

# Cardiovascular Diseases and Interventions

(coronary artery disease, valve  
disorders, arrhythmias)



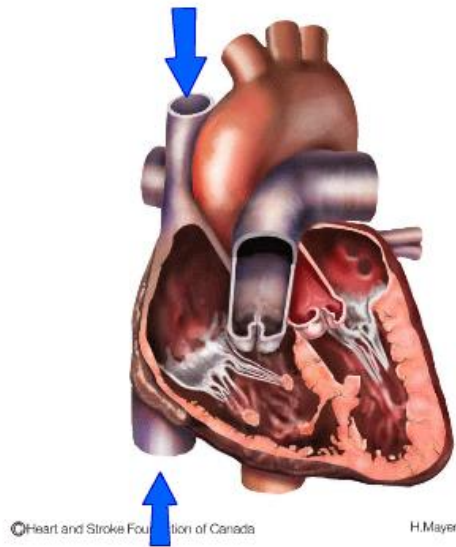
# Key messages

- ▶ Understand your cardiovascular disease.
- ▶ Understand your cardiovascular procedure and treatment.

# How does my heart work

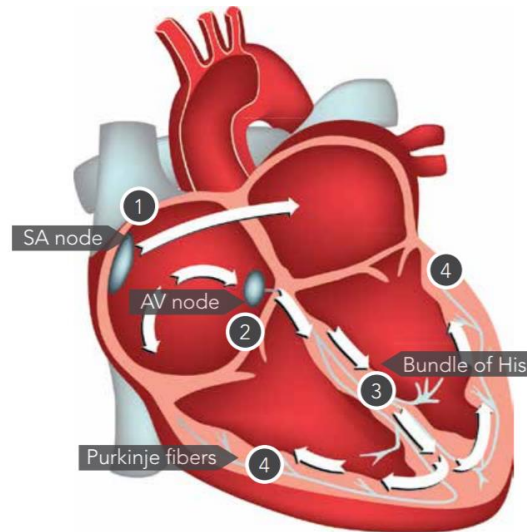
- ▶ The heart is a muscle that pumps your blood across your body to supply oxygen to all tissues and organs.

Pumping system



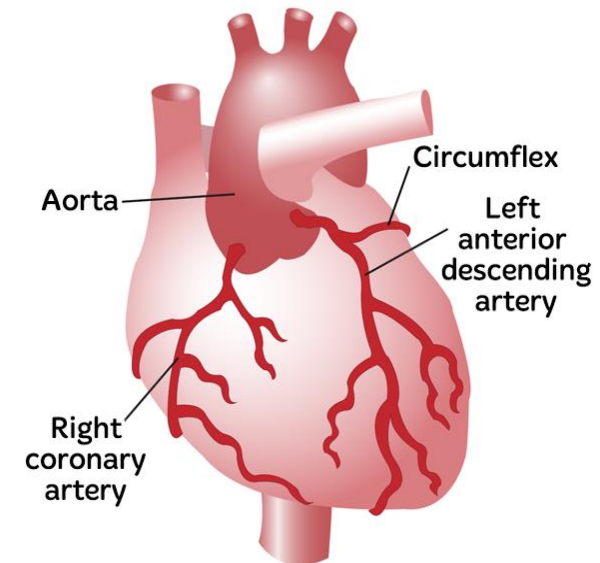
*Valve Disease*

Electrical system



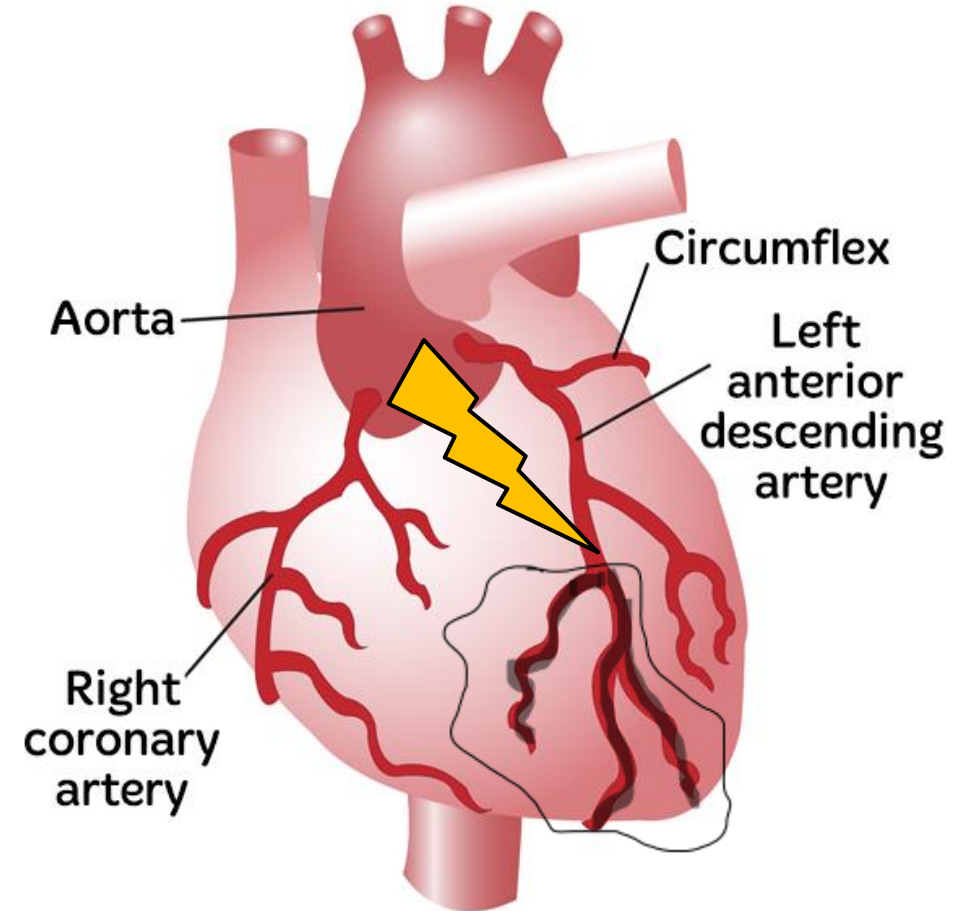
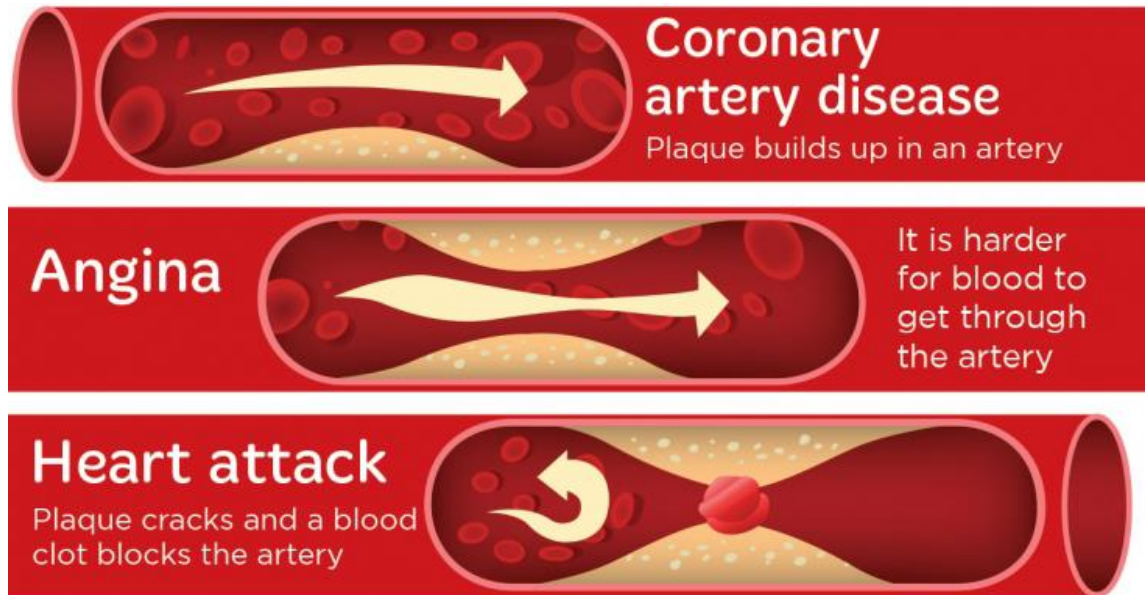
*Arrhythmias*

Blood supply



*Coronary Disease*

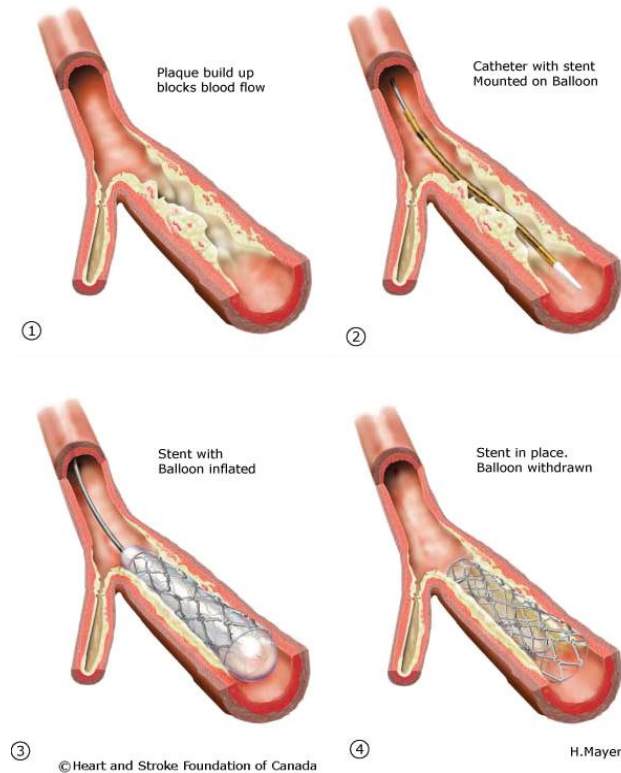
# How does coronary disease happen?





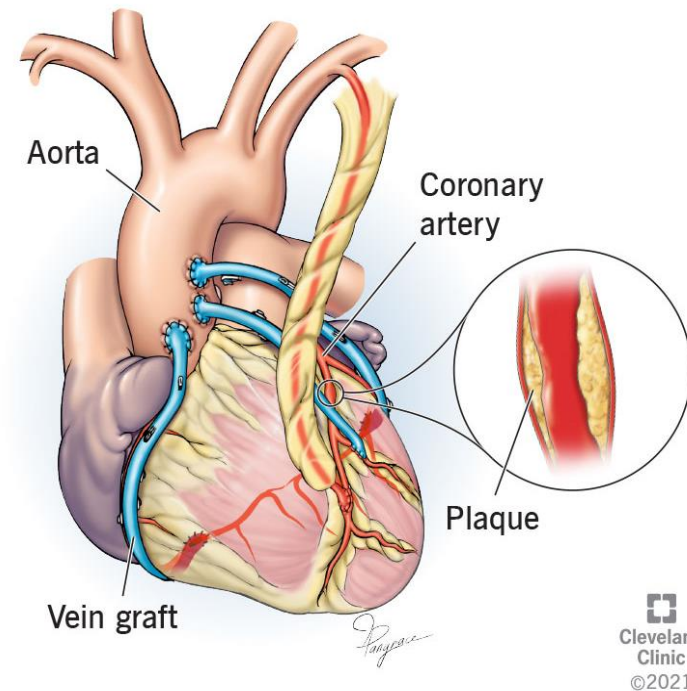
# Interventions for coronary artery disease

## Stent procedure (Percutaneous Coronary Intervention, angioplasty with stent)



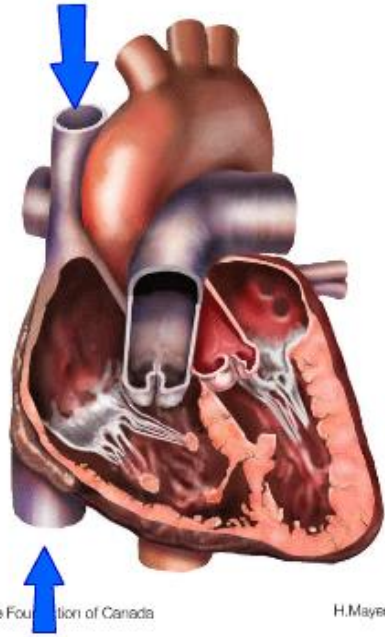
Access through wrist or thigh.  
Patient awake during procedure.

## Bypass procedure (Coronary Artery Bypass Graft)



Graft vessel harvested from leg, arm or chest. Open chest surgery or robotic.  
Patient asleep during procedure.

# What are valve disorders?



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H.Mayer

When a valve doesn't function properly because of:

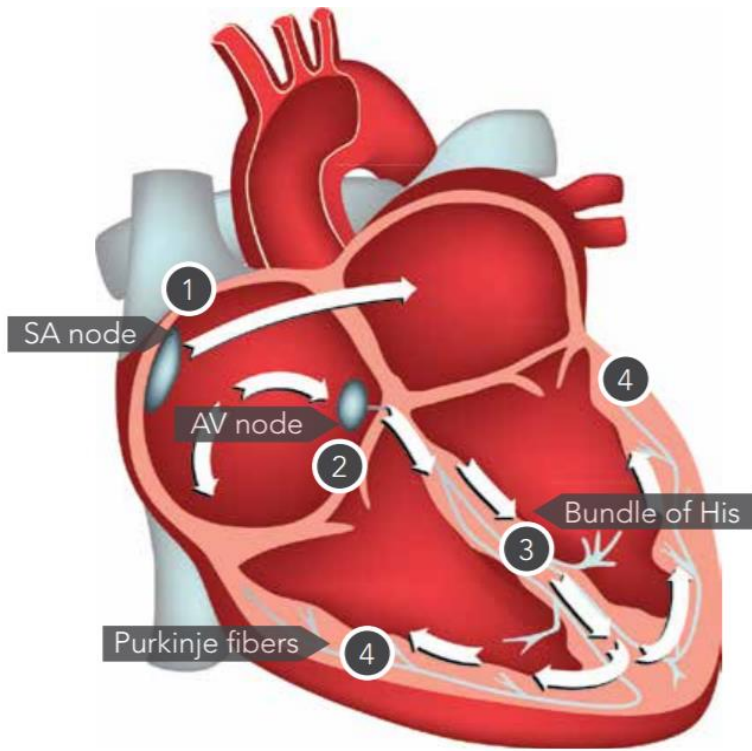
- Stiffness (stenosis)
- Leaking (regurgitation)
- Abnormal structure

Surgical Procedures:

- Valve repair
- Valve replacement (mechanic or biologic)

Can be done through heart surgery (robotic or via sternotomy) or transcatheter (TAVI)

# What are arrhythmias?



When the heart rhythm is irregular or abnormal. Related to the electricity of your heart which triggers your heart to pump and circulation.

- Too slow (bradycardia)
- Too fast (tachycardia, atrial fibrillation)
- Early or extra beats
- Not synchronized (heart block)

## Treatment:

- Cardioversion (convert back to normal rhythm)
- Surgical (ablation, maze procedure)
- Medication (control rhythm, reduce harmful risk)
- Pacemaker (help or replace rhythm for normal one)
- Defibrillator or ICD (reset rhythm with shock to avoid dangerous irregularities)

# Returning to activities

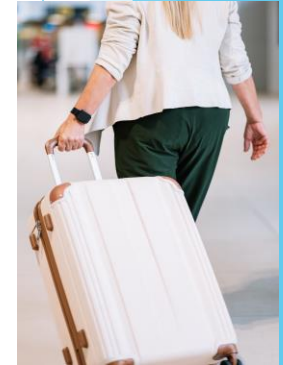
## Driving

- Your vehicle:
  - Angioplasty - Heart attack: usually after 2 to 30 days
  - Cardiac surgery: usually after 30 days
- Commercial: Usually 7-90 days (Ask your doctor!)



## Traveling

- Depends on insurance policy
- 3-6mo of stability (no new condition, no change in meds)



## Exercise

- Early mobilization (low intensity): ASAP!
  - Walking
  - Move within the tube and Range of motion exercises (surgery)
- Moderate intensity : Within first weeks with doctor's or cardiac rehab team approval



## Lifting ≥10lbs \*For open heart / sternotomy surgery only\*

- Can resume 6-8 weeks after surgery > 10lbs progressively
- Its best to start with range of motion exercises





# QUIZ!

Scan this QR code with your  
smartphone camera or copy this link  
to test your knowledge with our  
short quiz!



<https://forms.office.com/r/GuAdJsFwkR>

# For more information

- ▶ Jewish General Hospital Cardiology Patient Guide:
  - <https://precare.ca/healthcare-guides/cardiac-surgery/>
  - <https://precare.ca/healthcare-guides/coronary-angioplasty/>
- ▶ McGill University Health Center Patient Guide:
  - [https://www.mcgill.ca/cardiacsurgery/files/cardiacsurgery/cardiac\\_surgery\\_-\\_patient\\_information\\_-\\_v2.pdf](https://www.mcgill.ca/cardiacsurgery/files/cardiacsurgery/cardiac_surgery_-_patient_information_-_v2.pdf)
  - <https://www.mcgill.ca/infoneuro/fr/ressources-en-ligne/sujets-medicaux/angioplastie>
- ▶ Cardiac College : [www.healtheuniversity.ca/EN/CardiacCollege/Disease/](http://www.healtheuniversity.ca/EN/CardiacCollege/Disease/)
- ▶ University of Ottawa Heart Institute: <https://www.ottawaheart.ca/patients-and-visitors/tools-and-resources>
- ▶ Heart & Stroke Foundation : [www.heartandstroke.ca](http://www.heartandstroke.ca)
- ▶ Canadian Cardiovascular Society Guidelines on Drive & Fly : <https://ccs.ca/guideline/drive-and-fly-2003/>