St JOSEPH's HEALTH CARE LONDON

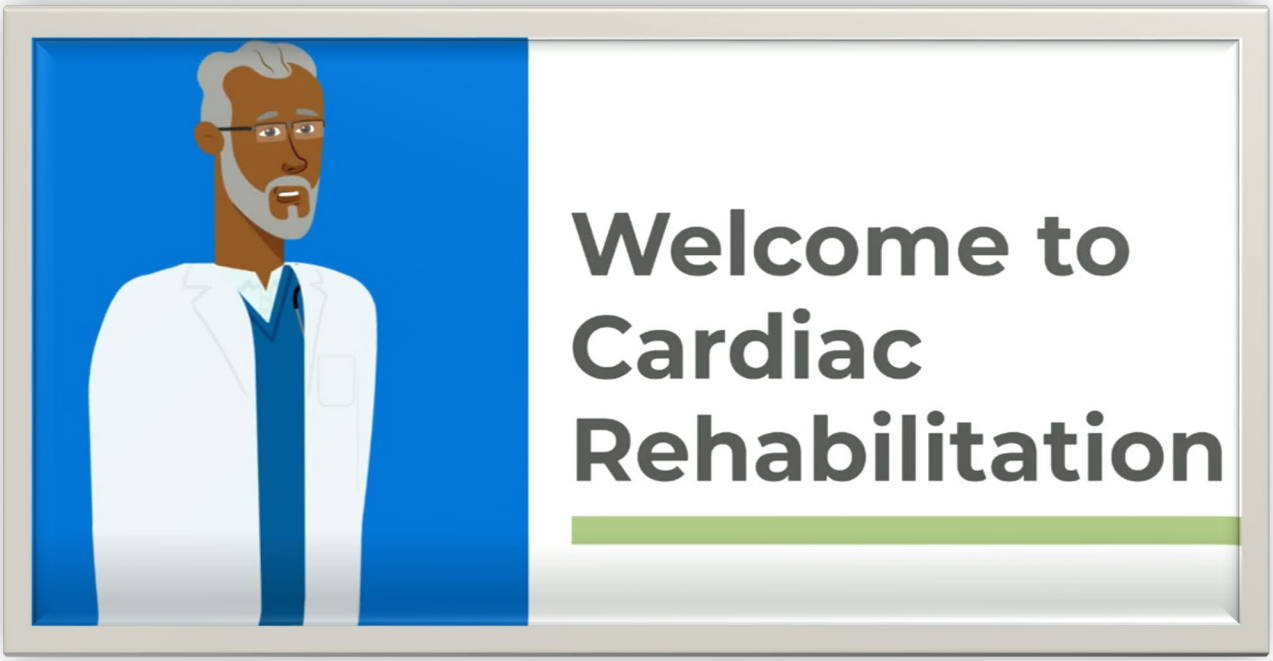
Pathway to Healthy Living

An education series designed to help you live well after your cardiac event

Cardiac Rehabilitation and Secondary Prevention Program

Table of Contents

Module 1



If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/cr-welcome-outpatient

SCAN ME

Welcome to Cardiac Rehabilitation

WELCOME to the Cardiac Rehabilitation and Secondary Prevention Program at St. Joseph's Health Care London, also known as Cardiac Rehab.

Your doctor recommended that you participate in outpatient cardiac rehab as part of your care, and referred you to our program. Cardiac rehab is for people who have had heart-related diagnoses or events. Heart events are also known as cardiac events. These may include:

- Heart attack
- Bypass surgery
- Angioplasty
- Heart failure
- Arrythmias
- Heart transplant
- Other cardiac conditions

We would like to share some information with you about the cardiac rehab program. For example, what you can expect, and how we will work together to help you live well after your heart event.

Along with your medical treatment or surgery in hospital, cardiac rehab is a key piece of your overall cardiac care. Why is cardiac rehab such an important part of recovery after a heart event?

The answer to this question depends on your unique heart condition. Heart events often happen because of heart disease that may have been developing for years, with many contributing and underlying causes. We can often treat the results of the disease successfully. However, the underlying causes can remain and lead to future heart problems.

When it comes to recovery and reducing your future cardiovascular risks, we know that lifestyle behaviours and medications can each have a big impact. Cardiac rehab addresses both of these.

Cardiac rehab helps you to build the knowledge and skills you need to manage your heart condition over time, improve your quality of life and reduce the risk of future heart events. This is what we call *self-management*. Self-management does mean taking personal charge of your health, but it doesn't mean doing it all by yourself. You don't have to do it alone, as your health care team is here to support you.

Cardiac rehab is based on scientific and medical evidence, and we know that it works. Let's look at the data.

RESEARCH SHOWS that heart patients who participate actively in cardiac rehab benefit from:

- reduced likelihood of hospitalization or death from another heart event by 20% - 50%.
- improved symptoms such as pain or fatigue caused by a heart condition or surgery
- Improved physical and emotional well-being and quality of life

NOW, LET'S GET PERSONAL. When you're thinking about *your* heart health, what matters to you in the big picture of your life? Some examples are:

- Family
- Friendships
- Energy
- Quality of your life
- Independence and freedom to do what's important or worthwhile to you

It is important to be in touch with what really matters to you. This can help you develop motivation to begin heart healthy lifestyle changes, and to sustain these over time.

WHAT CAN YOU EXPECT FROM ST. JOSEPH'S CARDIAC REHAB PROGRAM?

Cardiac rehab is a 6-month outpatient program for people of many different ages and backgrounds.

There is no charge for the program. It is designed to assist you with daily heart healthy behaviours and lifestyle such as:

- Regular physical activity and exercise
- Nutritious heart-healthy eating
- Emotional well-being and stress management
- Understanding and taking your heart medications
- Quitting smoking

We use a team-based approach. In fact, we believe you are the most important member of the cardiac rehab team.

WHAT HAPPENS NEXT?

First, at your intake appointment, you will attend a cardiology and nursing assessment, followed on a different day, by an exercise stress test.

The exercise stress test is safe and is supervised by a physician. Its purposes are to measure your ability to exercise, and to enable us to develop an individual exercise prescription that is safe for you.

Your cardiac rehab team will work with you to map out your journey on the road to a heart healthy lifestyle, so you can meet your personal health goals.

OVER THE NEXT 6 MONTHS, we will offer you 1:1 counseling or group programs with different healthcare professionals which may include nurses, a nurse practitioner, kinesiologists, a dietitian, a psychologist and a social worker. The number of appointments you have will depend upon your individual path through cardiac rehab. On average, this could range from 1-4 appointments per month, approximately. Cardiac Rehab services may be provided to you in person, by videoconferencing or by telephone.

We will also offer you education links and materials when you need them to make informed choices about your heart health.

Once again, please reflect on **WHAT REALLY MATTERS TO YOU** in the big picture of your life. How might that be affected by your heart health?

You are already taking an important step towards heart health by attending your cardiac rehab intake appointment.

Can you think of another step to take in the near future … just one … something manageable, from your own point of view? For example, could you take a 10- minute walk? Make sure all of your prescriptions are filled? Try just one heart healthy change in your way of eating?

TO SUMMARIZE:

- Your doctor has recommended and referred you to cardiac rehab
- We have talked about how cardiac rehab can reduce your risk for another heart event and improve your quality of life
- We also reviewed what to expect in cardiac rehab
- Finally, we talked about one small step that you might take on your own

We look forward to meeting you!

We realize this has been a quick tour through cardiac rehab, so please bring any questions or concerns to your nurse, physician, or other cardiac rehab team member.

Module 2

If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/exercise-safely

SCAN ME

How to Exercise Safely

Your doctor has recommended cardiac rehabilitation for you. Exercise is a key part of cardiac rehabilitation. It helps you to recover from your cardiac event, for example, a heart attack, and to reduce the chances of having another event.

Knowing how important exercise is, we believe it is essential for you to be able to exercise safely. Let's start by thinking of the reasons for this.

When a person exercises, their heart responds by working harder to pump more blood. This helps to meet muscles' need for oxygen and fuel.
If your heart can't keep up with the demand, it may give you warning signs or symptoms, such as:

- Chest discomfort, which is also known as angina
- Irregular heart rhythms
- Severe shortness of breath
- Dizziness or lightheadedness
- Excessive tiredness
- Feeling or being sick to your stomach
- Leg cramps

And so, here are **7 IMPORTANT SAFETY TIPS** for you to think about building into your exercise routine:

1. TAKE YOUR HEART MEDICATIONS AS PRESCRIBED

Heart medications reduce how hard your heart works, and make your blood vessels more relaxed. When this happens your blood flows more easily. This means the load on your heart is reduced.

2. AVOID ALCOHOL, ALL TOBACCO PRODUCTS, AND RECREATIONAL DRUGS AT LEAST 2 HOURS BEFORE EXERCISE

These substances cause your blood vessels to tighten up and narrow. This extra pressure causes your heart to work harder to pump oxygen and nutrients to your muscles. You may experience angina or irregular heartbeats.

3. TAKE A BREAK FROM EXERCISE IF YOU ARE ILL OR INJURED

When you are sick or injured, your body's immune system is working to heal you. If you push through and do your usual exercises, your body has a harder time fighting an infection or healing an injury.

4. EAT A SNACK OR LIGHT MEAL 1-2 HOURS BEFORE EXERCISE

It is important that your body is well fueled before exercise. To prevent dizziness or feeling unwell, eat a snack or light meal 1-2 hours before exercise. To prevent an upset stomach or cramping, avoid eating a heavy meal right before you exercise.

5. AVOID EXERCISE IN VERY COLD OR HOT TEMPERATURES

Examples may include hot or cold weather, hot tubs and saunas, hot yoga, or cold water. This can stress your heart. Sometimes people experience angina in these situations. In particular, avoid combining hot or cold conditions with alcohol, tobacco or recreational drugs.

6. WARM UP AND COOL DOWN BEFORE AND AFTER EXERCISE

Moving at a leisurely pace for the first and last 5 minutes of your exercise session helps to ensure your muscles and organs are well supplied with oxygen. It also reduces stress on your heart by slowly raising or lowering your heart rate.

7. FOLLOW THE EXERCISE GUIDELINES PROVIDED TO YOU BY YOUR CARDIAC REHAB KINESIOLOGIST

Exercising as prescribed by your cardiac rehab kinesiologist helps your heart to meet the demands of exercise, lowers your risk of symptoms, and increases your fitness level. If you do experience symptoms or any other discomfort during exercise, stop your exercise and talk to your kinesiologist.

We invite you to think about how important these safety tips are and how you might apply them to your own exercise.

As well, talk with your kinesiologist about these safety tips, and how to build them into your exercise routine.

Module 3

If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/cr-exercise-diabetes

SCAN ME

How to Exercise Safely While Living with Diabetes

It is important for people with diabetes to know that exercise is effective for managing blood sugar. This is because exercise improves your muscles' ability to use blood sugar as fuel, helping to lower and stabilize your blood sugar levels.

In addition to the exercise safety tips described in the previous module, did you know that when living with diabetes, there are some other important factors to think about building into your exercise routine:

1. CHECK YOUR BLOOD SUGAR LEVEL BEFORE YOU EXERCISE

This will allow you to determine if your blood sugar is within a safe range.

If your blood sugar level is:

- less than 5.5 mmol/l before exercise, eat a carbohydrate snack first.
- greater than 13.9 mmol/l, avoid exercise at that time.

If you are experiencing high blood sugar levels regularly, talk to your diabetes care provider.

2. WATCH FOR SYMPTOMS AND READINGS OF LOW BLOOD SUGAR, WHICH IS KNOWN AS HYPOGLYCEMIA.

Symptoms include:

- Shakiness
- Sweating
- Irritability
- Weakness or dizziness
- Hunger
- Headache

If you are feeling symptoms of low blood sugar, or your blood sugar is less than 4mmol/l during or after exercise:

- Eat fast-acting carbohydrates such as glucose tablets, or fruit juice.
- Wait 15 minutes.
- Test your blood sugar.
- Repeat these steps if your blood sugar is less than 5 mmol/l.

If you are experiencing low blood sugar levels regularly, talk to your diabetes care provider.

3. CHECK YOUR FEET FOR SKIN CHANGES SUCH AS REDNESS, TENDERNESS, SWELLING OR INJURY

Diabetes can cause nerve damage and poor blood flow to your legs and feet.
As a result, you may be less likely to feel a foot injury, such as a cut, crack, bruise, or blister.
If these injuries go unnoticed or untreated, they may become infected and lead to more serious complications.

We invite you to think about how important these extra safety tips are and how you might apply them to your own exercise.

Module 4

If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/hr-monitor

SCAN ME

How to Monitor Your Heart Rate During Exercise

To get the most out of your exercise while staying safe, it is important to monitor your exercise intensity. This can be done two ways.

The first is to self-monitor your heart rate. The second is to monitor how hard you feel you are working during exercise, which is called your rate of perceived exertion. For this module, we'll focus on how to monitor your heart rate. We'll explain how to monitor your rate of perceived exertion in another module.

Your cardiac rehab kinesiologist will give you A TARGET HEART RATE ZONE based on the results from your exercise stress test. This zone is a prescribed range of how fast your heart should be beating during aerobic exercises like walking, cycling or swimming. Staying in your target heart rate zone during exercise can help condition your heart, while not overloading it.

HOW TO MEASURE YOUR HEART DURING AEROBIC EXERCISE:

Three ways you can measure your heart rate are:

- From your wrist
- From your neck
- With a digital device

1. YOUR WRIST

Place two or three fingers on your right or left wrist below the base of your thumb. Count the number of beats you feel in 10 seconds. Then, multiply that number by 6 to get the number of beats per minute.

2. YOUR NECK

Place two or three fingers on the right or left side of your neck in the hollow area beside your windpipe. Be gentle to avoid feeling light-headed. Count the number of beats you feel in 10 seconds and multiply by 6 to get the number of beats per minute.

3. A DIGITAL DEVICE

There are many devices that can measure your heart rate and show beats per minute on the screen. Some examples are:

- Pulse oximeters
- Wearable fitness trackers
- Smartphone apps

WHEN SHOULD YOU MEASURE YOUR HEART RATE?

We recommend that you measure your heart rate at the following times:

- Before warming up
- During exercise - as often as needed to stay within your prescribed zone.
- At the end of exercise, just before cooling down

Note: do not try to measure your heart rate from your neck or wrist while you are moving.

WHAT CAN YOUR HEART RATE TELL YOU?

Tracking your heart rate tells you whether you are in your prescribed training zone. This is important for building your fitness, while keeping you safe.

For example:

Is your heart rate above your target zone?

Slowing down or doing less can bring your heart rate back down into the prescribed zone and make it easier on your heart.

Is your heart rate below your target zone or does the exercise feel 'easy'?

Speeding up or doing more can raise your heart rate into the target zone and improve your fitness.

IN SUMMARY:

To get the most out of your exercise while staying safe, we recommend that you:

- Check your heart rate using your wrist, neck or digital device.
- Keep your heart rate within your target zone.

You can measure your heart rate at any time, not just during exercise. Try it now while sitting down. Then, try it in your next exercise session.

You can also talk to your cardiac rehab kinesiologist about how to build heart rate monitoring into your exercise program.

Module 5

If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/monitor-rpe

SCAN ME

How to Monitor Your RPE During Exercise

To get the most out of your exercise and stay safe, it is important to monitor how hard you're working. There are two ways to do this. The first is by checking your heart rate. If that doesn't work for you, you can use another method called the rating of perceived exertion, which is known as RPE. This module explains how to use RPE. We have another module that explains how to monitor your heart rate.

WHAT IS A RATING OF PERCEIVED EXERTION?

Rating of perceived exertion is used to measure how hard you feel you are working when you are exercising.

Things that affect your RPE are:

- How tired you feel
- How fast you're breathing
- How fast your heart is beating
- How tired your muscles feel
- How much you're sweating

HOW TO MEASURE YOUR RATING OF PERCIEVED EXERTION DURING AEROBIC EXERCISE:

The RPE scale runs from 6-20. A rating of 6 means "no effort at all", while 20 indicates your "highest possible" or "maximal" effort. To find your rating on the scale:

1. Think about your overall feelings of physical stress, effort, and fatigue. Focus on your overall exertion, not just one specific thing like leg tiredness or shortness of breath.

2. Look at the examples on the right side of the table below and choose the description that best matches your level of effort. Then, find the corresponding number rating for that description.

Rating of Perceived Exertion Scale	
6	
7	Very, very light
8	
9	Very light
10	
11	Fairly light
12	
13	Somewhat hard
14	
15	Hard
16	
17	Very Hard
18	
19	Very, very hard
20	

Reference: BORG, G. (1970) Perceived Exertion as an indicator of somatic stress. *Scandinavian journal of Rehabilitation Medicine*, 2 (2), p. 92-98

We recommend that your RPE is between 11 and 14 while exercising. In this zone, you should feel like you have enough energy to continue exercising without pushing yourself too hard.

WHEN SHOULD YOU MEASURE YOUR RATING OF PERCIEVED EXERTION?

We recommend that you measure your RPE at the following times:

- Before you warm up
- During exercise as often as needed to stay within the recommended zone.
- At the end of exercise, just before you cool down

WHAT CAN YOUR RATING OF PERCIEVED EXERTION TELL YOU?

Keeping track of your RPE tells you whether you have reached and are staying within your recommended training zone. This is important for increasing your fitness while keeping you safe.

For example:

Is your RPE above 14 or "somewhat hard"?

If your RPE is above 14, lowering the pace or time of your exercise can bring your effort level back down into the recommended zone and lessen the strain on your heart.

Is your RPE below 11 or "fairly light"?

If your RPE is below 11, increasing the pace or time of your exercise can bring your effort level into the recommended zone and improve your fitness.

IN SUMMARY:

To get the most out of your exercise while staying safe, we recommend that you:

- Check your rating of perceived exertion.
- Keep your effort level within an 11 - "fairly light" to 14 - "somewhat hard" zone.

I invite you try measuring your RPE during your next exercise session. You can also talk to your cardiac rehab kinesiologist about how to build rating of perceived exertion monitoring into your exercise program.

Module 6

If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/resistance-train

SCAN ME

What is Resistance Training and How to Do It Effectively

This module explains resistance training and gives tips for building a safe resistance training routine.

ARE YOU INTERESTED IN BUILDING STRENGTH AND MOBILITY?

Regular resistance training can help to build and keep your muscles strong. This can make daily tasks easier like carrying groceries, climbing stairs or getting up from a chair.

Stronger muscles can use oxygen and sugar from your blood more efficiently. This can ease the workload on your heart when you're exercising or going about your daily routine.

WHAT IS RESISTANCE TRAINING?

Resistance training is a type of exercise that involves repeated movement against a load. You can do this using:

- Free weights
- Weight training machines
- Your own body weight
- Resistance bands

HOW OFTEN SHOULD I DO RESISTANCE TRAINING?

Your cardiac rehab kinesiologist recommends working towards 2-3 sessions per week to gain the muscle-strengthening benefits of resistance training.

It is important to leave at least one day between sessions to allow your muscles to rest and recover. This improves muscle strength and endurance.

HOW INTENSE SHOULD RESISTANCE TRAINING BE?

The intensity of resistance training should be customized for each person. You can adjust intensity in three ways:

1. **Load:** the amount of weight you lift and lower. The heavier the weight or tension of the resistance band, the more intense the exercise.
2. **Repetitions:** the number of times you do an exercise in one set. The more repetitions you

do, the higher the intensity. Normally, we recommend 8-12 repetitions per set.

3. **Sets:** a set is a series of repetitions performed without stopping. The more sets you do, the higher the intensity. Normally, we recommend 1-3 sets per exercise session.

Your cardiac rehab kinesiologist will work with you to determine a level of intensity that is safe and effective for you.

HOW MUCH WEIGHT CAN I LIFT?

To help you and your kinesiologist decide if you are using a safe amount of weight or resistance, after your last repetition of an exercise, ask yourself, "Do I still feel like I could do 2 to 3 more repetitions?" If the answer is yes, the weight or resistance band tension is right. If the answer is no, the weight or tension may be too much—try a lighter weight or resistance band. If you can do more than 3 repetitions, consider increasing the weight or tension.

WHAT TYPES OF EXERCISES SHOULD I DO?

The type of exercise you do depends on the equipment you use.

Your kinesiologist can prescribe exercises that will target major muscle groups, which include muscles of the:

- Upper back
- Upper arm
- Shoulder
- Chest
- Stomach
- Upper thigh
- Calf

HOW CAN I STAY SAFE WHILE RESISTANCE TRAINING?

Here are 4 safety tips for your resistance training routine:

- Warm up before resistance training. For example, walk for 5-10 minutes at a moderate pace.
- Breathe and pace – avoid holding your breath. Breathe out and lift over a count of 2. Breathe in and lower over a count of 3. This pace will ensure you are not rushing, which can lead to injury
- Stay within a comfortable, pain-free range of motion.

- Stop your exercise and notify your kinesiologist or nurse if you feel:
- Angina symptoms, including pain, discomfort, heaviness or tightness in your chest, neck, throat, jaw or back
- Dizzy or lightheaded
- Palpitations
- Short of breath
- Muscle or joint pain

IN SUMMARY

- Resistance training strengthens muscles, reduces the load on your heart during exercise, and makes activities of daily living easier.
.
- Your kinesiologist can work with you to prescribe resistance training that is safe, effective and works together with your aerobic exercises.

Here's a question: if your muscles were stronger and had more endurance, how could this help you in your daily life?

Module 7

If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/cr-stretch

SCAN ME

What is Stretching and How to Do It Safely

This module is to help you understand what stretching is, and how to stretch safely.

Did you know that stretching maintains or improves your muscles and joints' range of motion?

WHY IS THIS?

Regular stretching helps your muscles and joints become more flexible.

This can make everyday tasks easier, like reaching to put away groceries, bending over to pick something up, or getting up from a chair.

WHEN SHOULD I STRETCH?

While it's recommended to stretch 2-3 times per week, it is most effective to stretch every day.

For the best results, it's also recommended to stretch when your muscles are already warm, such as right after exercise.

HOW INTENSE SHOULD STRETCHING BE?

Stretching should not be painful. Aim to feel a slight stretch in your muscles and stop if you're feeling any pain.

FOR HOW LONG SHOULD I STRETCH?

Holding a stretch for 20-60 seconds is recommended for most adults.

WHAT TYPES OF STRETCHES SHOULD I DO?

Your cardiac rehab kinesiologist can work with you to develop a plan for stretching exercises for your major muscle groups. These include your:

- Upper back muscles
- Upper arm muscles
- Shoulder muscles
- Chest muscles
- Stomach muscles
- Upper thigh muscles
- Calf muscles

Activities like Yoga, Tai Chi and Pilates also can improve flexibility.

WHAT CAN I DO TO STAY SAFE WHILE STRETCHING?

Here are 5 safety tips for your stretching routine:

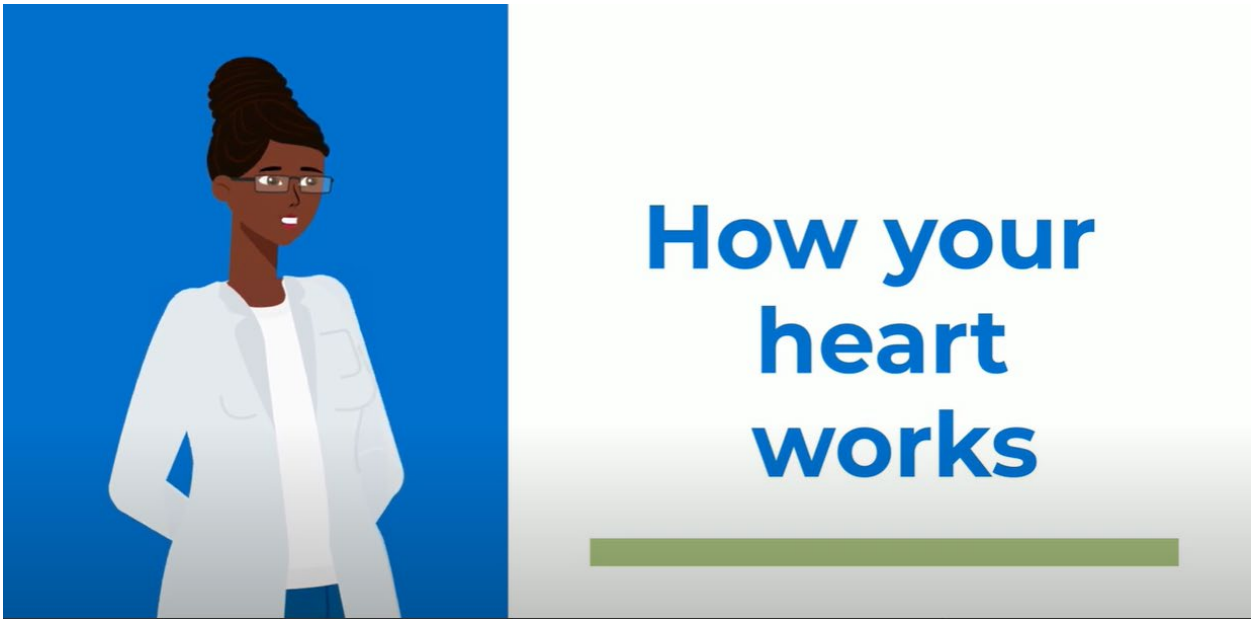
- Before you stretch, warm up for at least 5 minutes. For example, walk at a leisurely pace for 3-5
  minutes before stretching
- Don't stretch to the point of pain
- Don't hold your breath
- Avoid bouncing movements when holding a stretch
- Stop your stretch and notify your kinesiologist or nurse if you feel:
    - Angina symptoms, including pain, discomfort, heaviness or tightness in your chest, neck, throat, jaw or back
    - Dizzy or lightheaded
    - Palpitations
    - Short of breath
    - Muscle or joint pain

IN SUMMARY

- Stretching regularly helps your muscles and joints become more flexible. This means your muscles can work through a greater range of movement.
- We recommend stretching your major muscle groups at least 2-3 times per week, holding each pain-free stretch for 20-60 seconds.
- Stop your stretch if you feel any pain, dizziness or discomfort.

Talk with your cardiac rehab kinesiologist about how to build stretching into your exercise routine.

Module 8

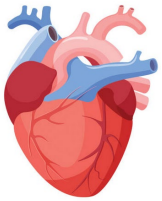


If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/heart-works

SCAN ME

How Your Heart Works

In this module, you will learn how your heart works and what can happen when it's not working well.



The heart is a pump, made of muscle, and about the size of your fist. It has a 'mechanical system' (the muscle and valves), an 'electrical system' (the heart rhythm), and a 'plumbing system' (the arteries that feed the heart muscle).

THE MECHANICAL SYSTEM (structure) OF THE HEART

- The heart has four parts called chambers. There are two upper champers (atria) and two lower chambers (ventricles).
- When your heart is relaxed, your chambers fill with blood. When it contracts, or squeezes, it pumps blood to your lungs and other important parts of your body.
- If your heart muscle isn't working properly, blood doesn't move through the body as well as it should.
- There are four valves in your heart: The tricuspid valve, pulmonary valve, mitral valve and the aortic valve. They control blood flow by opening and closing like doors.
- If the valves aren't working properly, blood doesn't move *forward* through the body as it should. If the valves are narrow, it blocks the blood from passing through to your body.
- If the valves don't close properly, blood can flow backward in your heart.

THE ELECTRICAL SYSTEM OF THE HEART (what makes your heart squeeze or contract)

To make your heart contract properly, it needs an electrical signal. This electrical signal starts in a part of the right atrium called the Sinoatrial or SA node, and moves across the heart's upper and lower chambers.

If the electrical system in your heart isn't working your heart may not squeeze properly.

THE HEART AND LUNG CYCLE

Every cell in your body requires blood that is full of oxygen in order to work properly.

The heart's main job is to work with the lungs to provide a constant supply of blood that's full of oxygen to the rest of body.

Every time you take a breath of air, oxygen from the air goes into your lungs and moves into the blood vessels around the lungs. This makes the blood rich in oxygen.
From there, the oxygen-rich blood returns to the left side of the heart and the left ventricle pumps the oxygen-rich blood to the body.

Glucose is a sugar that travels in the blood and is basic fuel source for the body. As blood flows through your body, cells take the oxygen and sugar from the blood and combine them to release energy, which powers everything we do. After energy is released there is less oxygen in the blood so the blood makes its way back to the right side of the heart and then back into the lungs, filling it with oxygen again.

The cycle repeats over and over throughout the day.

You might be thinking …

"If every cell in the body needs a constant supply of oxygen and blood sugar to function properly, how is the heart muscle itself supplied with oxygen and blood sugar?"

Let's take a look.

THE PLUMBING SYSTEM OF THE HEART

Like all muscles and cells, the heart needs its own supply of oxygen rich blood and blood sugar to function. This involves the 'plumbing' system we talked about earlier comes in.

Arteries in the heart called the coronary arteries are responsible for this important job and act as the heart's circulation system.

When these arteries become narrowed, blocked or damaged, the heart doesn't get enough oxygen in order to function effectively, which causes coronary artery disease

Coronary artery disease is the most common type of heart disease that we see in cardiac rehab.

Once a section of the artery wall is weakened or damaged, inflammation can occur, and more and more plaque starts to build up. This build-up of plaque and inflammation causes that area of the artery to swell and bulge, and as a result, less blood is able to pass through.
When blood can't move through the artery, the cells behind the blockage are starved of the oxygen rich blood that is needed for the heart to function at its best.

When know that when we starve cells of oxygen rich blood they can't do their job. In this case, the heart might not pump as strongly as it's supposed to which can lead to chest pain, also known as angina.

If a heart cell is starved of oxygen long enough, it can die, causing either a heart attack or cardiac arrest – when the heart stops suddenly.

IN SUMMARY

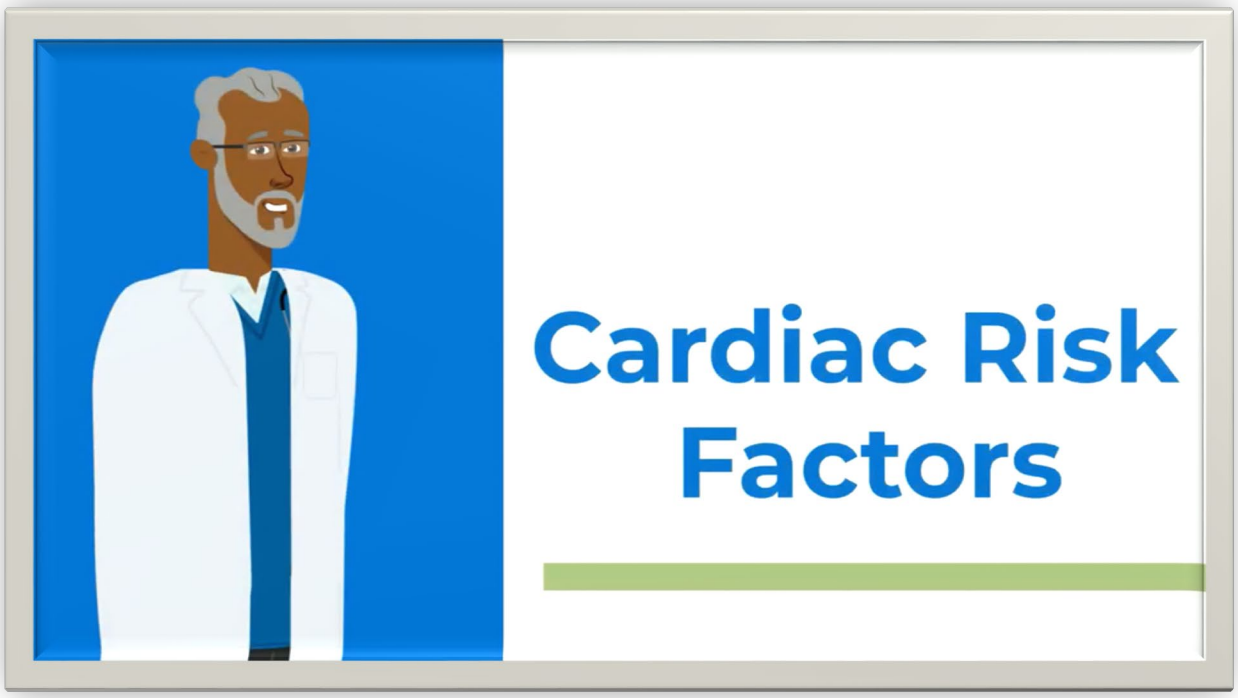
The heart is a muscle that pumps oxygen to the rest of the body.

Any changes to any of the systems – mechanical, electrical or plumbing - can impact how the heart functions.

The good news is there are lots of things you can do to help your heart function at its best. A few examples are: taking your medications as prescribed, exercising regularly, eating a heart healthy diet, and managing your stress. We focus on all of these risk factors in cardiac rehab.

If you have questions about how your heart works, please speak with your cardiac rehab team member.

Module 9



If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/risk-factors

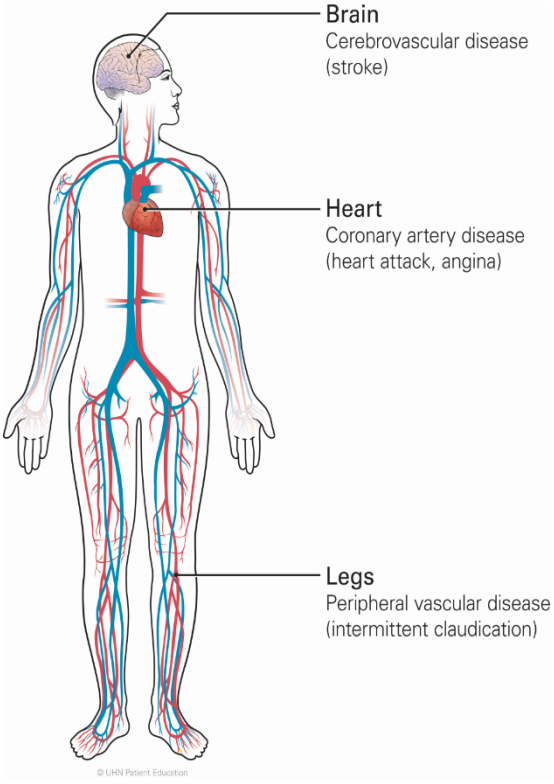
SCAN ME

Cardiac Risk Factors

The purpose of this module is to review the risk factors that can lead to the development or worsening of coronary artery disease.

A healthy heart needs good blood flow to deliver oxygen and nutrients to the muscle. The blood vessels that do this are called the Coronary arteries. Coronary artery disease, which is sometimes called heart disease or atherosclerosis or plaque, is a chronic, progressive condition where these vessels get more narrowed. Chronic inflammation damages the inside lining of the vessels, which can lead to the development of plaque.

Risk factors like smoking, high blood pressure and high blood sugar levels can contribute to this process. When the heart receives less blood flow, it can cause symptoms like angina or chest discomfort. If it blocks off completely, it can result in a heart attack.



WHAT ARE RISK FACTORS?

Risk Factors are the individual traits, characteristics, or habits that make it more likely to develop coronary artery disease. The more risk factors you have, the more likely it is that you will develop it. Knowing your risk factors can help you to identify what to focus or work on during cardiac rehab.

NON-MODIFIABLE RISK FACTORS

Some risk factors are non-modifiable, meaning you can't change them. Examples of these are:

- Older age
- Genetics
- Congenital (heart problems from birth)
- Family history
- Certain ethnic backgrounds

MODIFIABLE RISK FACTORS

The good news is there are many modifiable risk factors. These are things you can change to help reduce your risk. Examples of modifiable risk factors:

- Low physical fitness
- High cholesterol
- High blood sugar
- High blood pressure
- Larger waist size
- Poor sleep patterns
- Excessive stress
- Mental health conditions such as anxiety or depression
- Substance use such as smoking or excess alcohol consumption

In cardiac rehab, we spend most of our time working with you to address these risk factors. When you look at this list, which of these factors can you control?

Each of the modifiable risk factors have 'targets' we can aim for. Research has been done to help define what the targets are for each one.

When it comes to our habits and behaviours, small changes can make a big difference. There are many examples of how small positive actions impact your risk factors. Here are a few:

1) Taking your medications regularly as prescribed can help regulate blood pressure, reduce cholesterol, control blood sugar levels.
2) Regular exercise helps to lower blood pressure and control blood sugar levels. It can help you maintain a healthy body weight. It can also boost your mood and help you sleep better.

3) Eating a balanced, heart healthy diet fuels your body with more energy, and can improve your cholesterol and blood sugar. Reducing how much salt you eat can help control your blood pressure.

You may have a lot of feelings about this. Maybe you are excited to get started, nervous if you have tried before and it didn't go well, or doubtful that anything will help. Maybe you are feeling overwhelmed or you are not sure where to begin. It is not easy to change habits we have had for a long time. Change takes time, practice and energy. It is normal to fall back into our old habits sometimes. In those moments, it is helpful to acknowledge the facts and be kind to yourself. Start back on track as soon as you are ready.

IN SUMMARY

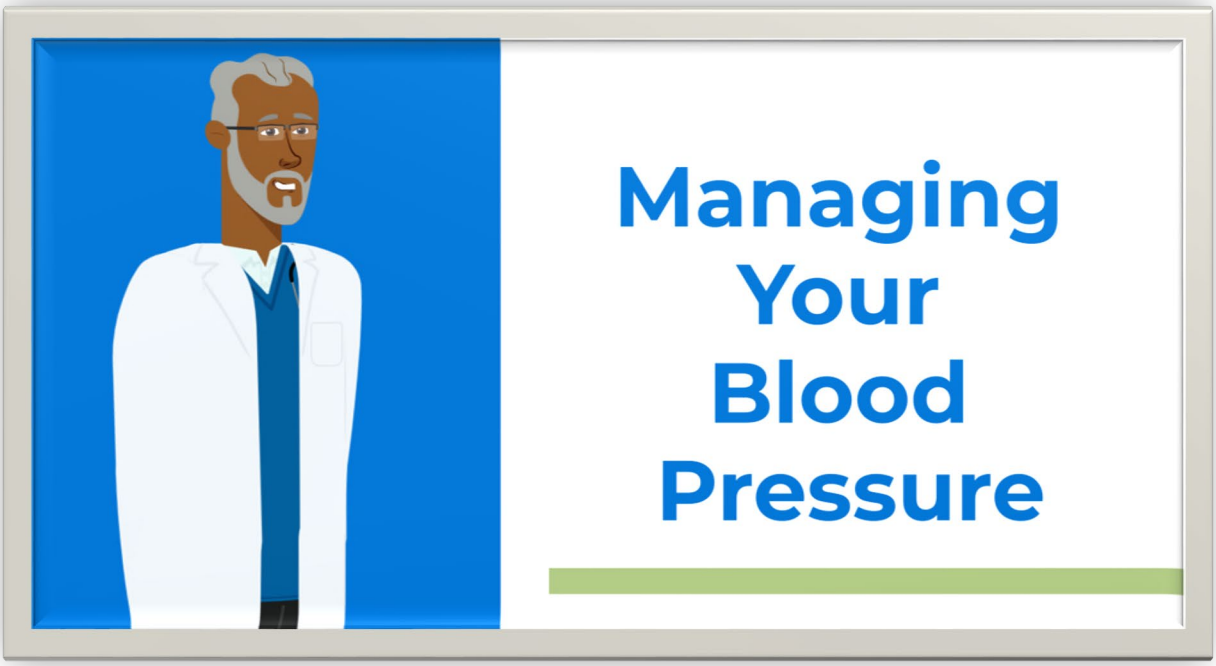
There are many risk factors that contribute to coronary artery disease. Many are modifiable and the actions you take, even small ones, can help you lower your risk of a future heart problem. Many are modifiable and the actions you take, even small ones, can help you lower your risk of a future heart problem.

Please take a moment, once again, to reflect on what really matters to you in the big picture of your life; and how that might be affected by your heart health.

Talk to your Cardiac Rehab team for help identifying which risk factors are most important for you and the factors you can control.

I invite you to think about how you might make just one small step to help manage your risk factors.

Module 10



If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/blood-pressure

SCAN ME

Managing Your Blood Pressure

We would like to share with you what we know about blood pressure and what science says about it. This module reviews what healthy blood pressure is and how you can improve it.

WHAT IS BLOOD PRESSURE?

Blood pressure is how hard blood pushes against the walls of your blood vessels when your heart is contracting and when it relaxes. When your heart is contracting, called systole, the pressure is higher. This is systolic blood pressure and the top number of your blood pressure reading. When your heart relaxes, called diastole, the pressure is lower. This is diastolic blood pressure and the bottom number of your blood pressure reading. In any measurement, it is normal for the top number to be higher than the bottom one.

Blood pressure goes up and down throughout the day and night. Lots of things can affect it like your age, genes, what you eat and drink, how active you are, if you smoke, what medications you take, stress or fear, pain, and some medical conditions.

Most people don't feel their blood pressure, but if it's high, you might get headaches, vision changes, nosebleeds, or feel your heart beating in your neck or head. Even if you don't have symptoms, high blood pressure is hard on your heart, your brain and your blood vessels.

This module is focused mostly on high blood pressure, but some people have low blood pressure. This is less of a risk for your heart but can still be important if you experience symptoms. Talk to your doctor, nurse or pharmacist if you feel lightheaded, dizziness or unsteady on your feet. If blood pressure goes too low, you could pass out or fall down.

IDEAL BLOOD PRESSURE

People often wonder 'what is the ideal blood pressure?' This is different for everyone, but in general, your blood pressure should regularly be below 140 over 90 mmHg.

If you are living with diabetes, prediabetes or more advanced kidney disease, your blood pressure should regularly be below 130 over 80 mmHg.

If your doctor has given you a different blood pressure target, you should aim for that target.

HOW TO CHECK YOUR BLOOD PRESSURE CORRECTLY

1. Sit comfortably with your feet flat on the floor.
2. Make sure the cuff is snug but not too tight around your upper arm.
3. Don't talk while the cuff is inflating
4. Take 3 readings and take the average of those 3 readings.

WAYS TO IMPROVE YOUR BLOOD PRESSURE

There are many things you can do to help improve blood pressure.

Aerobic exercise is one way to lower your blood pressure.

If you have a blood pressure cuff, try this at home: check your blood pressure the way we described, then go and do your aerobic exercise. After you're done, wait a few minutes then check your blood pressure again. It will probably be lower than when you started. The effect of this lasts about 24 hours. Regular exercise can lower your resting blood pressure.

Taking your medications regularly is very important for blood pressure control and many people need more than one medication. Each medication works on a different part of the blood pressure system. If you have questions or concerns about the medications you're taking, contact your nurse, doctor or pharmacist,

Paying attention to and limiting the amount of salt in your diet can also help lower your blood pressure.

Using strategies to manage stress, worry or anxiety can also help you lower your blood pressure.

Smoking can also cause a temporary increase in blood pressure. Quitting or reducing smoking can help lower your blood pressure over time.

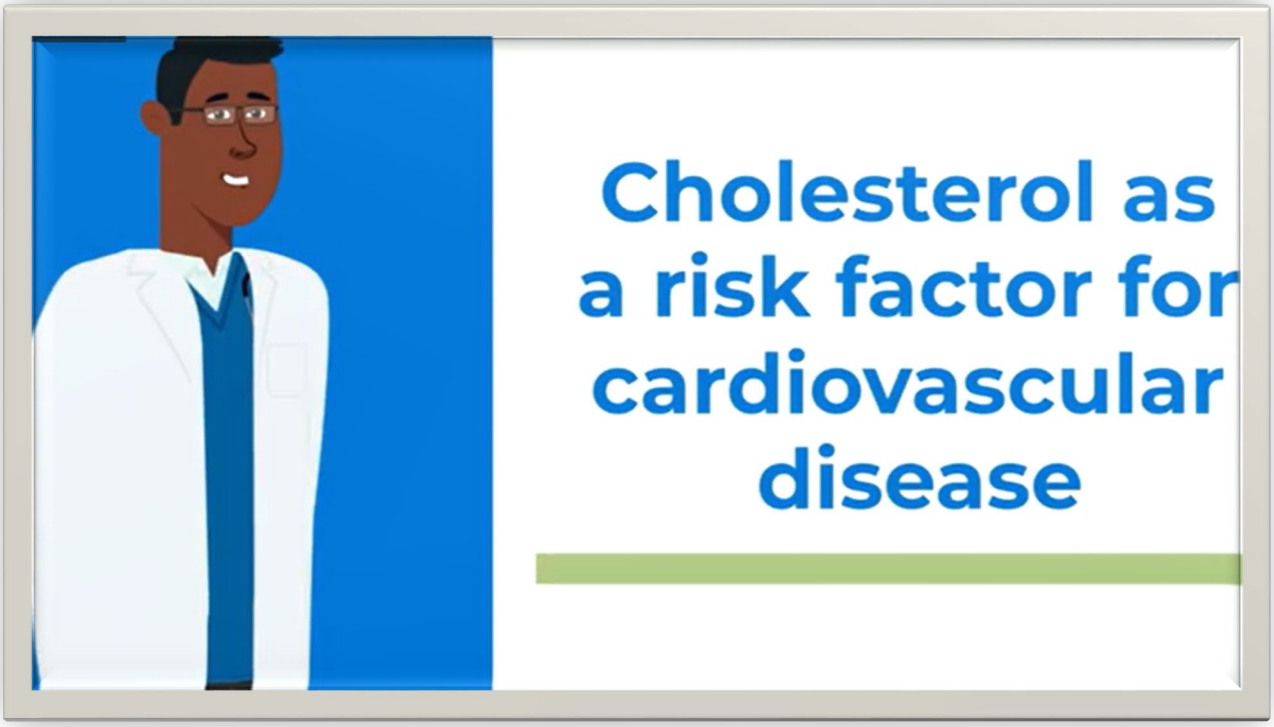
IN CONCLUSION

Having a good blood pressure is an important part of keeping your heart healthy. If your blood pressure is higher than the goal, we encourage you to talk with your Cardiac Rehab nurse about ways to improve it.

If your blood pressure is low and you have symptoms that concern you like lightheadedness or dizziness, please follow-up with your nurse as well.

Healthy blood pressure matters, because it can affect your heart and overall well-being and what matters to you most personally.

Module 11



If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/Cholesterol

SCAN ME

Cholesterol as a Risk Factor for Cardiovascular Disease

We would like to share with you what we know about cholesterol from science and research. This is really important for keeping your heart healthy and lowering the risk of heart problems. We invite you to consider this in terms of what matters in your own life. For example, how could better heart health fit with your personal life goals and priorities?

This module explains what healthy cholesterol levels are, and tips on how to make yours better.

WHAT IS CHOLESTEROL?

Cholesterol is a fat-like waxy substance found in blood. Our bodies need it to make new cells, certain hormones and vitamin D.

It comes from two sources: your liver and some foods you eat.

Cholesterol is measured with a blood test, sometimes called a 'lipid panel'. The test shows several numbers:

- Total cholesterol
- Low density lipoprotein (LDL)
- High density lipoprotein (HDL)
- Triglycerides
- Non-HDL

Having high levels of LDL cholesterol are connected to heart disease and stroke.

LDL (low density lipoprotein) cholesterol

LDL is often called 'bad cholesterol' because it can build up on the sides of your arteries. This buildup is called plaque. Lowering your LDL can help lower your risk of heart disease and stroke.

For most cardiac rehab patients, it is recommended that your LDL be less than 1.8mmol/L.

HDL(high density lipoproteIn) cholesterol

HDL (high density lipoprotein) is often called 'good cholesterol'. A higher HDL level is better, because HDL is protective. Your HDL should be greater than 1.0 mmol/L.

Non-HDL cholesterol

Non-HDL is your total cholesterol minus the HDL, or the good cholesterol. Lower levels are better for your health.

Triglycerides

Triglycerides are a type of fat in your blood. Having diabetes, an underactive thyroid, kidney disease or liver disease can raise triglyceride levels. Drinking a lot of alcohol or eating foods high in cholesterol, saturated fat and trans-fat can also increase triglycerides.

Your doctor may also measure:
Apolipoprotein B (also called Apo B) and Lipoprotein (a) (also called L P little a).

Apolipoprotein B (Apo B)

Apolipoprotein B is a blood protein that helps carry cholesterol around the body. It's measured to check the risk of heart disease. This test can be more accurate than a regular lipid panel, especially in people with conditions like diabetes.

Apo B levels can change as a result of treatment, so it's measured regularly. In Canada, a target value for ApoB is less than 0.8 mg/dL.

Lipoprotein (a) (LP little a))

Lp(a) is measured once in your life and is linked to your genes. It helps determine your lifetime risk for heart disease. An Lp(a) of greater than= 0.5mg/dL is considered higher risk.

WHAT CONTRIBUTES TO CHOLESTEROL?

Most of your cholesterol is made by your liver and is controlled by your genes. Some people inherit high cholesterol levels which can increase their risk of heart disease earlier in life.

We also get some cholesterol from our diet, from foods such as dairy, egg yolks, meats such as beef, lamb, liver, pork, poultry can add to our cholesterol levels.

MEDICATIONS TO TREAT CHOLESTEROL?

Taking your medications regularly is very important for cholesterol control.

Statins

The first treatment for high cholesterol is using 'statins'. Some examples include: atorvastatin, rosuvastatin, simvastatin or pravastatin.

Research shows that statins lower LDL (the bad cholesterol) and triglycerides. They help reduce plaque in the arteries, lowering the risk of heart attack or stroke.

Ezetimibe

If your cholesterol stays high, your doctor or nurse may suggest adding another medication.

Ezetimibe is a medication that works in the gut. It stops your body from absorbing cholesterol. It can work well on its own but works better with a statin.

Injectable Medications

There are three injectable medications that help improve cholesterol. They are Evolocumab, Alirocumab, and Inclisiran. These medications work in the liver's cholesterol-making process and can dramatically lower LDL levels in the blood. Your doctor or nurse will talk to you about these medications if they are right for you.

Making heart healthy food and lifestyle choices can improve your cholesterol. Here are some tips to help you stay heart-healthy.

- Choose a variety of whole and minimally processed foods at each meal.
- Fill half your plate with fruits and vegetables.
- Choose whole grains.
- Choose more vegetarian options such as beans, lentils, tofu and nuts
- Choose leaner meats like poultry without the skin on.
- Limits red meats, organ meats, processed meats.
- Include fish several times per week
- Choose low fat dairy with no added sugar
- Avoid sugary drinks
- Cook and eat meals at home
- Limit eating out
- Achieve and maintain a healthy body weight
- Continue with exercise and physical activity
- Be smoke-free. Smoking keeps your HDL (good cholesterol) low. When you quit, your HDL levels rise within a few weeks.

IN CONCLUSION

Cholesterol is important for your health. High levels of certain types of cholesterol can lead to heart disease. If you already have heart disease, there are ways you can lower your risk of future heart problems. Knowing your cholesterol levels is a good place to start. Taking your medications and choosing heart-healthy foods can also work together to help you lower your risk.

If you have questions about your cholesterol, talk to your cardiac rehab nurse or doctor.

Module 12

If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/risk-alcohol

SCAN ME

Alcohol as a Risk Factor for Cardiovascular Disease

Risk Factors are the traits, characteristics, or habits that make you more likely to develop heart disease. Knowing your risk factors can help you know what to focus or work on during Cardiac Rehab.

We'd like to share what we know about alcohol use and heart disease based on scientific and clinical evidence.

Alcohol can raise your blood pressure, which puts extra stress on your heart muscle and contributes to stiffening of the arteries. High blood pressure is a major risk factor for heart disease and stroke.

Drinking alcohol regularly can damage your heart muscle, leading to a condition called alcohol-induced cardiomyopathy (heart failure). This makes the heart muscle stretch and enlarge, which weakens it and makes it pump less effectively. This condition is rare but still important.

Drinking a lot of alcohol quickly, known as 'binge drinking.' can also cause problems with your heart rhythm called 'fibrillation'. This means your heart doesn't pump very well.

Think about this risk factor and how your heart health might be affected by your own alcohol consumption.

Health Canada Guidelines

The Canadian Centre on Substance Use and Addiction has updated the Health Canada guidelines surrounding alcohol consumption.

- 0 drinks per week is considered "no risk" and has been associated with better health benefits, including sleep.
- 1-2 standard drinks per week has been classified as "low risk," meaning you will likely avoid alcohol-related consequences.
- 3-6 drinks per week is classified as "moderate risk." At this stage, your risk of developing certain types of cancer, including breast and colon cancer, increases.

7 or more standard drinks per week is classified as "increasingly high risk." This is where your risk of heart disease or stroke is increased.

If you're worried about how much alcohol you drink, you're not alone. It's a good idea to talk about your concerns with a cardiac rehab nurse, team member or family doctor.

This is something you can change. If you take the steps now to start limiting your alcohol intake, you can lower the risk it may cause for your heart in the future.

WAYS TO HELP YOU LIMIT HOW MUCH ALCOHOL YOU DRINK

- Know what a standard drink is.
- Keep track of how much you drink.
- Wait at least 1 hour in between drinks.
- Make every other drink non-alcoholic.
- During social gatherings, offer guests food and non-alcoholic drinks.
- Talk with important people in your life and make rules about alcohol use together.

If you are worried your alcohol use is becoming a problem, please speak with a member of our Cardiac Rehab team. You can also speak with your family doctor or seek out community resources such as Reach Out or Addiction Services of Thames Valley

IN SUMMARY

- Reducing the amount of alcohol you drink is one thing you can do to lower your risk of heart disease.
- Health Canada recommends no more than 1-2 drinks a week to be considered low risk.
- There are many ways to help decrease how much alcohol you drink.
- Talk to a member of our Cardiac Rehab team, your family doctor, or seek out community resources if you are worried that your drinking may be a problem.
- If you have been drinking alcohol regularly over time and stop suddenly, it can cause you to go into withdrawal. This is not good for your heart and can cause other side effects. Your safety is the most important thing so be sure to speak with your cardiac rehab team or doctor.

Please take a moment to reflect, once again, on your own alcohol use and how your heart health might be affected? Does your alcohol use interfere with any personal priorities or values you have? If so, which ones, and how?

Your Cardiac Rehab team can work with you to help identify which other risk factors may also cause a risk to your heart health long term.

Think about what you have learned today about drinking alcohol and heart health, and how you might be able to make just one small step to reduce your risk of heart disease.

Module 13

If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/risk-meds

SCAN ME

Medications for Coronary Artery Disease

Coronary artery disease, also called CAD or heart disease, happens when the blood vessels that bring oxygen and nutrients to your heart get blocked. This blockage is usually caused by cholesterol and plaque.

When your heart doesn't get enough oxygen and nutrients, you might feel chest pain or discomfort, , tightness or trouble breathing. If the blockage isn't treated it can lead to a heart attack. Sometimes doctors need to use special procedures like stenting or bypass surgery to help fix it.

If you have CAD, or if you've had a heart attack, stenting or bypass surgery, your doctor likely prescribed you some medications to take.

This module will explain the most common medications used d for people who are living with CAD.

Understanding why these medications are prescribed and how to take them can help you use them correctly and watch for any possible side effects.

Taking your medications regularly as prescribed is one of the most important things you can do for your heart health. They help your heart heal and get stronger, and research shows they can lower your chance of having another heart problem. While all medications, prescribed and over-the-counter, can have side effects, research shows that the benefits outweigh the risks.

5 COMMON TYPES OF MEDICATION

There are 5 types of medications that are usually prescribed if you've had a heart attack or bypass surgery. These are:

1) Antiplatelet medications

2) ACE inhibitors

3) Angiotensin receptor blockers, or ARBs

4) Beta-blockers

5) Statins

Before we talk about each type, it is important to know that many medications have two names: a brand name and a generic name. This can be confusing. To help you keep track, make sure you have an updated list of your medications with both names. You can keep this list in your phone, wallet or purse.

Antiplatelet Medications

Antiplatelet medications stop certain blood cells called platelets from sticking together and forming clots..

Examples include:

Aspirin (acetylsalicylic acid or ASA)

Clopidogrel (Plavix)

Ticagrelor (Brilinta)

These medications are very important if you have CAD. You might need to take one or two of them. Usually, you'll take one of these medications for life.. If you're taking two, one of them might be stopped 1 to 3 years after your heart event, depending on what your doctor decides.

There is no special monitoring required for antiplatelet medications.

It is common to notice some bruising, but serious bleeding is rare. If you do experience bleeding, talk to your doctor or get medical help right away.

Angiotensin Converting Enzyme (ACE) Inhibitors

Angiotensin converting enzyme 'ACE' inhibitors are medications with names that end in 'pril'.

Examples include:

- Ramipril (Altace)
- Perindopril (Coversyl)
- Trandolapril
- Lisinopril (Prinivil, Zestril)
- Enalapril (Vasotec)

Angiotensin Receptor Blockers (ARBs)

Angiotensin Receptor Blockers (ARBs) are medications that end in 'sartan'.

Examples include:

- Candesartan (Atacand)
- Olmesartan (Olmetec)
- Telmisartan (Micardis)

- Valsartan (Diovan)
- Irbesartan (Avapro)
- Losartan (Cozaar)

These two types of medications work in similar ways. If you have CAD, you are likely on one of them. You should not be on both types at the same time.

Here's why these medications are used:

1) They help lower your blood pressure so it's a good idea to check your blood pressure regularly. If it gets too low or if you feel lightheaded or dizzy, contact your Cardiac Rehab nurse.

2) They help the heart muscle recover after an injury. You may be prescribed this medication even if your blood pressure is normal to help your heart in the long run.

3) They've been shown to lower your risk of another heart event.

We usually start these medications with a low dose and then slowly increase if you're feeling OK. If you do well on them, you might need to take them for life.

These medications are cleared from your body by your kidneys. It's rare, but they can sometimes affect how your kidneys work or change your electrolyte levels. After your dose is increased, you should have your blood checked.

ACE inhibitors can also cause a dry cough. If you develop one, contact your Cardiac Rehab nurse to talk about it.

Beta Blockers

Beta blockers are medications that end in 'lol'.

Examples include:

- Metoprolol
- Bisoprolol
- Carvedilol

Here's why these medications are used:

1) They slow down your heart rate (also called your pulse). This helps your heart relax and pump better. It's a good idea to check your pulse regularly when you're resting to make sure it's in a normal range. A healthy adult heart rate is 60-100 beats per minute. For people with CAD, we often aim for a lower heart rate, sometimes in the 50s.

2) They also lower blood pressure which helps your heart pump more easily. It's a good idea to monitor your blood pressure to make sure it's at the right level.

3) These medicines can help your heart muscle recover if there has been any damage. You might have had an echocardiogram (an ultrasound) of your heart to check for damage if you've had a heart event.

We usually start these medications at a low dose and gradually increase them if you're feeling okay. If these medications are working well for you, you'll likely need to take them for life.

These medications can cause low heart rate or low blood pressure. Some people feel lightheaded or dizzy, and others may feel tired. Another potential side effect is erectile dysfunction (difficulty starting or maintaining an erection for males).

If you notice any of these side effects, talk to your doctor or nurse.

Cholesterol Medications

Lowering your cholesterol is very important in CAD. Learn more about the targets for cholesterol and the medications used to treat it in our cholesterol video.

The main medicines for high cholesterol are called 'statins'.

Examples include:

- Atorvastatin (Lipitor)
- Rosuvastatin (Crestor)
- Simvastatin (Zocor)
- Pravastatin (Pravacol)

Research shows that statins help lower LDL (the bad cholesterol) and triglycerides. They also help reduce plaque in the arteries, which lowers your risk of having a heart attack or stroke. After starting a new cholesterol medicine or changing the dose, you should have your cholesterol levels checked in 2-3 months.

Cholesterol medications are usually taken long-term.

Statins are processed by your liver, and in rare cases, can cause damage to your liver. They can also cause muscle or joint aching. If you experience side effects, talk to your doctor.

These are the five main medication types used for CAD. Depending on your needs, you might also use other medicines, like those for angina or high blood pressure. You can learn more about the other heart medications in a different video.

Important Points About Taking Your Medication

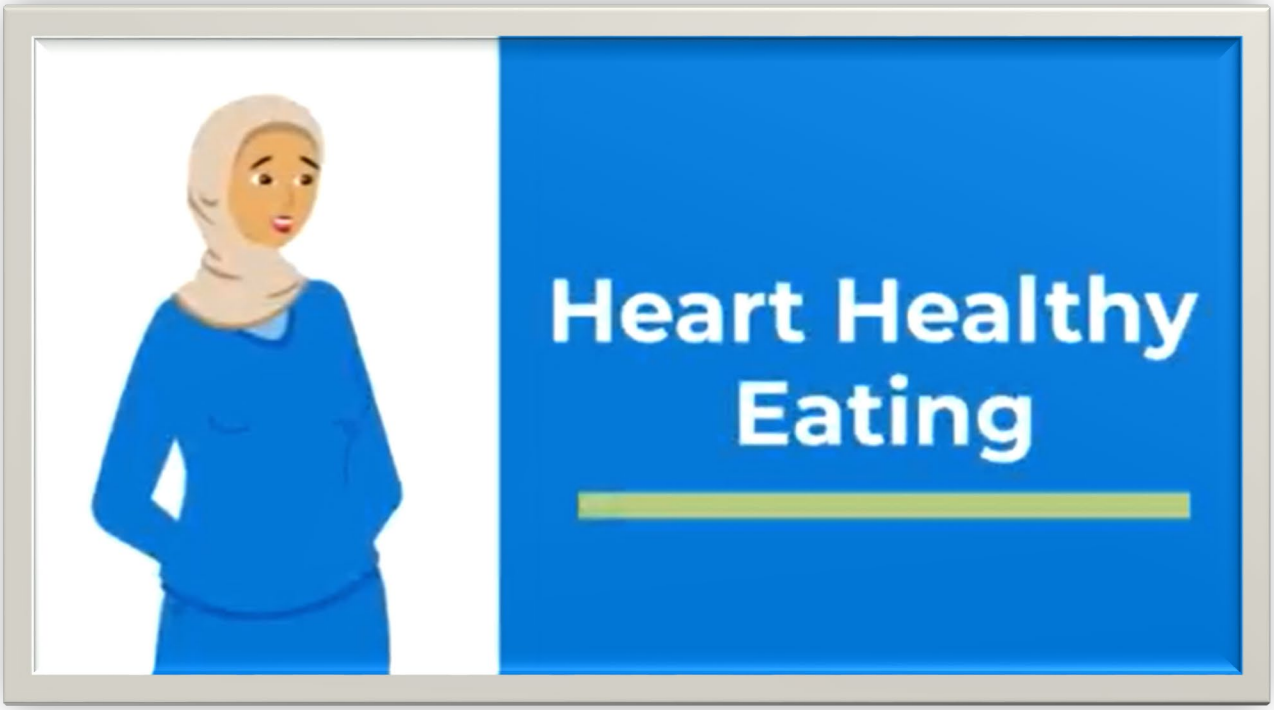
Taking your medications properly is very important for your health.

- Always keep a current list of your medications with you.
- Bring your medications to every medical appointment and let your doctor know if anything changes.
- When you travel, keep an updated list with you and put your medications in your carry-on luggage.
- Your pharmacist is a great resource if you have any questions about your medications.
- Taking your medications exactly as your doctor tells you is really important. Your doctor, nurse or pharmacist can help you set up a good schedule for taking them.
- There are many reasons why people may not take their medications as prescribed. Perhaps you don't feel well or are experiencing side effects.
- If taking medications is new for you, it helps to make it part of your regular routine.
- If paying for your medications is a problem, please let your nurse or doctor know.
- There is a lot of information online about medications. Some of it is good information and some of it is not. If you have questions about your medication, it's best to speak with your medical team or pharmacist.

IN CONCLUSION

If you're having any issues or concerns, be sure to follow-up with your doctor, nurse or pharmacist. We want you to feel well and confident with your medications.

Module 14



If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/heart-healthy-eating

SCAN ME

Heart Healthy Eating

The purpose of this module is to help you with your journey toward heart healthy eating.

Changing what you eat can be hard, so understandably, you would want some good reasons to make some changes. How about this: research has clearly shown healthy eating habits are important for healing from events such as heart attacks and surgeries, and for lowering risks of future heart problems. The most up to date research recommends following a Mediterranean way of eating to protect your heart and keep it healthy

THE MEDITERRANEAN WAY OF EATING involves eating like those who live around the Mediterranean Sea, in places like Greece, Italy and Spain. This includes eating heart healthy foods such as:

- Fruits and vegetables
- Whole grains
- Legumes
- Nuts
- Olive oil
- Fish

It focuses on overall eating patterns and can be tailored to your individual preferences and cultural traditions. To get the most from the Mediterranean way of eating, follow an active lifestyle and prepare and enjoy meals with family and friends.

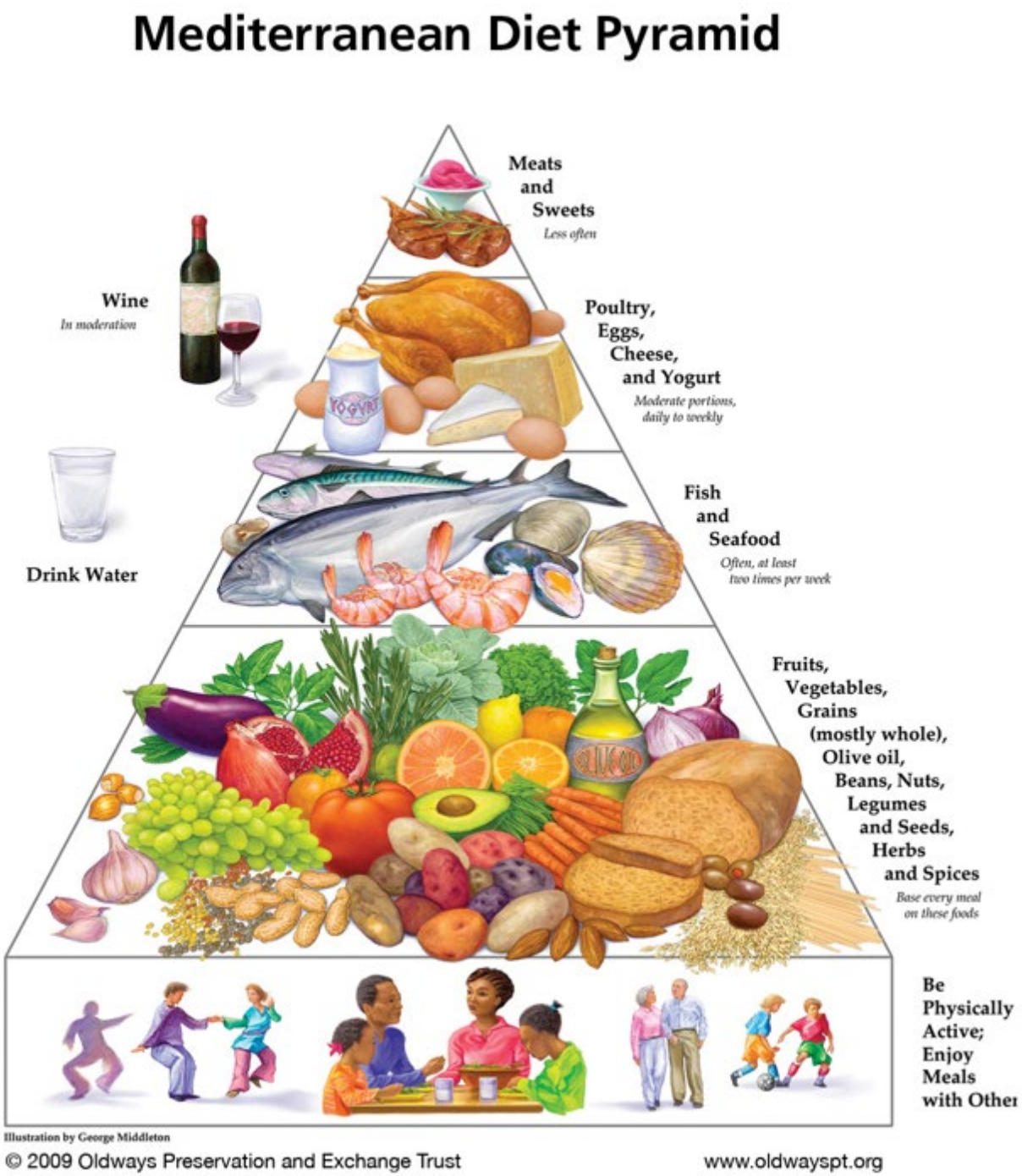
Let me start by explaining the benefits of eating this way. Eating the Mediterranean way can help you:

- Lower your blood pressure and cholesterol levels
- Control your blood sugar and prevent diabetes
- Lower your risk of having another heart attack.

What do *you* think – are these good reasons to think about making some dietary changes?

THE MEDITERRANEAN DIET PYRAMID

Have you seen the Mediterranean Diet pyramid? It is one way to visualize what foods you should eat and how often.



Let's walk through the pyramid's recommendations together:

1. Cook at home more often and flavor foods with tomato, garlic, onion, or leek at least two times per week.

2. Try to use olive oil every day. Olive oil is high in heart healthy unsaturated fats and antioxidants.

   Can you think of ways to add olive oil to your diet? For example, try using olive oil as a salad dressing or marinade.

3. Eat whole foods that come from plants every day to protect your heart. This includes fruits and vegetables. We recommend filling half of your plate with vegetables at mealtimes. Think back to your last meal? Did you include ½ a plate of vegetables?

   Choose whole grains often and select whole grains over white grains such as: whole grain bread, whole grain pasta, brown rice, quinoa, and bulgur.

4. This next recommendation may be challenging for some people:
   Try to eat legumes like black beans, red kidney beans, chickpeas, and lentils several times per week. Do you have a favorite dish with beans, lentils or chickpeas? A great cookbook to help you out is titled, The 30 Minute Mediterranean Diet Cookbook (Deanna Segrave-Daly, RD and Serena Ball, RD).

   As well, you may wish to eat unsalted nuts several times a week. Nuts are high in fiber, rich in healthy unsaturated fats, low in salt, and contain no added sugars

5. Eat more fish and seafood 3 times per week. Fish and seafood are high in heart healthy omega-3 fats. Try your best to include fatty fish such as tuna, salmon, or sardines, and seafood such as clams, scallops, or oysters. You will find some great fish recipes by going to https://www.healtheuniversity.ca/en/cardiaccollege.

6. Include low-fat dairy products, such as milk, yogurt, and cheese, and limit high-fat dairy products. One fun fact, next time you are shopping for some cheese, look at the front of the package and see how much % MF (milk fat) is in the cheese you pick.

7. Try to choose skinless chicken and turkey more often than red meat. Did you know that red meat includes beef and pork? These meats are high in saturated fats, which are harmful for your heart health. Try to limit your red meat consumption to just one or two times per week.

8. To reduce the intake of saturated fat, try to avoid processed meats, such as bacon, sausage, and pepperoni.

9. Lastly, cut back on sweets because they are high in saturated fats. The next time you are craving something sweet, I would encourage you to have some fruit or nuts instead.

By following the Mediterranean way of eating, you can support your heart health and improve your overall well-being.

IN CONCLUSION

Please reflect on your usual way of eating and take some time to consider the following 3 questions:

1. Can you spot just one area where you could move closer to eating in a Mediterranean way?
2. How could you take just one manageable step to move in that direction, and in a way that fits your preferences and cultural traditions?
3. When might you do that? Remember, even small changes to your diet can make a difference to your heart health.

To learn more about heart healthy eating, visit the 'Eat Healthy' section of the cardiac college website. In addition, our program dietitian is available for one-on-one counselling. Just ask your nurse for an appointment.

Module 15

Motivation and Behaviour Change: Part 1

If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/motivation-part-1

SCAN ME

Motivation and Behaviour Change: Part 1

Cardiac rehab is about making heart healthy choices– including exercise, nutrition, taking medications, quitting smoking, and stress management.

In other words, at its heart cardiac rehab is about *behaviour change and heart-healthy lifestyle habits*. We know making change can be hard. To help you make changes that stick, we're sharing an approach to motivation and behaviour change that is effective and based on the science of Psychology.

3-PART SERIES

This module, called **Who Me, Change? I'm Just Thinking about It**, is the first in a series of three about motivation and behaviour change.

The second module in the series is called, **Taking Action for My Heart** and builds on the first.

The third module builds on the first two, and is called **Moving Ahead and Getting the Most out of Setbacks.**

MODULE 1: WHO ME, CHANGE? I'M JUST THINKING ABOUT IT

When taking care of a long-term or *chronic* health condition like heart disease, there is a whole health-care team behind you, including your cardiac rehab professionals, family doctor and heart specialist.

But did you know that *you* are actually the *most* important member of that team? After all, *you* know your body, and *you* are the one living with your heart condition.

Research from St. Joseph's and elsewhere shows that by leading a heart-healthy way of life and taking key medications as prescribed, people with heart conditions can recover, reduce their future risk of heart problems, and improve their quality of life.

But making healthy behaviour changes and turning those into lifestyle habits can be *hard* and can even feel overwhelming.

In cardiac rehab we talk about many things:

- taking medicines
- exercising
- eating healthy

- pacing yourself
- stress management
- quitting smoking
- reducing alcohol
- fixing your sleep schedule
- …etc., etc., etc.

If you don't feel overwhelmed … that's great! But if you do, you're not alone!

And you know, we just can't do everything, all at once. As the old saying goes, "Rome was not built in a day". So, if you're feeling like everything in cardiac rehab is just too much all at once, think about focusing on one thing at a time - just one step that you feel ready or able to take. In fact, one step at a time is often the only way to accomplish what's worthwhile!

When it comes to your lifestyle, habits and heart health, what is *just one* area you *might* try to improve or work on, even if you're not quite ready to start? Think of something that could be *manageable*, perhaps *easy* … maybe even fun… from your point of view. Take a look at the chart below called "Possible Change Area" Can you check off just one possible area? If nothing in the chart fits for you, then write in your own choice at the bottom.

	Possible Change Area
☐	Exercise
☐	Eat in heart-healthy ways
☐	Quit /reduce smoking
☐	Take a prescribed medicine
☐	Try a stress management skill
☐	Increase social/family contact
☐	Increase daily/weekly activity
☐	Trying an activity "pacing" strategy
☐	Reduce/stop alcohol consumption
☐	Work on a better sleep schedule
☐	*Your own idea:*

TRAFFIC LIGHT ASSESSMENT

Now, **focus on your chosen change area**.

I'd like to ask you 4 simple yes or no questions. You can check off your answers in the chart below called "Traffic Light Assessment".

1. If you think about what you are doing, or not doing *now* in this area, is that a *problem* for you?

2. Are you *bothered* by what you are doing, or not doing now?

3. Are you interested in changing that?

4. Are you ready to start changing it now?

Traffic Light Assessment	Yes	No
Is it a problem for you?	☐	☐
Are you bothered by it?	☐	☐
Are you interested in changing it?	☐	☐
Are you ready to start changing it now?	☐	☐

For example, Joe has just started cardiac rehab, and is thinking about whether to get more exercise. Let's ask him:

1. Joe, is your low level of **exercise** a problem for you?

2. Are you bothered by your low level of **exercise**?

3. Are you interested in changing that? in getting more **exercise**?

4. Are you ready to increase your **exercise** now?

Let's see how Joe answers in the chart:

Traffic Light Assessment	Yes	No
Is it a problem for you?	☒	☐
Are you bothered by it?	☐	☒
Are you interested in changing it?	☒	☐
Are you ready to start changing it now?	☐	☒

Now let's take a look at your answers.

If all of 4 of your answers are a clear "Yes", then you are probably a "green light" about making a change in the area you chose. In other words, you are probably ready to get going on it. It could be time to make a specific action plan!

If your 4 answers are a mixture of "yes" and "no", then you are a "yellow light" about making a change in the area you chose. You are likely in 2 minds about it, undecided or "ambivalent". This is actually the most common response. In Joe's example, he is a "yellow light" when it comes to increasing his exercise.

If all 4 of your answers are a clear "no", then you are a "red light", and probably not ready to change in this area. For now, you might want to think about a different area for change. You could also reflect on the reasons you may not be ready. These just might be important!

When it comes to your possible change area, are you a green, yellow, or red light?

In our next module, **ACTION PLANNING FOR HEART HEALTH,** we'll come back to your traffic light coding. Your "colour" can be different, depending on which area of change you are thinking about. You may wish to figure out your traffic light colour in other possible change areas.

IN SUMMARY

Let's review the main points in this module.

- You are the most important member of your cardiac care team.
- Research shows that making heart-healthy behaviour changes, and turning these into long-term habits, can reduce your heart risk, and improve your quality of life. But: change is hard, so it's normal to be unsure, hesitant or in two minds about it.
- You can't do everything at once. Changing one thing at a time is often the most effective approach. Choose just one change area, and try the 4-question "traffic light assessment", to find out whether you are a green, yellow or red light about making a change in that area.

Hold onto your traffic light assessment results for the next module. You may also wish to discuss the results of your assessment with a member of your cardiac rehab team.

Module 16

Motivation and Behaviour Change: Part 2

If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/motivation-part-2

SCAN ME

Motivation and Behaviour Change: Part 2

This module called **Taking Action for My Heart**, is the second in a series of three on motivation and behaviour change, and builds on the first one, called **Who, Me Change? I'm Just Thinking about It**. The third module builds on the first and second, and is called **Moving Ahead and Getting the Most out of Setbacks.**

Before we get going, please find a pen or a pencil so that you can work through parts of this module.

Changing behaviours and habits can be hard. So, if you're going to do something hard, you need a good reason, and motivation.

One basic point is that enduring motivation ultimately comes from inside – from your values, priorities, what really matters to *you.* And to activate and strengthen your motivation, it helps to make a personalized, focused action plan that feels right for you.

Now we'll look at an effective way to make behaviour change – one manageable step at a time, so you can gradually build a heart-healthy way of life. Really, you can use this approach for almost any behaviour change. But today, we'll focus on changing health-related behaviours.

LET'S START WITH BASICS

First, I invite you to reflect again: what really matters to you in life? when it comes to your heart and health, what do you want? Why do you want it? How does this relate to what kind of person you are or want to be?

Some answers might be: "I want to be as healthy as I can, for as long as possible".

Why?

"Because I have things I want to do",

or "I want to get back my self-confidence, energy and independence",

or "There are people I care about who depend on me".

So, when it comes to your heart and health, what do *you* want? *Why?* How does that connect with the kind of person you are or want to be? To help you, have a look at the chart below called "Your Priorities and Values", and check off any that apply to you. Feel free to add in anything you wish at the bottom.

Your Priorities and Values	
What are your key priorities and values in life? What kind of person do you want to be? Check off any that apply. Add in any others you wish.	
☐	My physical health
☐	Having energy
☐	Ability to do interesting things
☐	Having fun
☐	Independence and freedom
☐	Ability to take care of my household
☐	Ability to take care of myself
☐	Ability to travel
☐	Success in my work or career
☐	Having meaningful work
☐	Making lots of money
☐	My mental health
☐	Self-confidence
☐	Family
☐	Time with people I care about
☐	Helping or taking care of people I care about
☐	Friendship
☐	Making a difference to community and society

Here's a second basic point: when we talk about motivation and success, it's helpful to focus on a *behaviour* – meaning a *specific action*, instead of a *desired or intended result or outcome*. Why? Have a look at the table on the next page entitled **"Outcomes vs. Actions"**.

On the left, results like weight loss or physical fitness are fine, except … we don't actually have *direct control* over them. For example, I can't just will my body to get fit or lose weight. But with the right approach, we *can* develop direct control over specific actions, like those listed on the right such as avoiding sweet drinks for a month, or walking 15 min x 3 / wk. And those actions are what's *necessary* for *getting* the desired results.

Outcomes vs. Actions	
Desired or Intended Result/Outcome	**Behaviour: A Specific Action**
Lose 5 pounds	Avoid sweet drinks for 1 month
Get physically fit	Walk 15 minutes, 3 times this week
Lower my cholesterol	Take my statin medication
Sleep better at night	Avoid daytime naps
Avoid/reduce high blood pressure	Reduce salt I add to food
Have less stress in my life	Practice a relaxation technique daily

And here's a third basic point: because change is hard, it's normal to feel ambivalent, to be in two minds about it. For example:

- "Yes, I know I should quit smoking for my heart … but it relaxes me!"
- "Obviously I want to lower my cholesterol …but I really love fast food!
- "Yeah, I know exercise is good for me ... but I just don't like it!

Your cardiac rehab team can work with you to help clarify how ready you are to change one or more health-related behaviours.

Now back to you, let's say you already have a change in mind, even if you have doubts about it. And remember - focus on actions, not outcomes … on changing behaviour, instead of focusing on the end result. Think back to the "traffic light" assessment you did in the first module on motivation and behaviour change. Were you a yellow or a green light about making any particular behaviour change? If so, I suggest you work with that in this next part of the module. If not, please think about one specific behaviour change you *might* make. You don't need to commit to it.

DECISIONAL BALANCE

Please look at the chart below called *Your Decisional Balance.* Write into *Your Decisional Balance* what "no behaviour change" and "behaviour change" might be. For example, "no change" could be "don't start exercising", or "don't start using olive oil"; while change could be "walk regularly", or "use olive oil at supper". Your possible behaviour change could relate to nutrition, medications, exercise, alcohol, smoking, or something else entirely.

Next, write in some pros and cons of "no change" vs. "change" in the order shown (1st, 2nd, 3rd, 4th).

Now reflect on your own priorities, what's most important to you and who you want to be. Looking at your decisional balance through this lens, what do you think about starting your possible change in the near future?

Your Decisional Balance	No Change: _____	Change: _____
Pros	**1st**	**4th**
Cons	**3rd**	**2nd**

HERE'S AN EXAMPLE TO ILLUSTRATE

Val, a smoker, had a heart attack. She has already figured out that what really matters in her life is her energy, personal freedom and independence…that's *the kind of person she is and wants to be*. Val thinks: "Yeah I know, if I want to avoid another heart attack, maybe I should quit smoking, but…".

In other words, Val's not really sure. Take a look at Val's Decisional Balance chart here. This is a tool to help weigh out change decisions, one at a time. Val completes it in the order shown.

Then she thinks about what she really values and the kind of person she wants to be – someone with energy, freedom to do what she wants and independence.

Val's Decisional Balance	No Change: Smoke	Change: Quit
Pros	**(1st)** • enjoyment • relaxes • sociable	**(4th)** • more energy, breath, $$ • safer
Cons	**(3rd)** • $$ cost • heart risk • short of breath if active	**(2nd)** • hard • scary • lose my stress coping device

So, after working with your own decisional balance, let's say you're feeling a little readier to start that change. Even if you're still not quite ready to act, you just might be interested in making a rough draft of an action plan, called a SMART goal. The letters in SMART stand for specific, measurable, achievable, relevant, and time-line or timely.

S - specific

M - measurable

A - achievable

R - relevant

T - time-line and timely

Let's go through "SMART", letter-by-letter. And remember, we're always talking about an *action or a behaviour*, not a *result or an outcome*.

SPECIFIC means: what, when and where. For example, "I'm going to walk, mornings, in the park".

MEASURABLE means how much, and how often, like "I'm going to walk for 15 minutes, 3 times".

ACHIEVABLE means you can actually do it. For example, "Thinking about all the things that might help me or get in the way, I feel I can actually walk 3 times for 15 minutes".

RELEVANT is how the change matters to you personally. I think, "I'm going to walk because I want to keep my mobility and independence".

TIME-LINE means: over what period? For example, "over the next 7 days".

TIMELY means: is this a good time for me to make this change? For example, "I think I've recovered enough from my heart surgery that I can start walking outside".

Putting it all together, my action plan might be: "My goal is to walk, 3 times, for 15 minutes each time, mornings, in the park, over the next 7 days".

LET'S REVISIT THE LETTER "A" FOR ACHIEVABLE

Here's an easy way to judge if your SMART goal is truly achievable. Ask yourself: as a percentage, how *confident* do you feel that you can *actually* complete your SMART goal? A good rule of thumb is if you *genuinely* feel at least 70% confident when you reflect on possible

obstacles and supports, then consider the plan achievable. If you feel less than 70% confident, make your SMART goal smaller, or break it down and take one step at a time. Remember: small is not the same as trivial…small steps are not trivial…they can lead to the top of a mountain!

THE KEY IDEA: GENUINE CONFIDENCE

Let's say I set my SMART goal as 15 minutes of walking in the park, *every* morning for the next 7 days … notice that's 7 times, not 3. Then I reflect: all things considered, how confident am I that I can do actually this? Now, I think I *should* do it, or I *ought* to be able to do it … but feeling that you *should* is very different from feeling you *can*.

Considering barriers and supports, how *confident* are you that you actually *can* do it? Then my *honest* answer would be: "I'm pretty busy in the morning … honestly, I'm only 40-50% confident I can walk every day for the next 7 days." And you know, that's OK! So, I'll shrink the goal. To build motivation and success, it's smarter to set a target you're likely to hit, than to miss a target that's too ambitious.

Aim for at least 70% confidence. So: I'm 75% confident that I can walk 3 times in the next 7 days. And that's "A" for *achievable*.

I invite you to think of a specific action or behaviour – not an outcome - perhaps the one from your Decisional Balance. It could relate to anything: nutrition, medications, exercise, smoking, or something else. Use the chart below called "Your SMART Goal" to complete an action plan.

A SMART GOAL IS A TARGET NOT A PROMISE

One more thing: change can be hard, so it's important to think of SMART goals as *targets* or *behavioural experiments,* not *promises*. So, if you set a SMART goal … you set a target, aim and take your shot. Sometimes you miss. Or, you do an experiment, then you analyse the results.

Missing a SMART goal is not breaking a promise to yourself or your health care professional. In fact, missing a SMART goal can actually be useful, if you *analyse* the results, what works, what does not, and why. This is more constructive than *judging or blaming* yourself, or *apologizing* for breaking a promise.

IN SUMMARY

Today, we've built on an approach to behaviour change and motivation. To summarize,

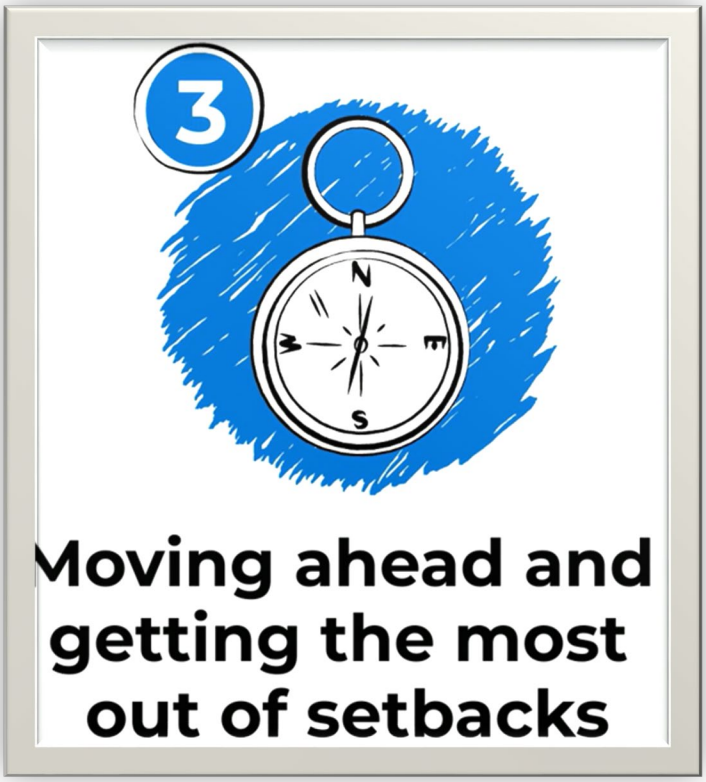
- For long-term motivation, get in touch with your own life values and priorities – what matters to *you*
- Focus on specific action or behaviour change, not results or outcomes
- Take one manageable step at a time

- Because change can be hard, it's normal to be in two minds about it. Try completing the decisional balance with a *specific* behaviour change, then view the results through the lens of your life values and priorities
- You could then make an action plan for behaviour change, using the SMART approach: Specific, Measurable, Achievable, Relevant and Time-bound / Timely. If you are less than 70 % genuinely confident you can achieve your goal, then break it down or shrink it.
- Finally, SMART goals are *targets or experiments*, not promises

In conclusion, you might have more than one SMART goal. I recommend you let each member of your cardiac rehab team know what your SMART goals are. You may wish to prioritize your SMART goals so you can take one at a time.

Module 17

Motivation and Behaviour Change: Part 3



If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/motivation-part-3

SCAN ME

Motivation and Behaviour Change: Part 3

This is the 3rd and final module on motivation and behaviour change, called **Moving Ahead and Getting the Most out of Setbacks**. This module builds on the first, called **Who, Me Change? Just Thinking about It** and the 2nd, **Taking Action for My Heart**. I recommend that you watch these in order.

RECAP: MODULES 1 and 2

First, you may have identified one particular action or behaviour change that you might be getting ready to make, even if you're still undecided or in two minds about it.

Next, you may have come up with a focused behaviour change action plan, called a SMART goal. I invited you to reflect on your personal values and priorities – based on the kind of person you are or want to be - especially as related to your heart and health. Maybe you have already started to act on a SMART goal.

If you have already made a SMART goal, please look at that now.

MODULE 3

This module is about moving ahead with your SMART goal, building on your progress, staying on track, and recovering when you fall off track.

SMART Goal

If you're having trouble starting or completing a SMART goal, then ask yourself: is it truly "SMART"?

First, it's important to focus on one ***S****pecific* action or behaviour change, not a result or outcome.

Can you ***M****easure* that action - how much, how often?

Is your goal ***A****chievable*, manageable for you?

Is it ***R****elevant* - how does it matter to your personal priorities, values and health?

Does it have a clear ***T****ime-line*, like one day, one week, two weeks, etc.? Is this the right time for you to make this change?

Now let's double-check "achievable": considering barriers and resources, how confident do you *genuinely* feel about accomplishing this goal? Consider shrinking your goal, or breaking it into smaller parts, until you can give a genuine confidence rating of at least 70%. Genuine confidence is not *wishing* or *intending* to do something, or thinking you *should* be able do it. Instead, it is feeling that you *can* do it.

ADVANCING YOUR ACTION PLANNING

Maybe you've made some real progress, say in exercise, nutrition, medications, pacing yourself, or something else. If you've already achieved a SMART goal, how did that make you feel? Are you ready to set another one?

If you recall, in the 2nd module on motivation and behaviour change, I set a SMART goal:
I aim to walk, 3 times, for 15 minutes each time, mornings, in the park, over the next 7 days.
I was **75% confident** I could do it.

Let's say it's now a week later, and I review my progress. Honestly, I didn't really feel like starting. But ….

I walked for 15-20 minutes, on Monday, Wednesday and Thursday.

I also walked on Saturday.

So, I met and actually exceeded my goal, even though I didn't feel motivated at first. I now feel a small sense of accomplishment and … also a bit more motivated.

ACTION BEFORE MOTIVATION

That last point is important. Usually, people think motivation comes before action. You get an idea, get motivated, then do it – common sense, right? In fact, it often goes the other way around: action *causes* motivation. Accomplishing a small step can spark more motivation, which can lead to a bigger step. It's like climbing up a "motivational staircase". That's what happened to me: I walked 3 times, and got motivated to do a 4th on Saturday.

WHAT'S NEXT?

For my **2nd SMART goal,** I think:
I'm going to get up early *every* morning to walk for 20 minutes in the park, for the next 2 weeks.
My genuine **confidence level** for doing this is … **25%**. …

Is that actually a SMART goal? Let's see… should I give it a shot?

If you answered **"NO!"**, then honestly, I agree.

First, my **confidence rating is only 25%, far below 70%**. I think I *should* be able to do it…so what's wrong with me??

But you might have noticed 2 things:

- My 2nd goal is not just a *bit* bigger than my first one, it's a *lot* bigger.
- And it's actually *two* goals, not one:
  - first, getting up early, and
  - second, walking

This might be an *action plan*, but it's not a *SMART* goal. What do you think I should do?

Here's my answer:
I'll break it down, take one thing at a time, *and* downsize, until I can give a genuine confidence rating of at least 70%.
So: to *advance* my goal-setting, I'll actually *forget about* getting up early. I will just add one day to what I've already done:
I'm going to walk 5 times over the next 7 days.
Now I feel **75% confident** that I can actually do this.

Back to you: have you already completed a SMART goal? if so, what was it? How can you build on it to advance your action-planning, *SMART-ly*? Plan your next step using this chart called My Next SMART Goal:

My Next SMART Goal	
S: what action, when, where?	
M: how much, how often?	
A: is this achievable?	
R: how does this fit your values: what matters, who you are?	
T: what is the *time-line?* is this change *timely?*	
Re-check "A": Your *true* confidence rating for this plan (is it at least 70%?)	**_____%**

GETTING THE MOST OUT OF SETBACKS

Let's say you've been meeting your goals... maybe exercising regularly, or eating well, or you haven't had a smoke in a couple of months. Congratulations!

And then something derails you … maybe stress hits … like so many of us, you slip back into old ways! You were doing so well…what happened?? Something very *normal* happened, that's what!

Changing habits is not really a one-time event; it's actually a learning process, which can sometimes be hard. If you've had a slip, setback or relapse, that's *normal.* In fact, these *can* be part of the learning process that gets you closer to long-term change … that is, *if* you know how to put them to good use.

Here are 3 common reactions to setbacks. The first is helpful, but the other two are counterproductive.

OPTION A: REALITY

- You acknowledge the setback as a problem
- But you remember: a SMART goal is a target, not a promise
- So instead of judging yourself, you a*nalyse* and *understand* why the setback happened:
    - why then?
    - what was going on?
    - did the old behaviour help you cope somehow, maybe with stress? Needing to cope with stress is normal and natural, but the question is "*how".* In the future, could you cope in a healthier way?
- You focus on your previous success … it was real, and shows you can do it!
- You reconnect with your values and the person you want to be
- If the time is right, you get back on track with a new, manageable SMART goal.

Option A can lead to learning, recovery and progress. That's what I meant by "getting the most out of a set-back".

Here are two other common, unhelpful reactions to a setback.

OPTION B: EMOTIONAL SELF-ABUSE

This amounts to self-blame and beating yourself up. For example:

- "I broke my promise, I'm weak, bad, I failed", etc. etc. … maybe leading to "I really can't do this!"
- "I'm only being honest" … or "I deserve to feel bad" … or "I have to beat myself up, so I can get motivated again!"

Now, it's fine to take responsibility … but that's not the same thing as beating yourself up, which is usually just depressing, and makes it *harder* to get back on track. Have you ever noticed: the more self-blaming you are, then the less you exercise, the more you smoke, eat, drink, etc.

Instead, try being respectful to yourself. Figure out the reasons for slipping up, instead of *blaming* yourself. Try reviewing ***Option A, "Reality"***.

OPTION C: DENIAL

This is another unhelpful approach. It involves statements like "I'm not *really* back to smoking … one won't matter!" or "I haven't *really* stopped exercising", etc.

Now, if you *deny* there's a problem, then you can't *fix* it. Denial leads to: less exercise, continued smoking, unhealthy eating, more drinking, etc. … the very same results as option B. Once again, try reviewing ***Option A, "Reality".***

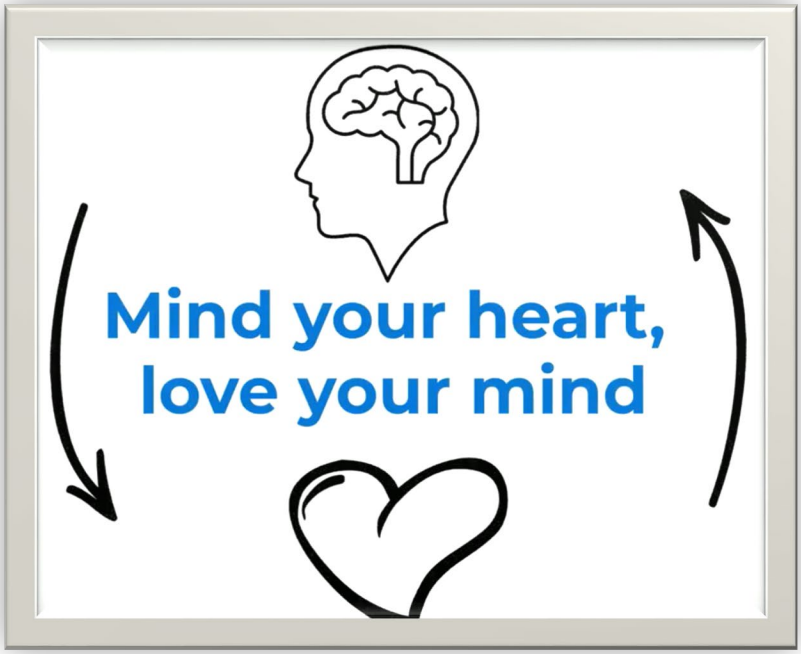
IN SUMMARY

We've covered moving ahead with your SMART goal, building on your progress, staying on track, and how to get the most out of setbacks. You may wish to review these ideas with your cardiac rehab team members.

This concludes our third and final module in in our series on Motivation and Behaviour Change. It can take time and practice to apply these approaches, so feel free to review the module series as often as you want.

Module 18:

Mental Health in Cardiac Rehab



If you wish to access the video, please use the QR code below or by using this direct link: https://qrco.de/cardiac-mental-health

SCAN ME

Mental Health in Cardiac Rehab

Welcome to this module on mental health, called *Mind Your Heart, Love Your Mind.*

If you haven't read the modules on stress and stress management, I invite you to have a look at them. Everybody has some stress – it's not an illness, it's just a fact of being human. Too much stress can increase your risk of future heart problems. But it can also put your mental health at risk.

3 IMPORTANT MENTAL HEALTH CONDITIONS

In this module, our goal is to talk about 3 important mental health conditions that affect some, but not all heart patients. These are:

- Clinical depression
- Anxiety disorders
- Post-traumatic stress disorder

We will also discuss why these matter for heart patients, and what to do if you're worried about them.

First, let's think about basics. If you're reading this module, it's likely that you or someone you know has recently had a cardiac event or diagnosis.

HEART AND MIND: 2-WAY CONNECTION

Heart problems are problems with the body, right? So *why* would we discuss *mental* health in a cardiac rehab program? If you already have a clear answer, that's great. But it's still a good question that deserves an answer. More and more, research reveals: what affects the brain and mind, can affect the heart and blood vessels. And vice versa: what affects the heart can affect the brain and mind.

But you don't need to take my word about the heart-mind connection. You can actually *feel* it for yourself. Perhaps you can recall a time when you felt really *excited* about something or maybe … someone (pause). That emotion began in your brain and mind – but what did your heart-beat do?

The 2-way connection between heart and mind has important health implications for people in cardiac rehab. When the health of the mind suffers, or benefits, then the heart can suffer or benefit too. And vice versa: heart conditions can affect mental health. So really, mental and physical health go hand-in-hand.

CLINICAL DEPRESSION

Let's talk for a moment about clinical depression. Most of us feel sad, low or down at times. This is just part of being human. If this comes and goes over a period of hours, or even or a day or 2, it may involve *feeling* depressed, but it's probably not depression. And let's face it: having a heart problem can pose challenges and cause emotional distress; but this is not necessarily depression.

Here's how to recognize depression:

- i) down or depressed mood; or ii) having a loss of interest, motivation and enjoyment. These last *most* of the time, for *at least* 2 weeks.
- ii) There may be other symptoms such as trouble sleeping or sleeping too much; appetite or weight loss or gain; low energy; excessive guilty feelings; hopeless feelings; or ideas and feelings about self-harm. Such thoughts and feelings in yourself or someone else
  should never be dismissed or downplayed, but should be discussed with a health professional or someone else you trust.

There is a new suicide help-line in Canada: Dial 988.
This is available 24 hours, 7 days a week
In case of emergency: call 911.

Thinking patterns can become very negative, regretful or self-critical. The World Health Organization tells us that depression is a leading cause of disability in the world. It is important to understand that depression is not something people want or choose.

Depression may be mild, moderate or severe. It does not always involve hopelessness or suicidal feelings.

ANXIETY

Many heart patients may also experience significant anxiety. Most of us feel anxious at times; and heart problems can cause worry. But if the anxiety lingers for weeks or months, it may be an anxiety disorder. There are different anxiety disorders, but they all involve persisting or recurring fear; often together with tension, worry, panic, or avoidance of situations, thoughts or feelings. Thinking patterns can become tilted toward "worst case scenarios"

POST-TRAUMATIC STRESS DISORDER (PTSD)

Finally, heart patients or their loved ones may experience post-traumatic stress disorder, or PTSD. This condition may result from experiencing, or witnessing an actual or perceived life-threatening event, serious injury or sexual assault. Events such as cardiac arrests or heart attacks can be followed by PTSD.

Symptoms last at least 1 month, and may start immediately after the event, or be delayed. They can include:

- Flashbacks
- Disturbing memories, nightmares or emotional distress related to the threatening event or physical reactions such as increased heart rate in response to reminders
- Avoidance of memories, thoughts or reminders of the trauma
- Changes in thoughts and feelings, such as negative thinking, blaming of self or others, anger, guilt, fear or shame, loss of interest, feeling detached or emotionally flat
- Increased emotional reactivity and arousal, such as angry outbursts, recklessness, scanning for threat, trouble concentrating, or sleep disturbances

WHY ARE WE CONCERNED ABOUT DEPRESSION, ANXIETY DISORDERS AND PTSD IN CARDIAC REHAB?

First, significant numbers of heart patients are affected by these conditions. They cause suffering, reduce quality of life, and multiply the burden of other health problems. They may decrease motivation, and make it difficult to participate actively in cardiac rehab. Finally, while these conditions can be triggered by heart problems, we know that it also works the other way around: in other words, depression, anxiety disorders and PTSD may also increase risks of heart trouble in the future.

WHAT MATTERS MOST TO YOU?

We want to support you in getting the most possible out of cardiac rehab. Think back to what matters most to you: what kind of person you are or want to be, your independence, mobility, family, friends, important life goals…cardiac rehab can help you get there! If mental health concerns are making it harder for you to participate fully in cardiac rehab, please talk to us! We

want to help you to find your own strength to stay involved! In fact, being active in cardiac rehab can help your mental health if you have a diagnosable mental health condition.

If you have concerns about depression, anxiety disorders, PTSD, or any other concerns related to mental health, then talking with a cardiac rehab nurse or other team member can be a good start. I urge you not to ignore these important conditions. Mental health services are available in our program, and you can be referred to them. You may also wish to speak with your family doctor. A good community resource is called Reach Out, which offers mental health, addictions and crisis services.

Reach Out: 1-866-933-2023 (toll-free) or 519-433-2023 (local and text)
Or go to www.reachout247.ca
(A free, 24-hour 7-days/week service funded by the Province of Ontario)

For the new 24/7 suicide helpline: Dial 988
If you have an emergency: Call 911

IN SUMMARY

We've talked about:

- The important connections between heart and mind, between cardiac and mental health
- Key symptoms of depression, anxiety disorders and PTSD, to help you identify these important mental health conditions
- What to do if you have concerns about them. Talking with a cardiac rehab nurse or other team member can be a good start. You may wish to discuss your concerns with your family doctor.