Risk Factors for Atherosclerosis 1. High Blood Pressure 2. Diabetes-screened with Hb a1c; People with established diabetes are considered at high risk (over 20% risk for a heart attack over 10 years)



Risk Factors for Atherosclerosis 1. *High Blood Pressure*

- 2. Diabetes
- 3. High Cholesterol-treated with diet, exercise and medications

Risk Factors for Atherosclerosis 1. *High Blood Pressure*

- 2. Diabetes
- 3. High Cholesterol

4. Family History-1st degree relatives with angina or heart attacks under age 65

Risk Factors for Atherosclerosis

- 1. High Blood Pressure
- 2. Diabetes
- 3. High Cholesterol
- 4. Family History
- 5. Smoking-quitnow.ca

Tests for Coronary Artery Disease (atherosclerosis)

- EKG
- Exercise Treadmill Test (ETT or stress test)
- MIBI
- CT angiogram
- Angiogram

EKG (ECG, electrocardiogram)



Exercise Treadmill Test (ETT or stress test) about 70% sensitive

MIBI nuclear stress test over 90% sensitivity



CT angiogram CT scan with dye injected into arteries



Angiogram xray images of dye injected into arteries



Treatment of Coronary Artery Disease (atherosclerosis)

- Angioplasty (stents)
- Coronary Artery Bypass Graft
- Medications
- Strict risk factor management (BP, diabetes, cholesterol, smoking)

If you suspect you may be having a heart attack,

Call 911!

4 types of Heart Disease
 1. Coronary Artery Disease
 2. Valvular Heart Disease
 3. Arrythmias
 4. Heart Failure

The Heart Valves

1. Mitral Valve

2. Pulmonary Valve

3. Tricuspid Valve

4. Aortic Valve

The Heart Valves



The Heart Valves May be STENOTIC (narrowed) e.g. mitral stenosis or INCOMPETENT (floppy and allowing back flow) e.g. tricuspid regurgitation

Valvular Heart Disease The symptoms include chest pain, fatigue, shortness of breath with activity The doctor may hear murmurs with the stethoscope

Valvular Heart Disease Diagnosed with an echocardiogram (a specialized ultrasound to assess the flow of blood through the valves) Valvular Heart Disease Treatment includes monitoring with periodic echocardiograms and surgery if required

Valvular Heart Disease Some patients with certain types of valvular disease require prophylactic antibiotics before certain dental or surgical procedures (e.g. amoxicillin before dental work) to prevent bacteria infecting the abnormal valve

4 types of Heart Disease
 1. Coronary Artery Disease
 2. Valvular Heart Disease
 3. Arrythmias
 4. Heart Failure

Arrythmias are abnormalities in the rhythm of the heart beat or contractions

Arrythmias are abnormalities in the rhythm of the heart beat or contractions Tachycardia – too fast Bradycardia – too slow Premature Beats – beats too early Pauses – delayed beats

Arrythmias Ventricular Fibrillation – requires electrical defibrillation



Atrial Fibrillation – an irregularly irregular beat (no pattern), increased risk for strokes (blood thinners usually recommended)

Atrial Fibrillation Anticoagulation with blood thinners much stronger than aspirin (warfarin, Coumadin, Xarelto) reduces the risk for ischemic strokes from blood clots but increases the risk for hemorrhagic strokes and gastrointestinal bleeding

Atrial Fibrillation The recommendation of anticoagulation is based on individualized risk factor analysis weighing the relative risks and benefits but all patients should be advised of the signs of bleeding and what to do

Arrythmias may also be treated with ratecontrolling medications, pacemakers and implanted automatic defibrillators Arrythmias may cause chest pain, shortness of breath, palpitations or fainting spells Many patients have no symptoms at all

Arrythmias

Tests include:

- EKG/ECG (electrocardiogram)
- Holter Monitor
- An Event Monitor
- ETT (exercise treadmill test)

4 types of Heart Disease
 1. Coronary Artery Disease
 2. Valvular Heart Disease
 3. Arrythmias
 4. Heart Failure

Heart Failure A decline in the pumping ability of the heart



The Symptoms of Heart Failure Fatigue

- Shortness of breath on exertion
- Shortness of breath when lying flat
- Waking up at night short of breath
- Weight gain from fluid retention
- Edema (swelling of the feet and legs)

The Causes of Heart Failure The most common causes: high blood pressure coronary atherosclerosis (narrowing of the blood vessels that supply the heart itself)

The Causes of Heart Failure Other causes: irregular heart rhythms smoking obesity thyroid disease excessive alcohol

The Causes of Heart Failure Less common causes: viral infections medication side effects metabolic conditions (e.g. hemochromatosis or iron overload)

The Treatment of Heart Failure
 Controlling the causes (high blood pressure, atherosclerosis, diabetes)

- Low salt diet
- Avoiding excessive alcohol
- Quitting smoking
- Medications (e.g. beta blockers, ACE inhibitors, diuretics)
- Treating reversible causes (thyroid disease, anemia, arrythmias)

Self-care is the Key to Reducing Risks and Improved Living Know how to self monitor (BP, daily weight)

- Understand your medications
- Have regular planned CDM (chronic disease management) visits with your family doctor
- Healthy daily habits (healthy eating and healthy physical activity)

Patient-Doctor Communication The Key Information You Need

What you should know about every treatment/prescription/ investigation 1.Indication (What is it for?) 2.What are the common risks (or side effects)? 3. What are the major risks (or side effects)? 4. What are the **alternatives**?

The Key Details of Every Drug

- Indication (What is it for?)
- Potential Interactions (with food or other drugs)
- Brand name & generic name
- Dose (e.g. mg) and frequency (e.g. twice daily)

Know Your Medical History

1.Allergies
2.Family History
3.Hospitalizations, Major Illnesses, Operations, Procedures & Investigations
4.Chronic Medical Conditions
5.Medications Key Questions to Ask Doctors (if you're not quite sure if we got it right)

1. "What else could it be, doctor?"

Key Questions to Ask Doctors (if you're not quite sure if we got it right)

1. "What else could it be, doctor?"2. "What's the worse thing it could be?"

Key Questions to Ask Doctors (if you're not quite sure if we got it right)

1. "What else could it be, doctor?"
 2. "What's the worse thing it could be?"
 3. "What would you recommend to your mother or child?"

Your Positive Potential

The heart is a muscle that improves with training. We can't change our chronological age but we can improve our "physiologic age."

How fit can you be?

Your Positive Potential

I believe that we each have a unique potential in life, and it is our duty to realize that potential and help others achieve theirs. Our Positive Potential With knowledge, engagement and support, we can manage chronic health conditions and live well. The Most Common Chronic Condition Everyone in this room has the same chronic condition. The Most Common Chronic Condition

It is incurable,

• • •

The Most Common Chronic Condition

It is incurable, it is sexually transmitted,



The Most Common Chronic Condition It is incurable, it is sexually transmitted, and it has a 100% mortality



The Most Common Chronic Condition That chronic condition is LIFE. The Most Common Chronic Condition That chronic condition is LIFE. Let's make the most of it!

Please complete the last 4 survey questions

SHARE

Let's create a healthier community

Why we are here

OUR FRIENDS

OUR COMMUNITY

OUR FAMILIES

OUR FUTURE

Our Expanding the Circle of Caring

Healthcare is Self-Care Pass it on!

POSITIVE POTENTIAL MEDICINE davidicuswong.wordpress.com divisionsbc.ca/burnaby