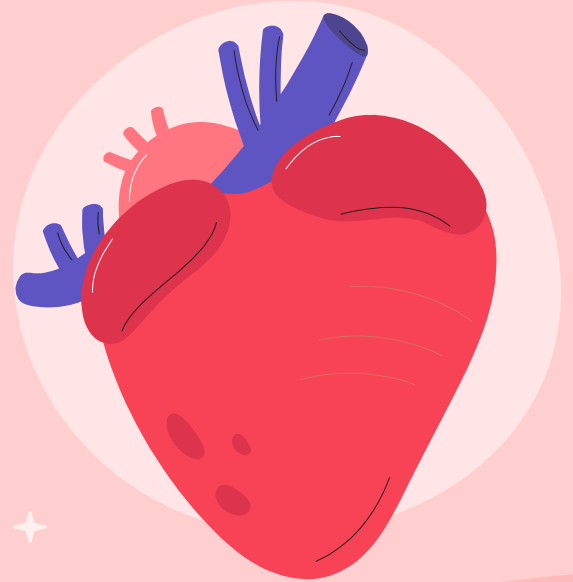


HEART DISEASE IN PREGNANCY:

# CARDIAC HEALTH



Northwestern University  
Center for Health Equity Transformation



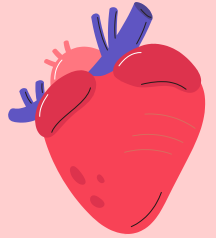
**Ashaki**  
Womens Hospital, LA



**Ayanna**  
Rutger's Hospital, NJ

# Meet the Team!

# What we will learn today!



1

WHAT IS CARDIAC DISEASE?

2

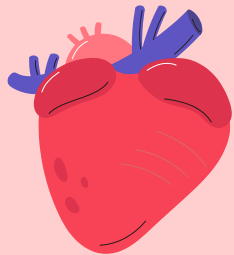
CHANGES TO YOUR HEART DURING PREGNANCY

3

SYMPTOMS

4

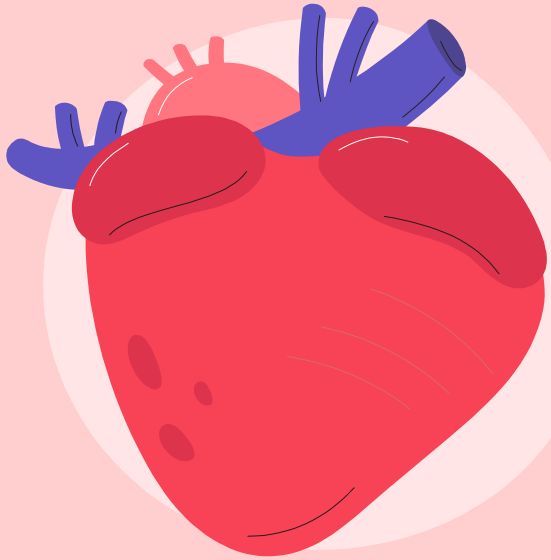
CARING FOR YOUR HEART



1

# WHAT IS CARDIAC DISEASE?

And how does it connect to pregnancy?



# Quick Definition

Cardiac (heart) disease in pregnancy refers to problems with your heart that happen while you are pregnant.

# THERE ARE 2 MAIN TYPES:

**A**

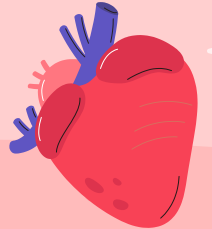
## **Pre-existing Heart Conditions**

These are heart diseases that you had before becoming pregnant. During pregnancy, they can affect you differently.

**B**

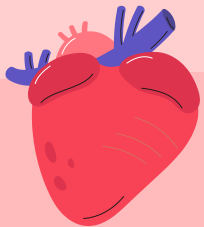
## **Heart Conditions That Develop During Pregnancy**

These are conditions that you did not have before pregnancy. Some conditions are harmless, but others may be dangerous.



2

**WHAT ARE SOME CHANGES  
TO THE HEART IN  
PREGNANCY?**



# CHANGES TO YOUR HEART

Your body changes during pregnancy to make sure your growing baby receives enough oxygen and nutrients. The following changes are normal during pregnancy:

- (1) More blood flows through your body. The amount of blood increases by about 40-45%.
- (2) Faster heart rate: It is normal for your heart rate to speed up by 10-20 beats per minute. Your heart rate is the highest by your third trimester.



# HEART PROBLEMS THAT COULD DEVELOP

Pregnancy can lead to many different heart problems even if you have no previous history of cardiac disease.

High blood pressure (hypertension) is becoming more common in pregnancy.

Gestational hypertension, preeclampsia, chronic hypertension, chronic hypertension with superimposed preeclampsia are a few heart problems that could develop in pregnancy.

# HIGH BLOOD PRESSURE DIAGNOSES INCLUDE:

- **Gestational hypertension:** High blood pressure (of at least 140/90 mmHG) that begins after week 20 of pregnancy.
- **Preeclampsia:** High blood pressure that begins after week 20. It occurs along with protein in your urine (pee) or evidence of organ damage. Eclampsia refers to preeclampsia that occurs along with seizures during pregnancy or within 10 days of giving birth.
- **Chronic hypertension:** High blood pressure that begins before week 20 or before you become pregnant.
- **Chronic hypertension with superimposed preeclampsia:** Chronic hypertension along with protein in your urine or evidence of organ damage.

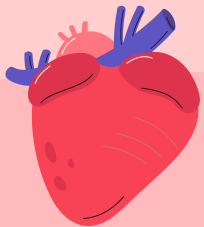
# HIGHER RISK FOR PREGNANCY-RELATED HEART PROBLEMS

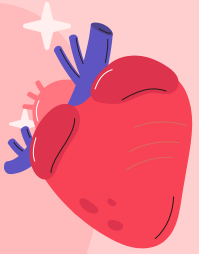
- Are 40 or older
- Are African American, American Indian, or Alaska Native
- Are overweight or have obesity
- Have existing heart problems
- Have existing health conditions such as diabetes, high blood pressure, blood clotting disorders, sleep apnea, anemia, or polycystic ovary syndrome (PCOS)
- Get little physical activity
- Use opioids, other drugs, alcohol, or smoke

**Ask your doctor about these risk factors and how they may affect your pregnancy!**

3

**WHAT ARE SOME  
SYMPTOMS TO LOOK OUT  
FOR?**





# COMMON SYMPTOMS IN PREGNANCY

## FATIGUE

Extremely tired

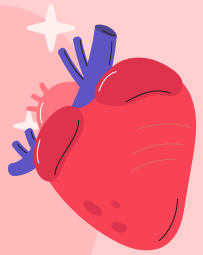
## SHORTNESS OF BREATH

## LIGHTHEADED

Dizzy

## PALPITATIONS

Sensation of a fast heartbeat



# SYMPTOMS THAT are **NOT** **NORMAL** IN PREGNANCY

BLURRED  
VISION

FAINTING

CHEST PAIN

PALPITATIONS  
THAT LAST FOR  
more THAN  
30 seconds

RACING Heart  
rate



**IF YOU HAVE ANY  
CHEST PAIN OR  
DISCOMFORT, CALL 911  
OR YOUR DOCTOR  
RIGHT AWAY!**

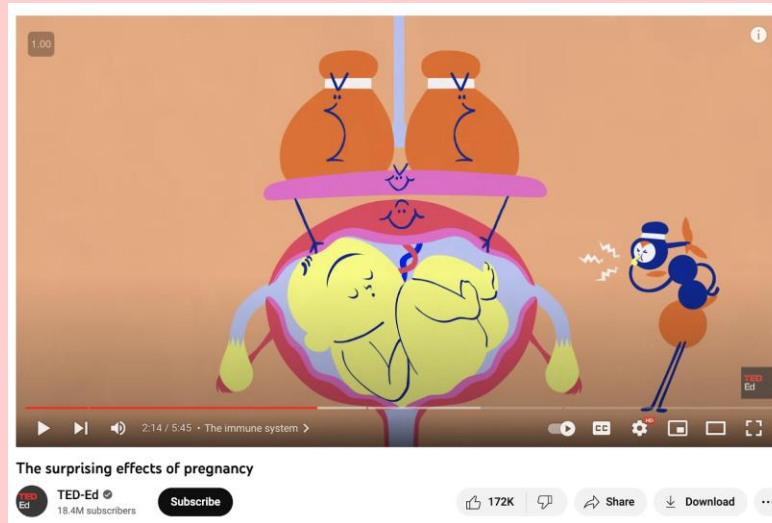
# VIDEO

LET'S LEARN A LITTLE BIT MORE!

The surprising effects of pregnancy

[https://www.youtube.com/watch?v=F\\_ssj7-8rYg](https://www.youtube.com/watch?v=F_ssj7-8rYg)

TED-Ed



The image shows a YouTube video player interface. The video content is an animation of a pregnant woman's body. The uterus is shown in red, containing a yellow fetus. Above the uterus are two brown, bean-shaped structures representing the lungs. A pink horizontal band is positioned between the lungs and the uterus. A blue character with a single eye and a small body is standing to the right of the uterus, appearing to be interacting with the fetus. The video player includes a progress bar at the bottom, showing a duration of 2:14 / 5:45. The video title is "The surprising effects of pregnancy". The channel name is "TED-Ed" with 18.4M subscribers. The video has 172K likes and a "Share" button is visible.



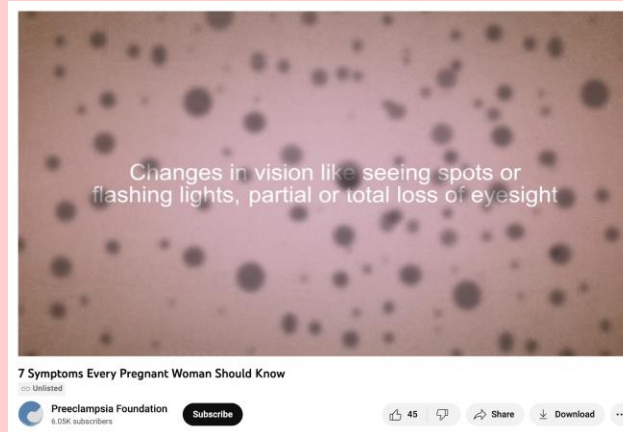
# VIDEO

LET'S LEARN A LITTLE BIT MORE!

## 7 Symptoms Every Pregnant Woman Should Know

[https://www.youtube.com/watch?v=dqMXyDLiUqg&ab\\_channel=PreeclampsiaFoundation](https://www.youtube.com/watch?v=dqMXyDLiUqg&ab_channel=PreeclampsiaFoundation)

Preeclampsia Foundation



# TELL YOUR PROVIDER ABOUT YOUR SYMPTOMS

TAKE NOTES ON YOUR SYMPTOMS

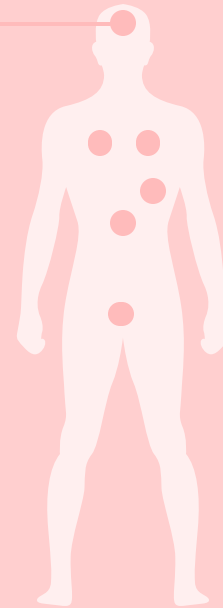
**1. SYMPTOM**

**2. DATE**

**3. TIME**

**4. SEVERITY 1-10**

**5. WHAT YOU WERE  
DOING**



# LET'S PRACTICE!

One person acts as the doctor and the other person acts as the pregnant person!

## Urgent Maternal Warning Signs

*If you experience any of these warning signs, get medical care immediately.*

- Severe headache that won't go away or gets worse over time
- Dizziness or fainting
- Thoughts about harming yourself or your baby
- Changes in your vision
- Fever of 100.4° F or higher
- Extreme swelling of your hands or face
- Trouble breathing
- Chest pain or fast-beating heart
- Severe nausea and throwing up (not like morning sickness)
- Severe belly pain that doesn't go away
- Baby's movement stopping or slowing down during pregnancy
- Vaginal bleeding or fluid leaking during pregnancy
- Heavy vaginal bleeding or leaking fluid that smells bad after pregnancy
- Swelling, redness or pain of your leg
- Overwhelming tiredness

This list is not meant to cover every symptom you might have. If you feel like something just isn't right, talk to your healthcare provider

## Use This Guide to Help Start the Conversation:

- Thank you for seeing me.  
I am/was recently pregnant. The date of my last period/delivery was \_\_\_\_\_ and I'm having serious concerns about my health that I'd like to talk to you about.
- I have been having \_\_\_\_\_ (symptoms) that feel like \_\_\_\_\_ (describe in detail) and have been lasting \_\_\_\_\_ (number of hours/days)
- I know my body and this doesn't feel normal.

### Sample questions to ask:

- What could these symptoms mean?
- Is there a test I can have to rule out a serious problem?
- At what point should I consider going to the emergency room or calling 911?

Notes:

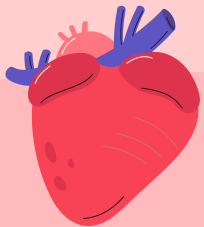


Learn more about CDC's Hear Her Campaign at [www.cdc.gov/HearHer](http://www.cdc.gov/HearHer)



4

**SELF-CARE TIPS AND  
BRAINSTORM/PAIR/SHARE  
ACTIVITY**

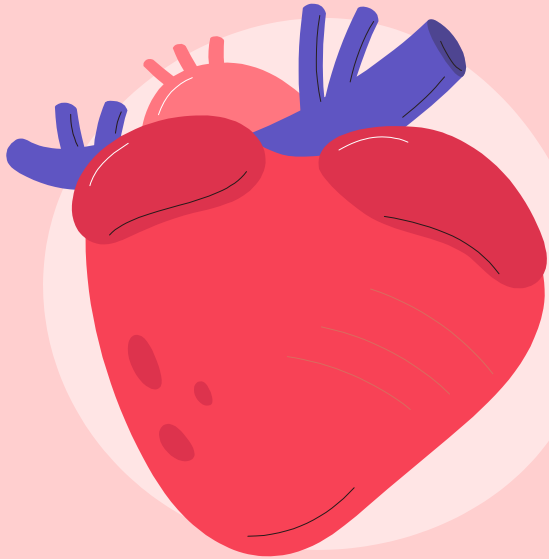


# SELF-CARE TIPS

- Attend your medical appointments!
- Avoid excess weight gain. Ask your doctor how much weight is safe to gain during pregnancy.
- Avoid stress as much as possible. Prenatal yoga classes may be helpful or find relaxation strategies that work for you.
- Eat a heart-healthy diet, and limit sugar, sodium, saturated and trans fat.
- Exercise safely. Ask your doctor which types of exercise are safe for you.

# BRAINSTORM & SHARE

- Write down 2-3 relaxation tips that have worked for you.
- We will go around and share!



# LET'S TALK!

<https://my.clevelandclinic.org/health/diseases/17068-heart-disease--pregnancy>

<https://www.nhlbi.nih.gov/health-topics/education-and-awareness/heart-truth/listen-to-your-heart/heart-health-and-pregnancy>

# FACTS SHEETS

**Preeclampsia:** <https://www.thewomens.org.au/images/uploads/fact-sheets/Preeclampsia-2018.pdf>

**NHLBI Heart Health:** <https://www.nhlbi.nih.gov/resources/pregnancy-and-your-heart-health>

**Exercise:**

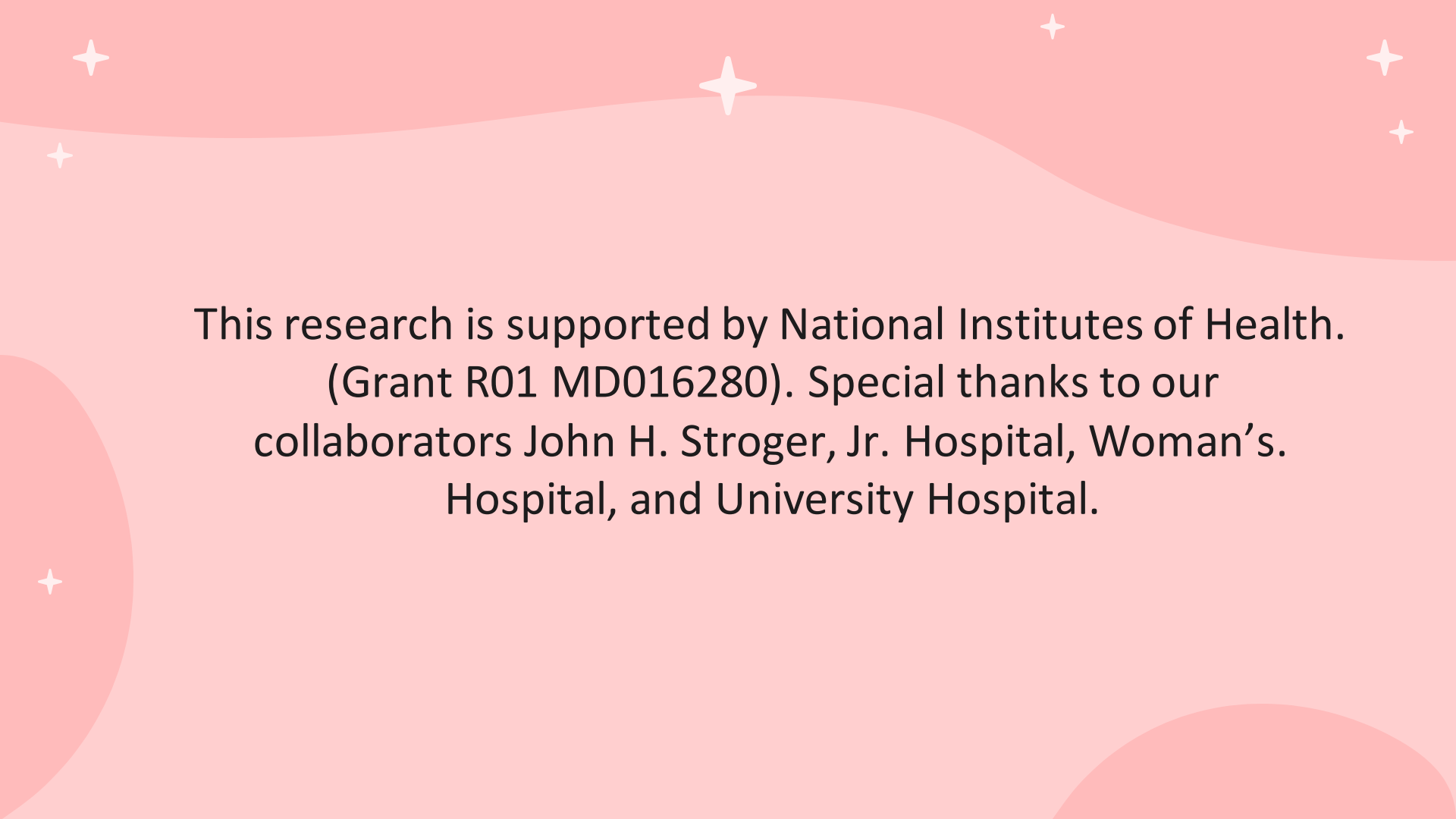
<https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.ksr.ualberta.ca%2Fexerciseandpregnancy%2Fresources.php&psig=AOvVaw3liE9p2omM91RI8-nFL9Yv&ust=1681837716317000&source=images&cd=vfe&ved=0CBAQjRxqFwoTCLjqq--zsf4CFQAAAAAdAAAAABAP>

**Nutritional Advise:** <https://www.health.gov.au/sites/default/files/documents/2021/06/nutrition-advice-during-pregnancy.pdf>



## Discussion Questions:

- Have any of you experienced any of these cardiac problems during your past pregnancies? If you feel comfortable, feel free to use this time to talk about them with the group!

The background is a light pink color with several white, four-pointed starburst shapes scattered across it. There are also wavy, darker pink lines and shapes, including a large semi-circle on the left and another on the bottom right.

This research is supported by National Institutes of Health.  
(Grant R01 MD016280). Special thanks to our  
collaborators John H. Stroger, Jr. Hospital, Woman's  
Hospital, and University Hospital.