I. **Announcements** Exam I next session; 10 am & 2 pm lab sections go directly to 5 KLA & 202 CAS. All others here (100 WIL)! Review: Sunday, 6 pm here! Lab notebooks. Q?

II. **Cardiovascular Connections** LS 2012 ch 9, Torstar Books+

III. **CV Physiology in News** AHA + NHLBI websites. Nic? ACSM, AHA, DHHS Healthy people exercise guidelines!

IV. **CV Pathophysiology & Risk Reduction** LS ch 9, 10 +…
   A. AMI, CVA, CVD, PVD, TIA, HTN? + surgical treatments
   B. Atherosclerosis? LS fig 9-27, 9-25, 9-26 pp 266-8
   C. How to minimize risk of CVDs? Treatment triad: Exercise, Diet, Drugs+Surgery
   D. Food choices make a difference? What’s HAPOC?
10 am lab section takes Exam on Tuesday in 5 Klamath (KLA)

2 pm lab section takes Exam on Tuesday in 202 Cascade (CAS)

All others here (100 WIL)!

Study & blast the exam!
Study Groups?
Heart-Blood Pressure Lab Today!

Lub-dup!

I'm cool!
Cardiac Cycle

Systole
Contract & Empty

Diastole
Relax & Fill
Veins → Atria → Ventricles → Arteries

http://www.nhlbi.nih.gov/health/topics/topics/hhw/contraction.html
Patent or still open!

SI Fox 2009 fig 13.17 p 420
American Heart Association (AHA) & National Heart, Lung & Blood Institute

http://www.heart.org/

http://www.nhlbi.nih.gov/health/

Department of Health and Human Services · National Institutes of Health

National Heart Lung and Blood Institute

People Science Health
We all have multimillion-dollar bodies!!

Can you believe that’s Nicole?
Hollywood glamour queen Nicole Kidman likes to swim to keep that multimillion-dollar body in shape. But the down-to-earth superstar doesn’t need a fancy spa — she does her laps at the local YMCA! Nice goggles, Nic!
How much aerobic?

Continuous exercise
≥ 50% muscle mass
≥ Conversational pace
20-60 min/session
3-5 days/wk

Guidelines: Healthy Adults < 65 yr

Do moderately intense aerobic exercise
30 min/d, 5 d/wk

OR

Do vigorously intense aerobic exercise
20 min/d, 3 d/wk

AND

Do 8-10 strength-training exercises
8-12 repetitions/each exercise, 2 d/wk
How much strength?

✓ 2-3 days/wk

✓ 8-10 exercises for major muscle groups

✓ ≥ 1 set/exercise

✓ 8-12 (most) or 10-15 (frail/> 50-60 yr) repetitions/set
Federal exercise guidelines include strength training for all adults: Moderate to Vigorous Exercise ≥ 30 min, 5 d/wk. For children, the guidelines recommend Moderate to Vigorous Exercise ≥ 60 min, 5 d/wk.

Did you know?

- Every year ~785,000 Americans have a first heart attack. Another 470,000 who've had ≥ 1 have another attack.

- In 2008, > 616,000 people died of heart disease. Heart disease caused almost 25% of deaths in the US.

- In 2010, coronary heart disease US costs ~$108.9 billion including health care, medications & lost productivity.

SOURCE: Heart Disease Facts, Centers for Disease Control, 2012
Lifeline Screening, 2007

DISEASED CAROTID ARTERY

HEALTHY CAROTID ARTERY
Coronary Circulation ≡ Crowns the Heart!
FIGURE 9-35

Extent of myocardial damage as a function of the size of the occluded vessel
59 yr HTN ♀

Torstar 1984 p 77
Treatment Triad

NB: Last blasted resort!!

Drugs/Surgery

Exercise

Dietary Modification
Figure 37-1 Devices for percutaneous transluminal coronary interventions. A, Coronary balloon. B, Rotational atherectomy burr (Rotablator). C, Coronary stent.
CABG

Coronary Artery Bypass Graft
Tobacco-free Campus

For better health, smoking and use of tobacco products are prohibited everywhere on our property.

UO's Josh Buehler  U.S. Surgeon General Regina Benjamin

For a healthier community and cleaner environment, the University of Oregon is smoke and tobacco-free.
An LDL to HDL ratio greater than 5 to 1 in men or 4.5 to 1 in women

Increased risk of heart disease
Those with *apple type* of obesity predisposed to CVD!
Pick an abundance of whole grains, legumes, nuts, vegetables & fruits!
Fish Oil Intakes & Cardiovascular Death Rates

Cardiovascular Deaths per 100,000 Population

- Ireland: 0.09%
- USA: 0.13%
- France: 0.14%
- Japan: 0.37%

S&W 2011
fig 5-12 p 167
Healthy Oils to Minimize Atherosclerosis

HAPOC?
Olive Oil Loves Olive Oil & has some heartfelt advise for Popeye!!
Yes for the spinach! — but get rid of the pipe!!
An LDL to HDL ratio of less than 5 to 1 in men or 4.5 to 1 in women

Reduced risk of heart disease