

Introduction to Heart Failure

Resources for patients and caregivers



Interior Health
Heart Failure Zones Action Plan

Patient Name (and _____)
DOB (dd/mm/yyyy) _____
PHN (_____-_____-_____) WITH _____
Account Hold # _____
BY USE ONLY

Practitioner _____
Practitioner Phone _____

GREEN ZONE ALL CLEAR - THIS ZONE IS YOUR GOAL!

Your symptoms are under control if you have:
☐ No shortness of breath
☐ No chest discomfort, pressure, or pain
☐ No swelling or discomfort in your feet, ankles, legs, or stomach
☐ No weight gain of more than 4 lbs (2 kg) over 2 days or more than 5 lbs (2.3 kg) in 1 week

WHAT SHOULD I DO?
TAKE YOUR MEDICATIONS AS PRESCRIBED EVERY DAY TO CONTROL YOUR HEART FAILURE.
EVERY MORNING EMPTY YOUR BLADDER AND WEIGH YOURSELF.
WEIGH YOURSELF EVERY DAY AT THE SAME TIME.
LIMIT FLUIDS TO 4 - 6 GLASSES PER DAY (1,000 - 1,500 ML).

YELLOW ZONE - CAUTION | Take Action - Flare Up

Call your Health Care provider (eg. Doctor, nurse) if you have any of the following:
☐ You gain more than 4 lbs (2 kg) over 2 days or more than 5 lbs (2.3 kg) in 1 week.
☐ You feel more short of breath than usual.
☐ You have increased swelling in your feet, ankles, legs, or stomach.
☐ You have a dry, hacking cough.
☐ You find it harder for you to breathe when you are lying down.
☐ The fluid it takes to sleep has gotten worse or is waking you up at night.

WHAT SHOULD I DO?
TAKE THE FOLLOWING ACTION PLAN MEDICATIONS

YOU MAY BECOME DEHYDRATED IF YOU HAVE VOMITING AND/OR DIARRHEA THAT LASTS FOR MORE THAN TWO DAYS. IF THIS HAPPENS CONTACT YOUR PRACTITIONER TO REVIEW YOUR TREATMENT PLAN AND MEDICATIONS.

RED ZONE - DANGER | Take Action - Get Help

You are struggling to breathe
You are short of breath when you are lying down
You have a fast heartbeat that does not slow down when you rest
You have chest pain that does not go away with rest or as prescribed
You are having trouble thinking clearly or are feeling confused
You have dizziness

WHAT SHOULD I DO?
CALL 911 OR GO TO THE EMERGENCY DEPARTMENT IMMEDIATELY

Please review this Action Plan with your practitioner twice a year, within 5 months of a medication change or within 2 weeks following an emergency department or hospital visit. For HealthLink BC, Dial 811.



Please bring this document with you when you go to appointments with your doctor or the Heart Function Clinic

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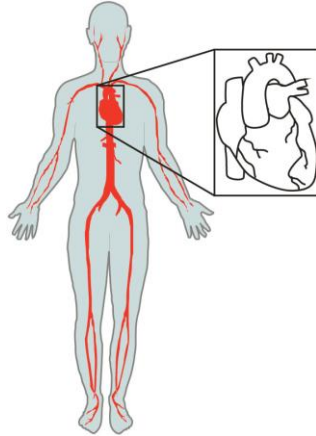


Understanding Heart Failure

The Basics

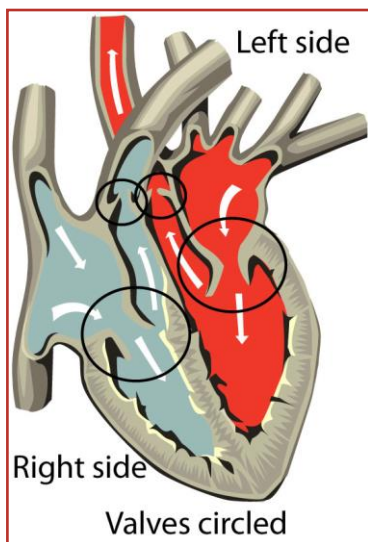
How does the heart work?

Your heart is a muscle about the size of your fist. It works like a pump, pumping blood and nutrients around your body.



The heart is actually a 2-sided pump. The *right side of the heart* pumps 'used' blood from the body to the lungs. In the lungs, your blood is loaded up with oxygen. The *left side of the heart* pumps 'fresh' blood full of oxygen from the lungs to the rest of the body. The left side of the heart is usually the larger than the right. That is because it has to pump hard to get the blood out to all parts of your body.

Each side of the heart has 2 chambers. Valves link the chambers and keep blood pumping in the right direction. These valves open and close with each heartbeat.



What is Heart Failure?

Heart failure is when your heart is not pumping as strongly as it should. Your body does not get the right amount of blood, oxygen, and nutrients it needs to work properly.

Heart failure usually gets worse over time. While heart failure cannot be cured, people do learn to live active, healthy lives by managing their heart failure with medication, changes in their diet, weighing daily and physical activity.

There are two main types of heart failure:

- **A weak pump:** When the heart muscle is weak, it gets larger and 'floppy'.
- **A stiff pump:** When the heart muscle cannot relax between beats because the muscle has become stiff. The heart cannot properly fill with blood between beats.



A large 'floppy' heart

Both types of heart failure reduce the blood flow and oxygen to your body.

What causes Heart Failure?

Heart failure has many causes including:

- Heart attack
- High blood pressure
- Heart valve problems
- Heart defects at birth
- Lung conditions
- Excessive use of alcohol or drugs

Other possible causes of heart failure include:

- Obesity
- Sleep apnea
- Infections affecting the heart muscle
- Abnormal heart rhythm
- Severe anemia
- Severe kidney disease
- Overactive thyroid gland
- Exposure to chemotherapy or radiation

Not sure what caused your heart failure? Ask your doctor or nurse practitioner.

Signs of Heart Failure

You may notice any of the following signs.

- ♥ You feel short of breath when you do daily activities.
- ♥ You find it harder to breathe when resting or lying down.
- ♥ You wake up at night feeling short of breath.
- ♥ You find it easier to sleep by adding pillows or by sitting up in a chair.
- ♥ You cough often, especially when lying down.



- ♥ Your cough is either dry and hacking, or moist and you cough up mucus (which could be slightly pink).
- ♥ You feel your heart beat faster and it does not slow down when you rest.
- ♥ You feel your heart racing, jumping, or pounding in your chest.
- ♥ You cannot walk as far you normally can.
- ♥ You are tired all the time and have no energy to do daily activities.

- ♥ You feel lightheaded or dizzy, especially when you stand up or increase your activity and this is new for you.



- ♥ You cannot eat as much as you normally would.
- ♥ You are not hungry and do not feel like eating.
- ♥ You feel bloated or your clothes feel tighter than normal.



- ♥ You have swelling in your feet, ankles, legs, or even up into the belly (abdomen).
- ♥ Sudden increase in body weight where you gain more than 4 pounds (2 kilos) in 2 days.
- ♥ You feel uneasy, like something does not feel right.
- ♥ You feel confused and have trouble thinking clearly (and this is new for you).



Tests to identify heart failure

There is no single test for heart failure. Instead your doctor does a number of tests. The doctor looks at all the test results to determine if you have heart failure.

Tests can include:

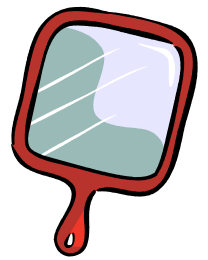
- Blood tests to check certain enzymes
- Chest x-ray to look at the size of your heart
- Electrocardiogram (or ECG) to look at the electrical activity of the heart
- Exercise stress test to look at how your heart responds to exercise
- Nuclear medicine scan to get a close look at the pumping of your heart
- Angiogram to look for blockage in your heart arteries
- Echocardiogram or ultra sound of the heart to look at the movements of your heart and measure your ejection fraction

More about Ejection Fraction

This test is usually done during an echocardiogram or a nuclear medicine scan. Your ejection fraction can go up and down, depending on your heart condition and how well the treatment is working. It is good to know what your ejection fraction reading is. The reading is given as a percentage with normal being between 55 and 70%. Less than 55% means your heart is not pumping as strongly as it should be. Your ejection fraction helps your doctor or nurse treat your heart failure.

How is heart failure treated?

Look in the mirror - the key to treatment is you.



Your doctor relies on you to make changes in your lifestyle and eating habits. While there is a team of health care providers working with you to manage your heart failure, you are the one in charge.

Treatment is focused on helping you live a longer and healthier life. This includes:

- Taking your medications as prescribed
- Monitoring your symptoms
- Reducing salt in your diet
- Increasing your daily activity through regular exercise
- Keeping your blood pressure low
- Maintaining a healthy weight
- Stopping unhealthy habits such as smoking

For some people, surgery and medical devices are needed to treat the problem that led to the heart failure. Treatments could include:

- Coronary bypass surgery
- Valve repair or replacement surgery
- Implanted device such as a pacemaker and/or defibrillator
- Mechanical device to help the heart pump
- Heart transplant

For novel new ideas on heart failure treatment consult your health care provider.

Plan today for the future

Your heart failure may get worse over time. Start thinking now about how you wish to be cared for if your disease progresses. This is called 'advanced care planning'. Advance care planning allows you to have a say in your health care if you are unable to speak for yourself.

Talk to your family and your doctor about helping you live well with heart failure and about the care you do or do not want in the future.

Things to think about and consider:

- ♥ What does it mean to live well with heart failure?
- ♥ What is important to you to make your life the best it can be?
- ♥ What is important to you as your condition progresses?
- ♥ What worries and concerns do you have?
- ♥ How will your progressing heart failure affect you and your family?
- ♥ Who or what gives you support when you need it?
- ♥ If you are not able to make your own health care decisions, who will you want to make them for you? Does that person know what you want?
- ♥ Do you have written instructions for how you want to be cared for if you cannot make decisions for yourself (this is called an advance directive).

Why learn to manage your heart failure?

When you take charge of your health and learn to manage your heart failure, it helps you:

- ♥ Improve the quality of your life.
- ♥ Feel confident that you can manage your heart failure.
- ♥ Control your condition so it will not control you.
- ♥ Know when to ask for help from your care team.
- ♥ Limit the need to go to the hospital for care.
- ♥ Prevent or limit heart failure complications as the disease progresses.

Talk with your family and your care team about your disease and care plan.

People who learn to manage their heart failure are more likely to live a longer, healthier life than those who do not.

For more information on heart failure

- ♥ Interior Health Authority Heart Failure Online Education
www.bcheartfailure.ca/for-patients-and-families/e-learning-module-on-hf/
- ♥ HealthLinkBC on Heart Failure
www.healthlinkbc.ca/kb/content/special/hw4_4415.html#tp17534
- ♥ Canadian Cardiovascular Society
www.ccs.ca
- ♥ Canadian Heart Failure Network
www.chfn.ca
- ♥ Heart Failure Society of America
www.hfsa.org

Heart Failure Zones

Check Weight Daily

- ♥ Weigh yourself in the morning before breakfast. Write it down. Compare your weight today to your weight yesterday.
- ♥ Keep the total amount of fluids you drink to only 6 to 8 glasses each day. (6-8 glasses equals 1500-2000 mL or 48-64 oz)
- ♥ Take your medicine exactly how your doctor said.
- ♥ Check for swelling in your feet, ankles, legs, and stomach.
- ♥ Eat foods that are low in salt or salt-free.
- ♥ Balance activity and rest periods.



Which Heart Failure Zone Are You Today? Green, Yellow, or Red

ALL CLEAR – This zone is your goal!

Your symptoms are under control.

You have:

- No shortness of breath.
- No chest discomfort, pressure, or pain.
- No swelling or increase in swelling of your feet, ankles, legs, or stomach.
- No weight gain of more than 4 lbs (2 kg) over 2 days in a row or 5 lbs (2.5 kg) in 1 week.



Safe Zone

CAUTION – This zone is a warning

Call your Health Care provider (eg. Doctor, nurse) if you have any of the following:

- ▲ You gain more than 4 lbs (2 kg) over 2 days in a row or 5 lbs (2.5 kg) in 1 week.
- ▲ You have vomiting and/or diarrhea that lasts more than two days.
- ▲ You feel more short of breath than usual.
- ▲ You have increased swelling in your feet, ankles, legs, or stomach.
- ▲ You have a dry hacking cough.
- ▲ You feel more tired and don't have the energy to do daily activities.
- ▲ You feel lightheaded or dizzy, and this is new for you.
- ▲ You feel uneasy, like something does not feel right.
- ▲ You find it harder for you to breathe when you are lying down.
- ▲ You find it easier to sleep by adding pillows or sitting up in a chair.



Caution Zone

Health Care Provider _____ Office Phone Number _____

EMERGENCY – This zone means act fast

Go to emergency room or call 911 if you have any of the following:

- You are struggling to breathe.
- Your shortness of breath does not go away while sitting still.
- You have a fast heartbeat that does not slow down when you rest.
- You have chest pain that does not go away with rest or with medicine.
- You are having trouble thinking clearly or are feeling confused.
- You have fainted.



Danger Zone

Daily Weight Information

Patient Name: _____ Heart Function Clinic or Physician's office: _____

Health Care Provider: _____ Contact phone number: _____

Check Your Weight Every Day



Why:

- Checking your weight every day lets you know if your body is retaining fluid.
- Excess fluid build up in your body makes your heart work harder.
- When you report weight gain early to your health care provider, they can help you prevent your heart failure from getting worse. This can help prevent a hospital admission.

If your weight increases by:

- More than 2 kg (4 lb) in two days, or
- More than 2.5 kg (5 lb) in 1 week



You are retaining fluid.

You should call your health care provider.

For further directions, please refer to 'Heart Failure Zones' information sheet.

When:

- Same time every day
- Preferably before breakfast

How:

- After you have emptied your bladder (gone 'pee')
- Wear the same amount of clothing

Record your weight in the attached calendar.

(or You may prefer to use your own method such as a notebook, a computer.)
Remember to bring your record to your doctor or clinic appointment.

Your ‘Dry Weight’ (when you don’t have excess fluid in your body): _____

Write down your weight each day compare today’s weight to yesterdays weight.

If your weight increases by:

- More than 2 kg (4 lb) in two days, or
- More than 2.5 kg (5 lb) in 1 week



You are retaining fluid.

You should call your health care provider.

Month _____						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Limiting Fluid When You Have Heart Failure

What is a fluid?

Any food or drink that is liquid at room temperature. This includes water, ice, milk, juices, soft drinks, hot drinks, alcohol, soups, gelatin desserts, ice cream, popsicles, and liquid nutrition supplements (such as Ensure or Boost).

Why do you have to limit fluid?

When you have heart failure, fluid can build up causing swelling in your feet, legs or belly making your heart work harder. Fluid can also build up in your lungs, which may cause you to have trouble breathing.

How much fluid can you have in a day?

You should have **no more than 1.5 to 2 litres of fluid in a day**. You may find you are thirsty to begin with. As you gradually reduce your fluid intake, your body will adjust!

Guide to Fluid Measures

2 tablespoons	=	30 ml	=	1 ounce
1 glass	=	250 ml	=	8 ounce
1 pint	=	500ml	=	16 ounce
1 litre or 1 quart	=	1000 ml	=	32 ounce
2 litres	=	2000 ml	=	64 ounce

Total amount of fluid per day
1.5-2 litres = 48-64 ounces = 6-8 glasses

How do you know when you have too much fluid?

To keep track of whether your body is holding on to too much fluid, weigh yourself daily.

Here is how to weigh yourself:

- ♥ Weigh yourself at the same time every day. The best time is first thing in the morning.
- ♥ Weigh yourself after emptying your bladder (gone pee).
- ♥ Wear the same amount of clothing each time.



You are holding on to too much fluid when:

- Your weight increases by more than 2 kg or 4 lb in two days.
- or
- Your weight increases by more than 2.5 kg or 5 lb in a week.

Contact your health care provider right away if you are holding too much fluid.

Tips for reducing your fluid intake

- ♥ Use smaller cups and glasses.
- ♥ Measure the amount of fluid your mugs and glasses hold. They may measure more than 250 ml or 8 ounces!
- ♥ Sip your fluids slowly.
- ♥ Write down the amount you drink each day until limiting your fluid becomes a habit.

(More tips on page 2.)



More tips for reducing your fluid intake

- ♥ Sip your fluids throughout the day. Keeping track of fluids is the only way to learn how to make the amount of fluid you can drink last you through the day.
- ♥ You may find it easier to use a reusable water bottle. Measure how much the bottle holds so you know exactly how much water you are drinking.
- ♥ Drain the fluid from canned fruit.
- ♥ Be aware of foods with high water content like watermelon, yogurt, and pudding.
- ♥ If you can, swallow your pills with soft food like yogurt or porridge.
- ♥ Limit the amount of sodium you eat to 2000mg or less each day. Salt will make you thirsty. For more information, refer to the handout *Limiting salt (sodium) when you have heart failure*.
- ♥ Try not to eat sweet foods. They can make you thirsty. If you have diabetes, controlling your blood sugar also helps control your thirst.
- ♥ Try not to drink alcohol. Alcohol dehydrates your body and makes you thirsty.



Tips to deal with thirst

- ♥ Rinse your mouth with water often, but do not swallow.
- ♥ Brush your teeth often.
- ♥ Use a mouth wash. However, do not use a mouth wash that contains alcohol. They tend to dry out your mouth.
- ♥ Snack on a small piece of cold or frozen fruit such as a frozen grape or cold orange slice. Try cold crisp vegetables too.
- ♥ Chew sugar-free gum.
- ♥ Suck on a lemon wedge, lemon candy, or sour candy.
- ♥ Use lip balm to keep your lips from drying out.
- ♥ Don't overheat your home. Consider using a humidifier to increase the moisture in the air.
- ♥ Ask your pharmacist about gels or sprays that can add moisture to your mouth.

For more tips and resources for limiting fluid, call HealthLink BC (dial 8-1-1) to speak to a health care professional. You can also refer to www.healthlinkbc.ca.

Limiting Sodium (Salt) When You Have Heart Failure

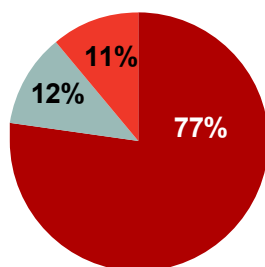
Sodium is a mineral found in food, table salt, and sea salt. Your body needs some sodium, but too much sodium causes your body to hold on to (or retain) fluid. This fluid build-up makes your heart work harder. The fluid build-up can cause swelling in your feet, legs, or belly. Fluid can also build up in your lungs, making it hard for you to breathe.

If your weight increases more than 4 lbs (2 kg) over 2 days in a row or 5 lbs (2.5 kg) in 1 week, you are retaining fluid. If this happens, you should call your health care provider right away.

You should restrict the amount of sodium you eat to 2000mg or less each day.

In the average Canadian diet, where does sodium come from?

- In ready-made processed foods and restaurant meals (77%)
- Naturally occurring in food (12%)
- Added to food in cooking and at the table (11%)



How to avoid salt (sodium)?

- ♥ Eat fresh foods most of the time and prepare home-cooked, low sodium meals.
- ♥ Frozen foods are acceptable if they do not have added salt or sodium additives (which are used as preservatives).

- ♥ Remove the salt shaker from the table. Don't add salt, flavoured salts or seasonings high in salt to your foods.

One teaspoon of salt contains 2300mg of sodium!



- ♥ Season your food with herbs, spices, lemon juice, dry mustard, and garlic. Try one of the many seasoning blends which contain no salt such as Mrs. Dash.

- ♥ Stay away from eating:

- processed foods
- deli meats
- pickled foods
- salted snack foods such as potato chips, pretzels, dips, and salted nuts

- ♥ Limit the amount of canned foods you eat. Choose products labelled 'low sodium'. Foods labelled 'lower', 'less' or 'reduced in salt or sodium' may still be high in sodium (including soups and meats).

- ♥ Eat out less often.

- Ask restaurants to provide information on low sodium choices.
- Restaurant meals and fast foods are always higher in salt than home cooked low sodium meals.
- For more info, please refer to *Low Sodium (Salt) Eating Out* fact sheet at <http://www.healthlinkbc.ca/healthyeating/low-sodium-choices.html>

Can I use Salt Substitutes?

Some salt substitutes use potassium instead of sodium. Check with your doctor or dietitian before using a salt substitute because some people need to limit how much potassium they have each day.

Keep your sodium intake to less than 2000mg each day.

As you gradually reduce the amount of salt you are eating, your taste buds will adjust!

How do I know how much sodium is in food?

Here are some helpful tips when reading the nutrition label:

- ♥ Look at the serving size – the amount of sodium listed is per serving (not the whole package).
- ♥ Keep track of the total amount of sodium you eat.
Remember: Your maximum recommended daily amount of sodium is **no more than 2000mg per day from all sources**.
- ♥ Keep the sodium content of each meal below 650mg – this helps spread out your sodium intake over the day preventing excessive thirst and/or fluid retention.
- ♥ By law, foods labelled 'low sodium' must contain 140mg or less per serving.

Other ingredients high in sodium include: baking soda, brine, monosodium glutamate (MSG), soy sauce, fish sauce, garlic salt, celery salt, or any ingredient with 'sodium' as part of its name.

Nutrition Facts			
Serving Size: Per ½ cup (125ml)			
Amount	% Daily Value		
Calories 140			
Total Fat 0.5g	1%		
Saturated Fat 0.2g	1%		
+ Trans Fat 0g			
Cholesterol 0mg	0%		
Sodium 390mg	16%		
Total Carbohydrate 28g	9%		
Dietary Fibre 5g	20%		
Sugars 9g			
Protein 7g			
Vitamin A	2%	Vitamin C	0%
Calcium	8%	Iron	15%



Look what happens to the sodium content of foods when they are processed

Unprocessed	Processed
Cucumber 7 slices = 2mg	Dill pickle 1 medium = 569mg
Chicken Breast 3oz = 74mg	Chicken Pie 1 serving frozen = 889mg
Tomato 1 small = 14mg	Tomato Soup 1 cup = 960mg
Pork Tenderloin 3 oz = 58mg	Ham 3oz = 1095mg



Foods High in Potassium

**Foods with more than 200mg per serving
Based on ½ cup servings
(Unless indicated otherwise)**

Fruits	Vegetables	Other foods
Apricots (fresh) Avocado Banana Breadfruit Cantaloupe Coconut dried (unsweetened) Dried Fruits Durian Guava Honeydew Jack fruit Kiwi Nectarines Orange (1 medium) Passion fruit Peach (medium) Pear (medium) Persimmon, Japanese (medium) Plantain Pomegranate Pummelo Rhubarb Tangerine	Artichoke (cooked) Asparagus (boiled) Beets Beet Greens (boiled) Bok Choy (cooked) Broccoli Brussels Sprouts Celery (cooked) Corn (cooked) Carrots (raw or grated) Kohlrabi Mushrooms (dried and cooked) Parsnips (cooked) Potatoes Pumpkin Rutabaga Seaweed (dried) Spinach (cooked) Squash (acorn, butternut, hubbard, zucchini) Sweet Potato	Swiss Chard (cooked) Tomatoes (medium, raw) Tomato Paste Tomato Sauce Yams
		Black licorice Bran muffin Bran cereals Chocolate Coconut milk (1/2 cup, 249 mg) Dried Beans Dried Peas Edamame Lentils Milk and Dairy products (limit to 1 cup/day = 366mg) Maple Syrup Molasses Nuts Salt Substitute Seeds Soya flour
	Juices Carrot Coconut water Grapefruit ★ check with your health care provider before taking as it may interact with your heart pills Orange Passion fruit Pomegranate Prune Tomato Vegetable	

What should your blood Potassium level be?

Danger - too low	→ Lower than 3 mmol/L
Safe (Normal)	→ 3.5-5.0 mmol/L
Caution	→ 5.0-6.0 mmol/L
Danger - too high	→ Higher than 6.0 mmol/L

Foods with Less Potassium





Note: Almost all foods contain some potassium.

Watch your serving size. A larger serving of a low potassium food can make it a high potassium food.

To check the amount of potassium in food not on this list, check <http://ndb.nal.usda.gov/ndb/search/list>

One serving = 1/2 cup

Enjoy up to 5 servings per day

Fruits	Vegetables	
<p>Apples</p> <p>Applesauce</p> <p>Apricots (canned)</p> <p>Berries (blackberries, blueberries, boysenberries, cranberries, gooseberries, loganberries, raspberries, strawberries)</p> <p>Casaba Melon</p> <p>Cherries</p> <p>Coconut (raw/shredded)</p> <p>Crabapple</p> <p>Currants, fresh</p> <p>Figs fresh</p> <p>Fruit Cocktail (canned)</p> <p>Grapes (red/green)</p> <p>Grapefruit</p> <p>★ check with your health care provider before taking as it may interact with your heart pills</p> <p>Kumquat</p> <p>Lemon /Lime</p> <p>Longans</p> <p>Lychee</p> <p>Mandarin Orange</p> <p>Mango</p> <p>Oranges (1/2cup only)</p> <p>Pineapple</p> <p>Plums</p> <p>Watermelon</p>	<p>Alfalfa Sprouts</p> <p>Asparagus (fresh)</p> <p>Bamboo shoots, (canned)</p> <p>Bean Sprouts</p> <p>Beet greens (raw)</p> <p>Bitter melon</p> <p>Bokchoy (raw)</p> <p>Broccoli (raw)</p> <p>Cabbage</p> <p>Collards</p> <p>Carrots (when double boil)</p> <p>Cauliflower</p> <p>Celery (raw)</p> <p>Cilantro</p> <p>Corn (canned)</p> <p>Cucumber</p> <p>Eggplant</p> <p>Fennel bulb (when double boiled)</p> <p>Gai lan (Chinese Broccoli)</p> <p>Green beans</p> <p>Green onions</p> <p>Jicama (when double boiled)</p> <p>Kale (boiled)</p> <p>Leeks</p> <p>Lettuce</p> <p>Mushrooms, raw</p> <p>Mustard Greens</p>	<p>Okra</p> <p>Onions</p> <p>Parsley</p> <p>Peas, green (raw)</p> <p>Peppers (Raw: Red, Green)</p> <p>Potato (when double boiled)</p> <p>Radicchio</p> <p>Radishes</p> <p>Seaweed (raw)</p> <p>Shallots</p> <p>Spinach (raw)</p> <p>Summer squash</p> <p>Spaghetti Squash</p> <p>Swiss Chard (raw)</p> <p>Turnip (when double boiled)</p> <p>Water chestnuts (canned)</p>
		
		

Double boiling root vegetables lowers the amount of potassium

- Peel, cube or slice vegetables
- Add double the amount of water
- Bring to a boil, then drain the water
- Add fresh water, finish cooking, and drain again

Limit servings of root vegetables to 1/2 cup per day (or as discussed with your dietitian)



Heart Failure Medications: Understanding Guideline-Directed Medical Therapy for Heart Failure with Reduced Ejection Fraction

Patient Information

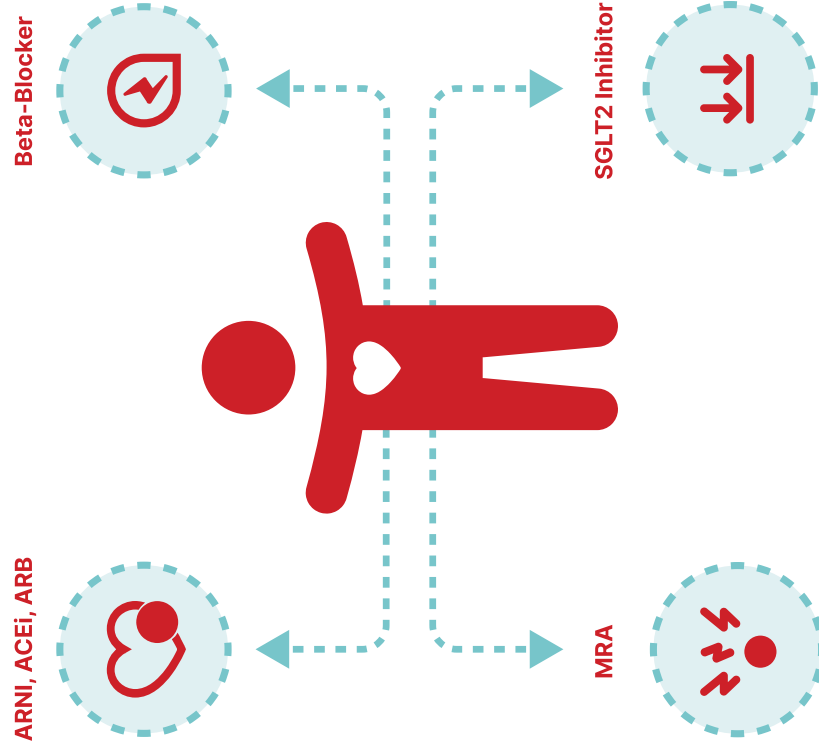
www.interiorhealth.ca

The Canadian Heart Failure Guidelines currently recommend the use of 4 different types of medications for people with reduced ejection fraction, where possible. These include (described on page 2):

1. Angiotensin receptor-neprilysin inhibitors (**ARNI**) (sacubitril-valsartan), angiotensin converting enzyme inhibitors (**ACEi**) ("prils"), or angiotensin-receptor blockers (**ARBs**) ("sartans")
2. **Beta-blockers** ("Iols")
3. Mineralocorticoid receptor antagonists (**MRAs**)
4. Sodium-glucose cotransporter-2 (**SGLT2**) inhibitors ("flozins")

Did you know....

- ✓ Each of these medications *may* add 1 to 2 years of life
- ✓ Using all 4 medications together *could* help you live 5 – 8 years longer
- ✓ Using all 4 medications may help you experience a better quality of life and fewer hospital stays



Call 8-1-1

Healthlink BC
www.healthlinkbc.ca

Nurse	24 hours a day	Daily
Dietitian	9 a.m. – 5 p.m.	Mon – Fri
Pharmacist	5 p.m. – 9 a.m.	Daily
Hearing Impaired	Call 7-1-1	

Call 8-1-1 to speak with a nurse, ask a dietitian about nutrition, or a pharmacist about your medication.

ARNI, ACEi, ARBs



Commonly used drugs:³

ARNI Sacubitril-valsartan (Entresto™)

ACEi ("prils") Perindopril, ramipril

ARB ("sartans") Candesartan, valsartan

How they work:

They reduce salt and water retention and open up blood vessels. This makes it easier for your heart to pump blood to your body.

What to watch out for:

- Symptoms of low blood pressure.⁴
- ACEi and ARNI may cause a dry cough.
- Routine bloodwork to check kidney function and potassium (risk of high potassium).



MRAs



Commonly used drugs:

Eplerenone (Inspra™)

Spirolactone

How they work:

They block stress hormones that make the heart stiff and cause scarring.

What to watch out for:

- Expect ongoing bloodwork for kidney function and potassium (risk of high potassium).
- Spirolactone: You may experience swelling of your breasts or tenderness. This is more common in men, and occurs in 9 out of 100 people.

Beta-Blockers



Commonly used drugs:

Bisoprolol

Carvedilol

Metoprolol

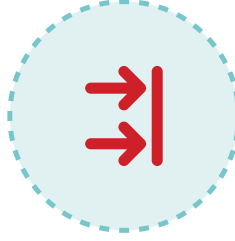
How they work:

They block **adrenaline** so your heart does not have to work as hard and beat as fast.

What to watch out for:

- Symptoms of low blood pressure or heart rate.^{4, 5}
- You may feel tired (low energy) when you first start this medicine. This will get better as your body gets used to the medicine.
- Do not stop this medicine suddenly unless your healthcare provider tells you to. Your heart may race if you stop it suddenly.

SGLT2 Inhibitors



Commonly used drugs:

Dapagliflozin (Forxiga™)

Empagliflozin (Jardiance™)

How they work:

They help lower stress on your heart.

What to watch out for:

- Genital yeast infection or bladder infection (less than 1 in 100 people). You can reduce this risk by paying close attention to your hygiene.
- Expect ongoing bloodwork for kidney function.
- This medicine is also used to treat diabetes. Other diabetes medicines may need to be adjusted when you take this medicine.

³ This does not represent a comprehensive list of medications within these classes. In particular, different provinces/territories may use other ACEi not listed here
⁴ **Low blood pressure:** You may feel light headed, faint or nearly faint, especially when you stand or sit up suddenly.

⁵ **Low heart rate:** You may feel tired, lightheaded, or faint or nearly fainting. Talk with a member of your healthcare team if you experience these symptoms and find them bother some.



Open camera on phone, focus on image (QR Code), tap website link to open document.

[Heart Failure Medications: A Patient & Caregiver Guide](#)

Adapted with permission from The Hub Health

<https://ourhearthub.ca/>



The Heart Hub
Learn. Connect. Empower.

Why People with Heart Failure Should Keep 'Active'

What does it mean to be 'active'?

Activity and exercise - People often use these two terms to mean the same thing. All physical activities and exercise do involve increasing the heart rate and strengthening muscles.

There is, however, a small difference in their meanings. Physical activity is when you are using energy to move your body to get from place to place. Exercise is a type of physical activity. The difference is - exercise is planned. We exercise to improve or maintain fitness or health.

Why activity is important

Keeping active is one of the best ways to keep healthy. Any amount of activity is better than none at all.

Keeping active helps you:

- ✓ Sleep better
- ✓ Feel less tired
- ✓ Feel less breathless
- ✓ Feel more confident and in control



Studies show that daily activity is good for you. It can help you to live better and longer.

Getting started

- ♥ Always check with your health care provider first before starting an activity to make sure you find an activity that matches your personal needs and ability.
- ♥ Start off slowly and pace yourself.

Is the activity level right for me?

Get to know your body. It is important that you feel comfortable doing the activity.

As long as you can talk without being too short of breath the level of activity is okay.



Balance activity and rest

- ♥ Be active at a time when you feel rested, such as first thing in the morning or after nap.
- ♥ Choose which activities to do each day.
- ♥ Spread your activities throughout your day.
- ♥ If you are tired after an activity or the next day, then you have tried to do too much.
- ♥ It may take your body a while to find a balance between activity and rest, so don't give up.



Activities most people with heart failure can do

- ✓ Walking
- ✓ Light housework
- ✓ Gardening
- ✓ Light vacuuming
- ✓ Stretching
- ✓ Laundry
- ✓ Grocery shopping



When to stop an activity

Stop the activity if you:

- Cannot carry on a conversation, sing, or whistle without being short of breath.
- Feel weak, tired, or dizzy.
- Feel sick to your stomach (nauseated).
- Feel your heart is pounding or racing.
- Feel your heart beating irregularly and this is new for you.
- Have pain in your chest, neck, jaw, arm, or shoulder.

Stop and rest. Sit in a comfortable chair. Do not go to bed for a nap.

Activity most people with heart failure should not do

- ✗ Activities that involve working above your head such as painting or washing walls, washing windows, vacuuming curtains.
- ✗ Lifting or pushing heavy objects.
- ✗ Straining or holding your breath to do an activity.
- ✗ Sit ups or push ups.
- ✗ Climbing a lot of stairs.
- ✗ Heavy housework or yard work.
- ✗ Going into sauna or hot tub.

Learn more about how important activity is

Review 'Heart Failure: Activity and Exercise' on the HealthLink BC web site.

<https://www.healthlinkbc.ca/illnesses-conditions/search-health-topics>

Review 'Our Heart Hub'

<https://ourhearthub.ca/physical-and-mental-health/>

Tips about activity

- ✓ Stick with it, so it becomes a habit.
- ✓ Include a variety of different activities so you do not get bored doing the same thing all the time.
- ✓ Wear loose, comfortable clothing and supportive shoes.
- ✓ Count the fluids you drink during the activity as part of your daily fluid amount.



What if you don't feel confident doing activities and exercises on your own?

There are many community-based programs designed specifically for people with heart disease.

To find a program in your community:

- Talk to your health care provider
- Call HealthLink BC at 8-1-1
- Go to the HealthLink BC website (www.healthlinkbc.ca).
 - Type in 'cardiac rehabilitation' in the 'Search' box.
- Go to HeartLife Foundation
<https://heartlife.academy/>
- Contact the Physical Activity Line (PAL)
 - 1-877-725-1149
 - www.physicalactivityline.com
 - info@physicalactivityline.com

Why People with Heart Failure Should Exercise

Exercise for your health

Exercise is a planned physical activity. All types of exercise involve increasing the heart rate and strengthening muscles. Exercise is intended to improve or maintain fitness or health.

Why exercise is important

No matter how old you are, exercise benefits your heart failure in a number of ways.

Exercise helps you to:

- Sleep better
- Feel less tired
- Breathe better
- Lower your blood pressure
- Strengthen your muscles and bones
- Reduce stress and tension
- Reduce feelings of anxiety or depression

When you increase your fitness and health, you improve your quality of life.

Types of exercise

Some exercises focus more on increasing the heart rate and blood flow. Others focus on increasing strength. Many exercises are a combination of both.

Aerobic Exercise

Any steady physical activity that increases your heart rate for at least 10 minutes is an aerobic or cardiovascular exercise ('cardio' meaning heart, 'vascular' meaning blood flow). Aerobic exercise improves your body's ability to use oxygen. Over time, your heart will not have to work as hard as it did. You can do more and feel better!



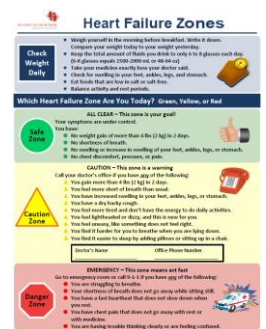
Strength exercise

Any time you contract a muscle against resistance such as weight or gravity is a strength exercise. Once you have a routine of aerobic exercise, adding strength exercise can improve your overall fitness.



Getting started

- ♥ **Always check with your healthcare provider** first before starting an exercise routine.
- ♥ Choose an exercise you enjoy.
Examples of aerobic exercise: walking outside or on a treadmill, using an exercise bike, swimming
Examples of strength exercise: doing wall push-ups, doing leg lifts, using resistance tubing, lifting free-weights
- ♥ Check your Heart Failure Zone before you start every exercise session.
- ♥ Exercise only if you are in the 'Green Zone'.
- ♥ Start slowly with what you can do (not what you think you should do) and pace yourself.
- ♥ Aim to exercise most days of the week.
- ♥ Aim to exercise for at least 30 minutes each day.
- ♥ Take rest breaks when you need them.



Starting aerobic exercise

Step 1 Warm up.

Take at least 5 minutes to warm up. This prepares your heart and body for the extra work. This means walk or cycle slowly for 5 minutes.

Step 2 Condition yourself.

Gradually increase the exercise to a steady, moderate pace. Aim for continuous exercise for up to 30 minutes.

Step 3 Cool down.

Take 5 to 10 minutes to slow down your exercise. This helps your heart slowly return back to your resting heart rate.

Starting strength exercise

It is best to have a cardiac rehabilitation professional help you start strength exercises. You will learn the proper way to do the exercise.

Generally:

- Choose 6 to 8 basic strength exercises for the larger muscle groups of both the upper and lower body.
- Start with low resistance or light weights.
- Repeat each exercise only 10 to 15 times.
- Do your strength exercise routine 1 to 3 times a week with rest days in between.

Balance exercise and rest

If you are tired either right after you exercise or the next day, you have done too much. Cut back a little on the amount you exercise and progress more slowly.

Exercise at a time when you feel rested. It could be first thing in the morning or after a nap.

It may take your body a while to find a balance between exercise and rest, so don't give up.

How hard to exercise

- Get to know your body. Pay attention to how exercise makes you feel. As long as you have enough breath to carry on a conversation, the exercise level is okay.
- Use the table below as a way of measuring your effort.
- Aim to stay within the 3 to 5 scale during your exercise.

Rate your exercise effort		Talk Test
0	Nothing at all	Resting
0.5	Very, very easy	Sing You have enough breath to sing
1	Very easy	
2	Easy	
3	Moderate	Talk You have enough breath to carry on a conversation
4	Somewhat hard	
5	Hard	
6		Gasp You cannot say more than 4 to 6 words without gasping
7	Very hard	
8		
9	Very, very hard	You cannot say more than 2 to 3 words without gasping
10	Maximum	
		You cannot talk at all

When to stop an exercise

Stop the exercise if:

- ✗ You feel lightheaded or dizzy.
- ✗ You feel more tired than usual.
- ✗ You feel more short of breath than usual.

Call 9-1-1 if:

- ✗ You feel pressure or pain in your chest, neck, jaw, or shoulders that does not go away with rest or medicine.
- ✗ You have a fast heartbeat that does not slow down with rest.
- ✗ You feel like throwing up (nauseated).
- ✗ You feel your heart skipping beats and this is new for you.
- ✗ You get a shock from your implanted heart device (ICD).

Tips for exercise

- ✓ Stick with it, so it becomes a habit.
- ✓ Schedule exercise sessions into your daily routine.
- ✓ Exercise at the same time each day.
- ✓ Include a variety of exercises so you do not get bored.
- ✓ Wear loose, comfortable clothing and supportive shoes.
- ✓ Choose to walk whenever you can instead of driving.
- ✓ Choose the stairs instead of the elevator.
- ✓ Wait 1 hour after eating a meal to exercise.
- ✓ Adjust your pace when walking in hilly areas.
- ✓ Exercise indoors when it is too cold, too hot, or too humid outside.
- ✓ Count the fluids you drink during the activity as part of your daily fluid amount.
- ✓ Keep an exercise record. This helps you see your progress.

When you don't feel confident doing exercises on your own

There are many community-based programs designed specifically for people with heart disease. They are usually called cardiac rehabilitation programs.



To find a program in your community:

- Talk to your healthcare provider.
- Call HealthLink BC at 8-1-1.
- Go to the HealthLink BC website (www.healthlinkbc.ca).
 - Go to the 'Find Services' section of the home page.
 - Type 'cardiac rehabilitation' in the 'What?' box.
 - Type your location in the 'Where?' box.
 - Click on the 'Find' button.
 - Choose a program.

Learn more about the importance of exercise

- ♥ Review 'Heart Failure: Activity and Exercise' on the HealthLink BC website (www.healthlinkbc.ca).
 - Go to the 'Search Health Information' section of the home page.
 - Type 'heart failure exercise' in the 'All Health Topics' search box.

Notes

For more information about Heart Failure refer to the Interior Health website

Interior Health website

www.interiorhealth.ca



Heart Failure information

<https://www.interiorhealth.ca/health-and-wellness/heart-health/heart-failure>

