

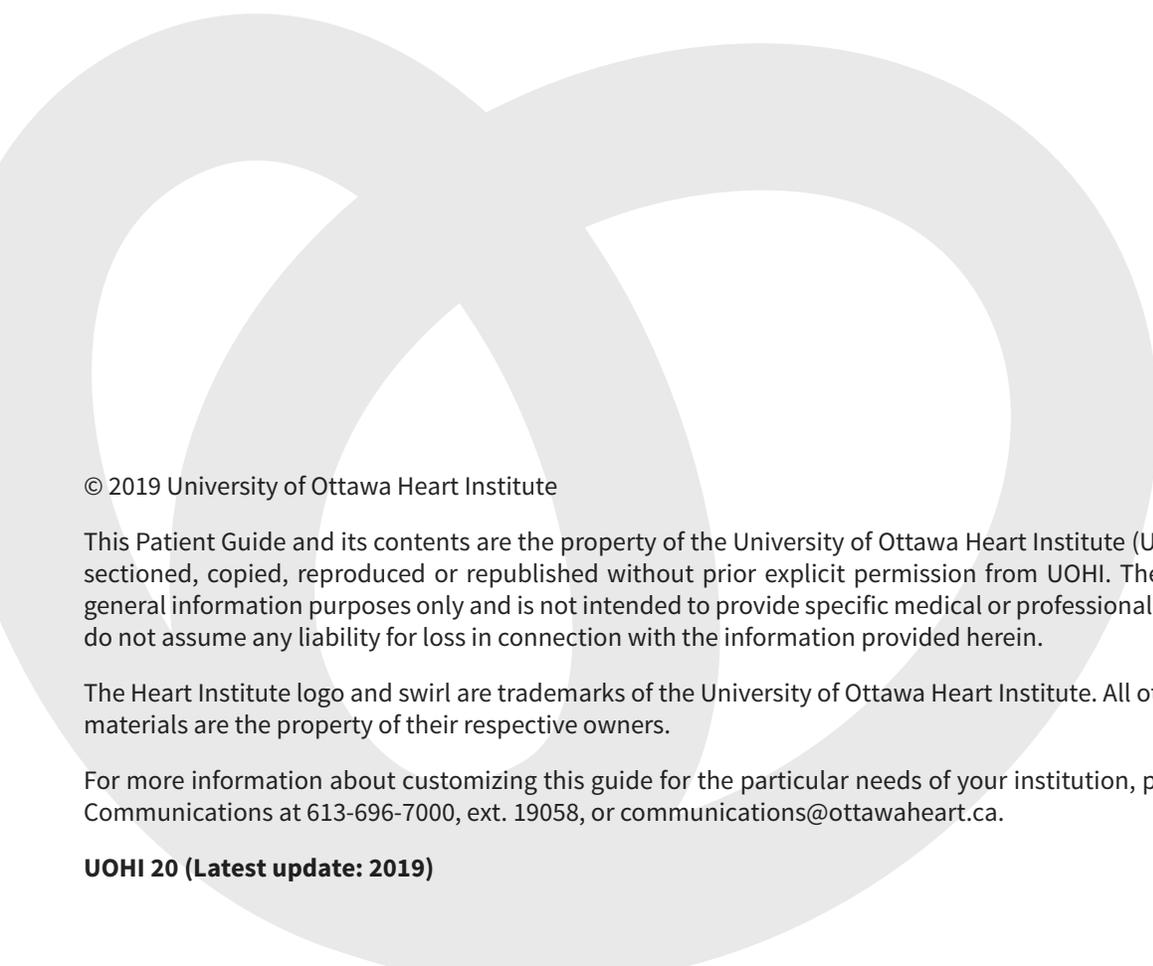


UNIVERSITY OF OTTAWA  
HEART INSTITUTE  
INSTITUT DE CARDIOLOGIE  
DE L'UNIVERSITÉ D'OTTAWA

# CARDIAC CATHETERIZATION AND ANGIOPLASTY



A GUIDE FOR PATIENTS AND FAMILIES



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**UOHI 20 (Latest update: 2019)**

# PLEASE BRING THIS BOOKLET WITH YOU TO THE HEART INSTITUTE

Patient Name: \_\_\_\_\_

## PLEASE COMPLETE THE FOLLOWING INFORMATION

**Contact Person**  
*(relative, friend)*

Name \_\_\_\_\_

Phone Number (Home) \_\_\_\_\_

Phone Number (Mobile) \_\_\_\_\_

**Family Physician**

Name \_\_\_\_\_

Phone Number \_\_\_\_\_

**Pharmacy**

Name \_\_\_\_\_

Phone Number \_\_\_\_\_

**Cardiologist**

Name \_\_\_\_\_

Phone Number \_\_\_\_\_

**Other**  
*(Specify)*

Name \_\_\_\_\_

Phone Number \_\_\_\_\_



### **IMPORTANT**

Nursing Coordinator: 613-696-7000,  
press 0 and ask for the nursing coordinator

Please call the nursing coordinator if you have any symptoms  
or concerns during your early recovery period.

The nursing coordinator can be reached at any time.



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# PATIENT RESPONSIBILITY CHECKLIST

The following checklist will help you prepare for your admission:

- Arrange for a ride home from the hospital. You are not allowed to drive yourself home.
- It is preferable for someone to stay with you overnight. If no one is available, notify your doctor or the Wait List Management Office (613-696-7061).
- Take your usual medications the morning of the procedure with a small sip of water, except for diabetic medication, water pills, and blood thinners including Coumadin, Xarelto and Eliquis.
- Bring all your medications in their original pharmacy containers or blister packs. Please complete the medication list in this book or bring an updated list with you.
- Do not bring any valuables (including money and jewelry). The Heart Institute is not responsible for loss or damage of such items.
- Remove nail polish and do not apply make-up.
- Do not use any scented skin products (for example, talcum powder, lotion, perfume, cologne or aftershave).
- Tell family members and visitors to refrain from using scented skin products. Visitors may be asked to leave or be refused permission to visit if they are wearing scented products (in accordance with hospital policy).
- Have available the phone number(s) of an emergency contact person.

**IF YOU ARE UNABLE TO KEEP YOUR APPOINTMENT FOR ANY REASON,  
PLEASE NOTIFY THE CATH LAB BOOKING OFFICER AT 613-696-7064**

# ABOUT THE PROCEDURE

## A NOTE ABOUT PROCEDURE NAMES:

The terms **angiogram** and **angioplasty** will be used throughout the guide. Angiogram is also known as “cardiac catheterization” and “coronary angiogram”. Angioplasty is also known as “PCI” or “coronary angioplasty”.

## Why Is an Angiogram Necessary?

Diagnostic tests provide important information, but they do not give all the answers. Sometimes an angiogram is also necessary for the doctor to make a correct diagnosis and determine the best treatment for your heart problem.

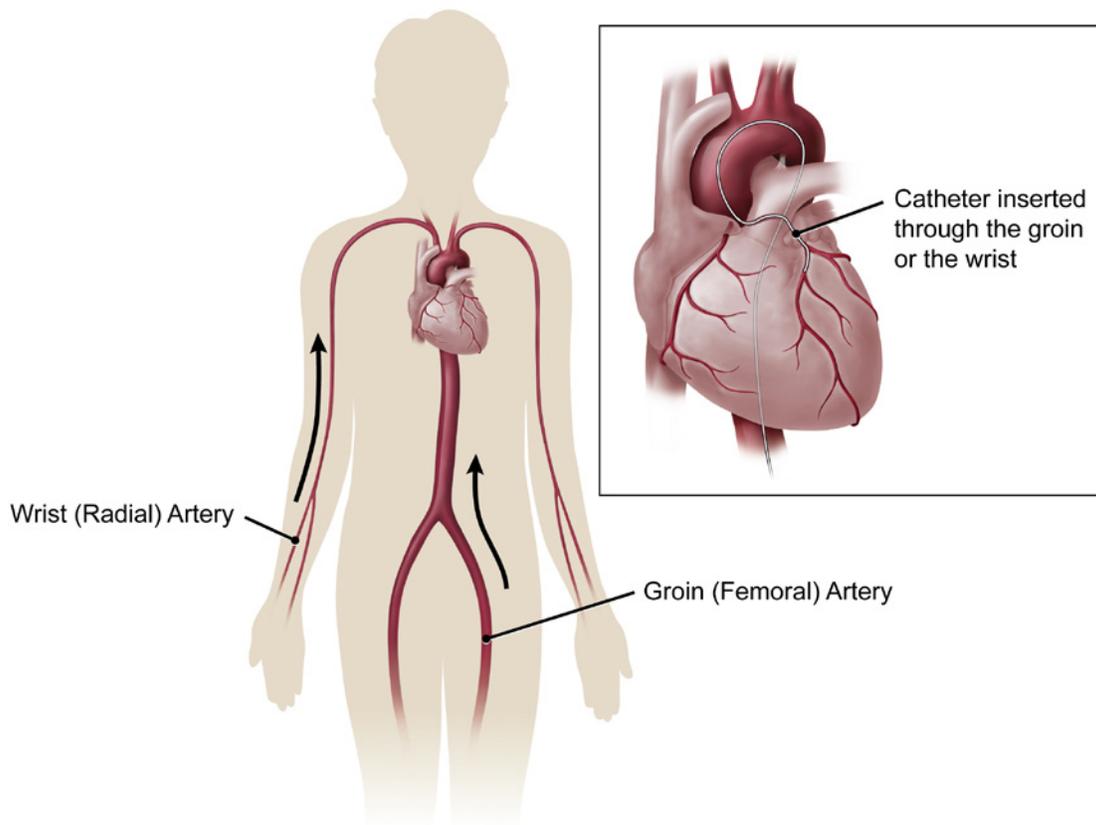
When your doctor orders an angiogram, the necessary information is sent to the Wait List Management Office at the Ottawa Heart Institute.

There may be unforeseen delays, changes in schedule or cancellations. Due to these possibilities there may also be a change in the doctor who will perform your procedure.

Should you have any questions or concerns or should you experience a change in symptoms while you are waiting at home for your angiogram, do not hesitate to call the **regional cardiac care coordinator at 613-696-7061**.

## What Is an Angiogram?

An angiogram is a dye test used to detect heart problems. The procedure involves the insertion of a thin flexible tube (catheter) into an artery in the groin area or in the arm. The catheter is guided to the heart. Once in position, a dye is injected into the coronary arteries so that X-ray pictures can be taken. The X-rays reveal any blockages or narrowing in the arteries. The test can also look at the functioning of the heart valves and heart muscle. Once the procedure is completed, your doctor can determine the best treatment for you.



Insertion Sites for Angiogram

## What Is Angioplasty?

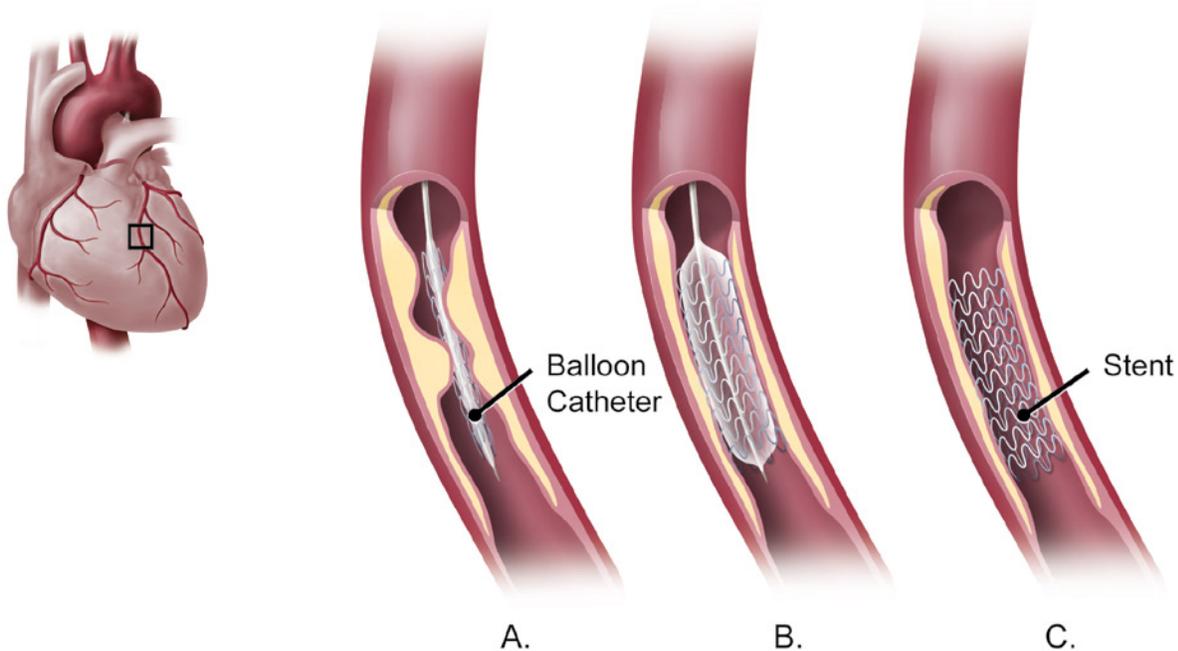
Angioplasty is also known as PCI:

- Percutaneous — through the skin
- Coronary — having to do with the heart
- Intervention — the type of procedure used to open a narrowed artery

Angioplasty is similar to an angiogram. Both are done in the catheterization lab. Angioplasty is a procedure used to widen narrowed arteries of your heart without surgery. The basic idea is to position a catheter with a small inflatable balloon in the narrowed section of the artery. Inflating the balloon catheter causes the balloon to push outward against the narrowing and surrounding wall of the artery. This process reduces the narrowing until it no longer interferes with blood flow. The balloon is then deflated and removed from the artery. In many patients a stent is placed within the artery once it has been opened.

A stent is a small metal mesh tube that is placed into your blood vessel using a balloon catheter. The stent expands against the blood vessel wall as the balloon is inflated. The balloon is then deflated and removed, leaving the stent in place permanently, holding the blood vessel open and improving blood flow. Stents lower the risk of this area narrowing again. There are several types of stents available. Your doctor will select the most appropriate type of stent for your medical condition.

Angioplasty is not for everyone. Your doctor will decide if angioplasty is suitable for you.



- A. The balloon catheter and collapsed stent are inserted into the narrowed artery.
- B. The balloon is inflated to expand the stent.
- C. The balloon catheter is removed, leaving the stent in place.

## Advantages of Angioplasty

Over 90% of angioplasties are successful immediately. Blood flow through the artery returns to normal or near normal. Some people may not have complete relief, but their symptoms are improved, allowing them to be more active and comfortable.

There is no incision as this is not surgery and you are not put to sleep (general anesthesia). Most people are up and walking on the same day. Some people go home the same day, but some patients are required to stay overnight and go home the following morning.

## Disadvantages of Angioplasty

An artery may become narrow again after angioplasty. This is called restenosis. If the artery narrows enough, you may feel angina again. The use of stents has reduced the restenosis rate. Restenosis is usually treated with a second angioplasty but, occasionally, bypass surgery is needed or medical therapy is used.

## Risks of Angiogram and Angioplasty

Angiogram and angioplasty (with or without stent implantation) are common procedures. Your physician has carefully considered your clinical condition and believes that the benefits of the procedure outweigh the risks. However, since these procedures are invasive, there are risks associated with them.

Common risks include:

- Bleeding at the catheter insertion site or other organs due to blood thinning medication (anticoagulants)

Less common but potentially more serious risks include:

- Heart attack
- Stroke
- Unknown dye allergy
- Kidney problems, including kidney failure requiring dialysis
- Emergency heart surgery
- Death
- Other rare and unpredictable complications

In 1% to 2% of angioplasty cases, the artery collapses or is damaged by the wire or balloon. A stent can often fix this, but sometimes patients need emergency coronary artery bypass surgery. At the Heart Institute, our operating rooms are close by if a patient needs surgery.

Angioplasty is not a cure for coronary artery disease. Coronary disease needs lifelong management. You can control your condition with a healthy lifestyle:

- Get enough exercise
- Maintain a healthy weight and reduce your waist size
- Quit smoking

You can control your risk factors by taking the medication that your doctor prescribes. Your doctor may prescribe medication for:

- High blood pressure
- High cholesterol
- High blood sugar

**Discuss the risks and benefits of your procedure with your doctor.**

# PREPARING FOR YOUR PROCEDURE

## **Please bring your health card and all your medications.**

Bring a list of your own questions to ensure that you have all the information you need

Please make arrangements for transportation home on discharge. You are not allowed to drive yourself. Discharge will take place approximately five to six hours after your procedure.

- If you live a considerable distance from the Heart Institute, check with the doctor to see if you should stay close to the hospital on the night of discharge. Arrangements for accommodations should be made in advance (see Accommodations insert).

You will receive a call between 4:00 p.m. and 8:00 p.m. on the evening before your procedure to confirm your expected time of arrival and the approximate time of your procedure.

**If you have not received a call by 9:00 p.m., please call us at 613-696-7000, ext. 14770.**

On the day of your procedure, you will come to the Heart Institute Day Unit, located on the first floor. Follow the green hearts.

**Only one relative or visitor may stay with the patient at any time.** This person may be asked to wait in the lounge area for short periods of time. If the contact person is not present, the staff will phone them after the procedure. Visiting hours are from 9:00 a.m. to 9:00 p.m.

## **Referred Patients Coming from Other Hospitals as Day Patients**

The Heart Institute will contact the nursing unit at your hospital to arrange the date and time of your procedure.

**You may be discharged directly from the Heart Institute.** It is important to bring discharge clothing with you. You must be prepared to make arrangements for transportation home on short notice.

Ensure you provide the phone number and location of your contact person to the Heart Institute nurse in case of emergency.

## **Admitted Patients**

If you are to be admitted to the Heart Institute, please call the Admitting Department at 613-696-7144 between 9:30 a.m. and 10:00 a.m. on the morning of admission to find out when your bed will be available. The bed cannot be booked prior to your admitting day and often will not be ready until after lunch. You will be asked to come to the Admitting Department once your bed is available.

Bring your medications (including insulin), as you may be asked to take your own medications.

## For All Patients

Prior to your procedure:

- A nurse will do an assessment and take your blood pressure and other vital signs.
- A saline lock (intravenous catheter) may be inserted, and blood tests and an ECG may be done.
- Pre-procedure teaching will be done and a video will be available for your viewing.
- You will see the cardiologist performing your procedure.
- Informed consent will be obtained.
- You may eat up to four hours before and drink fluids up to two hours before your procedure.
- A small area on both sides of your groin or on your wrist will be prepped.

## In the Cardiac Catheterization Lab

You will be escorted to the waiting area of the Catheterization Lab on foot, in a wheelchair, on a stretcher or in a bed.

### BEFORE YOUR PROCEDURE

After a brief discussion with the nurse, you will be taken into the Catheterization Lab and asked to lie on a special X-ray table. The temperature in the room will be very cold. You will be attached to a heart monitor.

As this is a teaching hospital, there may be other physicians, nurses and lab technologists involved in your procedure. All staff will be wearing gowns, masks and special aprons.

Your groin or wrist will be washed with a cold solution and sterile sheets will be placed over you. It is important that you neither move nor touch the top of the sheets once they are in place. You may be asked to lie with your arms above your head for a period of time. A nurse will be available to assist you.

### DURING YOUR PROCEDURE

You will be given medication to help you relax, but you will be awake during the procedure so that you can follow instructions from the doctor and nurses. The doctor will administer freezing to your groin or wrist. A small catheter will be threaded through a blood vessel up to the heart. A contrast dye will be injected through this catheter to highlight the coronary arteries. Most patients experience a sensation of body warmth as the dye is injected or the urge to empty their bladder.

X-ray pictures will be taken throughout the procedure. The X-ray machine will move over you very close to your body.

During the procedure, you may be asked to take a deep breath and hold it for a few seconds, or to cough. It is not unusual to experience some chest pain. Inform the nurse if you experience any discomfort or have concerns.

The time for the procedure in the lab is usually from 30 to 90 minutes. If your condition is complex, the procedure will be longer.

Due to unforeseen circumstances there may be a lengthy wait in the lab waiting area.

# FOLLOWING YOUR PROCEDURE

## After the Procedure

You will leave the Catheterization Lab on a stretcher and one of the following will happen:

- **After an angiogram:** The catheter will be removed and a special clamp or manual pressure will be applied.
- **After an angioplasty:** You will be transferred to a unit which specializes in catheter (sheath) removal if a groin insertion was used, or back to the sending unit if the wrist was used.

The nurse will frequently check your pulse, blood pressure, pulses in your feet or wrist, and the puncture site.

### 1. Following a groin insertion:

- If the doctor used your groin (femoral artery), you must remain on bed rest for up to six hours after the procedure.
- It is important to keep your head on the pillow and your affected leg straight. You will be reminded frequently to do these two things to avoid bleeding from the puncture site.
- If you experience back discomfort, you can be repositioned with the help of a nurse, keeping your affected leg straight. The head of your bed may be elevated slightly.
- During this time you may sleep, read or rest. You will be given a snack.

### 2. Following a wrist insertion:

- If the doctor used your arm (radial artery) you will have a clamp applied to your arm in the lab to prevent bleeding.
- It is important to keep your arm on the pillow and refrain from twisting your wrist. You may move your fingers. Your nurse will be available to assist you while the clamp is in place.
- During this time you may sleep, read or rest. You will be given a snack.

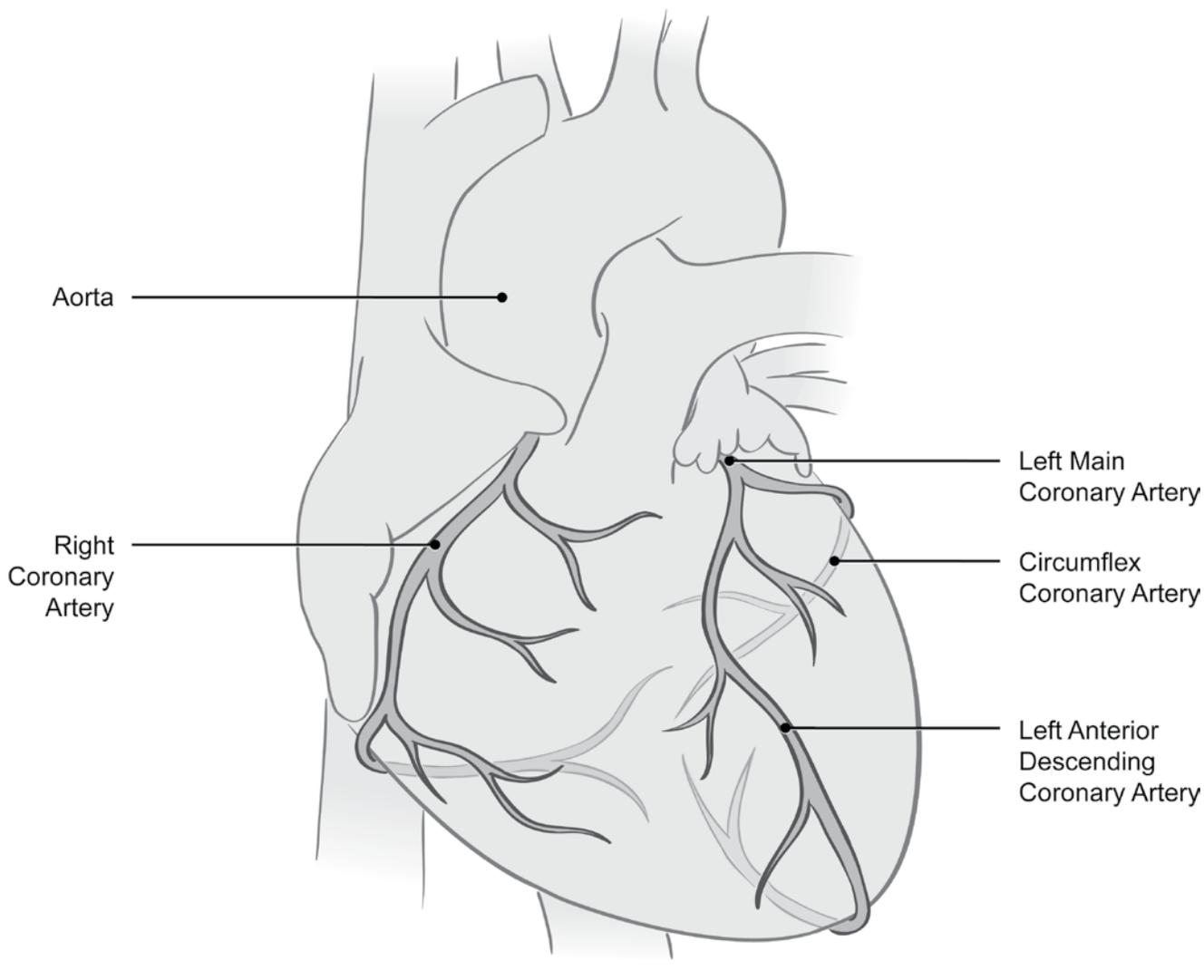
You will be encouraged to drink fluids so the dye will flush out through your kidneys. You will be encouraged to walk around during the hour before discharge.

You must have someone pick you up at the hospital and drive you home. It is preferable that someone stay with you overnight on the day you go home. If this is a problem, tell your cardiologist or inform the Wait List Management Office at 613-696-7061.

## Results of Your Procedure

Prior to your discharge, the doctor will review your results and treatment options. In general, there are three treatment options for coronary artery disease: medical therapy, angioplasty or coronary artery bypass surgery. The most appropriate treatment will be discussed with you by your physician. A copy of the results of the angiogram will be made available to your referring cardiologist or your family doctor.

Your doctor will use this picture of a heart to show you what was done during your procedure.



## Discharge Instructions for Angioplasty or Angiogram (Femoral (Groin) and Radial (Wrist) Insertion)

Procedure: \_\_\_\_\_ Date: \_\_\_\_\_

Insertion site: \_\_\_\_\_

### Day of Procedure

Please note any bruising or discoloration at the insertion site. A certain amount of bruising, stiffness or soreness is expected. A small bruise or lump at the procedure site is normal and will likely go away on its own. Some numbness or tingling in the affected limb immediately after the test is normal. Numbness and tingling should disappear by the time you are ready for discharge.

### Discharge Procedure

Prior to discharge the nurse will remove the saline lock, provide a return appointment if necessary and a prescription.

### Returning to Another Hospital

If you have been transferred from another hospital, return arrangements will be made for you. Transfer times depend on your recovery period as well as the availability of ambulances.

### Going Home

YOU MUST NOT DRIVE HOME YOURSELF. You should make arrangements to be driven home by a relative or friend. If such an arrangement is not possible, a taxi may be acceptable if approved by your physician.

# Daily Activity Guidelines

## ACTIVITY

If you are discharged on the same day as your test, once home, you should take it easy and rest. On the day following the test, you may gradually begin to resume normal activities.

### 1. Groin (femoral) insertion

- Limit the amount of stair climbing as much as possible. Try to climb stairs only once on the day of your procedure.
- Do not lift anything heavier than 10 lbs. (4.5 kg) within 48 hours of your procedure.
- Apply pressure to your groin if you have to sneeze or cough hard within 48 hours of your procedure. The easiest way to apply pressure is to make a fist and place it firmly on the groin area over the dressing.

### 2. Wrist (radial) insertion

- Do not use the affected arm to lift anything heavier than 10 lbs. (4.5 kg) within 48 hours of your procedure. Avoid vigorous wrist movements of the affected arm.
- You may elevate your arm on a pillow to help prevent swelling.

## RETURNING TO WORK

**You must discuss your return to work with your doctor.** If you have a job that involves mostly sitting, you may be able to return to work a few days following discharge. If your work is active, involving a great deal of movement, you may be advised to stay off work for a longer period.

## DRIVING

**Before discharge, be sure to talk to your doctor about when you may start driving again.**

Do not drive or operate any motorized vehicle within 48 hours of your procedure. Additional driving restrictions (two days to one week) may apply following such procedures. The restrictions may be extended if you have had a heart attack.

## Care of Insertion Site

### DRESSING

- You may remove the clear dressing or bandage on the day after the procedure and replace it with a new dressing.
- A small amount of dried blood on the old dressing and insertion site is normal.
- You may take a shower on the day after your test, but do not allow the dressing to stay wet.
- Do not take a tub bath within 48 hours of your test.
- You may reapply a dry dressing for a few more days in order to keep the skin clean and reduce the risk of trauma or infection. The dressing may be removed 72 hours after the procedure.
- Try to avoid wearing tight or restrictive clothing over the insertion site.

### INSERTION SITE

Examine the insertion site each day and notify your physician if any of the following develops:

- An expanding lump or persistent area of redness and warmth
- Yellow drainage from the insertion site
- Increasing numbness in the leg, hand, wrist or arm
- Severe discomfort at the insertion site

Mild discomfort at the insertion site or in the forearm is normal and may be treated with Tylenol or the application of a warm, dry towel.

### DIET

- You should try to drink more fluid than usual in the 48 hours after your procedure. This will help your kidneys flush the dye from your system.
- You may resume your usual diet after discharge.

## BLEEDING

If there is a small amount of bleeding at the puncture site:

- For a wrist site, sit down immediately and apply firm pressure to your wrist with your fingers for 10 minutes.
- For a groin site, lie down and apply pressure to your groin using a fist placed firmly on the groin area over the bandage.

If the bleeding stops, stay still and keep the affected leg or wrist immobile for two hours.

If recurrent bleeding occurs, notify your physician as soon as possible.

- If you are unsure as to what action you should take, phone 613-696-7000, press 0 and ask to speak with the cardiology nursing co-coordinator.

If the **bleeding does not stop** or if there is a **large amount** of bleeding:

- CALL 9-1-1 IMMEDIATELY. DO NOT DRIVE YOURSELF TO THE HOSPITAL.
- Lie down and place firm pressure on the insertion site until help arrives.

## Medications

### MEDICATIONS AFTER YOUR ANGIOPLASTY

If your cardiologist has placed a stent in your artery, you will need to stay on the medication **Plavix**<sup>®</sup>. These stents are very effective in reducing the risk of artery renarrowing. It is very important that you take the two blood thinners, **aspirin** and **Plavix**<sup>®</sup> or **ticagrelor**, as prescribed by your doctor to reduce the risk of blood clots forming on these stents. You must **not** stop these medications without consulting your cardiologist.

Discuss any medication issues with your doctor prior to discharge.

If you normally take antacids, discuss this with your doctor. Antacids may interfere with some medications.

See the following chart for general information about some common heart medications. For more detailed information about your specific medications, ask your pharmacist.

TYPE OF MEDICINE	NAMES OF MEDICATION	HOW MEDICATION WORKS	POTENTIAL SIDE EFFECTS
Antiplatelets	ASA (Aspirin <sup>®</sup> , ECASA) Clopidogrel (Plavix <sup>®</sup> ) Prasugrel (Effient <sup>®</sup> ) Ticagrelor (Brilinta <sup>®</sup> )	<ul style="list-style-type: none"> <li>• Helps prevent blood clots in injured coronary arteries</li> <li>• Helps prevent blood clots on stents (clopidogrel, prasugrel)</li> <li>• Decreases the risk of future heart attacks</li> </ul>	<ul style="list-style-type: none"> <li>• Increased risk of bleeding &amp; bruising</li> <li>• Stomach upset (nausea, diarrhea, heartburn)</li> <li>• Shortness of breath(Ticagrelor)</li> </ul>
<b>NEVER STOP OR CHANGE YOUR ANTIPLATELET MEDICATIONS UNLESS YOU HAVE BEEN INSTRUCTED TO DO SO BY YOUR CARDIOLOGIST</b>			
ACE Inhibitors (Angiotensin Converting Enzyme Inhibitors)	Benazepril (Lotensin <sup>®</sup> ) Captopril (Capoten <sup>®</sup> ) Cilazapril (Inhibace <sup>®</sup> ) Enalapril (Vasotec <sup>®</sup> ) Fosinopril (Monopril <sup>®</sup> ) Lisinopril (Zestril <sup>®</sup> , Prinivil <sup>®</sup> ) Perindopril (Coversyl <sup>®</sup> ) Quinapril (Accupril <sup>®</sup> ) Ramipril (Altace <sup>®</sup> ) Trandolapril (Mavik <sup>®</sup> )	<ul style="list-style-type: none"> <li>• Widens blood vessels and lowers blood pressure</li> <li>• Decreases the risk of future heart attacks</li> <li>• Maintains the heart's shape promoting normal function</li> </ul>	<ul style="list-style-type: none"> <li>• Cough</li> <li>• Dizziness, lightheadedness</li> <li>• Increased potassium level in blood</li> <li>• Swelling of lips/ face/ throat (rare) – Call 911</li> </ul>

TYPE OF MEDICINE	NAMES OF MEDICATION	HOW MEDICATION WORKS	POTENTIAL SIDE EFFECTS
Beta Blockers	Acebutolol (Rhotral <sup>®</sup> , Sectral <sup>®</sup> ) Atenolol (Tenormin <sup>®</sup> ) Bisoprolol (Monocor <sup>®</sup> ) Carvedilol (Coreg <sup>®</sup> ) Labetalol (Trandate <sup>®</sup> ) Metoprolol (Betaloc <sup>®</sup> , Lopressor <sup>®</sup> ) Nadolol (Corgard <sup>®</sup> ) Pindolol (Visken <sup>®</sup> ) Propranolol (Inderal <sup>®</sup> ) Timolol (Blocadren <sup>®</sup> )	<ul style="list-style-type: none"> <li>• Lowers blood pressure and heart rate</li> <li>• Helps prevent angina</li> <li>• Improves heart function</li> <li>• Slows down irregular heart rhythms</li> <li>• Decreases the risk of future heart attacks</li> </ul>	<ul style="list-style-type: none"> <li>• Fatigue/tiredness</li> <li>• Dizziness, lightheadedness</li> <li>• Depression</li> <li>• Wheezing</li> </ul>

TYPE OF MEDICINE	NAMES OF MEDICATION	HOW MEDICATION WORKS	POTENTIAL SIDE EFFECTS
Cholesterol Lowering Medications	<b>Statins</b> Atorvastatin (Lipitor®) Lovastatin (Mevacor®) Pravastatin (Pravachol®) Rosuvastatin (Crestor®) Simvastatin (Zocor®)	<ul style="list-style-type: none"> <li>Lowers LDL (“bad”) cholesterol</li> <li>Decreases the risk of future heart attacks</li> </ul>	<ul style="list-style-type: none"> <li>Constipation, gas</li> <li>Indigestion</li> <li>Mild decrease in liver function</li> <li>Muscle pain – Notify doctor</li> </ul>
	<b>Cholesterol Absorption Inhibitors</b> Ezetimibe (Ezetrol®)	<ul style="list-style-type: none"> <li>Usually used with a statin to lower LDL (“bad”) cholesterol</li> </ul>	<ul style="list-style-type: none"> <li>Diarrhea</li> <li>Mild decrease in liver function</li> <li>Muscle pain – Notify doctor</li> </ul>
	<b>PCSK9 Inhibitors</b> Alirocumab (Praluent®) Evolocumab (Repatha®)	<ul style="list-style-type: none"> <li>Usually used with a statin to lower LDL (“bad”) cholesterol</li> </ul>	<ul style="list-style-type: none"> <li>Redness or swelling at the injection site</li> </ul>
	<b>Fibrates</b> Bezafibrate (Bezalip SR®) Fenofibrate (Lipidil EZ®, Lipidil Micro®, Lipidil Supra®) Gemfibrozil (Lopid®)	<ul style="list-style-type: none"> <li>Lowers triglycerides</li> </ul>	<ul style="list-style-type: none"> <li>Rash</li> <li>Stomach upset (nausea, vomiting, diarrhea, gas)</li> <li>Mild decrease in liver function</li> <li>Muscle pain – Notify doctor</li> </ul>
	Niacin (Niaspan®)	<ul style="list-style-type: none"> <li>Increases HDL (“good”) cholesterol</li> <li>Lowers triglycerides</li> </ul>	<ul style="list-style-type: none"> <li>Flushing</li> <li>Mild decrease in liver function</li> </ul>
	<b>Bile Acid Binders</b> Cholestyramine (Questran®) Colestipol (Colestid®)	<ul style="list-style-type: none"> <li>Mildly lowers LDL (“bad”) cholesterol</li> </ul>	<ul style="list-style-type: none"> <li>Constipation</li> <li>Nausea</li> <li>Bloating</li> </ul>

TYPE OF MEDICINE	NAMES OF MEDICATION	HOW MEDICATION WORKS	POTENTIAL SIDE EFFECTS
Nitrates	Isosorbide Dinitrate (ISDN, Isordil®) Isosorbide Mononitrate (Imdur®) Nitroglycerin spray (Nitrolingual®) Nitroglycerin patch (NitroDur®, Minitran®, Trinipatch®)	<ul style="list-style-type: none"> <li>• Improves blood flow to the heart by widening the blood vessels</li> <li>• Helps prevent angina (patch and tablets)</li> <li>• Stops angina (spray)</li> </ul>	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Skin irritation at application site (patch)</li> <li>• Lightheadedness (spray)</li> </ul>
Angiotensin II Receptor Blockers (ARBs)	Candesartan (Atacand®) Irbesartan (Avapro®) Losartan (Cozaar®) Olmesartan (Olmotec®) Telmisartan (Micardis®) Valsartan (Diovan®)	<ul style="list-style-type: none"> <li>• Widens blood vessels &amp; lowers blood pressure</li> <li>• Decreases the risk of future heart attacks</li> <li>• Alternative to ACE inhibitors</li> </ul>	<ul style="list-style-type: none"> <li>• Dizziness, lightheadedness</li> <li>• Headache</li> <li>• Increased potassium level in blood</li> </ul>
Neutral Endopeptidase Inhibitor / Angiotensin II Receptor Blocker (ARB)	Sacubitril / Valsartan (Entresto®)	<ul style="list-style-type: none"> <li>• Widens blood vessels &amp; lowers blood pressure</li> <li>• Removes excess water by increasing urine production</li> <li>• Decreases the risk of hospitalization due to heart failure</li> <li>• Alternative to ACE inhibitors</li> </ul>	<ul style="list-style-type: none"> <li>• Cough</li> <li>• Dizziness, lightheadedness</li> <li>• Increased potassium level in blood</li> <li>• Swelling of lips/ face/ throat (rare) – Call 911</li> </ul>

TYPE OF MEDICINE	NAMES OF MEDICATION	HOW MEDICATION WORKS	POTENTIAL SIDE EFFECTS
Calcium Channel Blockers	Amlodipine (Norvasc®) Felodipine (Plendil®, Renedil®) Nifedipine (Adalat XL®) Diltiazem (Cardizem CD®, Tiazac®) Verapamil (Isoptin®)	<ul style="list-style-type: none"> <li>• Lowers blood pressure</li> <li>• Lowers heart rate (diltiazem, verapamil)</li> <li>• Helps prevent angina</li> <li>• Slows irregular heart rhythms (diltiazem, verapamil)</li> </ul>	<ul style="list-style-type: none"> <li>• Dizziness, lightheadedness</li> <li>• Fatigue/tiredness</li> <li>• Headache</li> <li>• Swelling of ankles/feet</li> </ul>
Diuretics (Water Pills)	Ethacrynic Acid (Edecrin®) Furosemide (Lasix®) Hydrochlorothiazide (HCTZ, HydroDiuril®) Metolazone (Zaroxolyn®)	<ul style="list-style-type: none"> <li>• Removes excess water by increasing urine production</li> <li>• Reduces swelling in legs and ankles</li> </ul>	<ul style="list-style-type: none"> <li>• Dizziness/lightheadedness</li> <li>• Decreased potassium level in blood</li> <li>• Gout</li> </ul>
Potassium Supplement	Potassium Chloride (Slow K®, K-Dur®)	<ul style="list-style-type: none"> <li>• Replaces potassium in blood</li> </ul>	<ul style="list-style-type: none"> <li>• Nausea/vomiting</li> </ul>
Anticoagulants	Apixaban (Eliquis®) Dabigatran (Pradaxa®) Edoxaban (Lixiana®) Rivaroxaban (Xarelto®) Warfarin (Coumadin®)	<ul style="list-style-type: none"> <li>• Helps prevent blood clots from forming or getting bigger</li> </ul>	<ul style="list-style-type: none"> <li>• Increased risk of bleeding and bruising</li> </ul>

TYPE OF MEDICINE	NAMES OF MEDICATION	HOW MEDICATION WORKS	POTENTIAL SIDE EFFECTS
Anti-arrhythmics	Amiodarone (Cordarone®)	<ul style="list-style-type: none"> <li>• Makes the heart beat more regularly</li> </ul>	<ul style="list-style-type: none"> <li>• Nausea/vomiting</li> <li>• Skin may burn more easily under the sun</li> <li>• Sun exposed skin may turn bluish grey</li> <li>• Thyroid abnormality</li> <li>• Decrease in liver function</li> <li>• Lung damage (rare)</li> </ul>
	Dronedarone (Multaq®)		<ul style="list-style-type: none"> <li>• Nausea/vomiting</li> <li>• Diarrhea</li> </ul>
	Sotalol (Sotacor®)		<ul style="list-style-type: none"> <li>• Fatigue/tiredness</li> <li>• Dizziness, lightheadedness</li> <li>• Depression</li> <li>• Wheezing</li> </ul>
Digitalis	Digoxin (Lanoxin®, Toloxin®)	<ul style="list-style-type: none"> <li>• Slows down irregular heart rhythms</li> <li>• Strengthens the heart's pumping ability</li> </ul>	<ul style="list-style-type: none"> <li>• Nausea/vomiting – Notify doctor if persistent</li> </ul>

**WHAT TO DO IF YOU EXPERIENCE ANY CHEST DISCOMFORT (SIMILAR TO YOUR PREVIOUS SYMPTOMS) THAT:**

- Travels to your shoulder, arm, neck or jaw
- Feels vice-like, constricting, like a crushing weight or pressure or indigestion
- Is accompanied by sweating, shortness of breath, nausea, fear or denial

At the first sign of discomfort → Stop immediately and rest  
If no relief with rest → Take 1st nitroglycerine tablet/spray  
If no relief within five minutes → Take 2nd nitroglycerin tablet/spray  
If no relief within five minutes → Take 3rd nitroglycerin tablet/spray

**IF NO RELIEF AFTER THE 3RD NITROGLYCERIN, CALL 9-1-1 OR HAVE SOMEONE ELSE DRIVE YOU TO THE NEAREST EMERGENCY DEPARTMENT.**

**Before you go home, did you discuss the following with your doctor?**

- Medications:.....  Yes  No  
Activity guidelines: .....  Yes  No  
Driving:.....  Yes  No  
Return to work (if applicable): .....  Yes  No



Remember you may, at any time (24 hours/day), call the nursing coordinator should you have any questions or concerns: 613-696-7000, press 0 and ask for the nursing coordinator

# PATIENT TOOLS

## Personal Medication Information

Fold this form and keep it in your wallet.

How does using this form help you?

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

Pharmacy Name and Phone Number: \_\_\_\_\_

Your Name: \_\_\_\_\_

Address: \_\_\_\_\_

Birth Date: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Allergic to:

Describe reaction:

_____	_____
_____	_____
_____	_____
_____	_____

## IMMUNIZATION RECORD

Please tick  if you have had the following vaccines and write the date, if known:

Vaccine:

Date:

Flu

\_\_\_\_\_

Pneumonia

\_\_\_\_\_

Tetanus

\_\_\_\_\_

Hepatitis

\_\_\_\_\_



# HEART INSTITUTE PATIENT ALUMNI

## WE CAN HELP. WE'VE BEEN THERE.

The Patient Alumni are a diverse community of current and former University of Ottawa Heart Institute patients and their families, friends and caregivers. We gratefully support the Institute by sharing information on advancements in the prevention and treatment of heart disease and by designating funds towards projects and services that improve patient comfort and care.

By joining the Alumni, you will become part of a very unique community!

The Heart Institute is the only hospital in Canada that has formed an alumni group to stay in contact with discharged patients and their families. For over 40 years, the Heart Institute has delivered world-class care to thousands of patients. As Alumni members, we wish to stay in touch, stay informed, and contribute to the Institute's quality of care and future success.

## WHY JOIN THE ALUMNI?

Alumni membership is free of charge, thanks to the partnership and financial support of the Heart Institute and its fundraising Foundation.

As an Alumni member, you'll get up-to-date information through our:

- e-letters
- Websites
- Lectures, courses and special events

By joining, you will also be able to share information and experiences with other Alumni members through our unique private social networking site, at <http://community.ottawaheart.ca>

For more information and access to free membership, visit our website, [ottawaheartalumni.ca](http://ottawaheartalumni.ca)

Or contact us at:

**Email:** [alumni@ottawaheart.ca](mailto:alumni@ottawaheart.ca)

**Telephone:** 613-696-7241



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



**PATIENT ALUMNI**  
ASSOCIATION DES  
ANCIENS PATIENTS