
Going Home after Percutaneous Coronary Intervention (PCI) Procedure

DISCHARGE INSTRUCTIONS
FOR PATIENTS AND FAMILIES

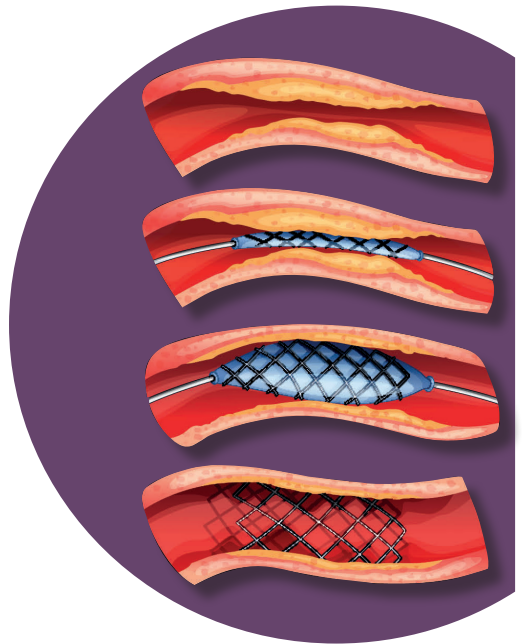
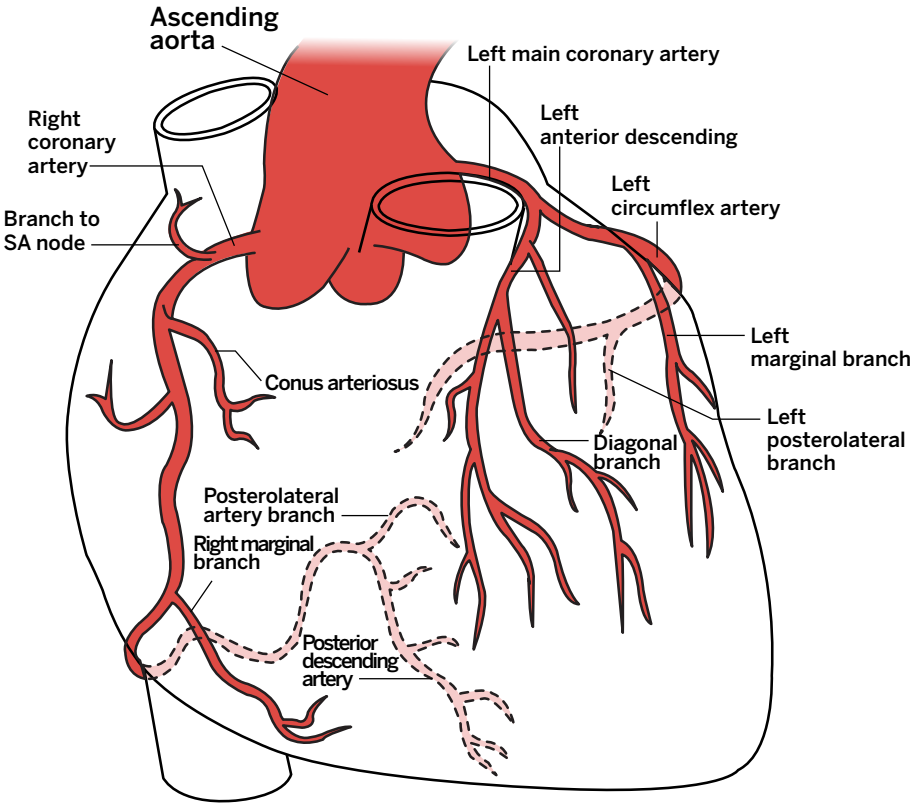


TABLE OF CONTENTS

THE HEART AND CORONARY ARTERIES	3
WHAT IS PCI?	4
PUNCTURE SITE CARE	4
MEDICATIONS	5
EXERCISE	6
DIET	7
QUITTING SMOKING	7
SEXUAL ACTIVITIES	8
DRIVING	8
TRAVELLING	8
CARDIAC REHABILITATION	8
FOLLOW UP	9
CHEST PAIN	9
FREQUENTLY ASKED QUESTIONS	10
REFERENCES	11
FIVE CARDINAL RULES FOR PATIENTS WITH A HEART ATTACK OR CHEST PAIN	12
NOTES	13

THE HEART AND CORONARY ARTERIES



You have angioplasty or stent(s) in:

WHAT IS A PCI?

Your arteries may be blocked by plaque buildup, a condition known as atherosclerosis. Percutaneous coronary intervention (PCI), formerly known as angioplasty with stent, is a non-surgical procedure that inserts a stent to open up these arteries.

PUNCTURE SITE CARE

- Before you leave the hospital, become familiar with how your puncture site looks and feels. The site should be soft, flat and dry, without any signs of bleeding.
 - If the puncture site starts to bleed, apply direct pressure with two finger pads for ten minutes. Do not put too much weight on the affected arm or leg for the next four hours. If the bleeding cannot be controlled by direct pressure, **CALL 911**. Do not drive yourself to the hospital.
 - An arm or leg that feels cold, looks pale or blue, or becomes painful could be a sign of compromised circulation. This is rare, but it is a **medical emergency and you should seek medical attention immediately**.
 - Bruising at the site can be normal. This will improve gradually and can take up to two weeks to disappear entirely. If you notice significant bruising that has started after your discharge, you should seek medical attention to assess the bruising.
 - If the puncture site has swelling, discharge, drainage, or redness, or if you have fever or chills, this is not normal. **Please seek medical attention**.
 - To prevent infection, do not submerge your puncture site into water for three days after your procedure. This includes a bathtub, hot tub or swimming pool. Showering is ok.
- ◆ **If you have a wrist or forearm puncture wound:**
- Do not bend your wrist/forearm for eight hours after your procedure.
 - You may remove the bandage from your wrist/forearm 24 hours after your procedure.
 - Do not lift anything over 10 lbs (4-5 kg) for the first 2 days after your procedure. This includes children, grocery bags, back packs etc.

◆ If you have a groin puncture site:

- You may remove the bandage from your groin 24 hours after the procedure.
- Walk slowly and climb stairs slowly for the first three days.
- Avoid strenuous activities or exercises that can strain the affected leg for a minimum of 48 hours following the procedure.

MEDICATIONS

You may be prescribed the following medications.

- 1. Antiplatelets** ASA (Aspirin) and one of clopidogrel (Plavix) or ticagrelor (Brilinta).
 - After your PCI, a healing process occurs to the coronary arteries. Blood clots may occur which can result in a complete blockage of the stent(s). Antiplatelets prevent clots from forming to the coronary arteries and reduces the risk of heart attacks.
 - Possible side effects include bruising and nose bleeds.
 - Ticagrelor may cause shortness of breath. See your doctor if you are experiencing this.
 - Make sure you know how long to take your antiplatelets.
 - Search on YouTube [*“Patient Education: Dual antiplatelet therapy \(DAPT\) after heart attack or stent”*](#) for more information
- 2. ACE Inhibitor** e.g. ramipril (Altace), perindopril (Coversyl) or **Angiotensin Receptor Blocker** e.g. candesartan (Atacand), olmesartan (Olmetec).
 - Reduces the risk of heart attacks, improves heart function and lowers blood pressure.
 - Possible side effects include dizziness, feeling faint or a cough.
 - You will need blood tests after starting this medication to check how well your kidneys are working and your potassium level.

3. **Beta Blocker** e.g. bisoprolol (Monacor), metoprolol (Lopressor).

- Reduces the risk of heart attacks, lowers heart rate, lowers blood pressure, and makes it easier for the heart to pump blood.
- Possible side effects include dizziness, feeling faint and fatigue.

4. **Cholesterol lowering medication** e.g. (“statin”) e.g. atorvastatin (Lipitor), rosuvastatin (Crestor).

- Lowers cholesterol and other fats in the bloodstream and reduces the risk of heart attacks.
 - Even if your cholesterol levels are fine, you may still need this since there are benefits outside of cholesterol lowering.
 - Side effects include muscle aches or cramps.
- Do not stop or skip a dose of these medications without speaking to a health care professional, as it may increase the risk of having another heart event. Talk to your doctor or pharmacist if you have any concerns about your medications.
 - If you regularly take a blood thinner, such as apixaban (Eliquis), dabigatran (Pradaxa), edoxaban (Lixiana), rivaroxaban (Xarelto) or warfarin (Coumadin), ask your health care provider when it is safe to restart these medications and whether you need a dose adjustment.
 - If you regularly take metformin (a diabetic medication), resume your metformin 48-72 hours after your procedure unless your heart specialist or family physician tells you otherwise.
 - After your PCI, you do not need antibiotics to prevent infections before a medical or dental procedure.

EXERCISE

- ◆ If you had a recent heart attack, walking is the best form of exercise. Start with slow walks of 5 minutes a day on a flat surface. Add one minute per day until you get to 30 minutes. Gradually increase your activity each day as tolerated.
- ◆ In the first few weeks after your heart attack, avoid doing strenuous exercises such as shoveling or mowing the lawn.

- ◆ Talk to your doctor about the types of activities you can do. The cardiac rehab program can also provide you with an exercise routine that suits your fitness level and goals.

DIET

- ◆ Eating well and maintaining a heart-healthy diet is an important part of keeping your heart in good shape.
- ◆ Eat plenty of vegetables and fruits, whole grain foods and protein foods.
- ◆ Prepare meals and snacks using ingredients that have little to no added sodium, sugars or saturated fat.
- ◆ Choose healthier menu options when eating out.
- ◆ Replace sugary drinks with water.
- ◆ Talk to your health care team about heart healthy diets.
- ◆ Follow [*Canada's Food Guide healthy eating recommendations.*](#)

QUITTING SMOKING

- ◆ Quitting smoking is the single most effective way to improve your health. Talk to your health care provider about quitting. There are several medications that can help you stop smoking. Nicotine replacement therapy (available as gum, patches, inhalers, sprays or lozenges) can be purchased without a prescription. Your doctor or pharmacist can prescribe you other medications such as varenicline (Champix) or bupropion (Zyban).
- ◆ Smokers' Helpline has proven, free and personalized tools to help you quit successfully. Visit www.smokershelpline.ca or call 1-866-366-3667 for more information.
- ◆ Electronic cigarettes (e-cigarettes) are frequently marketed as a safer alternative to traditional cigarettes. However, because they are relatively new products, e-cigarettes have not been studied as extensively as tobacco products. E-cigarettes are not recommended because it is linked to breathing and heart problems.

SEXUAL ACTIVITIES

- ◆ It is safe to resume sexual activities if it has been 7-10 days after your heart attack and if you can climb two flights of stairs without becoming short of breath or having chest pain.
- ◆ Use sexual positions that are less physically exerting, such as having your partner on top.
- ◆ Medications for erectile dysfunction may interact with certain heart medications such as nitroglycerin. Never take any medication to treat erectile dysfunction without discussing it with your family physician or heart specialist.

DRIVING

- ◆ Clarify your driving restrictions with your heart specialist.
- ◆ If you had an elective PCI, you are generally safe to drive two days after your procedure.
- ◆ If you had a heart attack, you can start driving between two days and three months after your heart attack. This should be clarified with your heart specialist.
- ◆ If you have a commercial license, please let us know.

TRAVELLING

- ◆ Generally, it is safe to fly 7 days after a PCI procedure. Talk to your heart specialist before you book a flight.
- ◆ Coronary artery stents do not trigger metal detector alarms in airports, and you can walk through them safely.

CARDIAC REHABILITATION

You will be referred to a cardiac rehabilitation program close to your home. There are many reasons you are recommended to participate in cardiac rehabilitation:

- ◆ Heart disease is a chronic condition that requires lifelong behaviour changes. Cardiac rehab offers tools and support so you can achieve your goals.
- ◆ By helping you identify and manage your cardiovascular risk factors, cardiac rehab programs can reduce your risk of future heart attacks by up to 25%.
- ◆ Cardiac rehab offers exercise programs according to your abilities/ goals and education sessions to help you make healthy lifestyle choices.

It is generally safe to start cardiac rehabilitation four to six weeks after your hospital discharge.

You should receive a call from cardiac rehabilitation program.

Call 905-895-4521 ext. 6411 if you have not heard from them two weeks after your hospital discharge regardless where you live.

FOLLOW UP

You should make an appointment to see your health care team, including:

- ◆ Family physician within 1-2 weeks to check your puncture site, blood work and review your medications.
- ◆ Your heart specialist within 4-8 weeks.

CHEST PAIN

◆ **Why did I have chest discomfort during my PCI procedure?**

This is not unusual. When the stent is expanded, the blood circulation in the coronary artery is temporarily interrupted. Placement of the stent in the coronary artery can cause some discomfort by stretching the walls of the artery and stimulating nerve endings. In addition, when a stent is inserted into a main coronary artery, this may pinch a smaller side branch of the coronary artery. In most cases, the chest discomfort is benign and will go away in 24-48 hours.

◆ **Can I have recurrent chest pain after my procedure?**

It is possible to have chest pain again after coronary artery stent placement. This can be due to a blockage of your new stent(s), scar

tissue within your stent or because of a new blockage in another area of your coronary arteries. This is something to discuss with your heart specialist.

◆ **What if I experience chest pain?**

Stop what you are doing and rest by sitting or lying down.

- If you have a prescription for nitroglycerin spray, take as prescribed: Spray once under the tongue and wait five minutes. If you still have pain, spray again and wait another five minutes. If you still have pain five minutes after the second spray, spray a third time and call 911. Do not drive yourself to hospital.
- If you are not prescribed nitroglycerin and your pain has not resolved after 15 minutes, call 911. Do not drive yourself to the hospital.

FREQUENTLY ASKED QUESTIONS

◆ **How is a stent placed in my coronary artery?**

A tiny, long flexible tube with a cylinder-shaped inflatable balloon at its end, called a catheter, is inserted through an artery in the groin or wrist. This is advanced towards the narrowed coronary artery using x-ray guidance. Collapsed stents are mounted and crimped on balloon catheters and advanced into narrowed coronary arteries.

The collapsed stents are expanded by balloon inflation and secured to the wall of the narrowed coronary artery. The stent is secured at the site of the narrowing to create a permanent scaffold to keep the artery walls open, allowing blood to flow.

◆ **What are stents made of?**

There are two types of stents: bare metal stents (made of stainless steel), and drug eluting stents (coated with an active drug that is released over a few months). Drug eluting stents help control the healing process and decrease the formation of scar tissue.

◆ **Does the stent stay in my body permanently? Can it move or collapse?**

Once stents are placed, they stay inside the coronary artery

permanently and cannot be removed. Stents are stretched and expanded against the coronary artery wall and are eventually covered by the patient's own cells. Stents are chosen according to the size of the coronary artery and are safely anchored against the artery wall.

◆ **Can I have medical imaging tests after a PCI procedure?**

Coronary artery stents do not interfere with x-rays, nuclear imaging, computed tomography (CT) scans or magnetic resonance imaging (MRI).

◆ **Will I ever have a heart attack again?**

Stents do not cure coronary artery disease. It is still important for you to continue taking your prescribed medications and to make lifestyle adjustments in order to decrease the risk of a future heart attack. Strategies include regular exercise, quitting smoking, maintaining a healthy body weight and choosing a healthy diet. Both medications and lifestyle changes can greatly reduce the risk of getting another heart attack. For patients with stable coronary artery disease, stenting is just one tool in the heart specialist's toolbox.

REFERENCES

1. Anatomy of the coronary arteries of the heart (2016). Retrieved from <https://radiologykey.com/diagnosis-of-myocardial-ischemia/>
2. Capsana (2015). Nursing My Heart Back to Health. Supported by Heart and Stroke Foundation.
3. Canadian Cardiovascular Pharmacist Network (2017, Dec 11th) Patient Education: Dual Antiplatelet Therapy (DAPT) after Heart Attack or Stent. YouTube, www.youtube.com/watch?v=vZPu8yd8zHw&feature=youtu.be.
4. Heart and Stroke Foundation (2018). Percutaneous coronary intervention (PCI or angioplasty with stent). Retrieved from <https://www.heartandstroke.ca/heart/treatments/surgery-and-other-procedures/percutaneous-coronary-intervention>
5. Southlake Regional Health Centre (2017) Five Cardinal Rules for Patients with a Heart Attack or Chest Pain. Obtained from <http://www.southlakeregional.org/doc.aspx?id=1427>
6. Southlake Regional Health Centre (2014) Post- Coronary Angiogram/Angioplasty discharge instruction.
7. Canada's Food Guide Healthy Eating Recommendations (2019). Retrieved from <https://food-guide.canada.ca/en/>

FIVE CARDINAL RULES FOR PATIENTS WITH A Heart Attack or Chest Pain

(Myocardial Infarction or Angina)

5 MEDS TO SAVE YOUR LIFE



1. Aspirin
2. Anti-platelet drugs - Ticagrelor/Clopidogrel
3. Beta Blocker
4. ACE inhibitor or an ARB
5. Statin

4 TIPS FOR STAYING HEALTHY



1. Many heart patients have **stress, anxiety or depression**. Your mental health matters to your heart. Talk to your healthcare provider.
2. Discuss your **blood pressure** target with your healthcare provider.
3. **Diabetes Management:** keep your blood sugar well controlled to prevent blockages in the arteries of your heart.
4. **Quit Smoking:** Once and for all - We can help!

3 TIPS FOR EXERCISE



1. Start **walking** 5 minutes a day on a level surface – add 1 minute per day until you get to 30 minutes. The goal is to walk 30 minutes a day, 5 days a week. Our **Cardiac Prevention and Rehabilitation Program** is the safest way to become more active.
2. **Warning Signs:** Stop and rest if you have any chest pain, shortness of breath, palpitations, dizziness. Let your healthcare provider know.
3. If you can walk up 2 flights of stairs comfortably it is safe to have sex.

2 EVERYDAY FACTORS YOU CAN CONTROL



1. **Diet:** Eat 5-7 servings of fruits and veggies every day. Choose whole grains more often. Eat fish twice a week. Include 2-3 servings of healthy oils every day (eg. safflower, olive oil). Reduce your intake of saturated fat.
2. **Cholesterol:** take your cholesterol lowering medicine every day even if your cholesterol is normal.

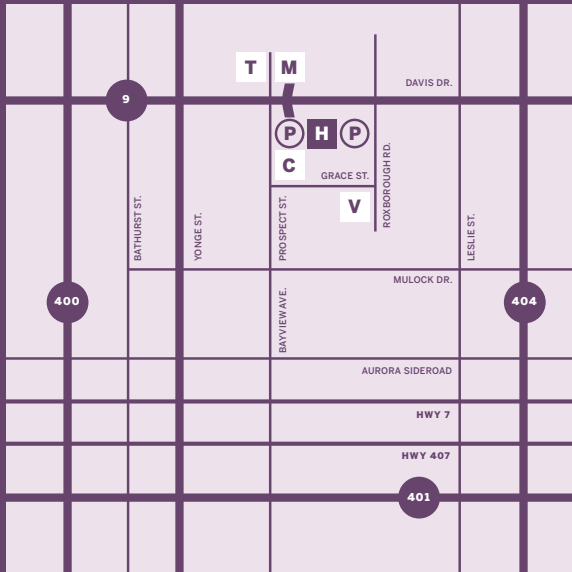
1 YOU ARE NUMBER ONE!



What to do if you have ongoing symptoms of chest discomfort or similar pain:

1. Stop what you are doing and sit or lie down.
2. If you have a nitroglycerine prescription:
 - Take one spray under your tongue and wait 5 minutes. If you still have pain, take another spray and wait another 5 minutes. If you still have pain after the third spray (or you do not have nitroglycerin and your pain is not resolving after 15 minutes) – **Call 911.**

HOW TO FIND US



V Southlake Village,
640 Grace Street

M Medical Arts Building,
581 Davis Drive

Southlake Foundation,
581 Davis Drive

H Southlake Regional
Health Centre

| Bridge over Davis Drive – accessible from P3 of the
Parking Garage and Level 3 of the Medical Arts Building.

C Stronach Regional
Cancer Centre

T The Tannery Mall,
465 Davis Drive

P Parking

For more information, please contact:

Interventional Cardiology
Southlake Regional Health Centre

Tel: 905-895-4521
TTY: 905-952-3062

596 Davis Drive
Newmarket, ON L3Y 2P9

southlake.ca