs, and nuts</td>
<td>- Choose lean, fresh or plain frozen meats, poultry, fish, and shellfish.&lt;br&gt;- Trim all visible fat from meat and poultry.&lt;br&gt;- Unsalted nuts (One-third cup is equal to 1 ounce of meat)&lt;br&gt;- Use low-sodium, natural nut butters.&lt;br&gt;- Bake, grill, or roast meat, poultry and fish without added fat.</td>
</tr>
<tr>
<td>Fruits and Vegetables</td>
<td>- Fresh, plain frozen, or canned fruits&lt;br&gt;- Fresh, plain frozen, or no salt added canned vegetables</td>
</tr>
<tr>
<td>Grains</td>
<td>- Choose whole-grain breads, pasta, rice, and cereals.&lt;br&gt;- Limit products that contain seasoning packets, such as: Rice-a-Roni™, macaroni and cheese and ramen noodles.</td>
</tr>
<tr>
<td>Soups</td>
<td>- Use low sodium or no salt added soups, broths, or bouillon cubes.&lt;br&gt;- Try homemade soups made with low sodium ingredients.</td>
</tr>
<tr>
<td>Fats and Oils</td>
<td>- Choose heart healthy oils, such as: canola, olive, peanut, and avocado oils.&lt;br&gt;- Use liquid margarine, vegetable sprays or tub margarine, in place of butter or stick margarine.&lt;br&gt;- Read the label of low-fat or non-fat salad dressings to control sodium intake.</td>
</tr>
</tbody>
</table>
**Condiments**

- Choose seasonings without salt, such as: fresh herbs, garlic and onion powder, Mrs. Dash ®
- Avoid any type of salt, MSG, and meat tenderizer.
- Limit relish, pickles, and olives and sauces such as ketchup, mustard, barbeque, and steak sauce.

---

**Reading Food Labels**

The “Nutrition Facts” on the label lists the amount of nutrients in each serving. Understanding food labels can help you make wise choices.

<table>
<thead>
<tr>
<th>Amount per Serving</th>
<th>% Daily Value*</th>
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<tbody>
<tr>
<td>Calories 80</td>
<td></td>
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<tr>
<td>Calories from Fat 50</td>
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<tr>
<td>Total Fat 6 g</td>
<td>9%</td>
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<tr>
<td>Saturated Fat 4 g</td>
<td>20%</td>
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<tr>
<td>Trans Fat 0 g</td>
<td></td>
</tr>
<tr>
<td>Cholesterol 20 mg</td>
<td>7%</td>
</tr>
<tr>
<td>Sodium 45 mg</td>
<td>2%</td>
</tr>
<tr>
<td>Total Carbohydrate 0 g</td>
<td>0%</td>
</tr>
<tr>
<td>Dietary Fiber 0 g</td>
<td>0%</td>
</tr>
<tr>
<td>Sugars 0 g</td>
<td></td>
</tr>
<tr>
<td>Protein 6 g</td>
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</table>

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on you calorie needs.
Dining Out Guidelines for a Heart Healthy Lifestyle:

When eating out, you can still follow heart healthy guidelines by being aware of the foods you order.

**Tips When Ordering:**

| Fast Food Restaurants | • Try to select salads with the dressing on the side.  
|                       | • Order grilled skinless chicken sandwiches.  
|                       | • Order single-sized hamburgers.  
|                       | • Put sauces on the side.  
|                       | • Ask for no salt added to your food.  
|                       | • Ask if natural Swiss or mozzarella cheese is available.  
| Preferred Cooking Methods | • Select foods that have been steamed, broiled, roasted, or poached.  
| Ordering Ideas | • Limit addition of added fat to your bread  
|               | • Try to limit sweet rolls, pastries, and high-fat breakfast goodies.  
|               | • Order a salad or baked potato instead of chips, fries, coleslaw, or other high-fat or high sodium foods.  
|               | • Order thin crust pizza with fresh vegetables and ask to go easy on the sauce and cheese.  
|               | • Have sauces and salad dressings served on the side.  
|               | • Ask for food prepared without salt.  
|               | • Limit ordering butter, cream, or cheese sauces.  
|               | • Control portions by ordering appetizer-size serving or half portion, or share a dish with a friend.  
| Breakfast Ideas | • Order dry whole grain bread, bagel, or English muffin with peanut butter, jelly or honey.  
|               | • Whole grain cereal or hot cereal with skim or low fat (1/2% or 1%) milk  
|               | • Omelet made with fresh vegetables and natural hard cheeses  
|               | • Low-fat or non-fat yogurt with fresh fruit
| Beverages                                      | • Water with lemon or flavored non-calorie sparkling water  
|                                               | • Skim or low-fat milk (1/2% or 1%)  
|                                               | • Low sodium tomato juice  
| Appetizer Ideas                               | • Shrimp cocktail (Limit cocktail sauce due to sodium content.)  
|                                               | • Salad with lemon juice, oil with vinegar, or just vinegar  
|                                               | • Grilled vegetables  
|                                               | • Raw vegetables with low-fat yogurt  
|                                               | • Pita bread with low-fat hummus  
| Entrees                                       | • Order meat, fish, or poultry that is broiled, steamed, or poached without added salt.  
|                                               | • Order vegetarian dishes with whole grains and non-cream sauces.  
| Salads/Salad Bars                             | • Select fresh vegetables to put on spinach and fresh greens.  
|                                               | • Add beans and chickpeas for added protein.  
|                                               | • Avoid non-vegetable choices like: deli meats, bacon, croutons.  
|                                               | • Use vinegar or oil and vinegar for salad dressing.  
| Desserts                                      | • Fresh fruit  
|                                               | • Low-fat or non-fat frozen yogurt  
|                                               | • Sherbet or fruit sorbet  
|                                               | • Angel food cake, JELL-O™, low-fat or non-fat pudding  
| Condiments                                    | • Limit use of ketchup, mustard, and relish.  
|                                               | • Avoid olives and pickles that may be added to some foods.  

Weight Management

Your doctor or dietitian can help you know what a healthy weight is for you. If you are overweight, losing even a few pounds can help improve your health. Below are tips that can help you with weight loss.

General Guidelines:

- Eat at least 3 times per day. Skipping meals can lead to over-eating at other meals.
- Eat smaller portions. Use a plate that is no more than 9 inches in diameter. Fill half the plate with low calorie vegetables and the other half with high protein foods and starchy foods or casseroles.
- Try to eat slowly. Wait at least 10 minutes before having seconds or a food you are craving. This allows time to know if you are still hungry or not.
- Try to make your drinks calorie free. Water, tea, and coffee are examples of calorie free drinks. Drink less fruit juice, regular soda, and alcohol.
- Eat more high fiber foods. Foods that are high in fiber can help with digestion, heart health, and even help make you feel full longer. Fresh fruits, vegetables, and whole grains are good sources of fiber.
- Write down what you eat. When you keep a record of what you eat, your are more likely to meet your goals. Studies show that keeping a food record helps people lose weight and keep it off.

Suggestions for Decreasing Calories:

- Cook without adding fat. Bake, broil, roast, or boil foods to decrease amount of fat needed. Use nonstick cooking sprays instead of butter or oil while cooking.
- Leave cooked food in the kitchen. It is easier to avoid having seconds when the food is not in front of you. When you are done eating, take care of your dishes right away.
- If you are hungry for a snack, choose low calorie foods. Keep low-calorie snacks on hand. It is much easier to choose these foods if they are ready to go. Low fat string cheese, low fat yogurt, cut up raw vegetables, and fresh fruit are all good snack choices.
- If a favorite food is high in calories, keep portions small.
Words to Know About Food

**Saturated fat:**
- Saturated fat can increase blood cholesterol and LDL (“bad cholesterol”) levels.
- Saturated fats are found in animal fats: lard, butter, meat, poultry and dairy products.
- Palm, palm kernel and coconut oils are also high in saturated fat.

**Trans-fatty acid or Trans fat:**
- Trans fats raise LDL (“bad cholesterol”) levels and can even lower HDL (“good cholesterol”) levels.
- Sources of trans fats include: stick margarine, shortening, some fried foods, and packaged foods made with hydrogenated oils.

**Monounsaturated fat:**
- Fat that helps lower LDL levels without lowering HDL.
- Olive, canola and peanut oils, avocado, peanuts and tree nuts (walnuts, hazelnuts, almonds, pecans and pistachio nuts) are good sources.

**Polyunsaturated fat:**
- Plant oils which are liquid at room temperature. These lower LDL levels, but may also slightly lower HDL levels.
- Good sources are liquid safflower, sunflower, soybean, corn, cottonseed and sesame oils.

**Omega-3 fatty acids:**
- These fats are essential. This means the body cannot produce them on its own.
- These oils help reduce serum cholesterol levels.
- Omega-3’s are found in leafy green vegetables like spinach and kale; oils such as canola, soy and flaxseed; nuts such as walnuts; and cold-water fish such as salmon, trout and mackerel.
Weight Management Record

Month________________ Goal for the month __________________

Beginning weight ________ Long range goal ________ Ending weight ________

To track your weight, use the zero on the graph as your beginning weight. Record weight gain in pounds above the zero, and weight loss in pounds below the zero. Set your monthly goal so that you are losing one to two pounds each week. Set a long range goal for you to reach in six months to a year.
## Activity Record

<table>
<thead>
<tr>
<th>Date</th>
<th>Weight</th>
<th>Resting Pulse</th>
<th>Exercise Pulse</th>
<th>RPE (6-20)</th>
<th>Duration / Distance</th>
<th>Equipment Settings</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
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Food Resources

Websites

www.americanheart.org
www.bronsonhealth.com
www.diabetes.org
www.eatright.org
www.heartcenteronline.com
www.hd.com (fast food guide)
www.megaheart.com
www.mindfuleating.org
www.mrsdash.com (recipes)
www.mypyramid.gov
www.nhlbi.nih.gov (National Heart, Lung and Blood Institute of the National Institutes of Health)
www.weightwatchers.com

Cookbooks:

American Medical Association Cookbooks for Healthy Living: Healthy Heart Cookbook

Guide to Healthy Restaurant Eating by Hope S. Warshaw

The New American Heart Association Cookbook

Bronson Outpatient Nutrition Services:
(269) 341-6860

Diet Help line:
(269) 341- 8800

Bronson Health Answers:
(269) 341-7723
## Contacts

<table>
<thead>
<tr>
<th>Bronson Cardiac Rehabilitation</th>
<th>National Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bronson Battle Creek</td>
<td>American Heart Association</td>
</tr>
<tr>
<td>300 North Ave.</td>
<td>7272 Greenville Avenue</td>
</tr>
<tr>
<td>Battle Creek, MI 49017</td>
<td>Dallas, TX 75231</td>
</tr>
<tr>
<td>(269) 245-8188</td>
<td>1-800-AHA-USA-1 or 1-800-242-8721</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bronson Lifestyle Improvement and Research Center</th>
<th>American Stroke Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>6789 Elm Valley Dr.</td>
<td>7272 Greenville Avenue</td>
</tr>
<tr>
<td>Kalamazoo, MI 49009</td>
<td>Dallas TX 75231</td>
</tr>
<tr>
<td>(269) 544-3220</td>
<td>1-888-4-STROKE or 1-888-478-7653</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Bronson South Haven</th>
<th><a href="http://www.americanheart.org">www.americanheart.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>950 S. Bailey Ave.</td>
<td></td>
</tr>
<tr>
<td>South Haven, MI 49090</td>
<td></td>
</tr>
<tr>
<td>(269) 639-2796</td>
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</tbody>
</table>

bronsonhealth.com
Bronson Cardiac Rehabilitation

Bronson Battle Creek
300 North Ave.
Battle Creek, MI 49017

Bronson Lifestyle Improvement and Research Center
6789 Elm Valley Drive
Kalamazoo, MI 49009

Bronson South Haven
950 S. Bailey Ave.
South Haven, MI 49090

bronsonhealth.com