

Blood Pressure and Heart Health

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What is blood pressure (BP)?

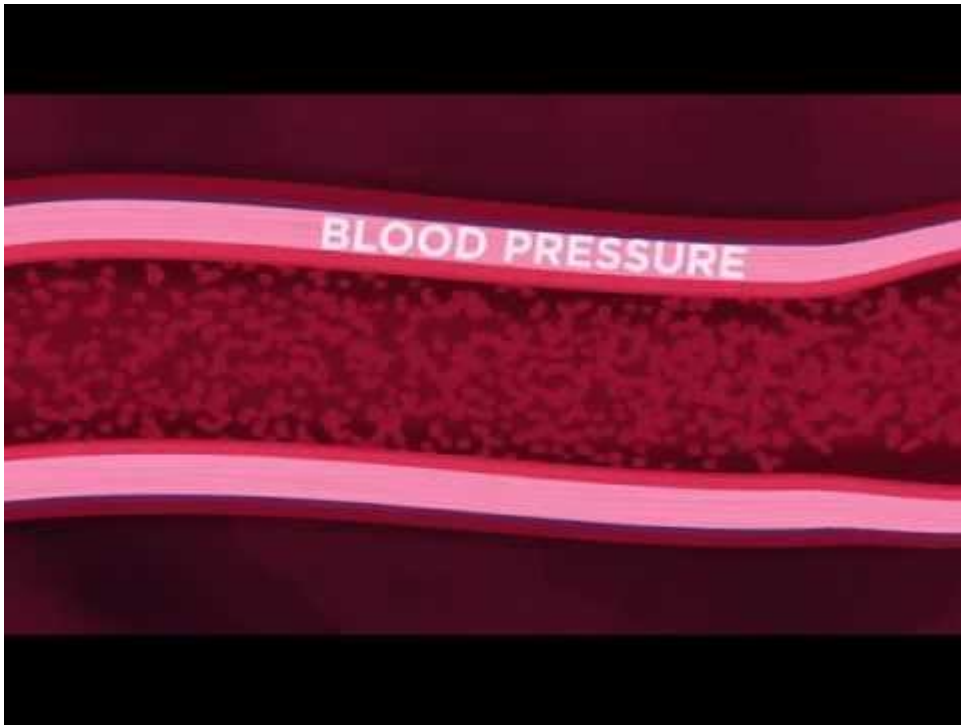
Blood Pressure

Is a measurement of the pressure placed on our vessel walls by blood as it moves through our body via the circulatory system. The measurement is broken down into two readings, systolic (the upper reading) and diastolic (the lower reading);

Systolic: the measurement of pressure when our heart is contracting, aka “beating”

Diastolic: the measurement of pressure when our heart is relaxing

Generally, systolic is higher than diastolic and is measured in millimeters of mercury (mmHg).



What does my blood pressure mean?

Blood Pressure Readings

Low	<90/60 mmHg
Optimal or “normal”	120/80 mmHg
High	>140 mmHg
At home	>135/85 mmHg is considered high
Diabetes/Chronic kidney disease	>130/80 mmHg is considered high

Hypertension

AKA high blood pressure

- Risks for developing hypertension
 - Diabetic
 - Chronic kidney disease
 - Low consumption of fruits and vegetables
 - Sedentary behaviours
- Increases risk for cardiovascular events (heart attack, stroke, kidney failure)

Hypotension

AKA low blood pressure

- Risks for developing:
 - Decrease in blood volume (from trauma, internal bleeding or dehydration)
 - Bradycardia (low heart rate)
 - Heart valvular issues
 - Hormone problems
 - Pregnancy: first 24 weeks, blood pressure commonly drops
- Important to monitor our bodies for signs of trouble

Blood Pressure and Its Effect on The Body

High Blood Pressure and The Body

- High blood pressure tends to go unnoticed but can cause symptoms such as dizziness or trouble seeing
- Damage to the walls of your arteries (a tear or aneurysms)
- Hardening of your arteries (increasing risk of heart attack, stroke, kidney failure, decreased blood flow to the brain)
- Enlarged heart or heart failure

Low Blood Pressure and The Body

- Dizziness or lightheadedness
- Nausea
- Syncope “fainting/passing out”
- Dehydration, increased thirst, fatigue, shallow breathing
- Blurred vision

Monitoring Your Blood Pressure

Blood Pressure at Home

- Monitoring blood pressure at home is recommended for all patients: nonhypertensive and hypertensive. At home monitoring allows individuals to rule out White Coat Hypertension (aka white coat syndrome) or suspected hypertension.
- Home blood pressure readings are considered to be a better predictor of hypertension compared in-office readings with multiple readings giving the most accuracy
- When taking duplicate readings, the second reading tends to be higher than the first, both in the a.m and p.m. Most accurate: take the mean of a 7-day period, excluding the first day.

Blood Pressure and Exercise

Blood Pressure and Exercise

- During exercise, our blood pressure tends to follow an “inverted U shape”.
- As exercise increases, so does our blood pressure, up to a certain point.
- As exercise decreases, we tend to see our blood pressure come back down to baseline (a reading taken before exercising) or sometimes even lower.
- It is important to monitor our blood pressure before, during, and after exercising to ensure we do not experience an accelerated blood pressure response or a vasovagal response.

Blood Pressure Management

Management Tips:

1. Exercise: 30-60 minutes of moderate exercise 4-7 days a week ALONGSIDE routine activities of daily living
2. Decreasing weight: losing weight and monitoring one's waist circumference. <102 cm for males, and <88 cm females.
3. Decreasing alcohol consumption: limiting oneself to 2 or less drinks a day.
4. Diet: fruits, vegetables, low-fat dairy products, whole grains rich in dietary fibre, proteins with low saturated fats and cholesterol. Managing sodium intake: 5g of salt or 87 mmol of sodium per day.
5. Decreasing stress: engaging in de-stressing techniques/behaviours.

Advice from Dr. Lai

Blood pressure is dynamic.

It peaks at noon and lowest point is at midnight— we call this Circadian rhythm— think of the sun and moon.

Most reliable blood pressure reading is at HOME!





Questions?

Workout Session

(30mins)

Warm-Up

30s each exercise

- Marching on the spot
- Arm circles
- Lateral steps w touch
- Lateral butt kicks
- Ankle circles
- Hip circles
- Trunk rotations
- Lateral toe taps
- ½ Neck circles (slow and controlled)
- Toe touches



Guided Strength Exercises

Use: light weights, soup cans or filled water bottles.



Remember

- Always maintain a proper body position
- Breath during each exercise
 - Holding your breath increases your internal pressure, thus increasing your blood pressure
- Not sure if you are doing it correct? Ask!

Session Breakdown

First Round	Second Round	Third Round
4 Arm exercises, perform twice.	4 Leg exercises, perform twice.	4 Core exercise, perform twice.

Arms

Exercise 1: Lateral Arm Raises



Exercise 2: Chest Press



Exercise 3: Upright Rows



Exercise 4: Horizontal Abduction



Perform 10-12 repetitions for each exercise, repeat.

Legs

Exercise 1: Calf raises



Exercise 2: Lung



Exercise 3: Hip Abduction



Exercise 4: Leg Extension



Perform 10-12 repetitions for each exercise, repeat.

Core

Exercise 1: Side Dips



Exercise 2: Standing Stabilization



Exercise 3: Sitting Knee-to-elbow



Exercise 4: Seated Flutter Kicks



Perform 10-12 repetitions for each exercise, repeat.

Cool-Down

30s each stretch

In chair:

- Wrist flexor stretch
- Trunk rotation
- Quadratus lumb. Stretch
- Cat Camel
- Side bend
- Shoulder rolls
- Knee to chest
- Posterior shoulder stretch
- Side lunge
- 3 Deep breaths



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