

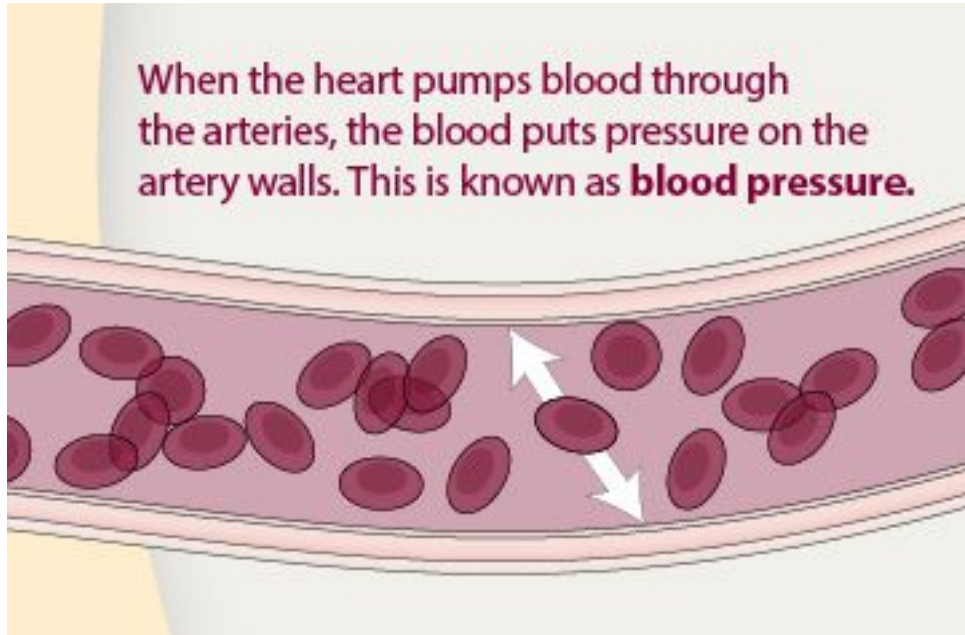
# High Blood Pressure and Stroke

Aesculapians Honor Society at  
Wayne State University School of  
Medicine

# Disclaimers

- We are a group of medical students at the Wayne State University School of Medicine.
- We cannot offer medical advice or recommendations in this session.
- The information in this presentation is intended to help you advocate for yourself with your doctors.

# What is blood pressure and what does it mean if it's high?



## What does high blood pressure mean?

High blood pressure, or **hypertension**, means the force of blood is higher than usual. Over time, if untreated, it can cause health conditions such as **heart disease** and **stroke**.

# What causes high blood pressure?



Stress



Obesity



Diabetes



Unhealthy diet



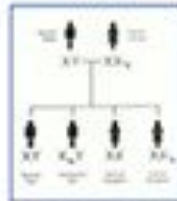
Alcohol consumption



Smoking



Age



Heredity



Excess salt

# How can I know if I have high blood pressure?

- Get your blood pressure checked at the doctor's office, local pharmacy, or purchase a machine to test yourself!
- Look out for symptoms like headaches, dizziness, or pounding in your chest.



# What are complications of a high blood pressure?

## COMPLICATION HIGH BLOOD PRESSURE



Heart Failure



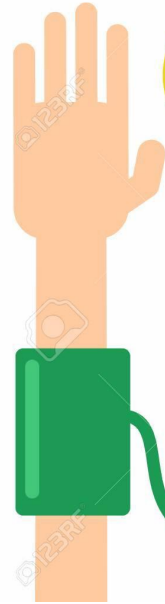
Kidney  
Disease



Vision Loss

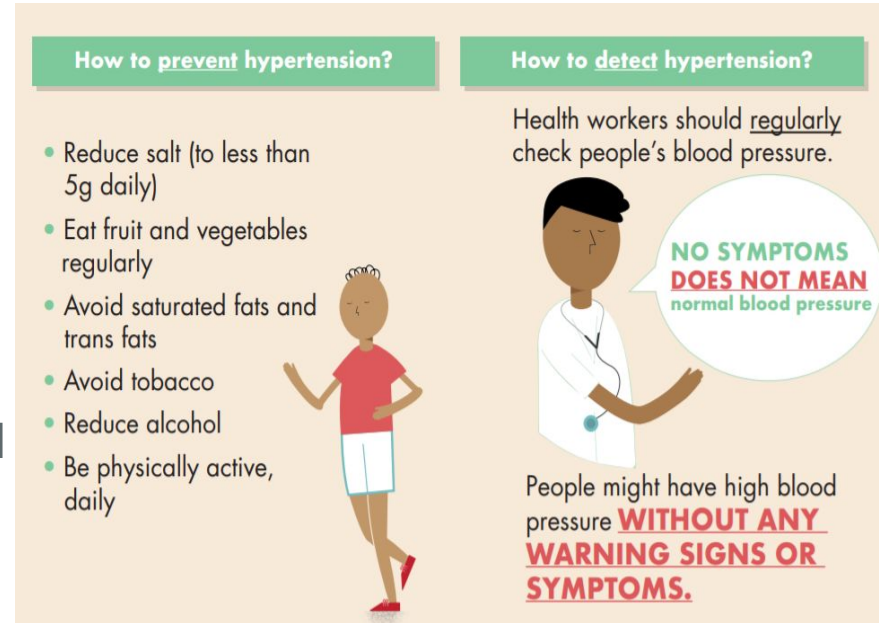


Stroke



# How can I prevent high blood pressure?

- Eating too much salt can lead to high blood pressure so try to eat less!
  - Limit salty snacks like potato chips, pretzels, Goldfish, fries
- Fat in foods at fast food restaurants can also raise your blood pressure
  - Eat healthy foods at instead like fruit and veggies!
- Daily movement is key to reducing blood pressure
  - Playing with friends and siblings, find your favorite active hobby or sport, after-school sports



The infographic is divided into two main sections. The left section, titled 'How to prevent hypertension?', lists six bullet points: 'Reduce salt (to less than 5g daily)', 'Eat fruit and vegetables regularly', 'Avoid saturated fats and trans fats', 'Avoid tobacco', 'Reduce alcohol', and 'Be physically active, daily'. An illustration of a person in a red shirt and white shorts is shown next to this list. The right section, titled 'How to detect hypertension?', states that health workers should 'regularly check people's blood pressure.' Below this is an illustration of a doctor in a white coat with a stethoscope. A speech bubble from the doctor says 'NO SYMPTOMS DOES NOT MEAN normal blood pressure'. At the bottom of the right section, it says 'People might have high blood pressure **WITHOUT ANY WARNING SIGNS OR SYMPTOMS.**'

### How to prevent hypertension?

- Reduce salt (to less than 5g daily)
- Eat fruit and vegetables regularly
- Avoid saturated fats and trans fats
- Avoid tobacco
- Reduce alcohol
- Be physically active, daily

### How to detect hypertension?

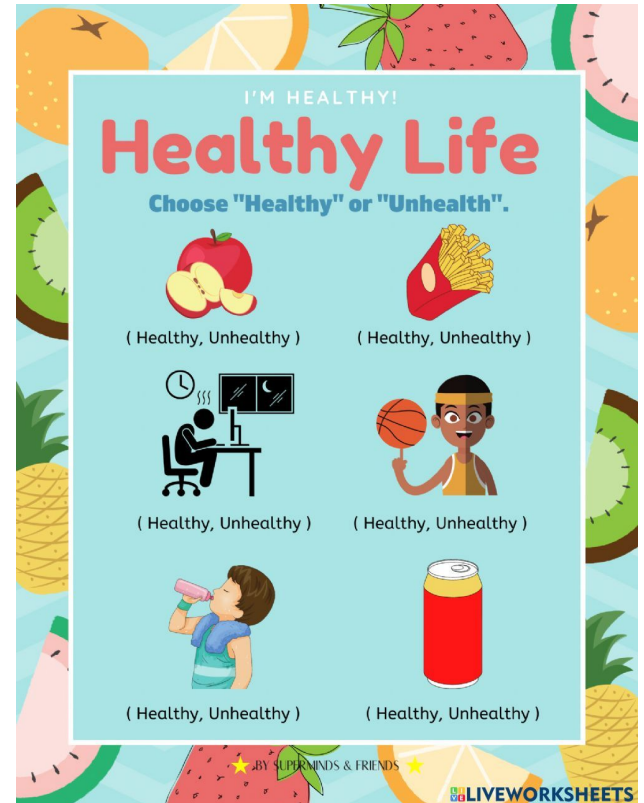
Health workers should regularly check people's blood pressure.

**NO SYMPTOMS DOES NOT MEAN normal blood pressure**

People might have high blood pressure **WITHOUT ANY WARNING SIGNS OR SYMPTOMS.**

# What should I do if I have high blood pressure?

1. Make a list of foods to only have once per day or in moderation
2. Pick your favorite healthy treats that you can often have as snacks
3. Plan out time to get in 60 minutes of exercise daily
  - a. Can be 30 minutes right after school and then 30 minutes after dinner
4. Discuss these changes with your pediatrician and get your blood pressure regularly checked to see if things are improving

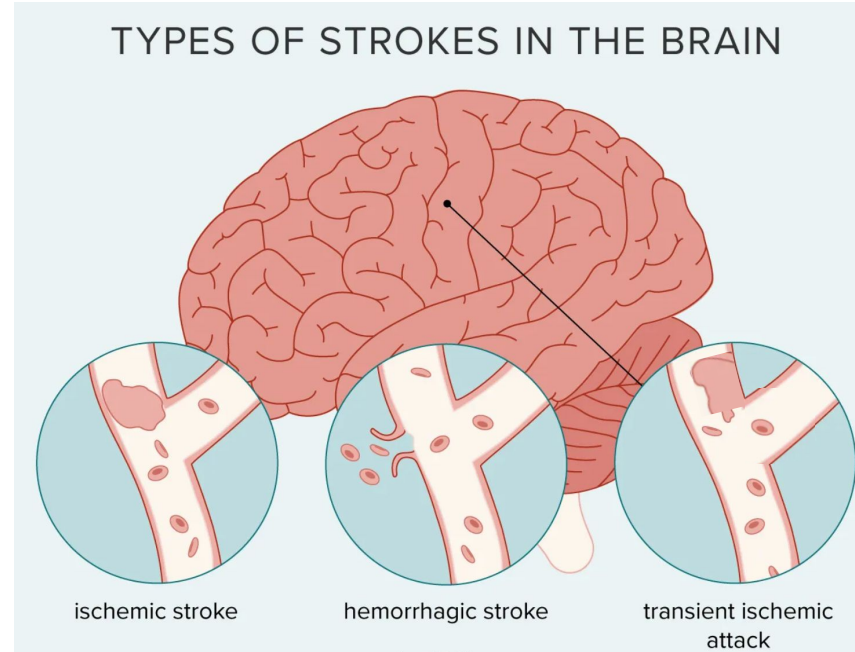




# What is a stroke?

A stroke is a prolonged block of **oxygen and nutrients** to the brain. It happens when the vessels bringing blood to the brain are either **blocked** or begin to **leak**. There are 3 types of strokes.

- **Ischemic strokes**: a blood vessel supplying the brain is completely **blocked**
- **Hemorrhagic strokes**: a blood vessel supplying the brain **ruptures and leaks**
- **Transient ischemic attacks** (TIA or “mini stroke”): a blood vessel supplying the brain is **temporarily blocked** causing stroke-like symptoms



# What are the signs of a stroke?

Here are some important warning signs of a stroke that anyone can detect.

**F: facial droop**... ask the person to smile. Is their smile uneven?

**A: arm weakness**... ask the person to lift their arms. Do both arms lift up all the way?

**S: speech difficulty**... is their speech slurred? Can they understand what you're saying?

**T: Time** to call 911 for help!



**FACE**  
droops



**ARM**  
weakness



**SPEECH**  
difficulty



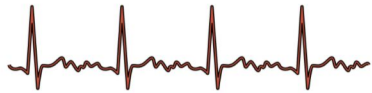
**TIME**  
is critical.

# What are the causes of a stroke?

## Main causes



**High blood pressure**



**Atrial fibrillation**

## Secondary causes



**Smoking**



**Drug abuse**



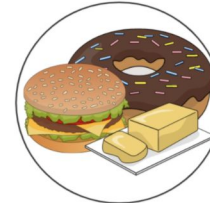
**Alcoholism**



**Meat consumption**



**Diabetes mellitus**



**Cholesterol**

# What increases my risk for a stroke?



Being  
overweight /  
Obesity



Lack of  
exercise/  
Movement



Heavy  
drinking



High blood  
pressure



Sleep apnoea



Drug use



Smoking



High  
cholesterol

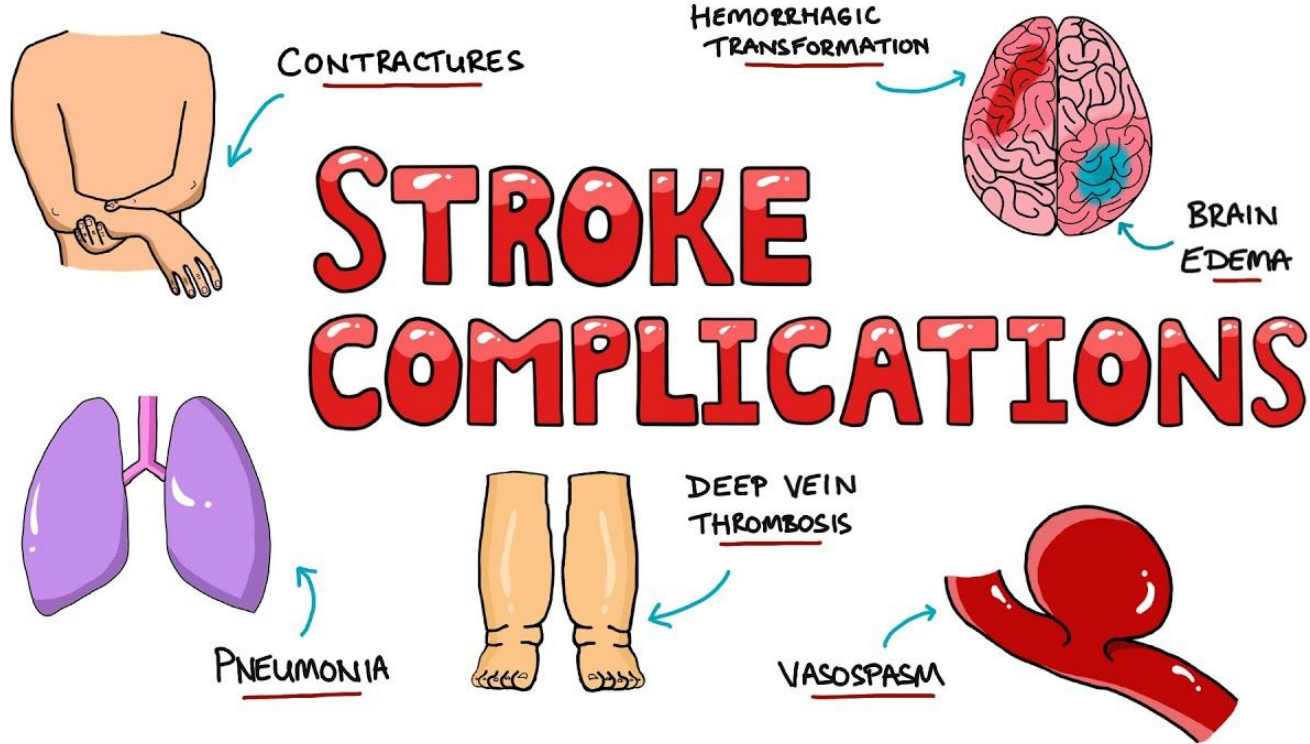


Cardiovascular  
disease



Diabetes

# What are the complications of a stroke?



# How can I prevent a stroke?



1. Lower blood pressure
  - a. Maintain blood pressure less than 120/80
2. Lose weight
  - a. Goal BMI of 25 or less
3. Exercise more
  - a. Exercise at a moderate intensity at least five days a week
4. Don't drink alcohol
5. Treat atrial fibrillation
6. Treat diabetes
  - a. Keep your blood sugar under control
7. Don't smoke

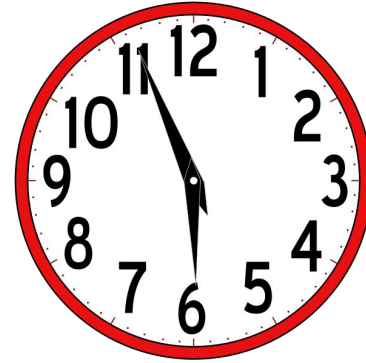


Image credit: istockphoto.com/amilakkus

# What should I do if I or someone I know has had a stroke?

- DO

- Call 911
- Note the time
- Loosen any tight clothing
- Perform CPR (if necessary)



- DON'T

- Give the patient medications, foods, liquids
- Try to drive the patient to the hospital



# Summary of high blood pressure and stroke

- High blood pressure, or **hypertension**, means the force of blood is higher than usual - > **heart disease** and **stroke**.
- Many factors cause this such as stress, obesity, diabetes, diet, smoking, age, salt intake, and genetics
- Prevention of hypertension:
  - Monitor diet and Exercise
  - Follow up with your doctor
- Signs of a stroke
  - DO
    - Call 911
    - Note the time
    - Loosen any tight clothing
  - DON'T
    - Give the patient medications, foods, liquids
    - Try to drive the patient to the hospital



**FACE**  
drips



**ARM**  
weakness



**SPEECH**  
difficulty



**TIME**  
is critical.



Questions?

# Resources for more information



## High blood pressure

- [https://www.cdc.gov/bloodpressure/materials\\_for\\_patients.htm](https://www.cdc.gov/bloodpressure/materials_for_patients.htm)
  - Fact Sheets
  - Medication Guides
- <https://www.heart.org/en/health-topics/high-blood-pressure/find-high-blood-pressure-tools--resources>
  - Interactive guides
  - BP Trackers
  - Educational Brochure
  - Support Network

## Stroke

- <https://www.stroke.org/-/media/Stroke-Images/Infographics/PreventingAnotherStroke2021-Guidelines.pdf>
  - Stroke Prevention Guidelines
- <https://strokesupportassoc.org/community-resources-for-survivors-of-stroke-2/>
  - Stroke Support Association
- <https://www.stroke.org/en/help-and-support>
  - Stroke Rehab Support

# Activity on high blood pressure and stroke

Recognizing strokes FAST!