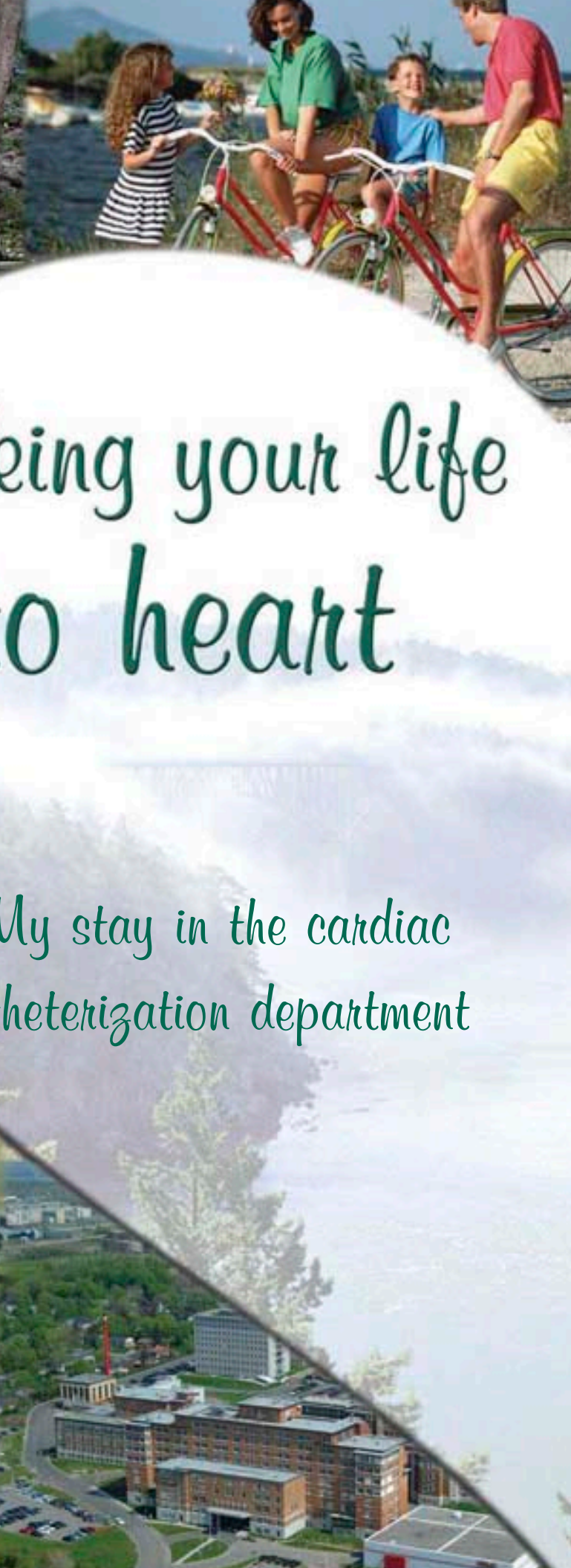




Institut universitaire
de cardiologie
et de pneumologie

Taking your life to heart

*My stay in the cardiac
catheterization department*



Index

1. Foreword	4	Medical visit	31
2. Introduction	5	Diet	32
3. Before your examination	7	Medication	40
4. Your examination	10	Doing physical activity	45
Examination room	10	PPMC	47
The coronary angiography	12	Tips for smokers	48
The coronary angioplasty	14	Your lifestyle	51
The brachytherapy	16	Checklist	53
Right and left catheterization	16	7. Community resources	54
Risks and side effects	17	8. Websites	56
5. After the examination	19	9. Thanks	57
6. Your return back home (Leaving)	23	10. Diagram of the coronary arteries	58
Risk factors	24	11. Glossary	59
Recovery	30	12. Where is Laval Hospital located?	61
Return to work	30		
Driving	30		
Sexual relations	31		

623436 / april 2004



Foreword

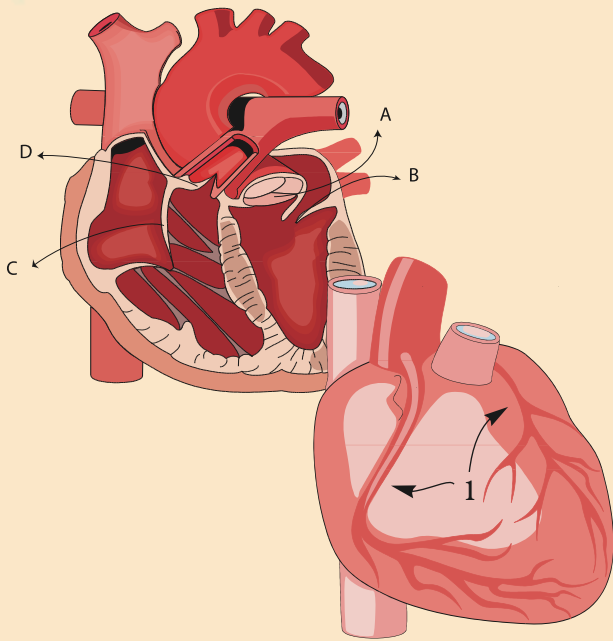
Your heart is suspected to be the cause of your health problems. You have agreed with your doctor to have a cardiac catheterization done with the objective of confirming the diagnosis and determining the appropriate treatment. This treatment could be medication, a coronary angioplasty or cardiac surgery. If you need to undergo an angioplasty, the cardiologist specialized in cardiac catheterization could propose it to you during the catheterization procedure and perform it at the same time.



The purpose of this document is to inform you about the principal procedures carried out at the cardiac catheterization laboratory and to provide you with some guidelines concerning your return back home. It also offers information on diet, medication and starting or continuing physical activity in your everyday life. We suggest reading the information that follows.

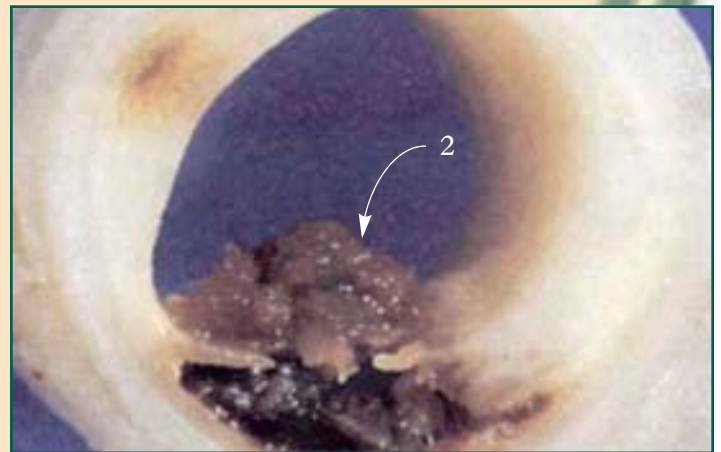


Introduction



At the cardiac catheterization laboratory we study the diseases of the cardiac muscle, the cardiac valves and the coronary arteries. The most frequent among these is the atherosclerotic disease that affects the coronary arteries (1). It is formed from deposits located at the artery walls (2) which block the blood flow. Angina occurs when the heart has insufficient blood and is often felt like a pain or oppression in the chest. If the lack of blood is too great or lasts too long, it can then lead to a myocardial infarction.

The heart is a muscle whose principal function is to pump blood towards the different parts of your body. Inside the heart, four valves (Aortic (A), mitral (B), tricuspid (C) and pulmonary (D)) have the role of allowing blood to flow in only one direction. The oxygen transported by the blood is the principal source of energy for the heart. There are three coronary arteries (1) that take the blood to the heart.



Introduction

When the disease of the valves, or the cardiac muscles, becomes more notable, they provoke tiredness, and/or breathlessness with effort.

This can increase with time to the point of causing breathlessness even at rest and can eventually lead to a pulmonary edema, or what is commonly referred to as “having water in the lungs”.

Your physician has referred you for an examination at the cardiac catheterization laboratory of Laval Hospital. This referral is probably related to the importance of your symptoms or to the results of the tests you underwent.

Different types of examinations are offered in the cardiac catheterization laboratory. The physicians determine the type of examination that is required based on your specific situation.

At the end of this examination your physician will tell you the treatment options. It is also possible that she/he will simply recommend that you continue with the medication you were already taking before the examination.

Alternatively, a coronary angioplasty may be proposed, which could be performed immediately or later on. Other operations may also be suggested, which are also performed in the cardiac catheterization laboratory.

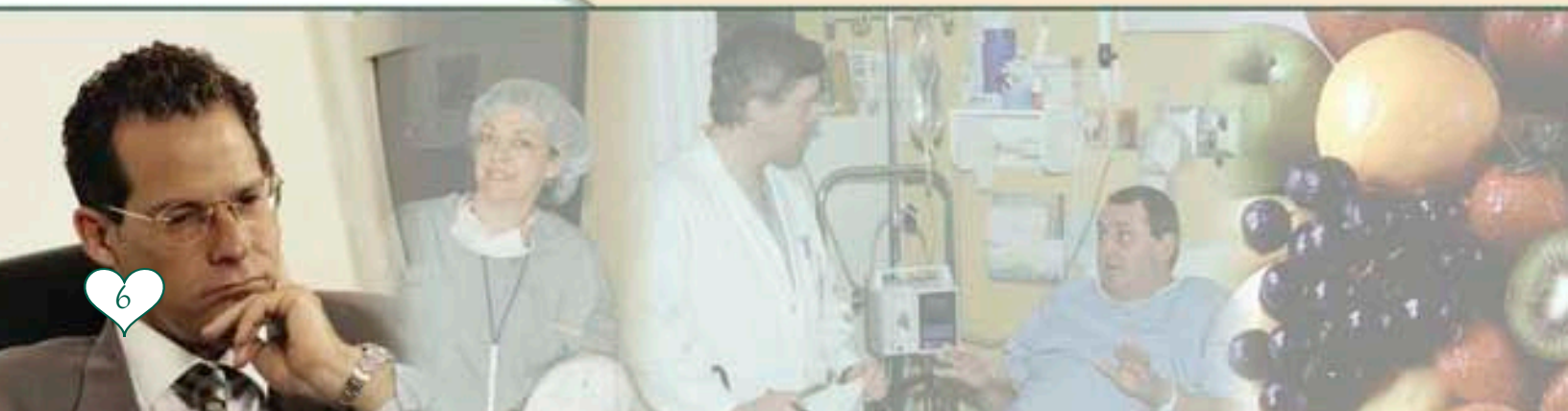
Finally, it is possible that a cardiac surgery would be the best treatment for your situation. In this case, the results of the examination are explained to you and to the physician that has referred you to the cardiac catheterization laboratory. The results are also transmitted to the cardiac surgery department at Laval Hospital.

We will ask you to visit your physician to discuss with him/her about the surgery.

If you decide to accept the surgery, your physician should then contact the cardiac surgeons at Laval Hospital to confirm your request.

The cardiac catheterization laboratory of Laval Hospital is actively involved in education and in medical research. Therefore, under the responsibility of the interventionist cardiologist, a resident (physician in training) could be asked to get involved in your treatment.

It is also possible that a member of our research team would ask you to participate in a study for a new treatment. You are free to decide to participate or not in this study.



Before your examination



You are admitted at Laval Hospital and the personnel is pleased to welcome you. Your stay at the hospital will probably be very short because patients are usually able to return back home the same day, a few hours after the intervention. There are some necessary preparations for your intervention:

- Data collection (information on your health, medication, etc.)
- Blood test, electrocardiogram (ECG) and pulmonary radiography (upon request)
- Installation of a serum
- An identification bracelet will be attached to your wrist and it is very important not to remove it. (If necessary, a bracelet identifying your allergies will also be attached to your wrist)
- Shaving both your groins and wrists are also routine
- Personnel hygiene will be done the morning of the intervention with a disinfectant solution.

- This preparation could be done externally in the Day Care Center or in a Community Health Center (CLSC). In this last case, arriving at Laval Hospital, assure you to have in your possession: *the results of your examinations, and your medication well identified. You can ask your pharmacist for a list of the medication you are taken. Don't forget to bring this document, "Taking your Life to Heart", with you.*

NOTIFY THE PERSONNEL:

- If you have allergies to iodine or other substances
- If you are diabetic, in order to receive a special preparation
- If you have renal problems or a renal disease
- If you have any problems returning home after your intervention
- You can have a light meal before the examination.



Before your examination

Anticipating the possibility of an angioplasty, you will take clopidogrel pills (Plavix™) the day before the examination.

If you feel nervous, we suggest you have an herbal tea or ask your physician to prescribe you medication to help you sleep. A good night's rest will better prepare you for the intervention.

A video explaining the intervention and its development is available (see téléduc program). There is also a copy of the video at the care unit where you will be admitted.

You are called to the cardiac catheterization laboratory

Once the personnel of the cardiac catheterization laboratory calls you, the nurse will give you the following:

- 1 pill of Bénédryl™ that acts as a mild sedative to prevent certain reactions to substances injected during the examination.
- 1 pill of aspirine to prevent the formation of blood clots.



Don't forget to urinate just before going to the cardiac catheterization laboratory, because we will administer liquids, which may cause the desire to urinate. In any case, you will have the opportunity to urinate during the examination.

If you feel nervous, tell the physician or the nurse. Talking about your fear may alleviate your stress.

A stretcher-bearer will take you to the cardiac catheterization laboratory on a stretcher or wheelchair.



Before your examination

Your arrival to the cardiac catheterization laboratory

In the observation room:

- A nurse will greet you and make sure that everything is ready for your examination.
- A bell is provided for you. Do not hesitate to use it if you need help.
- A test is done to your hands in order to ensure that the blood circulation allows a catheter to pass through your wrist.

- The interventionist cardiologist then meets with you. He examines you and afterwards explains the examination that is going to be done and specifies the type of procedure that will be performed.
- You sign an operation consent form. (Reference in page 18)

N.B.: The waiting time varies and depends on the duration of the procedure previous to your own. At times, emergencies occur which may delay your examination.



Your examination

In the examination room

- A nurse and a radiology technician will accompany you to the examination room.
- You will be asked to lay down on a firm, mobile table, around which pivots an x-ray camera. A number of screens allow the interventionist cardiologist to watch your arteries, your heart and to follow your heart rate and blood pressure during the examination.
- The temperature in the examination room is lower than in the rest of the hospital. If you feel cold, ask for a blanket.
- Adhesive electrodes are placed on your thorax to obtain an electrocardiogram (ECG) during the examination.
- We measure the height of your thorax with a ruler in order to have a better measurement of the pressure of your heart during the examination.

- The nurse will disinfect one wrist and both groins. Even though the procedure will be done through the wrist, the groin is disinfected in case it is not possible to insert the catheter through the wrist. The disinfectant gives a cold sensation that may be unpleasant. The colour of the solution on your skin will go away once washed with soapy water.



Your examination

- Afterwards, we cover you with clean and sterile sheets.

It is very important not to touch these sheets in order to keep them sterile. This avoids the risks of infection. If you touch them, they will have to be replaced.



- Your co-operation helps the work of the professional team.
- During the preparation procedure, we ask you to stay in the position in which we place you. However, feel free to let us know if you don't feel comfortable.
- During the examination, we will frequently ask you to place your arm under your head, which will help to better visualize your heart on the screen.

- The preparation of all the necessary material to perform your examination takes between 15 to 20 minutes.
- If you need to urinate, do not wait, you can do it on the table which is prepared with absorbent towels and waterproof sheets.
- Notify the nurse or physician immediately of any respiratory difficulty, thorax pain or tightness of the chest during the examination. This will help the team take all the necessary measures to assist you.



Coronary angiography

The different types of examinations

The details of the procedure may vary depending on the type of procedure that corresponds to your condition. The coronary angiography (study of the coronary arteries) and the coronary angioplasty (unblocking of the coronary arteries) are the most frequent and are described in the following lines. We will also talk about the brachytherapy and the right and left heart catheterization.

Coronary angiography

Coronary angiography is a procedure in which a colorant containing iodine is injected into the coronary arteries with the help of a catheter (small hollow tube). We then verify with the x-rays if there are one or more blockages that slow down the flow of blood.

The coronary arteries located on the surface of your heart drive the oxygenated blood to the cardiac muscle.

The interventionist cardiologist proceeds with local anesthesia of the skin at the wrist or the groin. Afterwards, he inserts a catheter through the artery that goes to your heart. He injects an iodine based colorant in order to visualize your heart and arteries.



Gracieuseté de Guidant Canada

Usually without pain, the passing of the catheter can sometimes be felt. The injection of the colorant could cause a slight discomfort in the thorax and can occasionally provoke nausea and hot flashes. Let us know if you feel uneasiness or a persisting discomfort.



Coronary angiography

The colorant is injected repeatedly while the x-ray camera pivots around you. The analysis of the obtained images allows the physician to make a diagnosis of your condition.

During the procedure, the physician will frequently ask you to stop breathing for a few seconds or to take deep breaths with the objective of obtaining better images of your heart.



In most cases, the diagnosis allows the staff to make a quick decision on the best treatment option. Therefore, depending on the nature of the blockage of your arteries, the treatment could consist of:

1. *A medication treatment*
2. *An angioplasty with or without stent*
3. *Surgical treatment (coronary bypass surgery)*

In some cases, the evaluation by coronary angiography must be completed with an intravascular ultrasound (IVUS) or a measurement of the coronary pressure.

IVUS consists of sliding an ultrasound catheter into your arteries to better define the nature and severity of a coronary blockage.

Coronary pressure measurements are performed by sliding a very small metallic wire capable of measuring the pressure distal to the stenosis comparing it to the aortic pressure to verify if it affects the blood flow. These two examinations are done at the same time with the coronary angiography.

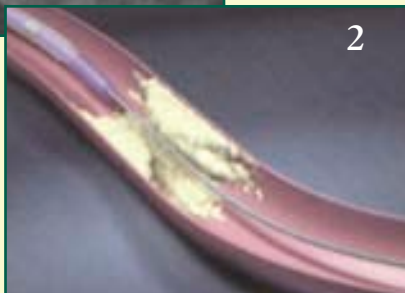


Angioplasty

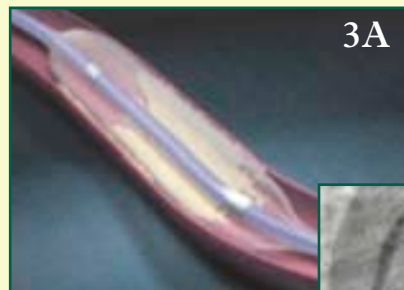
The coronary angioplasty

If the physician identifies a blockage (1) severe enough to explain your symptoms and this blockage is suitable for a balloon dilation, he could propose to you, a coronary angioplasty.

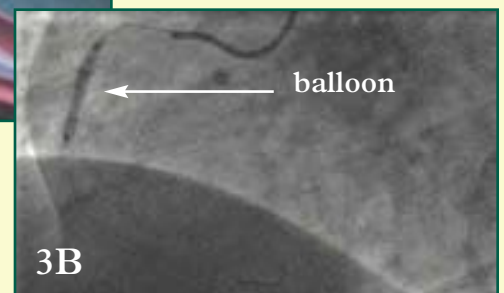
The coronary angioplasty is normally performed after the coronary angiography. This operation consists of unblocking a stenotic artery. The interventionist cardiologist slides a tiny metallic wire to the blocked artery passing through the interior of the catheter that is already in place. This tiny wire will be used as a guide to draw the balloon required for the angioplasty.



Graciousness of Guidant Canada



Graciousness of Guidant Canada

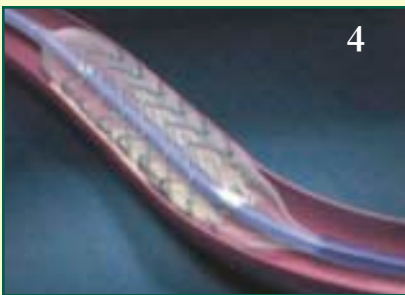


Angioplasty

The balloon is positioned in the clogged area and inflated for a few seconds in order to expand the narrowed portion of your artery. (3A-B) During the inflation, the blood flow of the artery is temporarily interrupted and you may feel a chest pain similar to that of your angina. The pain disappears progressively as the balloon is deflated, it's normal, however notify the personnel.

If considered necessary, the physician can decide to install a **stent** to keep the artery open. The stent is a small metal mesh tube placed where the blockage is located by inflating a balloon inside it. (4) Once installed, the stent will never move and will stay in your artery forever. (5 A-B)

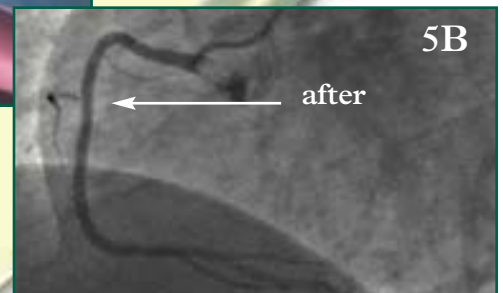
The duration of the coronary angioplasty is variable and depends on the complexity and the way in which your artery responds to the operation. Generally, the coronary angiography and the angioplasty can be completed within 90 minutes.



Graciousness of Guidant Canada



Graciousness of Guidant Canada



Other procedures

The brachytherapy

It may happen, that a coronary artery having already been treated by the implantation of a stent, occludes during the months following the procedure. This is called restenosis. Restenosis is usually caused by exaggerated scarring that may result in the reappearance of your symptoms. Therefore, new coronary angiography may be proposed to confirm the presence of a restenosis. If that is the case, a brachytherapy could be performed later on.

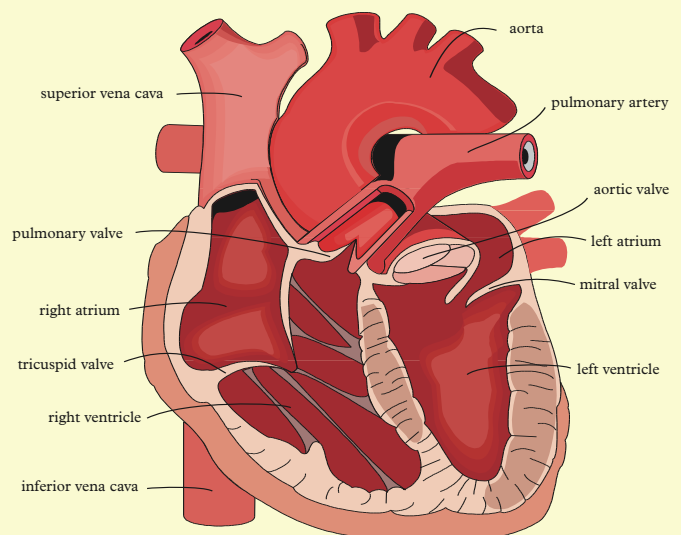
The brachytherapy procedure is initiated by a new dilatation of your artery with the help of a balloon. Following this, the physician slides a catheter to the place where the restenosis is located in order to apply radiation to the area. This radiation destroys the cells that are responsible for this restenosis. The procedure is done with the close collaboration of a specialist in nuclear medicine that calculates the necessary and safe dose of radiation.

Right and left heart catheterization

The evaluation of certain cardiac illnesses may require the study of the cardiac muscle and the different valves. We will then measure the pressure of the right and left sides of your heart.

A catheter is inserted through a vein of the groin or the arm and slid to the right side of your heart and then up to your lungs to measure the pressure. A second catheter is eased through another artery, either from the wrist or the groin, allowing the pressure measurements of the left side of your heart.

The analysis of pressure is completed by the injection of a colorant which facilitates the appropriate choice of treatment for your condition.



Risks

Risks and possible side effects of a cardiac catheterization procedure

Examinations at the cardiac catheterization laboratory are performed everyday to investigate cardiac problems. These procedures involve certain risks but provide precious information that can not be obtained otherwise up to this day.

In order of frequency, the risks are the following:

- Hematoma and laceration of the punctured artery of the wrist or groin (approx. 1%); exceptionally a surgical operation is needed in order to repair the damage. Amputations of the limbs have been reported in very rare cases.
- Rarely, certain persons show allergic reactions to the iodine based colorant. In most cases, they are minor reactions (rash, swelling) but they may represent an important risk for your life and require urgent treatment. It is very important to notify us of any kind of reaction shown in the past to iodine in order to administer an alternative to reduce this risk.

- Other complications are exceptional: serious problems of the cardiac rhythm (0,3%), brain embolism and paralysis (<0,1%), renal insufficiency (0,5%) and death (0,1%).

The dilation of a coronary artery or the implantation of a stent implies risks with a higher incidence. To the risks mentioned before we have to add:

- A higher risk of myocardial infarction with severe damage to the heart (0.5 to 1%)



Risks

- If the treated artery occludes, an urgent cardiac surgery might be necessary, but this situation is becoming more and more rare after starting using stents (<0,5%).
- The dilation of the artery and the installation of a stent are successful in over 95% of the cases. However, recurrence of the blockage (restenosis) in the treated site may occur among 10 to 30% of patients within the months following the operation.

The physician that referred you should have discussed with you the risks involved and the importance of the examination that is required. You can ask your physician or interventionist cardiologist for more detailed information before the examination. The interventionist cardiologist or her/his assistant will ask you to sign a consent form before your operation.



After the examination



The examination is over

If the procedure was completed through the wrist, the catheter is immediately taken out and the bleeding is controlled with a bracelet/strap that compresses the artery for a few hours.

Accompanied by two members of the team, you leave the examination room on foot towards the observation room where your stretcher or wheelchair were left.

If the procedure was performed through the groin, the personnel transfers you to the stretcher and takes you to the observation room. When is not necessary to anti-coagulate your blood, we proceed immediately to take out the catheters. We remove the small tube/s that were placed and we compress your groin for several minutes to prevent any bleeding. Following this, a pressure bandage is generally applied for a few hours.

If anticoagulant drugs were used, we may install a closure device (Angioseal™ or Perclose™) at the artery level of your groin.

For medical reasons, we may wait a few hours or until the next day to remove the catheter placed in the groin.



After the examination

Before your departure from the cardiac catheterization laboratory

The nursing personnel will give you the following instructions:

- If you feel chest pain or any other discomfort, it is very important to immediately inform the nurse or physician.
- For 3 to 4 hours you have to drink a lot of water in order to **eliminate the colorant based with iodine** given during the examination (ex.: approx. 1 to 2 glasses of water per hour).
- Slightly move your fingers to activate the circulation and to decrease the numbness. (If the procedure was performed through the wrist).
- If you notice bleeding from the bandage (wrist, groin) **call the nurse or physician immediately.**
 - If the operation was performed through the groin it is important to remain lying flat on your back without raising your head because that could provoke the bleeding to resume.

You return to your room accompanied by a stretcher-bearer.



Back to your room

- Upon arrival to your room, if you have had an angioplasty performed, a nurse will install a telemetry (monitors that transmits to the nurses of the coronary unit your cardiac rhythm).



- The nurse regularly verifies your blood pressure, your pulse to your foot or wrist level, your bandage and the drugs you receive.



After the examination

- Do not hesitate in contacting the nurse **immediately** if you witness the appearance of swelling or bleeding.
- If necessary, and if required by the physician, a blood test and an electrocardiogram are made.

To prevent bleeding:

The examination has been performed through the wrist:

- A bracelet has been placed on your wrist to compress the artery that was used for the procedure (see photograph page 19). A nurse will remove this bracelet regularly to verify if there is any bleeding. Do not try to take it off yourself.
- If there is active bleeding or sweating the bracelet is put back in place and verified regularly.
- If there is not any active bleeding or sweating a small compress and a “diachylon” are placed.
- You may observe a bluish coloration of your hand when the bracelet is in place. This is normal and is due to the compression of the blood vessels of the wrist. However, if you feel intolerable discomfort, **notify your nurse.**

The examination has been performed through the groin:

- If the catheter (sheath) (see photograph in page 19) that you have in the groin has not been taken out in the cardiac catheterization laboratory, it will be taken out a few hours later. You must remain in bed until then. Occasionally, the physician decides to wait until the next day to decrease the risk of bleeding.
- When the catheter is removed, the physician compresses the groin for a few minutes.
- Afterwards, a pressure bandage is placed.



After the examination

- After the removal of the catheter you have to remain in bed for at least 2 to 6 hours, depending on the width of the catheter that was used.
- Do not raise your head because that may provoke bleeding.
- Remain at complete rest, in bed, until the nurse or physician allows you to stand. The first time you stand-up, it has to be in presence of a nurse.
- Put pressure with your hand on your bandage to prevent bleeding when you make an effort like coughing.
- Do not bend the bandaged leg, but you can move your toes to help the blood flow. Any abrupt movement can cause bleeding.
- If your leg becomes hot and humid or if you feel intense pain, **notify the nurse immediately**, because these are signs of bleeding.
- You can have a light meal 1 hour after your return to the room if it is authorised by the physician or after the removal of the sheath.

Time for departure

Normally after the examination, in the observation room, the physician will explain to you the final result and he will give you some recommendations. Otherwise, he will see you at your room before your departure.

If the puncture was in the groin or in the wrist, we ask you not to force, push or lean heavily on the punctured area for 48 hours.

If the procedure was performed through the groin, the compressive bandage is removed and a “diachylon” is placed. You can remove the “diachylon” after 48 hours. Avoid taking a shower or bath during this period of time.

If the procedure was performed through the wrist, a shower and a bath are allowed without excessive temperature and protecting the site with a plastic wrap. Ex.: “saran wrap”. You can remove the “diachylon” after 24 hours.



Leaving

Usually, you can leave a few hours after your operation. The nurse removes your intravenous and your telemetry (only if you haven't had angina pain and if your blood test was normal).



- If we have implanted a stent during the operation, your physician will prescribe a drug called Plavix™ that you will have to take for at least one month. This drug helps prevent the formation of clots inside the stent. During the healing process your body incorporates the stent to the wall of the artery, covering it with a thin layer of cells that will therefore prevent the creation of clots.
- The fact that you have had a coronary stent does not prevent you from having a Magnetic Resonance Imaging (MRI) examination if you need one. It is recommended to wait 8 weeks before performing the MRI.
- With the help of a pharmacist the interventionist cardiologist, reviews your medication and if necessary will give you a new prescription.

- Don't forget to schedule a visit with your cardiologist or your treating physician as prescribed by the interventionist cardiologist.
- If bleeding starts at the incision site, you must compress the area until the bleeding stops. If the bleeding persists, go to the nearest hospital or CLSC.
- If you have surgery already planned or if you have to undergo a dental treatment, you should notify your doctor that you are taking Aspirine and/or Plavix™.

Before leaving the hospital, do not forget to ask all the questions related to the medication, diet, recovery, the return to work, sexual relations, physical activity, etc. To help you out, we have prepared a checklist that you will find on page 53.



Risk factors

Do not forget that the angioplasty improves the blood flow of your coronary arteries, but that does not eliminate the tendency that you have to develop blockages in your arteries. Controlling the risk factors of the coronary artery disease will help you decrease the possibilities of developing blockages.

Select the risk factors that concern you:

Hypercholesterolemia

Tabacco

Hypertension

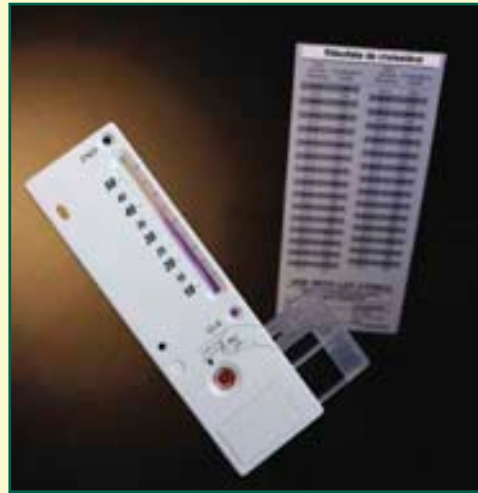
Overweight

Diabetes

Stress

Sedentary

Hypercholesterolemia (increase of cholesterol rate)



Cholesterol is produced mainly by the liver. Cholesterol moves through the blood as the shape of very small particles. These small drops are called “lipoproteins”, and they help to carry the cholesterol in response to the need of the tissues. Cholesterol is part of the innumerable substances that travel through the blood. In a normal quantity, it circulates freely and does not cause any problems. It is in great quantities that cholesterol becomes dangerous to your health. It has a tendency to cling or stick to the interior of the blood vessels. In this way, it forms a deposit that thickens, not allowing the normal blood flow. With time, these deposits do not allow the circulation of blood within the blood vessels. If a clot is formed by these deposits, the artery can then become blocked and cause a heart attack.



Risk factors

Tobacco



Carbon monoxide and nicotine are responsible for the physical dependency and they lead to terrible consequences for cardiovascular health and more specifically over the “atherosclerosis, hypertension and the hypercholesterolemia. In addition to the impact on the efficiency of the insulin for diabetics, smoking tobacco has destructive effects on pulmonary health.

If you have difficulty quitting this physical and psychological dependency, you can contact health professionals. They can show you the different free resources available to help you quit smoking.

The smoke from tobacco contains more than 4000 chemical products. Many of them are known for being dangerous for the health, like nicotine, carbon monoxide, tar, ammonia, chlorine, etc. According to Health Canada, 50 of these chemical products cause cancer in humans, including: 2-naphthylamine, amino-4diphenyle, arsenic, benzene and nickel.



Risk factors

Arterial hypertension:



We talk about arterial hypertension or high blood pressure when the arterial pressure is higher than 140/90 mmHg. The higher figure (systolic pressure) ex: 140 represents the maximal pressure executed by the blood over the artery walls when the heart contracts (“systole”), the smaller figure (diastolic pressure) ex.: 90 represents the minimal pressure reached when the heart relaxes (“diastole”).

The exact cause of arterial hypertension is unknown, but obesity, stress, smoking, alcohol and a diet high in salt contribute to increase the arterial pressure. Additionally, it provokes a premature wearing of the blood vessels as this pressure engenders a lot of stress on the arteries. This excessive use may result in the creation of cholesterol deposits in the arteries, increasing the risk of a blockage.

Being overweight

It is defined as having an excess of fat tissue. The Canadian data on public health reveals that an important number of men and women are overweight. Extra weight located in the waist (potbelly) is bad for the health. This abdominal fat associated with cholesterol problems or any other risk factor, increases the risk of developing a cardiovascular disease or diabetes. Weight control is very important.



Risk factors

Diabetes



Diabetes is a chronic and common illness whose characteristic is an abnormal increase in the level of sugar in the blood. This increase is due to the absence of insulin production (type 1) or to an incapacity to correctly use the produced insulin (type 2).

An excess of sugar (hyperglycemia) over a long period of time, damages the walls of the arteries and promotes fat deposits. Scars are formed in the walls of the blood vessel causing loss of elasticity, thickening and hardening. Hyperglycemia can damage the blood vessel and cause cardiac problems (angina, infarction), strokes, hypertension, circulatory problems mostly in the legs, eye, and renal problems.

In case of diabetes, it is crucial to control your blood sugar levels in the best way possible.



Risk factors

Stress:



Stress is a response of the organism to an internal or external event. The person perceives this situation as surpassing his/her capacity for adaptation. These situations can be physical or psychological. We talk about physical stress when the person suffers an illness, an infarction or a psychological stress in the presence of events like a mourning or divorce. After a stressful situation, the organism liberates a natural hormone called adrenaline, which allows the person to fight against the stress.

The effects of stress at a psychological level:

Increase in cardiac activity (heart rate)
Increase in blood pressure
Increase in blood sugar (glycemia), etc.

The impact of stress at a psychological level:

Heartburn
Insomnia
Skin problems
A frog in your throat
Chest pain and tightening etc.

The impact of stress at an emotional level:

Sudden mood changes
Concentration problems
Problems in making decisions
Passive or aggressive moods that are sudden and inexplicable

The impact of stress on behaviour:

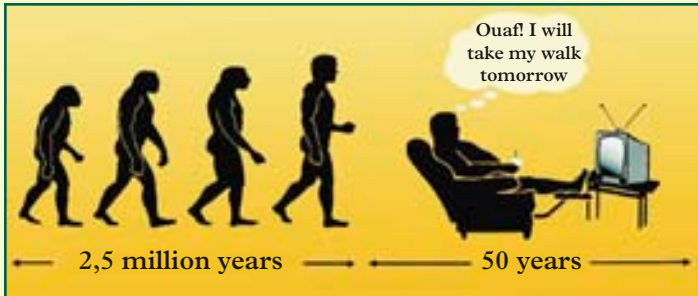
Predisposition to drink (alcohol)
Predisposition to increase smoking
Predisposition to work more, etc.

Some Advice: It is very important to identify the events that cause this stress and to find solutions adjusted to your needs, accept your own limits and identify when to say No.



Risk factors

Sedentary behaviour:



- A person with a sedentary lifestyle has twice the risk of suffering cardiac problems than a physically active person.
- The benefits of physical activities on a daily basis are multiple:
 - supply of oxygen to the heart
 - improve cardiac rhythm
 - possible increase of good cholesterol (HDL)
 - lowers blood pressure
 - help weight loss and maintenance of lost weight

As a result of these benefits, there is also a direct impact on decreasing other risk factors for cardiovascular illness like: hypertension, obesity, diabetes, hypercholesterolemia, psychological and physical stress.

Changing life habits requires a lot of energy and also the support of the people close to you. Start progressively and begin with what seems to be easier for you. Set a realistic objective and every day that your objective is accomplished, congratulate yourself. Consider that it is normal not to achieve it on a specific occasion, re-start the next day without feeling guilty and encourage yourself by counting the number of days in which you succeeded.



The recovery

Recovery

If an angioplasty was performed, we suggest a week of rest at home and afterwards a progressive, but quick re-start of activities during the second week.

Return to work



The date of your return to work is established based on the symptoms or events that lead to the cardiac catheterization or the coronary angioplasty.

For a coronary angioplasty the recovery generally takes from 2 days to 2 weeks. It could be extended if you have recently suffered a myocardial infarction or if you have to wait for a cardiac surgery. Discuss this issue with your physician.

Driving

The law does not establish that you have to stop driving after a cardiac catheterization or coronary angioplasty. However, it may be recommended that you do not drive for a period from 2 days to 2 weeks.



If you have suffered a myocardial infarction, this period may be increased to at least 3 weeks. For those driving heavy vehicles, a bus, or an emergency vehicle, the no-driving period is extended to 2 months. If you have any doubts, talk about them with your physician.



The recovery

Sexual relations:



You can re-start your sex life 2 days after your catheterization. However, if you have been hospitalized because of a myocardial infarction, it is recommended to start your physical activities for one week (ex.: walking) before having sexual relations. In both cases, re-starting your normal expressions of tenderness and affection is an occasion to demonstrate your attachment to your partner/spouse and is also a great opportunity for your partner/spouse to show his/her support. Re-starting your sex life will be a favourable contribution to your recovery. A catheterization or an angioplasty is not a reason to leave aside your sexual life after the period we suggested you. The sexual organs are not touched or affected in any way, and their functions remain as they were before the procedure. It is not necessary to take medication (Viagra™, Levitra™, Cialis™) or other particular supplies. If you had the habit of taking them, make sure that they are compatible with the prescribed medication.

Medical visit

You should communicate with your cardiologist to co-ordinate a visit from 4 to 6 weeks after your angioplasty.

Meanwhile, do not forget that if you notice angina chest pain you should communicate with your physician. If necessary, he will notify your cardiologist.

If after your catheterization, cardiac surgery was suggested, immediately co-ordinate a visit with your cardiologist or physician to discuss this surgery. He should then confirm the surgery request to the cardiac surgery department.



Diet



The adoption of healthy dietary habits is a very important factor for your rehabilitation and a way of avoiding risk factors associated with coronary disease. It is essential at this moment to examine your diet. Is it balanced? Does it correspond to your needs? Do you watch the choices and the amount of fat and salt?

Take advantage of your recovery to analyze and become conscious of your dietary habits. It's a step towards the health-autonomy.

Lipid profile

If this was not yet done, ask your physician for a lipid check-up (analysis of blood fat) and an interpretation of the results. The recommended levels are the following:

LDL (bad cholesterol) < 2.5 mmol/L

Total cholesterol / HDL (good cholesterol) < 4.0

Triglycerids (another sort of blood fat) < 1.7 mmol/L

HDL (good cholesterol) > 1.0 mmol/L

If the results from your LDL (bad cholesterol) and Triglyceride tests are too high, request to visit a nutritionist. The nutritionist will advise and support you with the modification of your diet habits. It is a good idea to meet the nutritionist with your partner/spouse.



Diet

Furthermore, if your lipid check-up is “normal”, a preventive diet is recommended. The following suggestions are very helpful and will allow you to evaluate your diet habits and to identify the points that should be modified. Set realistic objectives. Changing diet habits is not an easy task, but is possible if you do it in stages. Read the following information carefully.



Preventive diet

The selection of food and the quantities you eat can influence the level of cholesterol in your blood, triglycerides and glycemia. So, what food should you choose?

Every day, you should select your food from each category of the “Canadian Food Guide for Healthy Eating”, which is briefly introduced below. There you will find the quantities that you should consume on a daily basis.

Also is important to eat less fat, that is to say, to reduce the consumption of fatty foods (particularly saturated fats: meat and poultry fat, dairy products with a high content of fat, butter, lard...), to reduce the consumption of concentrated sugars and salt and also to increase the consumption of fibre and complex sugars (bread, cereals, whole grains).



Diet

CANADIAN FOOD GUIDE FOR HEALTHY EATING

To make it simple, it will be necessary to modify your diet habits according to the following:

EAT MORE FRUITS AND VEGETABLES
(source of vitamins, salts, minerals, glucides, fibres and antioxidants)

- Consume from 5 to 10 portions of fruits and/or vegetables per day.

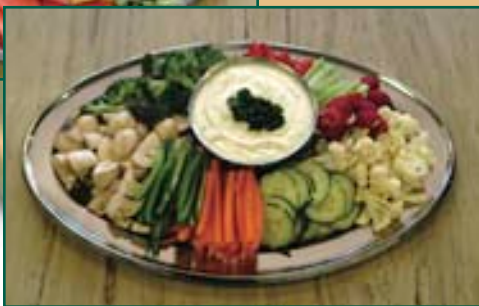
One portion equals:

1/2 cup of fresh vegetables, canned or frozen. For example: carrots, peas, beets, 1 potato.

1 medium fresh fruit. For example: apple, orange, banana, 2 kiwis.

1/2 cup of fruit juice.

- Consume more fruits and vegetables that are raw and fresh. They provide vitamins and fibre.
- Fruits and vegetables do not contain fat or cholesterol.
- Do not have the time? Frozen unsalted vegetables are practical, quick and as nutritious as the fresh vegetables.



Diet

EAT MORE DIARY PRODUCTS

(Source of calcium and proteins)

- Consume daily from 2 to 4 portions of dairy products.

One portion equals:

- 1 cup (250ml) of skim milk, preferably 1% or 2%
- 1 cup (175g) of yoghurt under 2% fat
- 50 g of cheese under 20% fat
- 1/2 cup (125ml) of cottage cheese with 2% fat

- Milk is the best source of vitamin D.
- Avoid cream and its derivatives (whipped cream) because they contain a high quantity of saturated fat.
- Cheese contains much more fat than milk or yoghurt (for example, 30% fat cheese vs. 2% or 1% fat milk).
- Occasionally, choose an ice cream with a low content of fat, frozen yoghurt, frozen milk.
- Tapioca, milk based puddings and soup are other sources of dairy products. Think about it.

EAT MORE CEREAL PRODUCTS

(Source of complex glucides, fibres, vitamins, proteins)

Consume a minimum of 5 to 12 portions daily. Give preference to cereal products with whole grains.

One portion equals:

- 1 slice of bread
- 1/2 small bread, bagel or English muffin
- 1/2 pita bread: 15 cm/6 inches diameter
- 3/4 cup (30g) of dry cereal
- 1/2 cup of cooked cereal
- 1/2 cup (30g) of cooked rice or pasta.
- 4 dry cookies, Melbas or crackers without salt added
- 1 small muffin

- Most breads and cereals are low in fat and cholesterol.



Diet

- Choose food with whole grains. Look for the word "bran", "whole wheat" or "multi-grains" when choosing your products.

- Give preference to bran oats because they contain soluble fibres that may contribute to reduce the cholesterol.

If you eat more fibre, do not forget to drink more water (6 to 8 glasses of water per day).

EAT MORE FISH AND LEGUMES

(fish: source of protein and omega-3 "fatty acids")

(legumes: source of soluble fibres, protein, help intestinal regularity)

- Eat at least 2 to 3 portions of fish and 1 to 2 meals with vegetables per week. These products are an excellent alternative to meat.

One portion equals:

2 to 3 ounces (50 to 100 g) of fish.

1 cup (250 ml) of peas or dry beans or any other legumes: chickpeas, lentils, kidney beans, etc.

- Get used to the taste and texture of legumes! Cook beans in the oven and pea soup replacing the salted lard with 2 tablespoons of non-hydrogenated margarine.

- You do not have the time? Canned fish is fast, economic and as nutritional as fresh fish.

EAT LESS FAT

- Select lean meat portions like. Take out all the visible meat fat before cooking it.



Diet

- Choose cold meats with a lower content of fat like turkey and chicken breast, low fat ham, roast beef, pastrami.
- Use cooking methods that do not increase the amount of meat fat: cook over the grill, roast in the oven or grill in a non-stick pan or one with grooves.
- Remove the skin and the fat of the poultry before cooking it.
- Egg yolks and giblets (liver, kidney...) contain a lot of cholesterol. The consumption of egg yolks should be limited to 2 per week and of giblets to 1 per month.
- Choose margarine with a label indicating 100% non-hydrogenated oil on the package.

Ex.: Becel by Lipton, Olivina by Lactania, Crystal by Mirage, Nuvel by Thibault, Fleischman, Attitude-Santé by Lactania.

- A number of products (for example mayonnaise and french fries) called "cholesterol free" contain a high proportion of saturated fats.
- We suggest that you use monounsaturated oils like: olive or canola oil for cooking, remaining more stable when heated. Other oils like corn, sunflower, soya, carthamus can only be used for baking or dressings.

- For salads, use small quantities of homemade dressing or mayonnaise with a low content of fat and calories.

Examples of equivalence:

1 medium portion of french fries (20 units)
or
6 chicken nuggets
or
one small pizza
or
1 hot dog
or
a small bag of chips (55g)

} = 4 teaspoons of fat

Cholesterol free chips or without salt have as much fat as the others!

A croissant, even a wheat one, contains the equivalent to 3 teaspoons of fat, and a danish or a big muffin bought at a store may have up to 4 teaspoons of fat.



Diet

EAT LESS SALT

- Salt when taken in big quantities has a terrible effect on your blood pressure. We suggest reducing the consumption of salt by avoiding adding salt at the table. Replace salt by your favourite spices and herbs. Also try new flavours: thyme on chicken, chives and parsley in your salads, lemon on fish and pepper on your steak.
- Salted and smoked meat, soup concentrates and canned soup, commercial marinades, different seasonings like garlic salt, etc contain a lot of salt. Three quarters of the salt we consume come from processed food.
- Restaurant meals are usually very salty (fast-food, Chinese, Mexican, etc...)

EAT LESS SUGAR



- Reserve cakes and pastries for very special occasions. Try to reduce the consumption of concentrated sugar (sugar, honey, etc.). Besides, very sweet food normally has a high content of fat and empty-calories.

Examples of equivalence:

1 can of soda (355 ml) = 8 sachets of sugar

1 chocolate bar (50 g) = 6-7 sachets of sugar

Suggested desserts: fresh fruit, yoghurt and dairy desserts.



Diet

To help you put this advice into practice:

1. There are excellent recipe books that will help you gradually adopt a preventive diet. The suggested books are:
 - Les plaisirs de la cuisine santé, Margo Brun Cornellier. Éditions Trécarré.
 - Coeur atout simple comme tout, Bonnie Stern.
 - Bonne table et bon coeur, Anne Lindsay. Fondation canadienne des maladies du coeur.
 - Au goût du coeur, Anne Lindsay. Éditions Trécarré.
 - Nouveaux plaisirs de la cuisine santé, Margo Brun Corneillier. Éditions Trécarré.
 - Qu'est-ce qu'on mange? Volume 4: Cuisine santé. Le cercle des fermières de Québec.
 - Nouvelles saveurs, Au goût du coeur. Bonnie Stern.
2. While hospitalized you can watch different videos on diet. Verify the guide posted in your room to know the schedule. This educational service is provided for **free**.

- Au coeur du problème (12 minutes).
- Coup d'oeil sur le cholesterol (12 minutes).
- Écoutez votre coeur (not available in Téléduc).
- L'Alimentation (not available in Téléduc).
- La motivation (15 minutes).

These documentary videos are also available at the nurse's station of the department where you are hospitalized.

3. Informe yourself about the course that is offered by the Pavilion for the prevention of health diseases (PPMC) concerning **health cuisine**.

Ref.: Louise Gagnon, Nutritionist
Tel: 656-4594
Ext.: 5416

4. Check the brochure: Programme santé ACTIMENU "Mangez-vous en santé?"

Information:
(514) 985-2466



Medication

Medication

Is important to learn how to know more about your medication: their names, their actions and the dosage, that is to say how many pills to take and the optimal time to take them. A good understanding of your treatment will help you realise the importance of following your medical advice. To this effect, a pharmacist or a nurse can meet you after your operation to explain to you the medication you will have to take, give you information sheets and a medication schedule.

Furthermore, it is essential to always have with you the exact list of medication you take and its doses every time you meet a health professional. Always have this list handy.

There are many different categories of medication used to treat coronary illness. They react in different ways and frequently a combination of different agents is necessary to obtain optimal performance.

Here after are the different classes of medication you may receive:

Fast acting nitro-glycerine (Nitrolingual™)

- The pain felt while an angina, warns you that your heart is short of oxygen. The nitro-glycerine relieves the pain by expanding the blood vessels that feed the heart. This makes more blood and oxygen available for the heart. Furthermore, by expanding the vessels, nitro-glycerine reduces the amount of work for the heart and its need of oxygen.
- We use fast acting nitro-glycerine to quickly calm the chest pain (angina) or to prevent it before an exertion of effort. It comes in the form of a spray bottle. Keep your Nitrolingual™ always with you. You never know when you may need to use it!



Medication

- Utilisation:

In the presence of chest pain, sit down for a few minutes. If the pain continues, spray once or twice under or over the tongue.

You can spray 1 to 2 puffs every 5 minutes for a maximum period of 15 minutes. After this period, go by ambulance to the emergency ward of the hospital nearest to you and consult a physician immediately.

- Initial procedure:

When you receive a new pump, you must initiate it. In order to do this, spray three times into the air. Every month, spray once in order to test it. Take advantage of this opportunity to verify the expiry date of the pump.

- Important:

If you have to use your spray bottle regularly, talk immediately with your physician who will re-adjust the treatment to your needs.

Long lasting Nitrates (Imdur™, Isordil™, NitroDur™/Minitran™)

- This medication dilates the vessels of your heart with the objective of providing more blood and consequently more oxygen. It also eases the strain on the heart. Long lasting nitrates work over an extended period and serve to prevent angina.

- Utilisation:

When your physician prescribes nitroglycerine to you in the form of patches (NitroDur™ or Minitran™), it is important to apply it and remove it as prescribed. Also, you will have to rotate the site of application to avoid skin irritation.

Beta blockers (Coreg™, Corgard™, Lopresor™, Monacor™, Monitan™, Sectral™, Tenormin™)

These drugs are used to facilitate the functioning of your heart. They can prevent angina by slowing down the heart rate automatically giving less efforts to your heart. The beta blockers are also used to control hypertension and cardiac failure.

In order to evaluate the efficiency of your medication, your doctor will measure your blood pressure and your heart beat at rest. He will adjust your medication in order to obtain a heart beat between 50 to 60 beats per minute.



Medication

Calcium channel blockers (**Cardizem™, Tiazac™,** **Isoptin™/Chronovera™, Adalat™,** **Norvasc™, Plendil™**)

- These drugs affect the entrance of calcium into certain cells of the heart and blood vessels. They produce a certain relaxation of the heart's arteries and other blood vessels, by this promoting the growth of oxygen to the heart. These drugs could be used to prevent angina and to control the hypertension and/or the heart rate.

- **Precaution:**

You must inform your physician if you notice swollen feet, ankles or calves after the use of these drugs.

Isoptin™ or Chronovera™ can result in constipation. If that is the case, talk about this problem with your physician or pharmacist and they will suggest you ways to solve it.

Aspirin (Asaphen™, Rivasa™, **Entrophen™, Novasen™)**

- In a small doses, (80 to 325 mg per day) this drug is used to reduce the formation of blood clots. Its action consists of decreasing the capacity of the blood platelets to adhere one to the other.



Medication

- Precaution:

It is important to take this drug with food because it could irritate your stomach. In order to protect your stomach, your physician can prescribe coated aspirin (Entrophen™ or Novasen™). If this is the case, you should take the pills as a whole, **without crunching or crushing them.**

Clopidogrel (Plavix™)

- This drug reduces the capacity of platelets to cluster, but in a different way than aspirin.
- This drug is used in association with aspirin to **prevent the formation of blood clots following the placement of a stent.** With this purpose, this drug is normally administered during a period ranging from 30 days to 1 year.
- Clopidogrel could also be used for certain acute coronary events (angina, myocardial infarction).
- Inform us if you have to take this drug for an extended period of time.

- Precautions:

Always notify your physician or dentist that you are taking this drug, particularly if you have to undergo surgery, because clopidogrel could cause “extended” bleeding.

The hypolipaemiant agents (Crestor™, Lescol™, Lipidil™/Lipidil Micro™/Lipidil Supra™, Lipitor™, Lopid™, Mévacor™, Pravacol™, Zocor™).

- These drugs are used to reduce the production of cholesterol and/or triglycerides in the blood. They prevent the accumulation of deposits on the walls of the arteries (atherosclerosis). These deposits can reduce blood flow to the heart. These drugs do not replace diet, but should be taken as a complementary treatment to a diet low in fat.



Medication

- Precautions:

To maximize their effect, most of these drugs should be taken during the evening (when dining or going to bed) because the production of cholesterol is more intensive during the night. Ask your pharmacist for information about the optimal time to take your drug.

These drugs may cause muscle pain. If this is the case, talk to your physician who will re-evaluate your treatment.



Angiotensin II converting enzyme inhibitors (Accupril™, Altace™, Capoten™, Coversyl™, Inhibace™, Mavik™, Monopril™, Prinivil™/Zestril™, Vasotec™).

- These drugs help your heart have more strength and work better. They also help the recovery of your heart after the infarction.
- Precaution:

These drugs could cause dry cough or hoarse throat normally without consequences. However, if this effects turn unbearable talk to your physician who will re-evaluate your treatment. Note that the dry cough provoked by this drug does not respond to any syrup that usually relieves the cough available in drugstores.



Doing physical activity

Doing physical activity

It is very important to have an active style of life and to exercise regularly. This will allow you to improve the efficiency of your heart and at the same time your physical capacity. Furthermore, you will feel better, which is even more important!

It is not very complicated to exercise regularly. Avoiding elevators and escalators is a very good start.

Some examples of activities:

- Walking
 - Stationary bicycles
 - Bicycle
 - Swimming
 - Gardening
 - Social dancing
 - Golf
 - Cross country skiing
 - Etc.
- The following list of suggestions will help you take advantage of the benefits of exercising:
- Practice the activities you like and in a relaxed way,
 - follow your physician's recommendations,
 - start your training session with relaxation exercises,

- the practice of exercises within a group could be stimulating and everybody could profit from the benefit of exercising,
- avoid exercising after eating. Wait from 30 to 60 minutes after your meals,
- Be patient: it may take some weeks before you see the improvements (frequently the first 4-6 weeks are the most difficult), so respect your rhythm. Afterwards, you will not be able to stop!



Doing physical activity

HOW MUCH PHYSICAL ACTIVITY TO DO AT FIRST?

It is very important to start slowly. You may feel nervous at first, but that is normal. Begin by taking walks at an easy pace to regain your self-confidence. You should start by taking 2-3 walks a day, each lasting 10-20 minutes. Gradually increase the length of your walks, going up to 60 minutes/day if you wish. Ideally, you should take walks, or do some other form of exercise, every day.

Tip: In order to know if you are doing your activity at a good rhythm, be alert to your level of breathlessness. You should still be able to speak or whistle a song while exercising, otherwise you are pushing yourself too hard. There is no need to strain yourself to become healthier. The benefits of doing exercise will come on their own.

Your doctor will be able to give you advice about the level of physical activity you can do, based on the results of your stress test on the treadmill.

THINGS TO AVOID

- Do not play competitive sports, lift heavy loads or do physical activity that is too intense or involves sudden movements. Wait until your health improves and follow your doctor's advice.
- Do not do physical activity during extreme temperatures, such as on very cold, windy or hot and humid days.
- **Respect your limits!**

WHAT TO DO IF YOU FEEL ANGINA PAIN

- Stop your physical activity and rest for a few minutes.
- If the pain persists and becomes intolerable:
 - Sit down.
 - Take a nitroglycerin pill or use nitroglycerin spray.
 - Repeat every 5 minutes if the pain persists. If it still hurts after taking 3 doses of nitroglycerin, call your doctor or go to the emergency room.
 - If the pain stops, you can resume your physical activity at a more moderate rate. There is a possibility that you will not feel angina pain afterwards if that is the case you may continue your activity.



PPMC

Taking the next step...

Laval Hospital's pavilion for the prevention of heart disease (PPMC) offers several exercise programs monitored by specialists and adapted to your medical condition. You can take this opportunity to get to know yourself better and do some physical activity in a relaxed, pleasant environment.



You may be able to find exercise programs similar to the one available at the PPMC in your region. See the list at the end of this handbook or contact your CLSC.

The "It's Your Turn" Program

Your new medical condition means that you will have to change some of your habits and lifestyle. The "It's Your Turn" Program can help by teaching you about heart disease, risk factors, prevention and what you can do to improve your health.

The Program, offered 5 times a year, consists of 2-hour meetings held once a week over a month and a half (6 weeks). It gives you a chance to ask questions and meet others who have your health condition.

Topics discussed:

- Coronary disease: causes and symptoms
- Medication
- Exercise
- Stress: physical and mental symptoms, managing stress
- Impact of heart disease on the patient and his or her family
- Anxiety
- Sex
- Diet
- And more!

Meetings are led by nurses, doctors, social workers, pharmacists, nutritionists and personal trainers.

This Program is offered at the PPMC at Laval Hospital (for information call 656-4594) and in some CLSCs.



Tips for smokers

Why quit smoking?

Tobacco, in all its forms, greatly increases the risks of getting coronary disease.

The nicotine found in tobacco increases your heart rate, which means your heart is working harder than it should. Nicotine also causes your blood vessels to constrict or spasm. This limits blood flow and increases the risk of having high blood pressure.

How quitting will improve your health

Here are a few of the ways your health will improve over the short, middle and long term. You may not experience the health benefits within the timeframe presented below, depending on the number of cigarettes you smoked a day and the number of years you were a smoker.

20 minutes after smoking your last cigarette

- Blood pressure and pulse drop and return to normal.
- Body temperature rises and returns to normal.

8 hours later

- Carbon monoxide level in the blood drops, while the oxygen level rises and returns to normal.

24 hours later

- The risk of having a heart attack drops.

48 hours later

- Food smells and tastes better.

2 weeks to 9 months later

- Less coughing, nasal congestion and fatigue.
- More energy.

1 year later

- The risk of having heart problems is half that of a smoker.

5 to 15 years later

- The risk of developing lung cancer is reduced by half.
- Life expectancy is similar to that of someone who has never smoked.

Quitting

When we want to reach one of our goals, we often ask for advice or information about what people like us did to reach that goal. If you want to quit smoking and you need some ideas on how to go about it, why not do what the people who managed to quit did? They all planned ahead and followed what we can call the 5 steps to success.



Tips for smokers

What are the 5 steps?

Step 1: Know the reasons why you smoke

These may include:

- To reduce stress or calm your nerves*
- Smoking for pleasure or to reward yourself*
- Addicted to nicotine*
- Smoking is cool or the "in" thing to do*
- You feel lonely or bored*
- Other reasons: _____*

Now that you know why you smoke, what can you do to meet these needs without smoking? What are the tools you could use to help yourself? What strategies will you try? Who could you ask for help? Did you know your doctor and other health care professionals can help you quit?

Step 2: Practice before quitting

Practice different strategies which you have thought about before quitting, so you can test which one is effective and is the most familiar to you. This is how you can build your confidence, so when the day you have chosen to quit comes around, you will feel you can do it! Imagine you are an athlete, training for a big game.

Step 3: Dealing with withdrawal symptoms

Experiencing withdrawal symptoms is your body's way of reacting to the lack of nicotine in your system. This can last anywhere from a few days to a few weeks. The most common symptoms include headaches, constipation, upset stomach, trouble sleeping and mood swings. What type of withdrawal symptoms do you think you will go through? How will you deal with them? There are a few aids on the market to help control withdrawal symptoms, such as nicotine patches, nicotine gum and Zyban™. Talk to your doctor or pharmacist. You can also reduce the symptoms by drinking a lot of water, eating many fruits and vegetables and avoiding fatty or sugary foods, being physically active and doing breathing exercises. You can see a psychotherapist, who can provide long-term support.



Tips for smokers

Step 4: Prepare a plan to deal with your cravings and the temptation to smoke

Remember that it is completely normal to have cravings to smoke. You have to be able to tell the difference between a craving due to a lack of nicotine and a craving caused by a desire to repeat your old routine or habit. The first type of craving can be controlled by patches, gum or Zyban™, while the second type of craving can be reduced by adopting new habits. For example, you can drink your morning coffee in another room, get rid of all the smoking accessories (lighters, ashtrays, etc.) in your home or at work, you can always sit in the living room for example. Use your imagination! But when you feel a strong urge to smoke, how can you deal with it? Some people go for walks, drink a glass of water, think about other things, do something fun or brush the cat! Be creative!

Step 5: What to do if you have a relapse

Relapses are part of the process of learning how to quit. Each time you have a relapse, you gain a better understanding of your smoking habits and the reasons you had a smoke. How do you plan to deal with a relapse?

Your success is in your hands. All you have to do now is develop a plan and put it into action. Ask for help! There are many centres specialized in helping people quit smoking in Quebec City. Trained and experienced personnel are available to provide support and give you information. You can contact one of these centres by calling (418) 656-8711, extension 5900.

You can do it!



Your lifestyle

Your lifestyle

"Listening to your HEART means listening to your BODY"

It is important to maintain a good balance between your body and mind. In order to have a "healthy mind in a healthy body", be sure to use relaxation techniques that promote your mental and physical well-being.



RELAXATION TECHNIQUES

There are many relaxation techniques that can meet your needs, such as yoga, meditation, massage or autogenous training.

Taking the time to live, changing your lifestyle and choosing a relaxation technique you enjoy can change your outlook on life and help you to:

**LIVE HEALTHIER
and
Live a more balanced life
by taking your life to heart.**



Your lifestyle

WE ARE ALL CONCERNED

We hope that this information handbook answered the questions you had regarding your treatment. We hope that it will help you go through the study with calm and that it will guide you when, after returning back home, having to reorganize your everyday life to suit your new needs.

Remember that it is never too late to act and that this will demand a continuous effort. Nobody can do it for you; you can be responsible for your health!

It is especially important not to forget that a coronary angioplasty improves the blood circulation of your arteries but that it does not change the tendency you have to develop blockages in your arteries. It is by reducing the risk factors of the coronary illness (smoking, obesity, cholesterol, etc.) that you could be able to decrease the creation of these deposits (atheroma plaques) in your arteries.

GOOD RECOVERY!



Check list

Before leaving the hospital, make sure to obtain answers to all your questions. With this objective we have prepared a checklist. Check the points that you already know and ask the nurse for information about the points you haven't checked.

- Risk factors, page 23
 - Bandage: When to remove it, page 21
 - When to take a shower, page 21
 - When to take a bath (groin), page 21
- Puncture site: if bleeding, page 22
 - Physical activity: Rehabilitation programs, page 46
 - Work, page 29
 - Leisure, pages 44, 45
 - Sexual relations, page 30
 - Driving a car, page 29
- Medication: In accordance with your medication at home, page 39
- Particularities about PLAVIX and precautions to take, page 43
- Visit to your family doctor or cardiologist, page 39
- Cardio-pulmonary rehabilitation program, pages 46



Community resources

Heart disease foundation of Quebec (Fondation des maladies du coeur du Québec, F.M.C.Q.)

440 ouest, boulevard René-Levesque
Bureau 1400
Montréal (Québec)
H2Z 1V7
(514) 871-1551

Heart disease foundation of Quebec (Fondation des maladies du coeur du Québec, F.M.C.Q.)

1005, chemin Sainte-Foy
Québec (Québec)
G1S 4N4
(418) 682-6387

“Pavillon” for the prevention of cardiac illness of Quebec (Pavillon de prevention des maladies cardiaques de Québec, P.P.M.C.)

2725, chemin Sainte-Foy
Québec (Québec)
G1V 4G5
(418) 656-4594

REGIONAL PROGRAM FOR THE READAPTATION OF THE PERSON SUFFERING CHRONIC DISEASES “TRAITÉ SANTÉ”

HAUTE-VILLE-DES-RIVIÈRES – CLSC-
CHSLD HAUTE-VILLE-DES-RIVIÈRES

- ◆ RECEPTION (418) 641-2572
BASSE-VILLE-LIMOILLOU-VANIER-
CLSC-CHSLD BASSE-VILLE-LIMOILLOU-VANIER
- ◆ RECEPTION (418) 529-2572
SAINTE-FOY-SILLERY-LAURENTIEN-
CLSC-CHSLD SAINTE-FOY-SILLERY-LAURENTIEN
- ◆ RECEPTION (418) 651-2572
JACQUES-CARTIER-CENTRE DE SANTE DE LA
HAUTE-SAINT-CHARLES
- ◆ RECEPTION (418) 843-3001
LA SOURCE – CLSC-CHSLD LA SOURCE
- ◆ RECEPTION (418) 628-2572
ORLÉANS – CENTRE DE SANTÉ ORLÉANS
- ◆ RECEPTION (418) 663-2572
PORTNEUF – CENTRE DE SANTÉ PORTNEUF
- ◆ RECEPTION (418) 285-2626
CHARLEVOIX
- ◆ CH CHARLEVOIX (BAIE-SAINT-PAUL)
(418) 435-5150
- ◆ CH SAINT-JOSEPH DE LA MALBAIE
(418) 665-1700
- ◆ CLSC CHARLEVOIX (418) 665-6413



Community resources

Resources outside the Québec region

Centre Maria Chapdeleine
2000, boul. Sacré-Coeur
Dolbeau, Québec G8L 2R5
Tel: (418) 276-1234 ext. 4600

Hôpital Hôtel-Dieu de Montmagny

321, boul. Taché Ouest
Montmagny, Québec G8L 2R5
Tel: (418) 248-0630 ext. 2270

Centre hospitalier regional de l'Amiante

1717, rue Notre-Dame Nord
Thetford Mines, Québec G6G 2V4
Tel: (418) 338-7777 ext. 4169
or SIRA (418) 338-7763

La Fondation Louis-Georges-Forin Inc.

C.P.756
Saint-Georges de Beauce Sud, Québec G5Y 7C9
Tel: (418) 227-1843
Note: In collaboratioin with the Centre hospitalier Saint-Georges de Beauce

CLSC Les Aboiteaux (Pocatière region)

575, av. Martin
St-Pascal, Québec G0L 3Y0
Tel: (418) 856-7000 ext. 3100

Complexe hospitalier de la Sagamie

305, rue St-Vallier
Chicoutimi, Québec G7H 5H6
Tel: (418) 541-1027

CLSC Baie-Comeau

Tel: (418) 589-4499 ext. 103

L'Association des cardiaques de la Mauricie, Inc.

4030, rue Louis-Pinard
Trois-Rivières, Québec G8Y 4L9
Tel: (819) 373-3722

Hôpital des Sept-Îles

45, rue Père-Divét
Sept-Îles, Québec G4R 3N7
Tel: (418) 962-9761 ext. 2816

Centre Hospitalier Honoré-Mercier

2750, boul. Laframboise
Saint-Hyacinthe, Québec J2S 4Y8
Tel: (514) 771-3333



Suggested Websites

<http://www.hc-sc.gc.ca> (french, english)
<http://www.hc-sc.gc.ca/pphb-dgps/ccdpc-cpcmc/lhk-tcs/index.html> (french, english)
<http://www.rqct.qc.ca> (french)
<http://ww2.fmcoeur.ca> (french, english)
<http://ptca.org> (english)
<http://www.theheart.org> (english)
<http://www.americanheart.org> (english)
<http://www.howstuffworks.com/heart.htm> (english)
<http://www.merckfrosst.ca/f/health/heart/cheartdis/home.html> (french, english)
<http://www.diabete.qc.ca/mainframe.html> (french, english)
<http://www.boncholesterol.com> (french, english)
<http://www.stop-tabac.ch/fr/documentation.html>
<http://www.santepub-mrl.qc.ca/tabagie/siteavisiter.html> (french, english)
http://www.obesite.chaire.ulaval.ca/menu_f.html#Top (french)
<http://français.pfizer.ca/health%20info/consumer/heart%20disease/default.asp?s=1> (french, english)
<http://www.e-cardiologie.com> (french)
<http://www.infirmiere.net/> (tab "Mon coeur j'en prends soin") (french)
<http://www.nin.ca> (french, english)
http://www.canoe.qc.ca/artdevivresante/sept19_coeur_a-can.html (french, english)
http://www.adaqnet.org/nouvelles/gras_trans.html (french)
http://www.doctissimo.com/html/dossiers/maladies_cardiovasculaires.htm (french, english)
<http://www.becelcanada.com> (french, english)
<http://www.canadaegg.ca> (french, english)
<http://www.dietitians.ca> (french, english)
<http://www.saaq.gouv.qc.ca> (french, english)



Thanks

Dear reader,

Your concerns and your questions regarding your intervention and all the other related matters were the base for this new version of "Taking your life to heart".

We hope that it will provide you with guidance and will reassure you regarding your cardiac catheterization study.

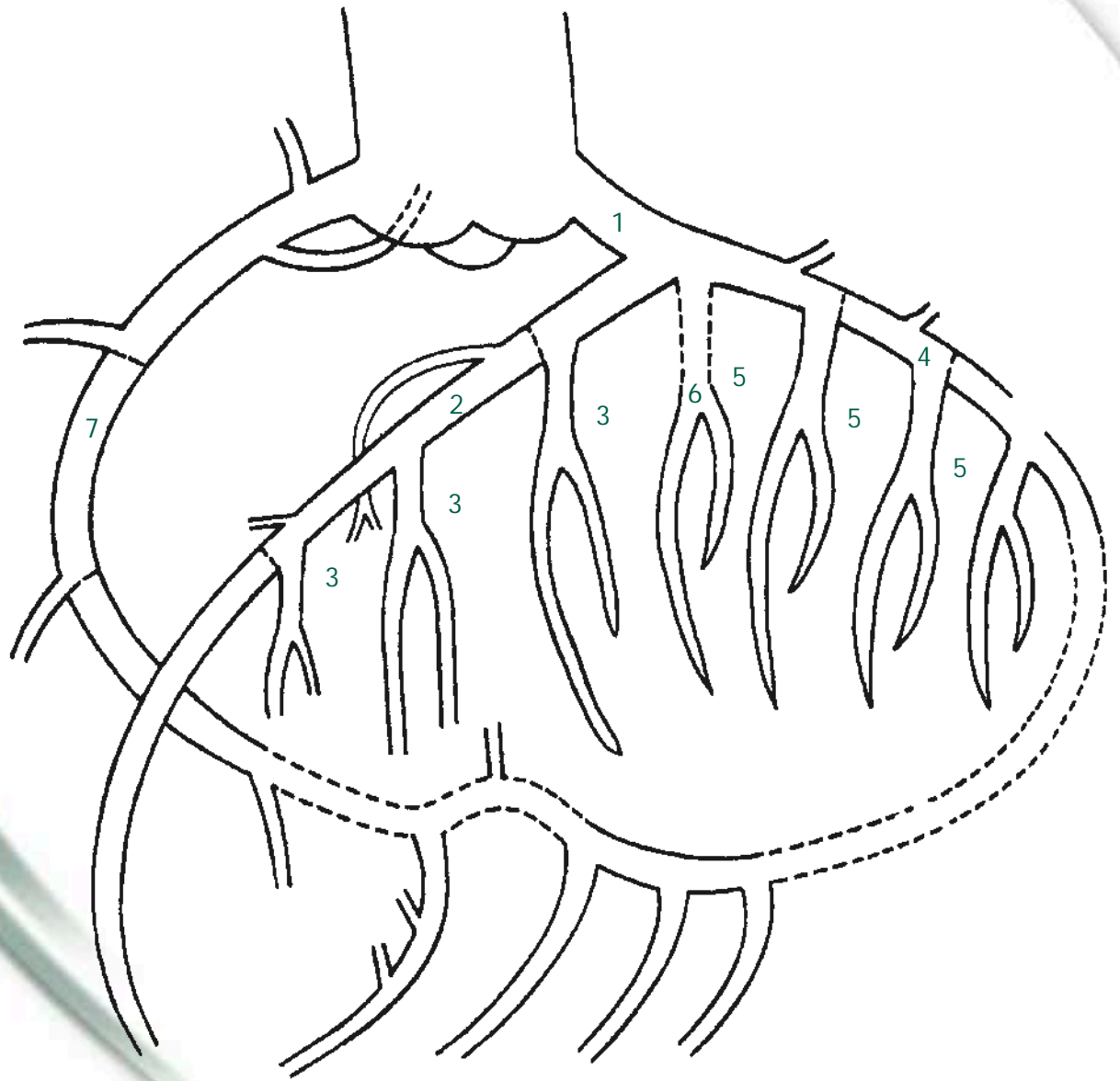
We would like to thank all the people that helped us create this handbook by providing text, pictures or revising the text. We especially outline the contribution of Ms. Louise Gagnon, Ms. Isabelle Taillon, Dr. Paul Poirier, M. Gaétan Hébert, Ms. Mireille Dubé, Mr. Pierre Desgagné, Mr. Yves Gagné, Ms. France Morin, Mr. Robert Bellemarre, Mr. Paul Langlais, Mr. Roméo Dufour, Ms. Madelaine Dumont, Mr. Réjean Lamontagne, Mr. Mario Grandmont, Mr. Denis Morency, M. Médrick Féquet, and the company Guidant Canada.

This project was accomplished thanks to the financial contribution of Laval Hospital Foundation and the company Key Produits Pharmaceutiques, a division of Schering Canada.

*Ms. Jacqueline Paquin,
Ms. Armande Vachon,
Dr. Robert De Larochellière
Dr. Louis Roy.*



Diagram of the coronary arteries



Left coronary artery

Left main	1
Anterior interventricular	2
Diagonal branch	3
Left circumflex	4
Marginal branch	5
Bysectriz artery (present in occasions)	6

Right coronary artery 7

Glossary

Angioplasty: A procedure that reopens blocked blood vessels to the heart. A physician inserts a hollow needle (catheter) into the diseased artery and pushes a small, deflated balloon into the blocked section. Then the physician inflates the balloon to widen the artery.

Anticoagulant: Substance that slows down the coagulation of blood.

Arrhythmia: An abnormal rhythm or rate of the heartbeat caused by disturbances in the movement of electrical impulses through the heart.

Atherosclerosis: Atherosclerosis is a condition in which fatty material is deposited along the walls of arteries. This fatty material thickens, hardens, and may eventually block the arteries.

Balloon catheter: Inflatable device used to widen the blood vessel.

Blood flow: is the blood flow within the blood vessels provoked by the heart that acts like a pump, providing oxygen and other nutritive products to the body.

Cardiac catheterization: introduction of a catheter through a channel or natural duct with an exploratory objective (cardiac or urinary catheterization) or therapeutic (esophageal or duodenal catheterization).

Cardiac catheterization laboratory: operation's room with radiography where the cardiac catheterization is held in sterile conditions.

Catheter: Tube that allows to introduce or take out (drain) liquids or objects from the organism.

Chest angina: Angina is a specific type of chest discomfort caused by inadequate blood flow through the blood vessels (coronary vessels) of the heart muscle (myocardium).

Cholesterol: Cholesterol is a soft, waxy substance found in all parts of the body. It is made by the body and also obtained from animal products in the diet.

Clopidogrel: Generic name of a antiplatelet drug whose commercial name is Plavix™.

Echocardiography (Ultrasound): A test that obtains an image of the structure and motion of the heart using ultrasound.

Edema: An abnormal accumulation of fluid in body tissues.

Electrocardiogram: A record of the electrical activity of the heart, allowing diagnosis of abnormal heart conditions.

Glycemia: sugar rate in blood.

Hematoma: A bruise is an area of skin discoloration. A bruise occurs when small blood vessels break and leak their contents into the soft tissue beneath the skin.

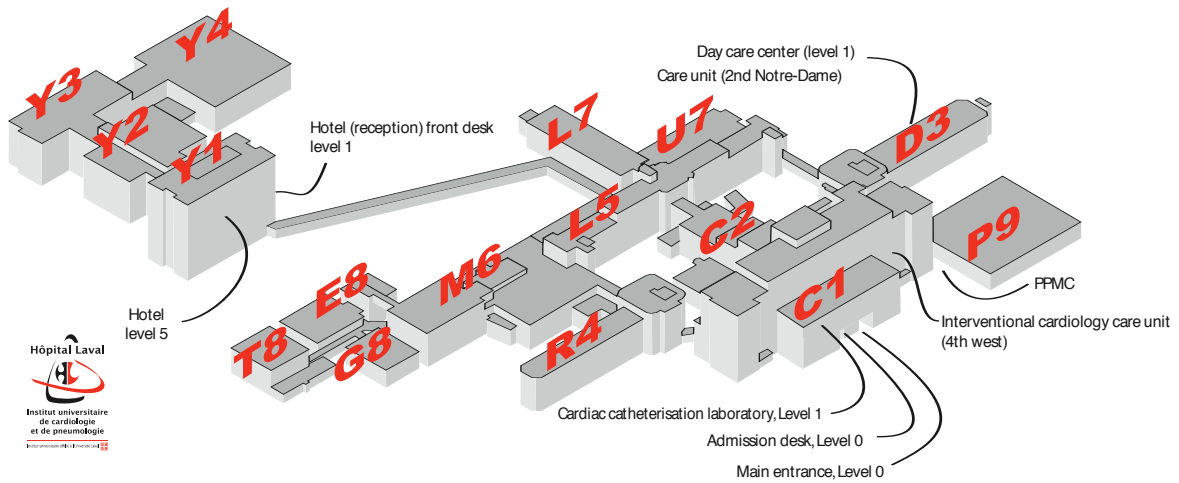
Hypertension: The medical term for abnormally high blood pressure.

Interventional cardiology:

Myocardial infarction: Sudden cardiac lesion due to the obstruction of a coronary artery.

Stent: Device that provides structural support to tube-shaped structures such as blood vessels.

Laval Hospital Plan



Localisation

HÔPITAL LAVAL

2725, CHEMIN SAINTE-FOY
 SAINTE-FOY, QUÉBEC



