Hypertension

Education Module
Information for Stroke Patients
& Family Members

Adapted from the Stroke Management in Lifestyle Education Session (SMILES) at St. Michael’s Hospital
Learning Objectives:

Understand……..

- What is blood pressure
- What is high blood pressure
- How high blood pressure affects your health
- How high blood pressure can be controlled
What things have you been told or have heard about **high blood pressure**?
What is blood pressure?

- Blood pressure measures the amount of force / pressure on walls of the arteries as the blood is pumped by the heart and circulated throughout the body.
What does blood pressure measure?

**EXAMPLE**

120/80

The top number is called the **systolic pressure**.
It tells you the amount of pressure on the walls of the arteries when your heart contracts to pump the blood.

The bottom number is called the **diastolic pressure**.
This number tells you the pressure in the arteries when the heart is relaxed (between heart beats).
What is normal blood pressure?

- Your blood pressure should be less than 135/85 mm Hg.
- If you have diabetes or kidney disease, your blood pressure should be less than 130/80.
- If you have diabetes and kidney disease, and have albumin in your urine your blood pressure should be 120/80 or less.
What is Hypertension?

- Hypertension is the term used for high blood pressure.

- A blood pressure that is consistently more than 140/85 and requires treatment.
What happens when your blood pressure is high?

- High blood pressure puts extra pressure on the wall of your arteries.
- Extra pressure on the arteries damages the lining and makes it easier for cholesterol and fat deposits to attach to the walls of the arteries.
- Fatty deposits cause the arteries to narrow and the heart has to work harder to push the blood through.
- When the heart has to work harder it gets weaker.
So what does it mean?

- Fat deposits in the arteries are the greatest cause of stroke and heart attack.
- The heart muscle is weaker and less able to pump blood which carries oxygen and nutrients.
- Vital organs get damaged because they don’t get enough nutrients due to reduced blood flow.
Untreated high blood pressure can lead to:

- Stroke
- Heart attack
- Heart failure
- Kidney failure
- Peripheral vascular disease
- Impotence
- Dementia
HOW DID YOU DISCOVER THAT YOU HAD HIGH BLOOD PRESSURE?
How do you know you have high blood pressure?

- You cannot feel high blood pressure.
- Having your blood pressure checked regularly is the only way to tell if your blood pressure is high.
- Many people do not know that they have high blood pressure, that is why it is known as the “silent killer”.
Risk Factors for high blood pressure

**NON-MODIFIABLE**
- Age (>65)
- Family history of hypertension
- Ethnicity (Asian, Inuit, First Nations/Aboriginal, African Americans)

**MODIFIABLE**
- Smoking
- Diet high in fat and salt
- Weight / obesity
- Lack of exercise
- Excessive alcohol use
- Not taking prescribed medication
Getting Started

STEPS TO CONTROLLING YOUR BLOOD PRESSURE.
WHAT ARE SOME OF THE STRATEGIES YOU HAVE HEARD ABOUT OR ARE ALREADY DOING TO CONTROL YOUR BLOOD PRESSURE?
Step One

Have your blood pressure checked regularly.
Step Two

If you smoke, quit.

Smoking increases your risk of stroke **six times**.
Step Three

Get physically active. Physical activity helps reduce high blood pressure.

If you have been told that you have hypertension check with your doctor before starting a new exercise routine.
Step Four

Maintain a healthy body weight.

If you are overweight, even a modest weight loss can make a difference in your blood pressure.
Step Five

Reduce the amount of salt in your diet.
Step Six

If you drink alcohol, **drink in moderation**.

Moderate drinking is defined as 1 to 2 drinks a day, up to a weekly max of 14 drinks for men and 9 drinks for women.
Step Seven

Take medication **exactly as prescribed** by your doctor.

Do not stop the medication when your blood pressure reaches the normal level, remember that it is the medication that is controlling your blood pressure.
What you need to know about blood pressure medication

1. Decrease risk of disease. (stroke, heart disease, kidney failure, dementia)

2. Often need to be combined to normalize blood pressure.
What you need to know about blood pressure medication

3. Are taken for life unless your doctor stops the medication.

4. Need to be continued, even though you feel well.

5. Can interact with alcohol.

6. Tell your doctor if you experience side effects.
Blood Pressure Medication

1. DIURETICS
   - A family of drugs commonly known as “water pills”.
   - Get rid of excessive fluid & salt from the body, by increasing the amount of urine produced by the kidneys.
   - Decreases amount of blood the heart has to pump.
   - Since there is less blood to pump, this decreases blood pressure.

   Examples: hydrochlorothiazide (HydroDiuril®), furosemide (Lasix®), spironolactone (Aldactone®).
2. ANGIOTENSIN CONVERTING ENZYME INHIBITORS (ACE INHIBITORS)

- A family of drugs that relax blood vessels.
- Decrease the production of a chemical (angiotensin) which narrows vessels allowing blood to flow easier.
- Decreases blood pressure.

*Examples: lisinopril (Zestril®), perindopril (Coversyl®), ramipril (Altace®).*
Blood Pressure Medication

3. ANGIOTENSIN II RECEPTOR BLOCKERS (ARBs)
   - A family of drugs that relax the blood vessels.
   - Block the chemical (angiotensin II) which narrows the vessels.
   - Allows the blood to flow easier.
   - Decreases blood pressure.

*Examples:  candesartan (Atacand®), losartan (Cozaar®), valsartan (Diovan®).*
4. CALCIUM CHANNEL BLOCKERS

• A family of drugs that blocks the passage of calcium into the muscles that control the size of the blood vessels.
• Opens up (dilates) the blood vessels.
• Allows the blood to flow easier.
• Decreases blood pressure.

Examples: amlodipine (Norvasc®), diltiazem (Cardizem®), felodipine (Renedil®)
5. BETA BLOCKERS

- A family of drugs that slows down the rate of the heart.
- Decreases the force of each pump and the amount of blood pumped each minute.
- Since less blood is pumped, this decreases the blood pressure.

Examples: atenolol (Tenormin®), metoprolol (Betaloc®), bisoprolol (Monocor®)
Tips to help you take your medication

- Develop a practical medication schedule (timetable) with your doctor or pharmacist.
- Use a dosette if necessary to help you remember.
- Keep an up-to-date medication record listing all medical conditions and drugs you take.
- Show your medication record to your doctor and pharmacist at each visit.
Home blood pressure monitoring

Check with your doctor
- Can be purchased at most pharmacies.
- Look for an approval or recommendation by logo (e.g., Canadian Hypertension Logo).
From all the things that we discussed today, what can you do to help control your blood pressure?

What is the most important for you and how can you make that part of your routine?