Heart Health for the Long Haul

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Goals of this talk:

1. Explore the latest research in understanding cardiovascular risk in women
2. Examine how this risk changes throughout a woman's lifespan
3. Explore what each of us can do for to help support a heart healthy lifestyle

Common Questions I get in Clinic

I'm contemplating pregnancy. Is it safe given my cardiac history?

Do I need to take a statin? I've heard these medications have many side effects

Do I need a coronary artery calcium score or coronary CT scan ?

Is it safe for me to start HRT?

I'm pregnant. What should my blood pressures be?

How much exercise should I be getting?

Should I get my lipoprotein (a) checked?

I can't lose weight. Can you prescribe a weight loss drug for me?

Do I need to take an aspirin?

What diet is right for me?

Cardiovascular Disease (CVD) in Women:

- For most of the 20th century CVD was thought to be predominately a condition seen in males and women have been underrepresented in research trials and undertreated
- Framingham Heart Study (FHS) changed this and redefined women's cardiovascular risk as distinct
- 31% of healthy women at age 40 would develop CVD in their remaining lifespan
- Total lifetime risk estimates for women and development of CVD is ~ 55%



Diabetes and CVD risk in Women:

- FHS demonstrated that diabetes in women conferred 3X higher risk for developing CVD compared to women without diabetes

- Among MI survivors, women without diabetes had lower fatal risk of recurrent MI compared to men; however among diabetics, women had 2X higher risk of recurrent MI risk compared to men

- Implications: Diabetes increases cardiovascular risk in both men and women, however diabetes confers a greater relative increase in risk in women

Takeaway: Screening for Diabetes in Women



American Diabetes Association recommends screening all asymptomatic adults for prediabetes and type 2 diabetes beginning at age 35 or sooner in patients with risk factors



If results are normal repeat screening at a minimum of every 3 years or sooner if new symptoms or weight gain



Screening tests can be a fasting plasma glucose, 2 hour plasma glucose during a 75 gram oral glucose tolerance test or A1c

	SBP		DBP
BP Category			
Normal	<120 mm Hg	and	<80 mm Hg
Elevated	120 to 129 mm Hg	and	<80 mm Hg
Hypertension			
Stage 1	130 to 139 mm Hg	or	80 to 89 mm Hg
Stage 2	≥140 mm Hg	or	≥90 mm Hg

BP indicates blood pressure (based on an average of ≥2 careful readings obtained on ≥2 occasions, as detailed in Section 3 ("Evaluation and Diagnosis"); DBP, diastolic blood pressure; and SBP, systolic blood pressure.

* Adults with SBP and DBP in 2 categories should be designated to the higher BP category. This table excludes individuals who are pregnant (see Section 11.5, "Hypertension and Pregnancy"). Adapted with permission from Whelton et al.[5] Copyright 2018 American College of Cardiology Foundation and American Heart Association, Inc.



Hypertension and CVD risk in Women:

- Women develop hypertension and cardiovascular disease later in life than men – thought to be secondary to premenopausal vascular protection and estrogen induced vasodilatation

- Hypertension increase with age for women and in a steeper fashion than men

- Data suggest that the risk of a heart attack at women with systolic blood pressures of 110-119 mm Hg is comparable to men with systolic blood pressures >160 mm Hg

Takeaways for Hypertension in Women:

- Goal Blood Pressure in Adults < 130/80 mm Hg





Hypertensive Disorders of Pregnancy (HDP)

HDP:

- 10% of pregnancies and ~ 14% of maternal deaths worldwide
- Defined as blood pressure ≥140/90 mm Hg
- Encompasses gestational hypertension, preeclampsia, and chronic hypertension
- Preeclampsia complicates 2-8% of all pregnancies and is associated with increased long-term cardiovascular risk





Prevent Risk Calculator:

- https://professional.heart.org/en/guidelines-and-statements/prevent-calculator#main-content



Sex* ○ **Female** ○ **Male**

Age (years)*
30-79

SBP (mmHg)*
90-200

Total Cholesterol (mg/dL)*
130-320

HDL Cholesterol (mg/dL)*
20-100

eGFR (mL/min/1.73m^2)*
15-140

BMI (kg/m^2)*
18.5-39.9

Diabetes
Any history of diabetes.
No Yes

Current Smoking
Any cigarette use within the last 30 days
No Yes

Lipid-lowering medication
Current use of statin medication to lower cholesterol
No Yes

Anti-hypertensive medication
Current use of any medication for hypertension
No Yes

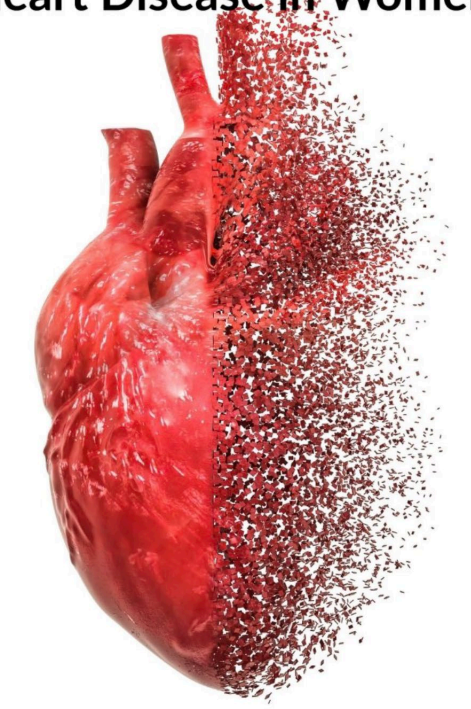
The following three predictors are optional for further personalization of risk assessment. When they are clinically indicated or available,
If available or indicated, select "Yes" and enter the value.

UACR (mg/g)
UACR is clinically indicated for individuals with chronic kidney disease, diabetes, or hypertension
No Yes

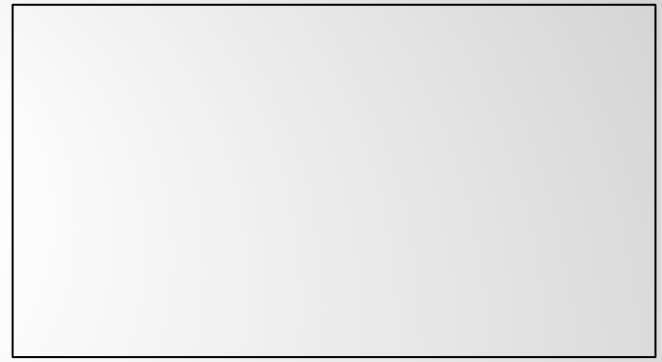
HbA1C
HbA1c is clinically indicated for individuals with diabetes, prediabetes, overweight, or obesity, or those with history of gestational diabetes
No Yes

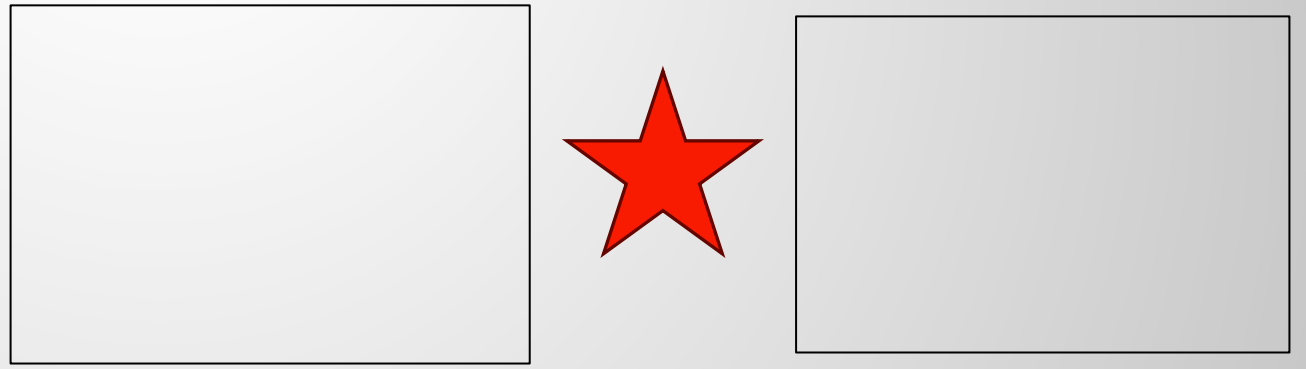
Zip Code
valid 5-digit zip code is needed to estimate social deprivation index [SDI]
No Yes

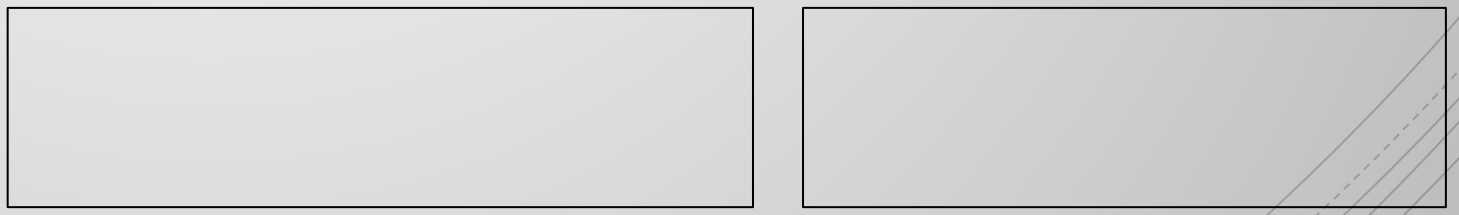
Heart Disease in Women

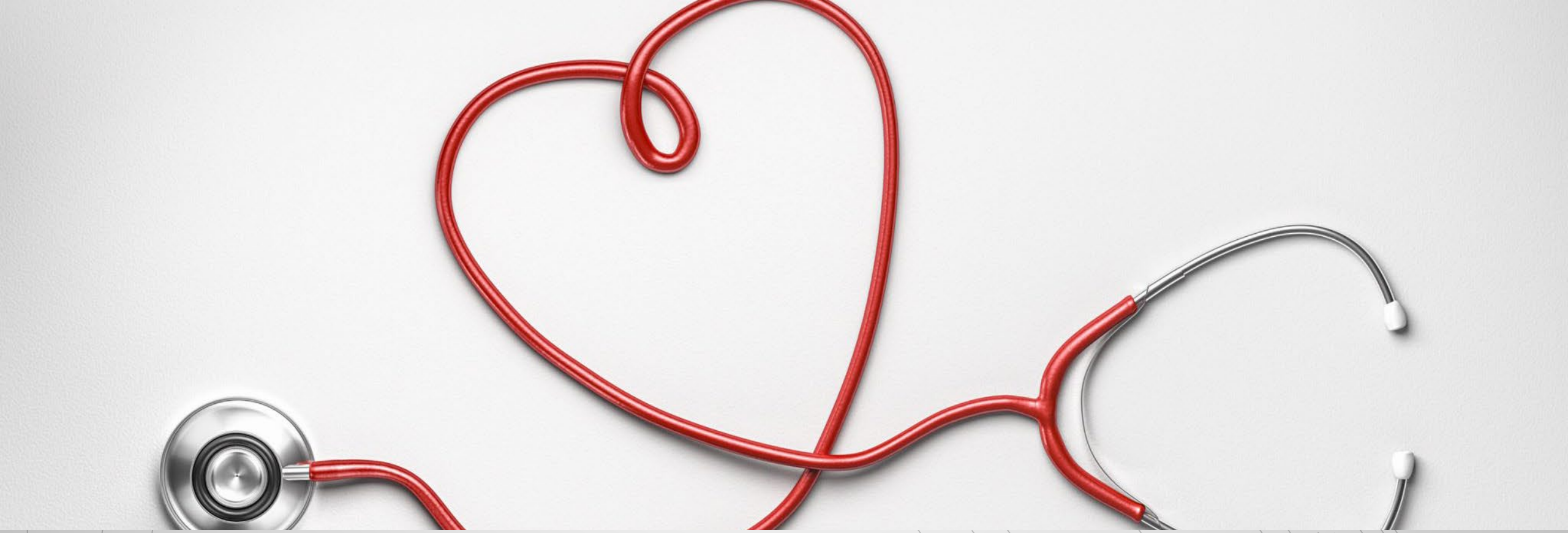


Key Takeaways on Lipids









Menopause and Cardiovascular Risk:



Menopause and CVD Risk:

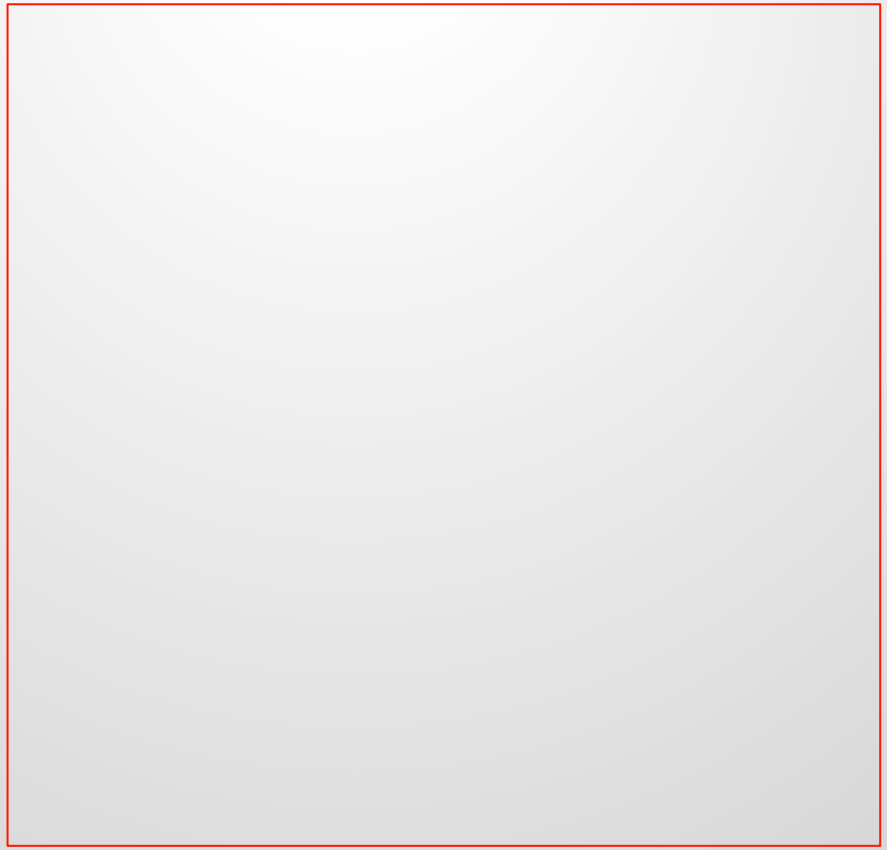
- Cardiometabolic changes that occur with menopause: increased visceral fat disposition, insulin resistance, and dyslipidemia - menopause is considered a CVD risk factor for women
- Hormone replacement therapy (HRT) remains the most effective treatment for vasomotor symptoms that ~ 75% of women experience
- Relationship between HRT and cardiovascular risk is complex and whether HRT is preventative or not is still debated

Menopause and CVD Risk:



- Large study that examined associations between HRT use and CVD mortality in an ethnically diverse population
- Found that HRT initiated within 5 years of menopause was associated with lower CVD risk and mortality
- Compared to increased risk in women who initiate HRT further out from menopause
- "Timing hypothesis"

CVD Risk Enhancers:



Conclusions:

Better understanding of how to assess your own cardiovascular risk how this changes throughout your lifespan

Understand the importance of individual screening – blood pressure, A1c, lipids, and obstetrical history

Do not underestimate the importance of a heart healthy diet and regular aerobic exercise





Thank you!

