



Understanding Your Cardiovascular Medications

Cardiac Rehabilitation Center

CIUSSS Centre-Ouest de l'Île-de-Montréal

Key Messages



Understand role of common
cardiac medication



Recognize possible side
effects



Be aware of precautions
relative to some medications

Roles of medications



rosuvastatin
perindopril coumadin metoprolol dapagliflozin
ezetrol nitroglycerine atorvastatin
clopidogrel ticagrelor losartan
gliclazide aspirin furosemide
metformin bisoprolol amlodipine
pantoprazole

Improve recovery for the heart
Reduce future risk of heart disease

Blood Thinners

- Helps prevent harmful clots forming in the blood vessels or stent(s).
- Reduce risk of stroke.

Antiplatelets

Acetylsalicylic acid, ASA (Aspirin), Clopidogrel (Plavix®), Ticagrelor (Brilinta®), Prasugrel (Effient®)

Anticoagulant

Warfarin (Coumadin®), Heparin (in hospital), Dabigatran (Pradaxa®), Rivaroxaban (Xarelto®), Endoxaban (Lixiana®), Apixaban (Eliquis®)

Possible side effects: Increased bruising and bleeding, sudden shortness of breath or air hunger (with Ticagrelor), light-headedness

Precautions : Avoid contact sports or activities with risk of falls (hockey, ski, boxing, etc.). Warfarin dose needs to be readjusted regularly and can be influenced by diet.

Beta-Blockers

- **Lowers heart rate and blood pressure to facilitate the heart's workload**
- **Opens blood vessels for improved blood flow**
- **Improves threshold of angina (delays onset of angina)**
- **Controls fast rhythm arrhythmias**

Common Beta-Blockers

Bisoprolol (Monacor[®]), Metoprolol (Lopressor[®], Betaloc[®], Toprol XL[®]), Atenolol (Tenormin[®]), Carvedilol (Coreg[®]), Acebutolol (Monitan[®], Sectral[®]), Timolol (Blocadren[®]), Nadolol (Corgard[®])

Possible side effects: Slow heart rate (below 50 bpm), dizziness, lack of energy/fatigue, vivid dreams/nightmares, erectile dysfunction

Precautions : Careful with changes in position (getting out of bed, tying shoes, etc.). Ascertain proper warm-up and cool down before/after exercise (5-10min), intensity prescription based on perceived exertion (altered maximum heart rate).

Nitroglycerine

- Quickly opens blood vessel for improved blood flow
- Relieves angina symptoms
- Improves / delays threshold of angina (nitro patch or pre-exercise spray)

Forms of nitroglycerine

- Nitro spray
- Nitro tablets
- Nitro patch

Possible side effects: Dizziness, headache, low blood pressure

Precautions : Carry pump/tablets with you and mostly when exercising. Know how to use it. Inform your cardiologist if you've had to use it for new onset of symptoms or more frequent use.

Risk Factors – Blood Pressure

- **Reduce pressure which the heart has to work against**
- **Keep blood pressure within target (below 135/85 mmHg for most)**
- **Reduce risk for cardiovascular disease (stroke and heart attack)**

ACE-Inhibitors

Ramipril (Altace®), Enalapril (Vasotec®), Quinapril (Accupril®), Fosinopril (Monopril®), Trandolapril (Mavik®), Perindopril (Coversyl®, Aceon®), Lisinopril (Prinivil®, Zestril®)

AR-blockers

Losartan (Cozaar®), Telmisartan (Micardis®), Irbesartan (Avapro®), Candesartan (Atacand®), Valsartan (Diovan®)

Calcium-channel blockers

Amlodipine (Norvasc®, Lotrel®), Diltiazem (Cardizem®, Tiazac®), Felodipine (Plendil®), Nifedipine (Adalat®, Procardia®)

Possible side effects: Dizziness, dry cough (Perindopril), lightheadedness, nausea, edema

Precautions : Consult physician if feeling dizzy often and lower blood pressure numbers than usual (monitor at home).

Risk Factors – Blood Pressure (Diuretic)

- **Reduce blood pressure by reducing blood volume**
- **Urinate extra fluid to control blood volume and avoid accumulation in lungs or extremities**

Common Diuretics

Spironolactone (Aldactone®), Furosemide (Lasix®), Hydrochlorothiazide (HCTZ), Chlorothiazide (Diuril®), Indapamide (Lozol®, Lozide®)

Possible side effects: Urinate more often, low blood pressure, dehydration

Precautions : Consult physician if feeling dizzy often with lower blood pressure numbers than usual (monitor blood pressure at home).

Risk Factors – Cholesterol

- Prevent production of cholesterol by liver
- Improve cholesterol profile in circulation (good, bad, and triglycerides)
- Slow down accumulation of plaque in arteries
- Reduce absorption of fat/cholesterol in digestion

Statins

Rosuvastatin (Crestor®), Pravastatin (Pravachol®, Pravigard®), Simvastatin (Zocor®), Atorvastatin (Lipitor®), Lovastatin (Mevacor®)

Fibrates

Fenofibrate (Lipidil®), Bezafibrate (Bezalip®), Gemfibrozil (Lopid®)

Others

Evolocumab (Repatha®), Alirocumab (Praluent®), Ezetimibe (Ezetrol®), Omega-3 fatty acid (Vascepa)

Possible side effects: General muscular discomfort, diarrhea, injection site pain, stomach discomfort

Risk Factors – Blood Sugar/Diabetes

- Lower blood sugars in circulation and reduce chances of diabetes complications
- Improve management of sugar through pancreas, stomach, and kidney

Common diabetes medication

Influencing pancreas (organ that produce insulin) : Metformin, **glyburide (Diabeta®, DiaMicron®)**

Influencing gut hormones (signal from stomach to pancreas) : Sitagliptine (Januvia®), linagliptine (Trajenta®), saxagliptine (Onglyza®), liraglutide (Victoza®), semaglutide (Ozempic®, Rybelsus®)

Influencing kidneys (let sugar through urine) : Canagliflozine (Invokana®), empagliflozine (Jardiance®), dapagliflozine* (Forxiga®)

Insulin: (long/short action) : Lispro (Humalog®, Novorapid®), degludec (Tresiba®), glargine (Lantus®, Toujeo®), detemir (Levemir®)

Potential side effects : **LOW BLOOD SUGAR RISK**, increased trips to bathroom, urinary infection, weight loss, nausea/loss of appetite

Other medications

Combinations

- Some people may be prescribed combination drugs containing 2 different medicines
Example: Adalat XLPlus[®], Coversyl Plus[®], Caduet[®], Hyzaar[®], Atacand HCT[®], Entresto[®]

Arrhythmias

- Heart rhythm problems can be treated with medication.
Example: Amiodarone (Cordarone[®]), Flecainide (Tambocor[®]), Digoxin (Lanoxin[®])

Reflux and stomach discomfort

- Most people will be prescribed a medication to coat the stomach and limit the discomfort of other meds.
Example : Pantoprazole (Pantoloc[®]), Esomeprazole (Nexium[®]), Lansoprazole (Prevacid[®])

Other risk factors (stress, sleep, smoking cessation, sexual hormones, etc.)

- Other cardiac risk factors can be improved with help of medication.

Side effects

- ! The more you expect a side effect, the more it is likely that you will experience it (Placebo effect)
- ! Millions of people take heart medication daily and experience no side effects at all
- ! Often times, side effects last only a few days after starting a new medication.
 - If you continue to have problems, talk to your cardiologist or pharmacist before deciding to stop taking it.
- ! Your cardiologist can help you explore the problem and find the best solution.
 - There are many ways they can help you: changing the dose, switching or adding another medication, or treating the side-effects.
- ! Stopping a medication without consulting your health specialist could put your health at risk.

Importance of medication

- ✓ Taking your medications as prescribed is part of healthy lifestyle habits.
- ✓ Have an updated list of your medication on you
- ✓ Medications are prescribed based on scientific studies proving their effect.
- ✓ Discuss with your doctor, pharmacist or nurse about potential side effects, possible interactions or if you take natural supplements.
- ✓ Better to skip a medication than to double (if skipped for more than half a day). If unsure, ask your pharmacist.
- ✓ Ask for help, if needed, to organize your medication (ie: Dispil).
- ✓ Lifestyle is the best medicine, but might not be enough on its own to prevent cardiovascular disease. Also, drugs can rarely be enough to stop the progression of disease on their own.

QUIZ!

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

Quiz - Understanding your medication



For more information

- Heart & Foundation Guide of medication:
<https://www.heartandstroke.ca/heart-disease/treatments/medications>
- Cardiac College Guide of medication:
https://www.healtheuniversity.ca/EN/CardiacCollege/Documents/taking_your_medication-eng.pdf
- American Heart Association Guide of medication:
<https://www.heart.org/en/health-topics/heart-attack/treatment-of-a-heart-attack/cardiac-medications>