



UNIVERSITY OF OTTAWA
HEART INSTITUTE
INSTITUT DE CARDIOLOGIE
DE L'UNIVERSITÉ D'OTTAWA

HEART FAILURE

A Guide for Patients and Families



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**PLEASE BRING THIS BOOK WITH YOU TO THE
HEART INSTITUTE**

Patient Name _____

Please complete the following information:

Contact Person
(relative, friend)

Name _____

Phone Number
(Home) _____

Phone Number
(Cell) _____

Family Doctor

Name _____

Phone Number _____

Pharmacy

Name _____

Phone Number _____

Cardiologist

Name _____

Phone Number _____

Other (Specify)

Name _____

Phone Number _____

IMPORTANT

Nursing Coordinator: 613-761-4708

Please call the nursing coordinator if you have any symptoms or concerns throughout your early recovery period. The nursing coordinator can be reached at any time.

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Information about Heart Failure

What You Should Know about Heart Failure

Heart failure is a condition that affects over 350,000 Canadians of all ages. It is the most common diagnosis that brings a patient to a hospital for admission. Many new cases of heart failure are diagnosed each year.

What Is Heart Failure?

Despite how scary it sounds, heart failure does not mean that your heart will suddenly stop working or that you are about to die. Rather, the term heart failure describes a condition where your heart is not working well and needs to work harder to keep blood flowing throughout your body.

The weakened pumping of the heart allows fluid to collect in certain parts of the body. This fluid retention may cause swelling of your ankles, lower legs, and abdomen. Extra fluid in or around your lungs causes shortness of breath with activity and some patients may have difficulty lying flat. In heart failure, your heart is no longer strong enough to provide your body with all the blood and oxygen it needs. Some of the most common symptoms of heart failure include feeling tired and short of breath. This may cause fatigue.

What Causes It?

The most common cause of heart failure is a heart attack. However, the two conditions can occur separately so that heart failure is **not the same as** a heart attack. At the time of a heart attack, part of the heart muscle is injured from lack of blood supply because of blocked coronary arteries. When patients have had a lot of heart muscle damage due to a heart attack, the heart becomes weak and heart failure may occur.

Other causes of heart failure include:

- A heart muscle problem called cardiomyopathy (cardio = heart and myopathy = muscle abnormality). This can be due to a virus, high alcohol consumption, or an unknown cause.
- Long-term high blood pressure
- An abnormality of one of the heart valves
- Abnormal heart rhythms

What Are Some of the Symptoms?

- General fatigue and weakness
- Shortness of breath, which can happen even during mild activity or at night during your sleep
- Difficulty breathing while lying down
- Weight gain, with swelling in the legs, ankles and abdomen from fluid retention

How Is Heart Failure Diagnosed?

Your doctor will start by reviewing your medical history and will conduct a full physical exam. Doctors often order a number of tests to determine if you have heart failure. These include:

- A chest X-ray to look at the size of your heart and to help determine whether there is fluid in your lungs
- An echocardiogram and/or heart scan (MUGA scan) to look at the overall structure of the heart chambers and valves and to determine your ejection fraction. The ejection fraction, or EF, is a measure of how well your heart is pumping. People with a healthy heart usually have an ejection fraction of 50% or greater. Many people with heart failure, but not all, have an ejection fraction of 40% or less; however, it is possible to have heart failure with a normal EF.
- An electrocardiogram or ECG to look at your heart rhythm
- Blood tests to determine, among other things, your kidney function.

What You Can Do to Stay Well & Out of Hospital

The most frequent cause of readmission to hospital for heart failure is related to:

- High salt and/or fluid intake
- Not recognizing the signs of fluid retention
- Not taking action when fluid retention occurs

By participating in your care and knowing what to do to keep yourself well, you can decrease episodes of worsening heart failure that lead to readmission to hospital.

Treatment for Heart Failure

What Treatment Will I Receive?

There are many treatment options for heart failure. More and more options become available each year. These include:

- Medications: proven standard and new medicines
- Lifestyle modifications: diet, exercise, management of stress
- Internal cardiac defibrillator (ICD) or cardiac resynchronization therapy (CRT)
- Surgical options when indicated: such as coronary artery bypass graft or valve surgery

Medications Can Make a Difference

Certain types of medications help prevent future heart failure episodes and may help you to live a longer and healthier life. Each medication helps in a different way.

You may not be on all the types of medications listed below. If you are not on one of these medications and are wondering why, please ask your doctor.

The medication and dosage vary depending on individual needs and conditions. It is common to have medication and dosage changes during initial treatment and follow-up appointments.

Angiotensin Converting Enzyme (ACE) Inhibitors (ACEIs) / Angiotensin Receptor Blockers (ARBs)

Medications in the class of **ACEIs**:

- Captopril (Capoten[®])
- Enalapril (Vasotec[®])
- Fosinopril (Monopril[®])
- Lisinopril (Prinivil, Zestril[®])
- Perindopril (Coversyl[®])
- Quinapril (Accupril[®])
- Ramipril (Altace[®])

Medications in the class of **ARBs**:

- Candesartan (Atacand[®])
- Losartan (Cozaar[®])
- Valsartan (Diovan[®])
- Telmisartan (Micardis[®])
- Irbesartan (Avapro[®])

Why it's important to take this medication:

ACEIs and ARBs have been shown to improve quality of life, help patients live longer, slow the worsening of heart failure, and decrease hospitalizations.

Actions:

- Dilates (widens) blood vessels
- Reduces the work of your heart
- Blocks the specific stress hormones that your body produces that cause your heart to change shape and become weak

How this medication should be taken:

- Take this medication at the same time(s) every day.

Most common side effects:

- Low blood pressure. This is a concern only if you have persistent symptoms of lightheadedness, dizziness.
- Brief episodes of dizziness or lightheadedness related to changes in position
- Increased potassium in your blood. This will be monitored by periodic blood tests.
- Worsening kidney function. This will be monitored by periodic blood tests.
- Persistent dry cough which only occurs with ACEIs. Worsening heart failure can also cause a cough. Talk to your doctor or nurse if this is an issue.

Severe side effect:

- Rare allergic reaction: Swelling of the face, tongue, hands or feet (**stop this medication and seek medical care**). This can occur at any time during treatment.

Your doctor will likely prescribe an ACEI for you. If you are unable to tolerate an ACEI, your doctor may prescribe an ARB. The main difference in its actions and effects is that it doesn't cause a cough.

Beta Blockers

Medications in this class:

- Bisoprolol (Monacor[®])
- Carvedilol (Coreg[®])
- Metoprolol (Lopressor[®])

Why it's important to take this medication:

Beta blockers can improve heart function, help people with heart failure live longer, spend less time in hospital, and improve quality of life.

Actions:

- Blocks the stress hormones that your body produces that cause your heart to change shape and become weak
- Relaxes your heart and slows your heart rate

How this medication should be taken:

- Take this medication at the same time(s) every day.

Most common side effects:

- Low blood pressure. This is a concern only if you have persistent symptoms (e.g., lightheadedness, dizziness).
- A slow heart rate. This is a concern only if you have persistent symptoms of lightheadedness.
- Initially, you may feel more tired, short of breath, or dizzy. As your heart begins to adjust, you should begin to feel better. This may take several months. However, if your symptoms do not improve or they get worse, you may need to reduce or stop the beta blocker after discussion with your doctor.
- Wheezing or more shortness of breath. This may happen if you have a history of asthma. Talk to your doctor or nurse if this occurs.

Usually, patients are started on a very small dose of beta blocker so you can get used to the medication. Over the next several months your doctor will want to prescribe a higher dose depending on how you feel.

Diuretics

Medications in this class:

- Furosemide (Lasix[®])
- Metolazone (Zaroxolyn[®])
- Hydrochlorothiazide (HydroDiuril[®])

Why it's important to take this medication:

Diuretics (water pills) are very useful for the elimination of excess water. With less water retention, it becomes easier to breathe, and there is less swelling and abdominal bloating.

Action:

- Makes the kidneys remove more water and sodium (salt) from the body

How this medication should be taken:

- If this medication upsets your stomach, you may take it with food.
- Take the last dose before 4:00 p.m. to avoid getting up at night to pass water.

Most common side effects:

- Loss of potassium, which may cause:
 - Irregular heart beats
 - Muscle cramps or pain
 - Unusual tiredness or weakness

This will be monitored by periodic blood tests. You may need to take a potassium supplement if your blood potassium is too low.

- Gout
- Thirst and dry mouth
- Skin rash. Contact your doctor if skin rash occurs.
- Dizziness
- Dehydration. This will be monitored by periodic blood tests. Weighing yourself daily can also help you know if you are losing too much fluid.

Furosemide is the most commonly used diuretic for heart failure. If you have a lot of swelling or are not responding to increasing doses of furosemide, a second diuretic may be added to help rid the body of more fluid.

Digitalis

Medications in this class:

- Digoxin (Lanoxin[®])

Why it's important to take this medication:

Digoxin has been shown to be helpful in improving the symptoms of heart failure when used with other heart failure medications. It also slows the heart rate in heart failure patients who have atrial fibrillation, a type of irregular heartbeat.

Actions:

- Increases the strength of the heart's pumping action
- Slows the rate of the heart beats in atrial fibrillation

How this medication should be taken:

- Wait 2 hours after taking antacids, high-fibre foods, or fibre supplements.
- If your blood level is to be checked in the morning, take your dose after your blood is drawn.

Severe side effects:

The following symptoms may occur if there is too much digoxin in your body. Call your doctor right away if you experience any of these side effects:

- Loss of appetite
- Nausea and vomiting
- Blurred or coloured vision, or halos around bright objects
- Confusion or weakness
- Abnormal heart rhythm, which may cause palpitations or black outs

Some drugs can affect the level of digoxin in the blood. Most problems with digoxin occur when there is too much in the blood. In addition, other medical conditions such as worsening kidney function, low potassium, and older age, can also affect the level of digoxin in the blood. Your doctor will monitor your blood level of digoxin periodically.

Aldosterone Antagonist

Medications in this class:

- Spironolactone (Aldactone[®])

Why it's important to take this medication:

Spironolactone may be prescribed to patients with advanced heart failure to help them live longer and stay out of the hospital.

Action:

- Blocks the stress hormones your body produces that cause your heart to change shape and become weak

How this medication should be taken:

- Take this medication at the same time every day.

Most common side effects:

- Increased potassium. This will be monitored by periodic blood tests.
- Breast enlargement or tenderness, especially in men.

Nitrates & Vasodilator

Medications in the class of Nitrates:

- Isosorbide dinitrate (Isordil[®])
- Isosorbide-5-mononitrate (Imdur[®])
- Nitroglycerin patch (Minitran[®], Nitro-Dur[®], Transderm-Nitro[®], Trinipatch[®])

Medications in the class of Vasodilator:

- Hydralazine (Apresoline[®])

Why it's important to take this medication:

The combination of a nitrate plus hydralazine has been shown to improve quality of life, help patients live longer, and decrease hospitalizations.

Actions:

- Dilates (widens) blood vessels
- Reduces the work of your heart

How this medication should be taken:

- Your doctor will likely want you to have at least 10 hours between wearing patches to prevent your body from getting used to the medication. Take your last dose of isosorbide dinitrate around 5:00 p.m. or take off your nitroglycerin patch at bedtime if you put it on in the morning.
- Do not take drugs used to treat erectile dysfunction when you are taking nitrates. This may cause very low blood pressure and result in dizziness, lightheadedness, and fainting.

Most common side effects:

- Low blood pressure. This is a concern only if you have persistent symptoms (e.g., lightheadedness or dizziness).
- Weakness
- Headache. This may become less intense as you continue to take your pills. Taking acetaminophen (Tylenol®) can help with headaches.

Severe side effects:

Call your doctor right away if you experience any of these side effects:

- Chest pain
- Fast or pounding heartbeat
- Numbness, tingling, or burning pain in your hands, arms, legs, or feet
- Warmth or redness in your face, neck, or chest

The combination of a nitrate plus hydralazine may be prescribed if you are unable to tolerate ACEIs because of poor kidney function.

General Medication Advice

- Bring the pills or a list of your current medications **to all visits** with your doctors
- Know the name, dosage, actions, special instructions, and common side effects of all the medicines you are taking. Keep your medications handy. Take your medications at the same time or times each day to keep a constant level of medicines in your bloodstream. If you have trouble figuring out a convenient schedule, ask for help.
- Follow the directions for your prescription carefully. Medications work best if you use them correctly. Many times there are helpful warnings and instructions on prescription bottles. For example, these may remind you to take the medication with food or with plenty of water. Be sure to confirm any special instructions with your doctor or pharmacist, especially if your fluid intake is restricted.
- Take your medication regularly—even if you feel well. Never take more than has been prescribed and do not stop taking them unless told to do so by your doctor.
- If you miss a dose of your medication, take the missed dose as soon as you remember. Take the next dose at the regular times. However, if it is almost time for your next dose, skip the missed dose and go back to your regular dosing schedule. Do not take a double dose. If you miss a dose of medication and are unsure of what to do, talk to your doctor or pharmacist. Doses of certain heart failure medications too close together can often do more harm than good. If you are having trouble remembering to take your medications, talk to your pharmacist about tips or devices which can help you to remember.
- Use caution when using medications you can buy over-the-counter at the drug store, such as pain medication, antacids, laxatives, cough medications. Non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen (Advil® and Motrin®) or naproxen may worsen your symptoms and/or make your prescription medication less effective. ALWAYS ask your doctor or pharmacist before taking any medications or herbal products you can buy without a prescription.
- Medications have many different actions and side effects. Call your doctor, nurse or pharmacist if you have questions, or if you notice side effects. It may take time for your body to adjust to a new medicine, and it may take time for the medications to begin to work effectively. You may have mild side effects during this period. Discuss them with your doctor or pharmacist. Sometimes another medicine can be prescribed. Always report anything unusual when taking a new medication.

- Make sure you have enough medication to last until your next prescription refill. NEVER run out.
- When taking certain medications, your doctor may request blood tests to check the functioning of your kidneys and the levels of sodium and potassium in your blood.
- Cost can be an important factor with medications as prescription drugs can be expensive. Discuss your concern about medication cost with your doctor. Less expensive medicines may be an option for you. If you are concerned about the cost of your medication you may want to apply to the *Ontario Trillium Drug Program* for assistance by calling 1-800-575-5386 or checking the website at:
www.health.gov.on.ca/english/public/forms/form_menus/odb_fm.html. Applications are also available in most pharmacies. If you live outside of Ontario, most provinces have similar plans. Please contact the Ministry of Health in your province.

Heart Healthy Living

Nutrition Guide for Heart Failure

Limit of about 3/4 teaspoon (2000 mg) sodium and 6–8 cups (1.5–2 litres) liquid daily

This section will help you understand how to:

- Reduce your salt or sodium intake
- Read a food label
- Choose “No Added Salt” food products
- Monitor your fluid intake
- Cook using less salt
- Make good choices when you eat out



Let's start by looking at salt:

Sodium intake causes fluid build-up forcing your heart to work harder.

- Do you get short of breath?
- Do you have swelling of your ankles, feet, or abdomen?
- Have you noticed your weight has gone up?

Following a low sodium diet and drinking less fluid can help you feel better and allow your heart failure medicines to work better. It may even keep you out of the hospital.

Did You Know?

**One teaspoon salt = 2300 mg of sodium, more than your daily limit of sodium!
2/3 of the salt in the Canadian diet is hidden in food.**



Fresh is best:

Use fresh and home prepared foods whenever possible. Buy fresh or frozen vegetables and fruit.

How to read a food label for sodium

Reading food labels is the only way to be sure of the sodium content of foods. The sodium content must be listed on the package – check the **Nutrition Facts** panel.

Food manufacturers change ingredients all the time; make it a habit to read the label.

Follow these easy steps to read the label.

Nutrition Facts	
Per 1/2 cup (125 mL)	
Amount	% Daily Value
Calories 70	
Fat 0.5 g	1 %
Saturated Fat 0 g + Trans Fat 0 g	0 %
Cholesterol 0 mg	
Sodium 250 mg	10 %
Carbohydrate 13 g	4 %
Fibre 2 g	8 %
Sugars 6 g	
Protein 2 g	
Vitamin A 1 %	Vitamin C 2 %
Calcium 0 %	Iron 4 %

INGREDIENTS:
CORN, WATER, SALT FOR TASTE

Step 1: Serving Size

Always compare the serving size on the package to the amount that you eat. The label lists the amount of sodium **per serving** of food (not the package or container).

Step 2: Sodium

Low sodium choices for most foods are:

- ✓ Less than 1/10 teaspoon (200 mg) sodium or less/serving or
- ✓ 8% Daily Value (DV) or less/serving.

Step 3: Ingredients





Ingredients are listed in decreasing order by weight – if salt or sodium appears on the ingredient list at all, make sure it is near the end.



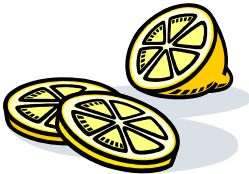
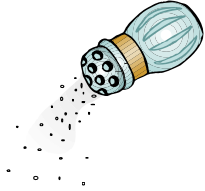
Ingredients that shout **HIGH IN SODIUM**:

- Baking soda
- Brine
- Garlic, onion or celery salt
- Kosher salt
- Monosodium glutamate (MSG)
- Salt, sea salt
- Any other ingredient with word “sodium”, such as sodium citrate, sodium nitrate, or disodium phosphate.

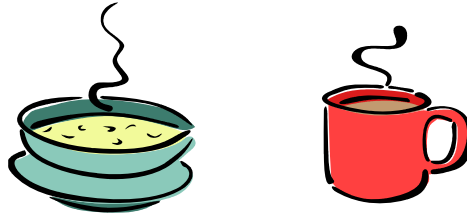


No Added Salt Food Choices

Food Type	Eat	Avoid
<p>Grain products</p>	<p>Whole grain breads, pitas, buns, bagels. Limit to 4 servings a day.</p> <p>Naturally salt-free cereals such as oatmeal, cream of wheat and shredded wheat.</p> <p>Rice, pasta and barley cooked without salt.</p> <p>Unsalted crackers.</p>	<p>Commercially prepared: sweet rolls, muffins, tea biscuits, croissants, doughnuts, salted crackers, instant hot cereals, bread crumbs, waffles and pancakes.</p> <p>Pre-packaged, convenience products such as coatings for meats and pastas with sauces included.</p>
<p>Fruits and Vegetables</p>	<p>Fresh, frozen and canned fruits and juices.</p> <p>Dried fruit without sodium additives.</p> <p>All fresh and frozen vegetables.</p> <p>“Low sodium” canned vegetables.</p> <p>“No added salt” tomato paste and sauce.</p> <p>“Low sodium” tomato or vegetable juice.</p> 	<p>Regular canned vegetables.</p> <p>Tomato juice and canned vegetable juices, sauces, and pasta.</p> <p>Brine-cured vegetables like sauerkraut and pickled vegetables like pickles and olives.</p> 
<p>Milk and milk products</p>	<p>Skim, 1%, low fat yogurt, soy beverages.</p> <p>Maximum of 2 cups (0.5 litres) per day.</p> <p>Low sodium cheese as desired.</p> <p>Up to 3 ounces (85 g) hard cheeses per week.</p>	<p>Cheese spreads.</p> <p>Processed cheese slices or squeeze-bottle cheese.</p> <p>Buttermilk.</p>
<p>Meat, fish, poultry and alternatives</p>	<p>All fresh meat, fish, and poultry.</p> <p>Tofu.</p> <p>Rinsed canned tuna and salmon or low-sodium varieties.</p> <p>Dried peas, beans and lentils. Rinsed canned varieties are acceptable.</p> <p>Egg or egg substitute 2 to 3 per week.</p> <p>Unsalted nuts and nut butters.</p> 	<p>Smoked, canned, or cured meat, fish or poultry. (Examples include bacon, sausages, ham, hot dogs, sardines, anchovies and herring).</p> <p>Cold cuts such as bologna and salami.</p> <p>Salted nuts.</p> 

Food Type	Eat	Avoid
<p>Soups and sauces</p>	<p>Homemade soups and sauces without added salt. “Low sodium” canned soups and broth.</p> 	<p>Bouillon cubes, OXO®, or consommé. Regular canned and dried soup mixes. Canned or packaged gravies.</p> 
<p>Fats, oils, and salad dressings</p>	<p>All oils. Non-hydrogenated margarine (regular or unsalted). Homemade salad dressings.</p>	<p>Limit bottled salad dressings and mayonnaise to 1 tbsp (15 ml) per day. Bacon fat. Dips made from dry mixes.</p>
<p>Seasonings and miscellaneous</p>	<p>Seasoning powders instead of seasoning salts. Herbs, spices, fresh garlic, lemon, pepper, or onion. Seasoning blends such as Mrs. Dash®, McCormack’s No Salt Added®. All vinegars. Unsalted pretzels, popcorn. Limit to 1 tsp (5 ml) per day of BBQ, steak sauce, ketchup, mustard, relish, salsa, and low sodium soya sauce.</p> 	<p>Table Salt. Any seasonings made with sodium or salt. Salted snack foods. Black licorice. Salt substitutes that contain potassium like No Salt®. Bottled water with more than 1/10 tsp (250 mg) of sodium per litre. See complete list of ingredients in Step 3 of “How to read a food label for sodium”.</p> 
<p>Potassium-rich foods on advice from your doctor</p>	<p>Oranges, bananas, fruit juices, apricots, dates, prunes, dried beans, tomatoes, melons, yams, squash, potatoes and whole wheat bread.</p>	<p>Note: Salt substitutes may contain potassium. Be cautious of their usage. If in any doubt, consult your doctor, nurse or dietician.</p>

Fluids



Now let's look at fluid.

Recommended fluid intake is 6–8 cups (1.5–2 litres) per day.

Find the Fluid

All substances that are liquid at body temperature are considered fluid. These items should be counted into your daily fluid intake:

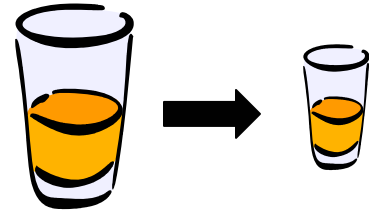
Water
Milk
Juices
Soft Drinks
Tea

Coffee
Alcohol
Soup
Ice cubes

JELL-O®
Ice Cream
Sherbet
Popsicles

Tips to Reduce Fluid Intake

- Drain excess fluid from canned fruit
- Use smaller cups
- Drink to thirst only
- Take your medications with meals when possible



Thirsty?

- Suck on frozen lemon wedges or frozen grapes
- Brush teeth often
- Rinse mouth with chilled mouth-wash
- Suck on hard candies or chew gum – try sugar free varieties



Track your fluid

Measure your fluid intake over 24 hours until your fluid limitation becomes routine.



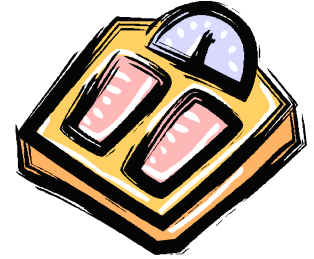
- Place your total daily fluid allowance in a pitcher.
- Every time you consume fluid, pour out an equal amount of water.
- The amount of fluid remaining is your fluid allowance for the rest of the day.

Water weight

Day-to-day weight gain is usually fluid gain, not weight gain by calories.

Weigh yourself every morning using these tips:

- Empty your bladder before weighing
- Weigh yourself in the same amount of clothing
- Weigh yourself before breakfast
- Use the same scale
- Record your weight daily



A sudden weight gain when you have been eating a normal amount may be an early sign of fluid build-up.

If you find your weight has increased, ask yourself:

1. Is your intake of sodium above the recommended level?
Too much sodium in your diet will cause fluid build-up. Sodium acts like a sponge in the body, drawing fluid towards it.
2. Is your intake of fluids above the level recommended for you?
If fluid retention becomes a problem, you may need to take a closer look at your fluid intake. Your dietician can help you.
3. Has your urine output decreased?
If it has, your fluid recommendation will need to be re-evaluated and possibly decreased.

Important

If your weight increases more than 2 pounds (0.90 kg) in one day or 5 pounds (2.2 kg) in a single week, your diuretic dose may need to be increased. If prescribed, follow your diuretic sliding scale. Otherwise, call your nurse or doctor.

Meal Planning & Cooking Tips

Did You Know?

Around 20% of salt comes from sodium naturally found in food, 20% comes from what is added by using the salt shaker, and 60% is added when food is processed.

- Reduce your salt gradually to give your taste buds time to adjust.
- When grocery shopping, choose items from the outer aisles where most of the fresh foods are found.
- Plan your meals ahead of time.
- Grill an extra chicken breast to use in sandwiches the next day.
- Make salad dressing with fresh garlic, olive oil, and flavoured vinegar.
- Add seasonings to soups during the last hour of cooking for maximum flavour.

Finding Low Sodium Recipes



1. Try a new cookbook:

American Heart Association Low-Salt Cookbook, 3rd Edition: A complete guide to reducing sodium and fat in your diet. 2006. ISBN# 1400097614

2. The internet is an endless source of low sodium recipes. Use a search engine such as Google to find your favourite lower sodium recipes.
 - Visit www.google.ca.
 - Type “low sodium recipe” into the search screen.



Going out to eat?

10 tips to ensure you are eating a low sodium, heart healthy diet when dining out:

1. Choose restaurants that offer as much variety in their menu as possible.
2. Choose restaurants that are willing to prepare foods by special request.
3. Request that foods be prepared without added salt.
4. If you are unsure of the ingredients, ask how the foods are prepared.
5. Do not use the salt shaker.
6. Request that foods be served without the high salt condiments (relish, mustard, ketchup, pickles, potato chips, sauces, dressings, etc.). Ask for lower salt substitutions such as sliced tomatoes/cucumbers/lettuce, horseradish, oil and vinegar, and lemon.
7. Eat foods in their fresh state, since foods are naturally low in sodium. Try grilled vegetables or fish rather than battered and deep fried.
8. A quick rule of thumb for fast food dining is to limit your sodium intake at one meal to one quarter of your total sodium for the day (about less than 1/4 teaspoon or 500 mg of sodium per meal). Most restaurants have a guide listing the sodium content of their food items.
9. Remember that soups, JELL-O[®], sherbets or ice cream as well as beverages must be included as part of your daily fluid allowance.
10. Traveling? Plan stops where lower sodium foods may be obtained or plan a picnic including delicious fruits, vegetables and sandwiches.



If you can't avoid eating a high-salt meal occasionally, simply cut down on the portion size and make lower salt choices for the other meals of the day.

By selecting carefully, it is possible to eat out and enjoy a meal that is healthful, delicious and faithful to your plan. In general, the more simply a dish is prepared, the less sodium it contains. Make sure to ask for what you want.

Energy Conservation

Energy conservation simply means reducing the amount of energy that is required to complete an activity. It's all about finding a good balance between rest and activity.

How do you save energy? Here are some basic principles:

Prioritize which activities need to get done today and which ones can be delayed until tomorrow. Consider which tasks can be delegated to someone else or deleted from your schedule. Learn to recognize your personal limits and learn how to say no so that you can do more of what you enjoy.

Plan your time. Space out your activities. Alternate the easy activities with the ones that are more difficult. Carry out the activities that require the most energy at the time of day when you are at your best. A weekly schedule is the most practical way to plan and organize.

Pace yourself while doing your activities. Break down the hard jobs into smaller tasks and take regular rest breaks. You need to listen to your body and identify your tolerance level to carry out activities within your limits. You want to be able to anticipate fatigue and **rest before you are tired**.

Become **efficient**. When possible, combine two tasks into one. Use lightweight equipment and reduce the amount of unnecessary bending.

For example:

- prepare a bigger meal and freeze some for later
- use aluminum pots and pans
- use a long handled shoe horn when putting on your shoes
- take fewer trips up and down the stairs

Position your body comfortably. Often, sitting is best because it requires 25% less energy than doing the same activity standing.

Rest

- Some people find that they can do more if they rest approximately one hour per day. This can be napping or simply quiet time. Consider it as a catch-up time for your heart.
- Increase rest during times of emotional stress and illness.
- To help get a good night's sleep:
 - Avoid eating just before bed
 - Take diuretics before 5:00 p.m. if possible so you won't need to go to the bathroom in the middle of the night.

Exercising for People with Heart Failure

- Heart failure decreases the ability of the heart to adequately deliver oxygen-rich blood to the muscles and tissues.
- Heart failure can change the types of muscle fibers in your body. It can decrease the number of fibers for endurance.
- **The good news** is that exercise allows the body to become more efficient in its use of oxygen. A muscle that is exercised regularly uses less oxygen to do a job than one that has not been exercised.
- Over time, regular exercise can help you feel better and have less difficulty with daily activities, reducing some of the symptoms of shortness of breath and fatigue.
- Exercise does not have to be strenuous to be valuable.
- Walking is one of the best exercises for improving your health.
- Listed below is a suggested walking program for someone who has not been exercising regularly. It is very gradual, increasing by one minute every 2 days or so.

	Duration of walk
Week 1–2	5–10 minutes
Week 3–4	10–15 minutes
Week 5–6	15–20 minutes
Week 7–8	20–30 minutes

Your goal is to work up to 20–30 minute sessions, five to seven times a week, as tolerated. You may need to accumulate the time in more frequent shorter sessions if you do not have the tolerance for longer sessions. Make sure you always start and finish your session with slower walking for warm up and cool down.

If you are unable to walk 5 minutes without stopping, you would benefit from using interval training. For example:

Each interval includes:

- Walking 2–5 minutes
- Resting 2–5 minutes

Repeat this pattern as many times as you are able to, gradually increasing the number of intervals.

Exercise Guidelines:

- Walk on flat ground initially. If hills are unavoidable, walk more slowly when going uphill.
- It is best to wait about an hour after a meal before you exercise as extra energy is required for digestion.
- It is important to start exercising for short periods of time and at a slow walking pace. Gradually increase the length of time before increasing the level of intensity.
- If you are feeling well enough, you may exercise twice a day.
- You should be back to your pre-walk or resting state within 10 minutes of completing your exercise. If not, the next time you exercise, reduce your time or intensity.
- If you feel unwell, shorten your walking time. Go back to the previous level of activity for a few days. Listen to what your body is telling you. You may be trying to do too much too soon.
- Avoid exercising in extreme temperatures, such as on hot and humid days or cold and windy ones. During this time, exercise indoors using stationary equipment or walk in the hallways of your house or apartment or in a mall.
- If you are using a treadmill, keep it flat. It is best not to use the incline.
- A stationary bicycle can also be very valuable, especially if you have joint problems which make walking more difficult. Make sure you pedal at a slow speed with little or no tension.
- Avoid exercises that require you to lift heavy weights above the level of your heart (no more than 5 pounds).
- Avoid exercises where you hold your breath or bear down.
- Avoid exercises that require sudden bursts of energy.

STOP if you...

- Become excessively short of breath
- Feel weak, tired, lightheaded or dizzy
- Have any discomfort, especially chest discomfort
- Have a fast heart rate
- Have nausea or excessive sweating

If these symptoms persist, call 911

Self-Monitoring Tools

There are several tools to help you guide your progression with your exercise program.

1. Walk and Talk Test

This is the simplest test of all. At all times, you should be able to carry on a light conversation while exercising.

2. Rate of Perceived Exertion (RPE) Scale

This is a number-based scale used to describe how you feel during your exercise session. The number you choose should reflect your overall level of effort, including your breathing. There is no right or wrong answer. For exercise, you should be between 3 and 5 on the scale.

RPE Scale	
0	= Nothing at all
1	= Very easy
2	= Easy
3	= Moderate
4	= Somewhat difficult
5	= Difficult
6	= More difficult
7	= Very difficult
8	= +
9	= ++
10	= Very, very difficult (almost maximal)

3. Ventilatory Response Index

This index is used to assess your breathing with exercise. It requires you to count **out loud** from 1 to 15 in 8 seconds. The goal is to stay at level 0, 1 or 2 with the exercise. If you are at level 3 or 4, you are too short of breath and need to rest. Once you catch your breath, you can resume at a slower pace.

VENTILATORY RESPONSE INDEX

LEVEL 0: Able to count out loud to 15 without taking a breath in the middle of the sequence.

LEVEL 1: Able to count out loud to 15 but must take one breath in the middle of the sequence.

LEVEL 2: Able to count out loud to 15 but must take two breaths in the middle of the sequence.



Stay at Level 2 or above



LEVEL 3: Able to count out loud to 15 but must take three breaths in the middle of the sequence.

LEVEL 4: Able to count out loud to 15 but must take four breaths in the middle of the sequence.

As your fitness improves, so will your breathing with exertion and your perceived level of effort.

If you would like more specific exercises or lifestyle guidelines, ask your doctor for a referral to a Cardiac Rehabilitation Program.

Sexual Activity

Many patients with heart failure (and their partners) are concerned about the effect of sexual activity on the heart. Sexual activity is not dangerous to your heart. Studies have shown that, for most people, sexual activity requires only as much energy as climbing two flights of stairs.

The following tips may be helpful:

- Pick a time for sex when you feel rested and comfortable, and are not pressured.
- Avoid sex after eating a big meal or drinking alcohol.
- Have sex in a comfortable room that is not too hot or too cold.
- Avoid strenuous positions.

If you are having sexual difficulties, do not hesitate to talk with your doctor or nurse.

Return to Work

Not everyone who is diagnosed with heart failure needs to stop working. In fact, continuing to work may help you feel better by offering challenge, time with other people, income, improved health and mood. However, it is usually best to wait until your symptoms are stable and your medications have been optimized before considering a return to work.

The decision will also be affected by the type of work you do. You are more likely to be able to return to work, and do so sooner, if you work at a desk than if you have a physically demanding job. It may also be more difficult to return to a position that is mentally demanding and stressful. It is always a good idea to return gradually to your job. It will be less tiring if you can start working part time, at least at the beginning.

Your doctor or vocational counsellor can help you determine if and when you are ready to go back to work and if you are able to return to your regular job. These

professionals, as well as a social worker, can assist you with questions regarding disability income and benefits from your employer or social assistance if it is deemed that you are unable to return to work.

Risk Factors That You Can Change

- Stop smoking! Nicotine in tobacco narrows your blood vessels and increases the work your heart must do to pump blood. For information on the Heart Institute Smoking Cessation Program call 613-761-4753 or contact your local Smoking Cessation Program.
- Limit your alcohol intake.
- Reduce or control stress—methods of counseling, relaxation techniques and medication are available. Discuss your feelings with your doctor or nurse.

Ways You Can Manage Your Stress

- Attend a stress management workshop offered by the Prevention and Rehabilitation Centre and learn how to:
 - Identify what causes you stress
 - Develop plans to manage those times
 - Learn stress management skills like breathing and relaxation exercises
- Be physically active every day—this will play a role in reducing the effects of stress
- Identify and hold on to your strong support networks and good family relationships
- Get a *Coping with Stress* booklet from the Heart Health Education Library
- Ask for help if stress becomes a concern

Common Feelings about Heart Failure

It is common for people to feel depressed or anxious after learning that they have a chronic disease such as heart failure. With time, as they learn more about heart failure, some people see that it is possible to cope with the condition and still have a good quality of life. However, if ongoing feelings of depression or anxiety are interfering with your daily activities or relationships, you should seek help. Contact your doctor.

You may be depressed if you have any of the following symptoms for more than two weeks:

- Feeling blue or down
- Irritability
- Loss of interest in activities you used to enjoy
- Withdrawal from others
- Excessive sleepiness
- Feeling worthless, guilty or hopeless
- Suicidal feelings
- Preoccupation with death

You may be anxious if you have any of the following symptoms for more than two weeks:

- Excessive worry
- Fear
- Edginess, restless
- Tension

It is important to recognize and treat depression and anxiety. Having emotional problems is nothing to be ashamed about. If you are having problems coping with your feelings about heart failure, you should seek help and support. These are things you can do if you are feeling depressed or anxious:

- Seek support from you family and friends or from support groups
- Share your fears and worries with someone you trust
- Determine how much control you have in a given situation and let go of things that are beyond your control
- Plan to do things that you enjoy and then do them
- Take time for yourself
- Participate in a cardiac rehabilitation program
- Set goals to become physically active, then take action, because physical activity promotes relaxation and the release of endorphins (anti-stress hormones)
- Celebrate your achievements
- Recognize when you need extra help and talk to your doctor or a mental health professional (social worker, psychologist or psychiatrist)

When to Call your Doctor

Call your doctor if you experience any of the following:

- Recurrent or prolonged chest pain not promptly relieved by nitroglycerin
- Weight gain of more than two pounds/day or five pounds/week
- Increased swelling of your ankles, legs or abdomen
- Increased shortness of breath with activity
- Waking up at night short of breath or having difficulty lying flat and needing more pillows to prop your head
- Persistent cough

Resources

Check out the library in the Heart Health Education Centre – 2nd floor Heart Institute.

Try these websites:

- The University of Ottawa Heart Institute: www.ottawaheart.ca/HHEC.
 - Click on “Heart Healthy Lifestyle”.
- The Heart & Stroke Foundation of Canada: www.heartandstroke.ca.
 - Click on “Healthy Living”.
- The American Heart Association: www.americanheart.org.
- Google The Heart Failure Society of America web site

Try these books:

- Success With Heart Failure. Help and Hope for Those with Congestive Heart Failure. Marc A. Silver. (1998). Insight Books, Plenum Press, New York
 - Available at the UOHI Heart Health Education Center and Chapters

A Final Reminder

- Remember to weigh yourself every morning.
- Do not stop or change any medications without discussing it with your doctors first.
- Remember to avoid foods high in salt such as Chinese food, all dressed pizza, salted snacks, seasoning salts and canned and processed foods. Limit your fluid intake to 8 cups (2 l) per day.
- Walking is one of the best exercises that you can do to improve your health.

Patient Tools

Personal Medication Information Fold this form & keep it in your wallet

How does using this form help you?

- ✓ Reduces confusion and saves time
 - ✓ Improves communication
 - ✓ Improves medical safety
- Always keep this form (or an updated version) with you.
 - Take an updated list to all doctor visits and all medical tests and or procedures.
 - Update your list as changes are made to your medications.
 - When you are discharged from the hospital some of your medications may have been changed. These changes will be reviewed with you.

Pharmacy Name and Phone Number: _____

Your Name:	Address:
Birth Date:	
Phone #:	

Allergic To:	Describe Reaction:

Immunization Record	
Please tick <input checked="" type="checkbox"/> if you have had the following vaccines and write the date, if possible.	
Vaccine:	Date:
<input type="checkbox"/> Flu	
<input type="checkbox"/> Pneumonia	
<input type="checkbox"/> Tetanus	
<input type="checkbox"/> Hepatitis	

List all prescription medications **that you are currently taking** & over-the-counter (non-prescription) medications, such as vitamins, aspirin, Tylenol® & herbals (such as ginseng, ginkgo biloba, and St. John 's wort). Include prescription medications taken as needed (such as nitroglycerin, Viagra®).

Name of Medication	Dose	When Taken	Reason for Taking

Daily Weight Record

Month:						
SUN	MON	TUES	WED	THUR	FRID	SAT

Month:						
SUN	MON	TUES	WED	THUR	FRID	SAT

Month:						
SUN	MON	TUES	WED	THUR	FRID	SAT

Month:						
SUN	MON	TUES	WED	THUR	FRID	SAT

Month:						
SUN	MON	TUES	WED	THUR	FRID	SAT

Month:						
SUN	MON	TUES	WED	THUR	FRID	SAT

