

Show Your Heart You Care[®]

Guidelines for Prevention of Cardiovascular Disease in Women

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Persisting Magnitude of the Problem

- More CVD deaths among women than from cancers, respiratory disease, Alzheimer's disease, accidents combined
- CHD death rates in **US women 35-54** years increasing
 - Reversing trend of past 4 decades
 - Likely related to obesity epidemic
 - "Leading edge of a brewing storm"
- Black > white women CVD rates
 - Parallels ↓ awareness data

Ford, NEJM 356:2388, 2007

Benjamin, Circulation 139:e56, 2019

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Your Heart: An Owner's Manual

- Technical specifications – parts and features
 - Muscular pump – little larger than a clenched fist
 - Weighs less than a pound
 - Beats over 100,000 times daily
 - pumps @ 2000 gallons of blood daily, nearly 5 quarts of blood each minute
 - @ 60,000 miles of arteries, capillaries, veins
 - US warranty
 - av. 81 years white woman
 - av. 76.9 years black woman
 - read Owner's Manual carefully for operating instructions



Concepts for Owner: Care and Maintenance

- Empowering women – awareness, education
 - Favorable lifestyle changes can ↓ CV risk factors, prevent CVD/CHD
- Continuum of risk
 - Match intensity of intervention to risk
- Behavioral changes by women, reshaping practice patterns by healthcare providers
 - Dramatically ↓ number of women disabled, killed by CHD annually
- Partnership between women and their healthcare providers

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Preventive Approaches: Operating and Maintenance Instructions

- Lifestyle interventions – MAJOR EMPHASIS
- Major risk factor interventions
- Preventive drug interventions

Arnett, J Am Coll Cardiol DOI:10.1016/j.jacc2019.03.010

Health Benefits of Smoking Cessation

- People who quit smoking before age 50 have 1/2 the risk of dying over the next 15 years compared with continuing smokers
- Smoking cessation improves pulmonary function 20% to 30% within 2 to 3 months
- After 1 year of smoking abstinence, risk of coronary heart disease is reduced by 50%
- Within 5-15 years of smoking cessation, risk of stroke is similar to non-smokers risk

Centers for Disease Control and Prevention. MMWR. 39:2, 1990
Jorenby, Circulation. 104:e51, 2001.

Walking Cuts Women's Heart Disease Risk

- Nurses Health Study: 72,488 women aged 40-65
- Vigorous exercise and brisk walking reduced the risk of heart attack or death from coronary heart disease by 30-40%
- Women who were sedentary but later engaged in moderate walking reduced the risk of heart attack and coronary death by 20-30%
- Walking at slower pace also beneficial

Manson, N Engl J Med. 341:650, 1999.

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The 250:250 Rule

- Exercise an extra 250 calories per day
- Eat 250 fewer calories per day
- Equals 500 fewer calories per day
- 3500 fewer calories per week = 1 lb weight loss

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Lifestyle Changes: They Work!

- Diabetes Prevention Program (DPP)
 - Diet and exercise effectively delayed diabetes in a diverse American population of overweight people with IGT:
 - Physical activity for 30 minutes per day and weight loss of 5-7% of body weight:
 - Reduced risk of getting type 2 diabetes by 58%

Diabetes Prevention Program Research Group, N Engl J Med 346:393, 2002.

Class III Interventions: Not Useful/Effective and May Be Harmful for CVD Prevention in Women

Menopausal hormone therapy

Hormone therapy and selective estrogen-receptor modulators (SERMs) should not be used for the primary or secondary prevention of CVD (*Class III; Level of Evidence A*).

Antioxidant Supplements

Antioxidant vitamin supplements (eg, vitamin E, C, and beta carotene) should not be used for the primary or secondary prevention of CVD (*Class III; Level of Evidence A*).


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Owner's Manual: Checkups and Maintenance

WHAT TO ASK YOUR PHYSICIAN OR PROVIDER AT YOUR OFFICE VISIT

In addition to traditional cardiovascular risks and your ASCVD risk score, ask about your ASCVD Risk Enhancers:

- 1- Family history of premature atherosclerotic cardiovascular disease
- 2- Persistently elevated cholesterol LDL-C over 190 mg/dL
- 3- Chronic kidney disease
- 4- Metabolic syndrome
- 5- Conditions specific to women:
 - Hypertensive disorders of pregnancy, preeclampsia, premature menopause, gestational diabetes
- 6- Inflammatory diseases, especially rheumatoid arthritis, psoriasis, lupus, and HIV
- 7- Ethnicity such as South Asian, Hispanic/Latino, African American
- 8- Elevated triglycerides over 175 mg/dL
- 9- Elevated hs-CRP over 2.0 mg/L
- 10- Elevated Lp(a) levels over 50 mg/dL or 125 nmol/L
- 11- Ankle-brachial index under 0.9

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