

# Matters of the Heart

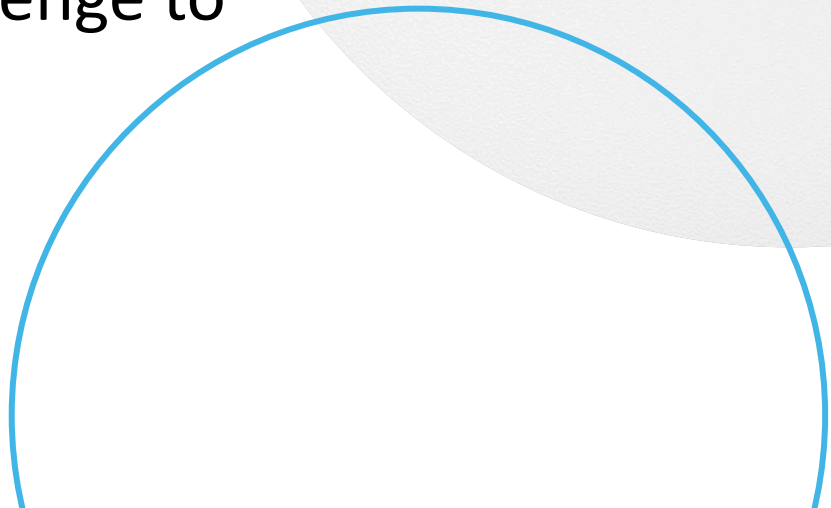
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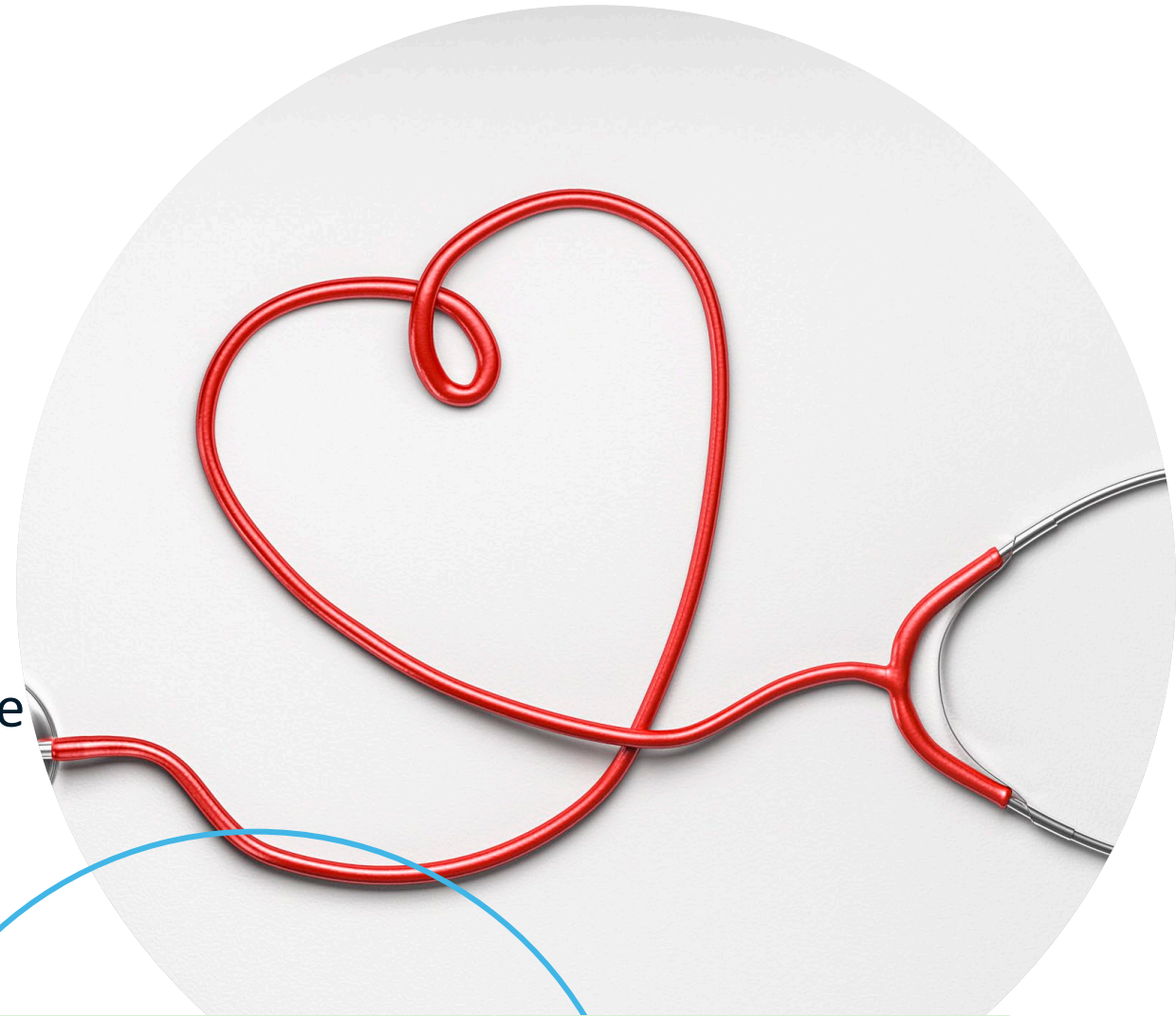


In honor of Deputy Joshua LaForge and his family, we would like to dedicate today and this challenge to Heart Health Awareness.



## Caring for our Heart:

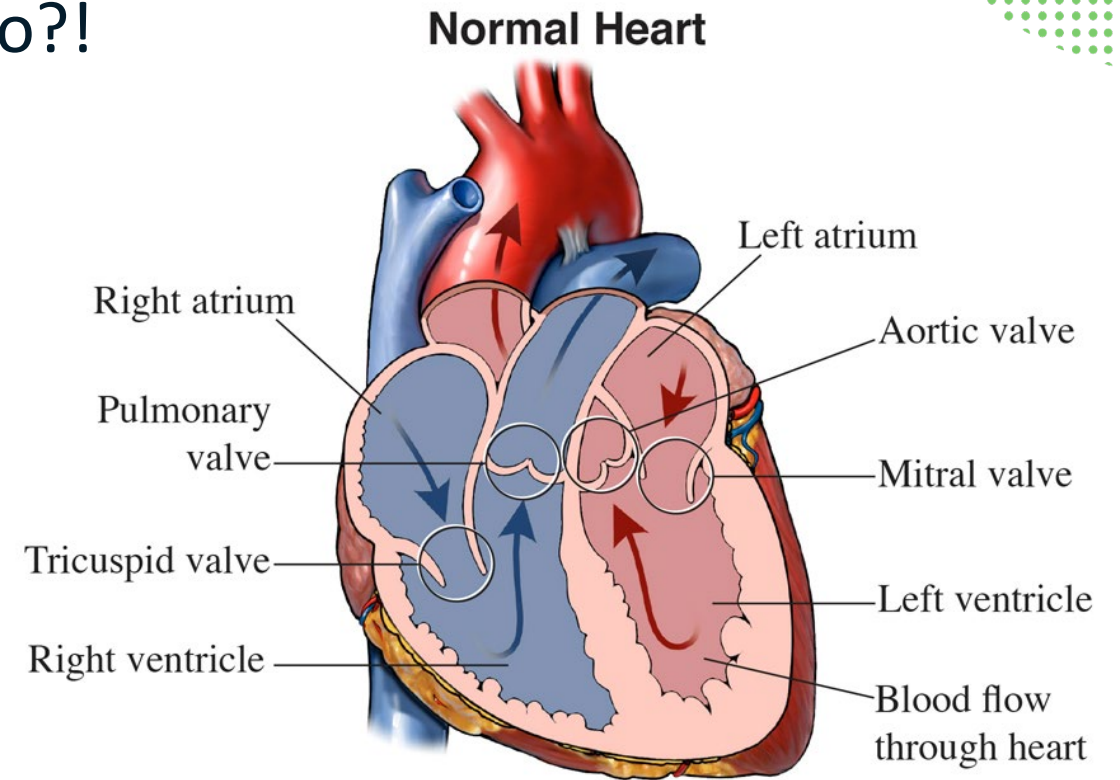
- stress management
- physical activity
- nutrition
- sleep
- alcohol, tobacco, and other substances use
- weight & diabetes



**Reminder to WEAR RED! This week: Reach out to a friend or family member you have not spoken to in a while!**

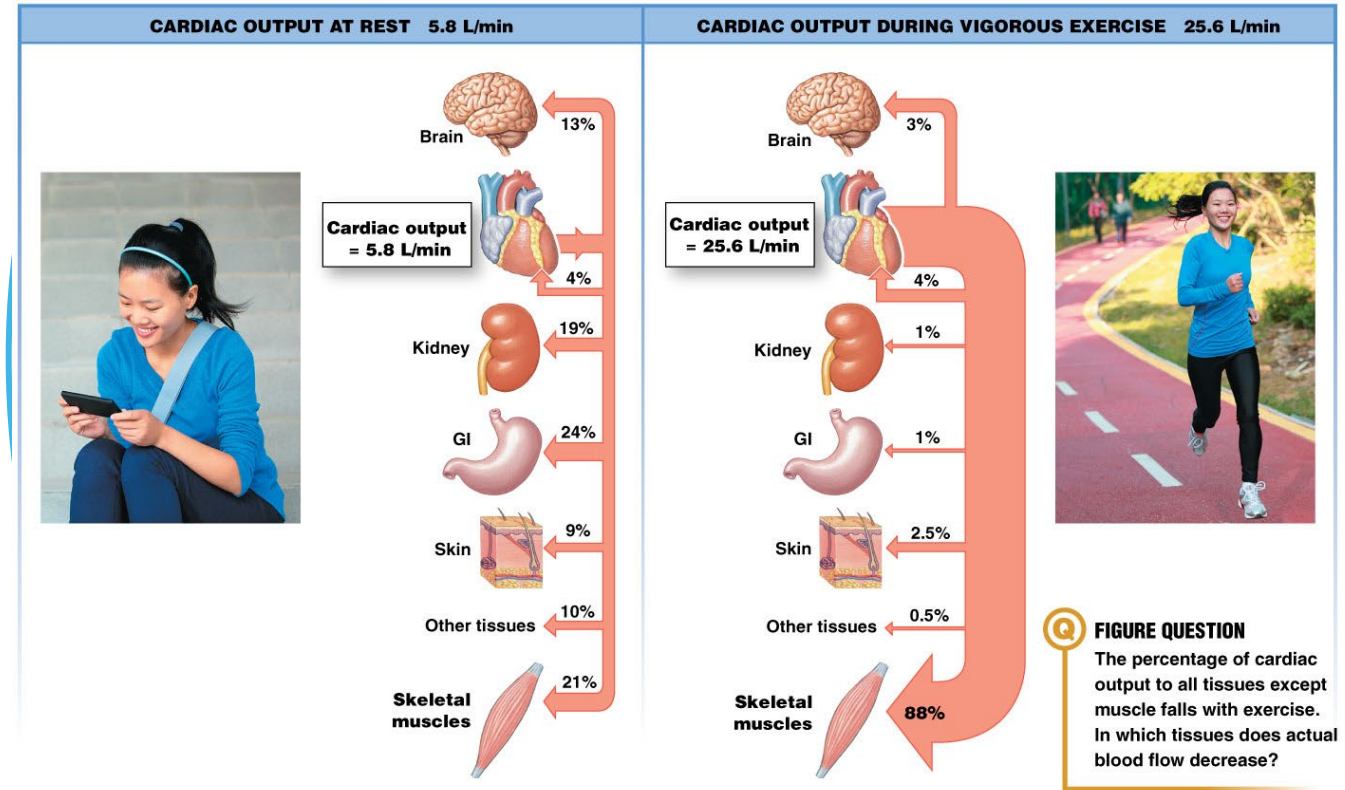
# What does our heart and blood vessels do?!

- The job of the heart is to pump blood to the lungs to pick up oxygen or to the rest of the body to supply oxygen to tissues
- Your heart has its own intrinsic electrical conduction system – it does not need a signal from the brain to tell it to beat
  - heart rate at rest is **~60-90 bpm**
- Our blood vessels – arteries, veins, capillaries – act as a closed-circuit carrying blood around the body to tissues



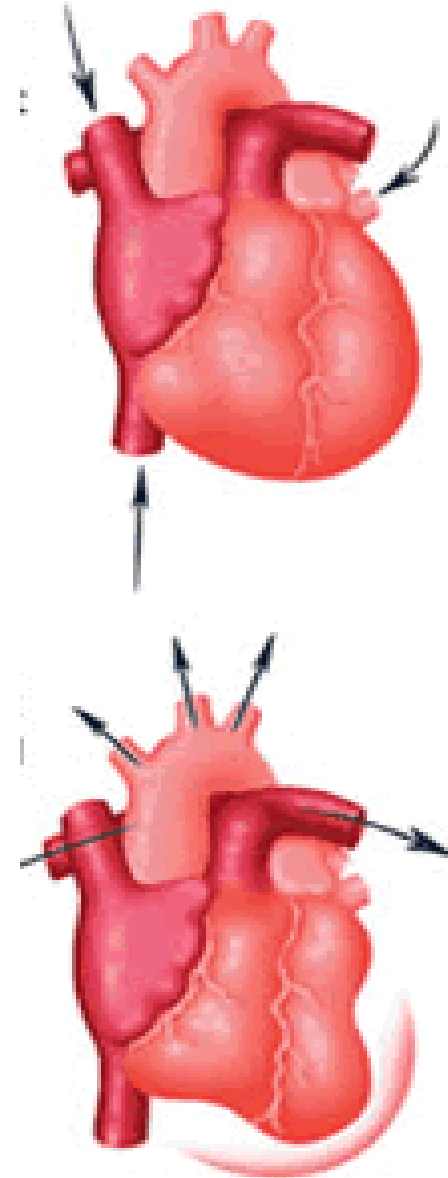
# What does our heart and blood vessels do?!

- When exercising, the heart pumps out up to **5x** the amount of blood in one minute
- Blood is diverted away from tissues that don't need it as much to tissues that require more oxygen!
- **The diameter of arteries increases during heavy exercise to allow more oxygenated blood to reach tissues faster**
- This is an important reason to exercise – to maintain elasticity of blood vessels!



# Blood Pressure

- Blood Pressure = pressure exerted by blood on the walls of the blood vessels
- Measure a maximum pressure (systolic) and minimum pressure (diastolic)
- **Healthy is < 120/80 mmHg**

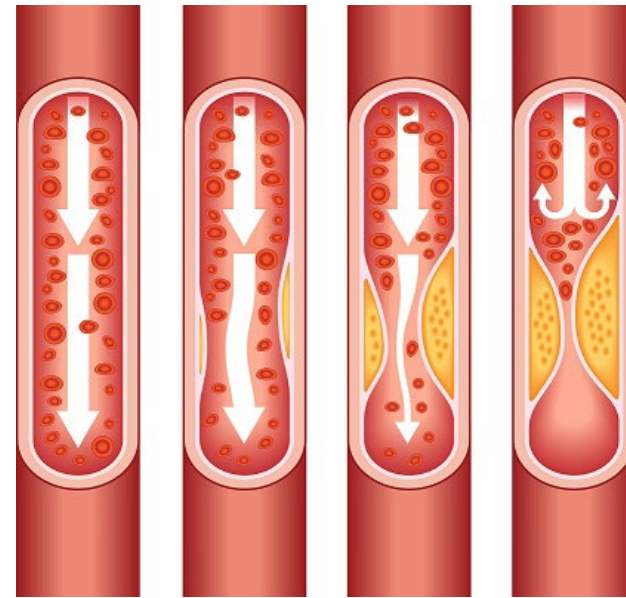


# Blood Pressure

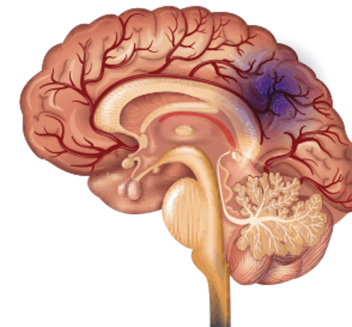
Blood Pressure Category	Systolic mm Hg (upper #)		Diastolic mm Hg (lower #)
Normal	less than <b>120</b>	and	less than <b>80</b>
Prehypertension	<b>120 – 139</b>	or	<b>80 – 89</b>
High Blood Pressure (Hypertension) Stage 1	<b>140 – 159</b>	or	<b>90 – 99</b>
High Blood Pressure (Hypertension) Stage 2	<b>160 or higher</b>	or	<b>100 or higher</b>
<u>Hypertensive Crisis</u> (Emergency care needed)	Higher than <b>180</b>	or	Higher than <b>110</b>

# Atherosclerosis

- Plaque – cholesterol that has built up inside the artery walls leads to atherosclerosis
  - LDL (“bad”) cholesterol is the form of cholesterol that gets trapped in arteries
  - HDL (“good”) cholesterol can remove cholesterol from arteries
  - 75% of heart attacks occur when plaques rupture

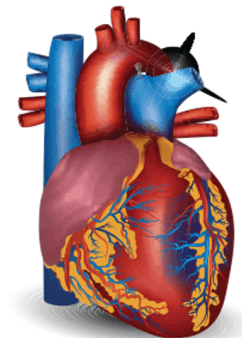


STROKE



BLOOD CLOT BLOCKS  
BLOOD FLOW TO THE BRAIN

HEART ATTACK



BLOOD CLOT BLOCKS  
BLOOD FLOW TO THE HEART MUSCLE



# Stress Management



- **Did you know more heart attacks occur on Monday mornings than other days and times!?**
  - Stress hormones are highest first thing in the morning and Mondays are often more stressful than other days of the week
- **Our body was designed to handle acute stress, but chronic lower-level stress is detrimental to our health**
- **Make stress management a priority!**
  - Meditation - A meditation or mindfulness practice, teaches you how to cope with stressors and is found to reduce high BP, lower HR, and lower cortisol levels
  - Journaling
  - Talking to a councilor, spiritual leader, friend – regularly!
  - Singing, laughing, and have fun!

***Look for this section in my weekly emails during the challenge:***



## **Reducing Stress + Improving Heart Health**

Practicing gratitude, optimism, and mindfulness are correlated with positive mental health and heart health. Get help with “stress and your heart health” in [THIS](#) article.

# Nutrition



- **Eat a whole foods diet (minimal processed foods) full of mostly plants and a lot of color!**
  - Studies of vegetarians indicate that the risk of heart is about a third lower than in comparable non-vegetarians (accounting for other lifestyle factors)
- **You don't have to eliminate meat! Strive for vegetables to be the highlight of your plate and vary your protein sources.**
  - Include healthy sources of protein (mostly plants such as legumes and nuts; fish and seafood; low-fat or nonfat dairy; and, if you eat meat and poultry, ensuring it is lean and unprocessed)

# Nutrition



- **Limit saturated fats and trans fats**
  - Instead, consume more liquid (non-saturated) non-tropical vegetable oils – olive oil, avocados/ avocado oil, nuts/nut butters/ nut oils
- **Minimized intake of added sugar**
  - Over consumption of sugar may likely be as detrimental as fat consumption
  - High sugar consumption elevates LDL cholesterol and lowers HDL cholesterol
- **Watch the salt!**
  - More than 70% of the sodium we consume comes from packaged, prepared and restaurant foods.

# Activity

- It's vital! In 2016, the AHA first suggested that fitness should be considered a “vital sign”, just like breathing rate, BP, temperature, etc
- Only 1 in 5 teens (20%) and about 1 in 4 adults (24%) in the U.S. routinely achieved the recommended levels of physical activity in recent years
- Why does exercise make us healthier? Exercise stresses the heart and blood vessels which makes them stronger, prevents plaque formations, and slows inflammation that leads to atherosclerosis



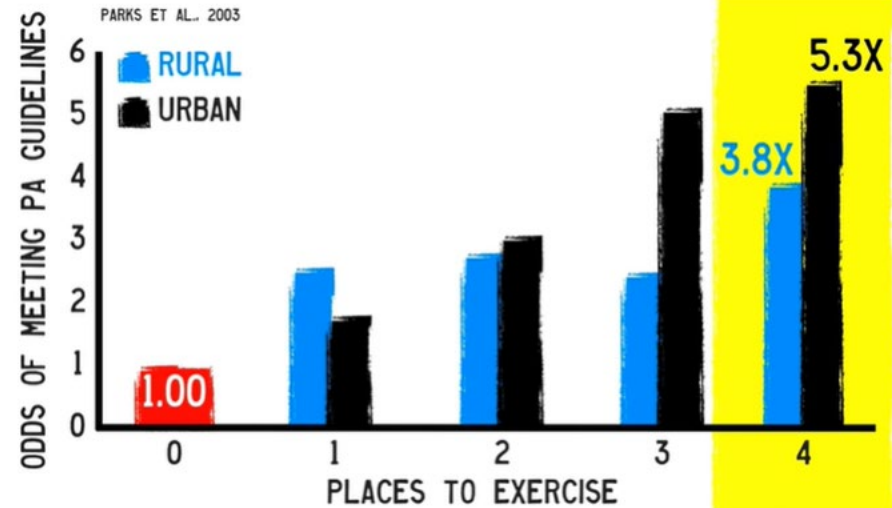


# Activity

- Get at least **150 minutes per week of moderate-intensity or 75 minutes per week of vigorous aerobic activity** a week.
- Add some resistance training on at least 2 days per week – which can help improve heart health too!
  - If you followed these guidelines, it is estimated that your mortality risk would be lowered by 31%.
  - Even those with CVD can benefit from exercise. In fact, exercise may be better for people with clogged arteries than stents!

# Activity

- **Spend less time sitting.** Even light-intensity activity can offset some of the risks of being sedentary.
- Increase amount and intensity gradually over time.
- Find a variety of activities you enjoy doing – anything that increases HR - “soulmate” workout
- Have several options for yourself





## Tobacco and Alcohol Use

- No surprise that smoking cigarettes and drinking alcohol increases the risk for developing cardiovascular problems
  - Nearly 20% of CVD deaths are due to cigarette smoking
- E-cigarettes and vaping also negatively impact heart and blood vessel health!
- Studies regarding alcohol use and heart health are inconclusive – some studies showing that low levels of drinking are protective while other studies refute that

# Sleep



- **Lack of quality and quantity of sleep can increase your risk of a heart attack!**
  - Sleep duration, in and of itself, has been shown to influence heart attack risk independently of other factors in the study population
  - Sleep deprivation has also been shown to disrupt our hormones driving us to crave more of those high sugar, high fat foods
  - Sleep deprivation is a stressor on the body, meaning that cortisol levels level increase, which is associated with inflammation and diminished immune response





# Weight & Diabetes

- Obesity increases CVD directly, but also indirectly through insulin resistance and hypertension
- Where we carry our excess fat matters too! Fat around the abdomen is correlated with insulin resistance and therefore an increased risk of chronic disease
- Moderate weight loss of even 10% can reduce our risk for heart disease by almost 50%. (Wing et al, 2011)

# Know your numbers!

Factor	Goal	
Total Cholesterol	Less than 200 mg/dL	
LDL ("Bad") Cholesterol	LDL cholesterol goals vary.	
	Less than 100 mg/dL	Optimal
	100 to 129 mg/dL	Near Optimal/Above Optimal
	130 to 159 mg/dL	Borderline High
	160 to 189 mg/dL	High
	190 mg/dL and above	Very High
HDL ("Good") Cholesterol	<b>HDL cholesterol level above 40 mg/dL for Men OR 50mg/dL for Women</b>	
Triglycerides	<b>&lt;150 mg/dL</b>	
Blood Pressure	<b>&lt;120/80 mmHg</b>	
Fasting Glucose	<b>&lt;100 mg/dL (Fasting Plasma Glucose)</b>	
	<b>HbA1c (glycosylated hemoglobin) less than 7%</b>	
Body Mass Index (BMI)	<b>&lt;25 Kg/m<sup>2</sup></b>	
Waist Circumference	<b>&lt;35 inches for Women</b>	
	<b>&lt;40 inches for Men</b>	
Exercise	<b>Minimum of 30 minutes</b> most days, if not all days of the week	
	If you get at least 30 minutes of moderate physical activity each day (like brisk walking), five times per week, you can almost guarantee yourself a healthier and more satisfying life while lowering your risks for heart disease, stroke and diabetes.	



# What Can I do?

1. Eat a whole foods diet rich with a variety of plants and full of color! Make veggies the center of your plate instead of meat more often. **Goal: 5 servings of fresh fruits and veggies per day.**
2. Increase activity! Although 150 minutes of moderate activity per week is recommended, all movement can help improve heart health. Explore new ways to get active! **Goal: 5 movement sessions per week (30 minutes per day)**
3. Awareness around these 5 risk factors. Know your numbers: Blood Pressure, Blood Sugar Levels, Waist Circumference, Cholesterol, Blood Triglyceride levels) **Goal: Schedule the appointment with your doctor or other health professionals to get one or all 5 of these checked.**
4. 5 sneaky risk factors: You might recognize things like smoking, diabetes, high blood pressure, obesity all as comorbidities of heart disease. But did you know that these factors may play a role too? air pollution, loneliness, lack of green space, lack of sleep, stress. **Goal: Pick one that you have control over and work on improving your home environment to support your goals!**



## DEPUTY LAFORGE WELLNESS CHALLENGE MATTERS OF THE HEART: FEB 12TH- MARCH 12TH

We challenge you to eat 150 servings of fruits and vegetables in 30 days (5 per day)!

We all know fruits and vegetables are beneficial to our health, but we still struggle to get in the recommended amount. **This challenge will provide accountability, motivation, and new, fun and flavorful ideas on how to get in more fruits and veggies.**

### How do I participate?

- Register using the [link](#) or QR code by 5pm on Thursday, Feb 8th
- Print off tracker or download digital version to help you keep track
- Record servings of fruits and vegetables eaten each day
- Read, be inspired and take action on the “Matters of the Heart” sent on Mondays
- On day 30, you will receive a form to enter your progress.



### What else should I know?

Each Monday during this challenge you will receive a “Matters of the Heart” weekly email with resources, recipes, and encouragement. On Day 1 of the challenge (Monday Feb. 12) you will receive your tracker and everything you need to get started!

### Important Dates to Join Us for:

- Tuesday Feb 6th 12-12:30pm CT: Kick-off Event
- Wednesday Feb 28th 12-12:30pm CT: Matters of the Heart Nutrition
- Wednesday Mar 20th 12-12:30pm CT: Finale & Challenge Celebration



Thank you!

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