

Have a Healthy Heart!

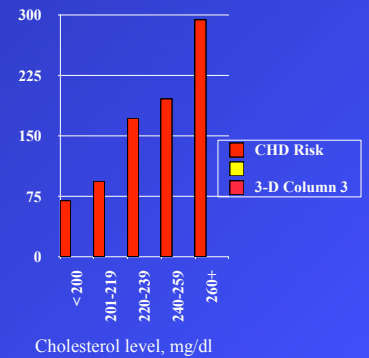
Presented by
Fred Hardinge, DrPH, RD, CHES

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Cholesterol Levels

Recommended Values

- Total cholesterol less than 200
- HDL cholesterol greater than 35
- LDL cholesterol less than 130
- (Total Chol. minus HDL Chol) < 160



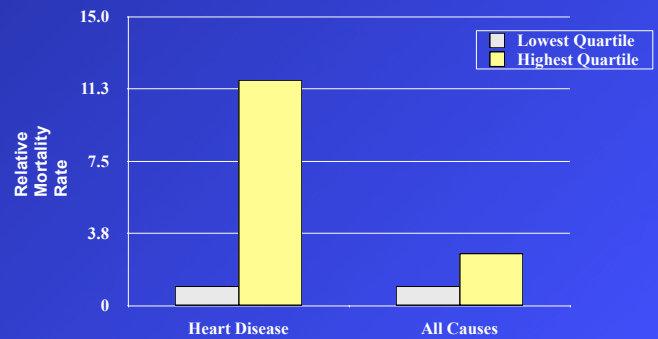
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Unchangeable Risks

- **Age**
 - Men 45+, women 55+, are at increased risk
- **Gender**
 - Men are higher risk than women for early CHD
 - CHD is still the leading cause of death for women
- **History CHD**
 - Family Hx, before 55 for men, 65 for women
 - Personal history

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Cholesterol and Mortality Rates



Ref. NEJM, Vol. 332 No.22, '95

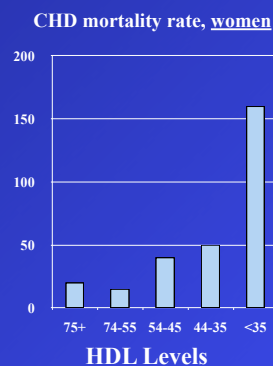
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Modifiable Risk Factors

1. Tobacco use
2. High blood cholesterol levels
3. High blood pressure
4. Physical inactivity
5. Obesity and overweight
6. Diabetes mellitus

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HDL Cholesterol



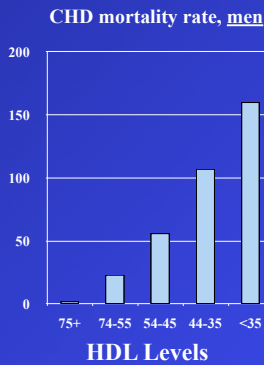
Factors that improve HDL levels:

- Aerobic exercise, 12-20 aerobic miles per week
- Achieve/maintain ideal body weight
- Avoid smoking
- Estrogen replacement after menopause (discuss with your doctor)

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HDL Cholesterol



Factors that improve HDL levels:

- Aerobic exercise, 12-20 aerobic miles per week
- Achieve/maintain ideal body weight
- Avoid smoking

Note: For every 1% you increase HDL levels, you decrease CHD by 2-3%

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Harvard Nut Study

- Women who ate an ounce of nuts five times per week had a 35% lower risk of heart disease than those seldom eating nuts.
- Even after holding constant for smoking, exercise, blood pressure, obesity, and diabetes.



British Med. Jour., Nov. 14, '98

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Improving Cholesterol Levels

If LDL cholesterol is high:

- Reduce fat intake to 20-30 % of total calories eaten
- Eat less saturated fat, 5-10 % of total calories eaten
- Eat less Chol., < 300 mg/day
- Eat more fiber (oats, brown rice, legumes, fruits, veggies, 20-30 gm/day)
- Achieve a healthy weight

If HDL cholesterol is low:

- Achieve a healthy weight
- Get regular aerobic exercise, 10-20 aerobic miles per week
- Don't smoke
- Reduce stress levels

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Whole-Wheat Bread and Heart Disease (SDA Study)



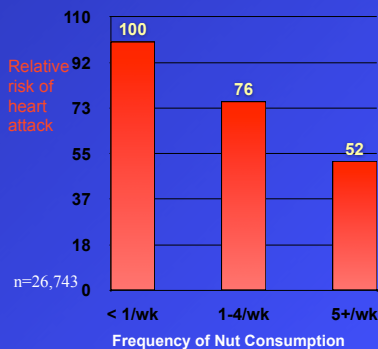
Arch Intern Med Vol 152 P:1416

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Nut Consumption and Heart Health

- Frequent consumption of nuts protects the heart
- People who ate nuts frequently (5+ times/week) had a 51% reduction in heart attacks and a 48% reduction in death from heart attacks compared to those who seldom ate nuts.



Arch Intern Med. Vol. 152, p. 1416

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Dietary Guidelines for Americans

The very first dietary guideline states:

“Use plant foods as the foundation of your meals. ... Eating a variety of grains (especially whole-grains), fruits and vegetables is the basis of healthy eating.”

USDA, DHHS, Dietary Guidelines for Americans, 2000

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High Blood Pressure

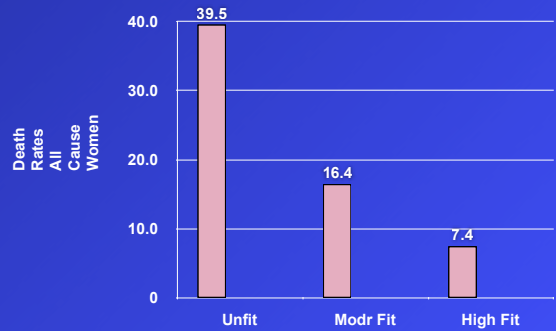
- BP standards, adults
 - normal 120/80
 - high normal 130-139/85-89
 - high BP 140/90+
- BP standards, children
 - normal, < 117/75
 - high, 122/80
- High blood pressure, if untreated, increases the risk for:
 - Stroke
 - Heart disease
 - Kidney disease
 - Blindness

Note: Risk for CHD increases with BP's > 110/70

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Exercise and Mortality



Source: Steven Blair, JAMA, Nov. 3, 1989

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Improving Blood Pressure Levels

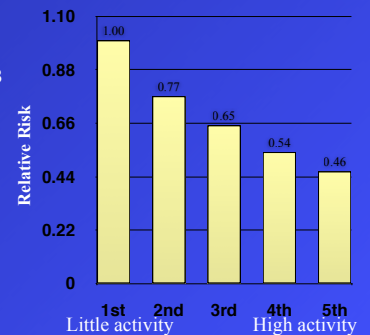
- Achieve/maintain a healthy weight
- Get regular physical activity, 30-60 min/day
- Avoid alcohol, or keep intake very low
- Limit salt, get adequate potassium
- Limit intake of fats, especially animal fats
- Avoid tobacco
- Get adequate relaxation and rest

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Physical Activity Level and Risk of Heart Attack

- Nurses Health Study, 72,488 women followed for 8 years
- The risk of heart attack decreased with increasing levels of physical activity
- Heart attack risk dropped 54% in the most active women (top 20% compared to bottom 20%)

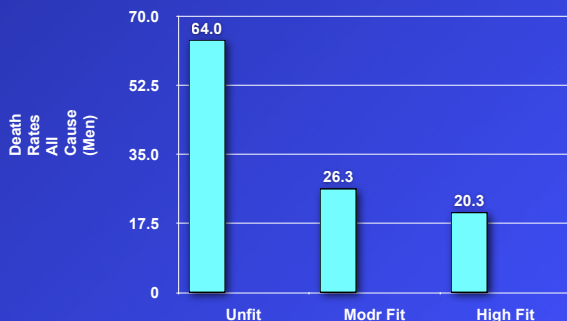


NEJM, p.650, Aug. 26, '99

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Exercise and Mortality



Source: Steven Blair, JAMA, Nov. 3, 1989

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Physical Activity Guidelines

“Every US adult should accumulate 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week.”

Source: CDC and ACSM

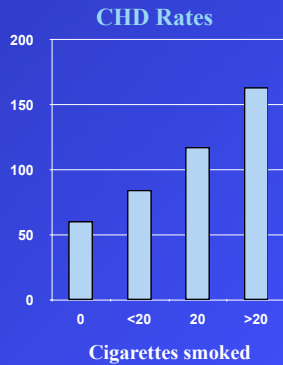


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Smoking and Heart Disease

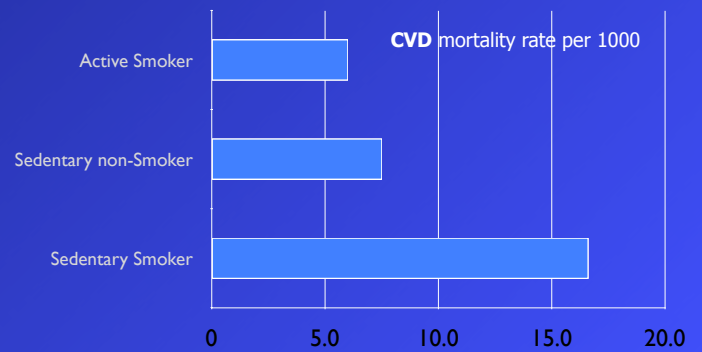
- Smoking increases the risk of heart disease by **2-3 times**.
- Stopping smoking reduces risk very rapidly (nearly to the level of the non-smoker within 5 years)



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Smoking/Exercise and CHD



Arch Intern Med., 1977; 157:893-899

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Smoking and Health

- Smoking causes 480,000 premature deaths each year, increasing the risk for:
 - ulcers **2X**
 - asthma **3X**
 - heart attack or stroke **3X**
 - emphysema **5X**
 - lung cancer **18X**
- Smoking reduces life expectancy
 - by 7 to 8 years
 - 15 minutes/cigarette smoked

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Physical Activity Lowers Risk In Smokers

- Study of 642 men in Sweden
- 25 year outcome data shows regular physical activity significantly lowered mortality rates
- Vigorous physical activity in smokers reduced the risk of coronary heart disease by 40% and overall mortality by 30%

Arch Intern Med., 1977; 157:893-899

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Smoking and Health

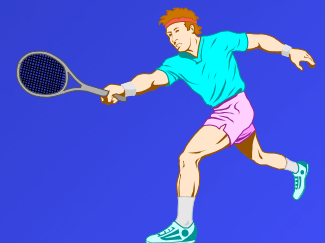
- The good news is that stopping significantly reduces risk, and right away.
 - you cut your risk of a heart attack in half within the first year after stopping
 - within 5 years, risk of lung cancer is cut in half
 - within 15 years, your health risk is almost the same as a person who never smoked
- 53 million people have stopped. You can too!

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Weight/Body Composition

- 2/3 of all US adults are overweight, up from only 25%, 20 years ago
- Excess body fat increases risk for:
 - high blood pressure
 - diabetes
 - heart disease & stroke
 - certain cancers
 - arthritis



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Healthy Weight Standards

Ht(in)	BMI 20	BMI 25*	BMI 30**
58 in.	96 lb	119 lb	143 lb
60	102	128	153
62	109	136	164
64	116	145	174
66	124	155	186
68	131	164	197
70	139	174	209
72	147	184	221
74	155	194	233
76	164	205	246

* People with a BMI less than 25 live the longest
 ** Obesity is defined as a BMI of 30+



Modifiable Risk Factors

1. Tobacco use
2. High blood cholesterol levels
3. High blood pressure
4. Physical inactivity
5. Obesity and overweight
6. Diabetes (treatment and control)



Weight Loss Guidelines

- Dieting is not recommended
- You need a change in lifestyle, something you can do the rest of your life
 - low fat, healthy eating habits
 - active lifestyle, 30+ min. of moderate activity daily
- Weight loss goal
 - 1/2 to 1 pound weight loss per week
- Check body composition not just weight



Online Resources

- American Heart Association <http://www.americanheart.org>
- Cholesterol Low Down <http://www.americanheart.org/presenter.jhtml?identifier=11>
- Choose to Move <http://www.choosetomove.org/>
- Checklist for Lowering Your Cholesterol <http://www.americanheart.org/presenter.jhtml?identifier=514>



Diabetes and Heart Disease

- Diabetes increases the risk for CHD by **2-3X**
- Your risk for CHD is increased if you have:
 - A personal history of diabetes, or
 - High blood glucose levels:
 - 115+** fasting blood test
 - 160+** non-fasting
- Risk factors for diabetes:
 - family history of diabetes
 - excess weight (especially central, abdominal fat)
 - sedentary lifestyle
 - poor dietary habits
- Symptoms
 - excessive thirst, urination
 - infections, slow healing
 - blurred vision, fatigue
 - pain/tingling/numb in feet

