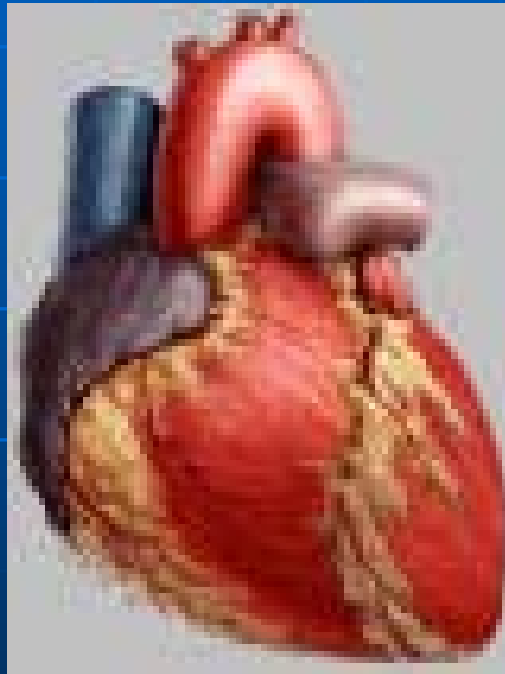


Your Healthy Heart

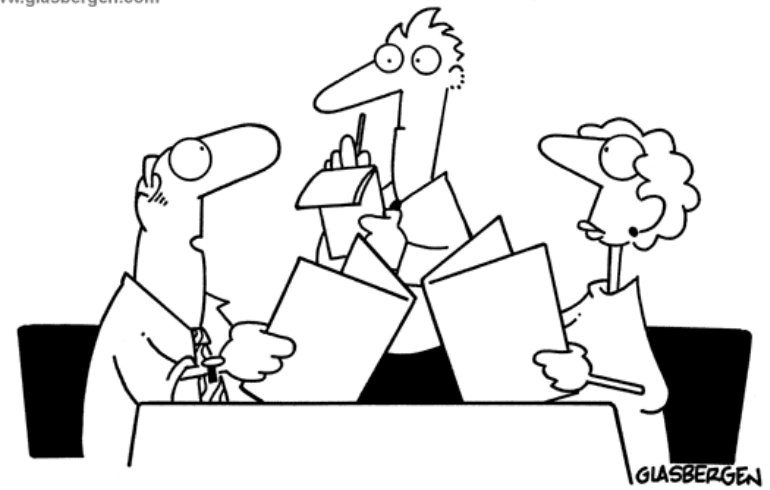


Keeping Your Heart Healthy

Your Healthy Heart Outline

- Facts about your heart
- The Risks of Developing CVD
- The Dos and Don'ts
- The Future
- Questions

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www.glasbergen.com



"I'll have some heart disease and high blood pressure with a side of clogged arteries and some tooth decay."

CVD

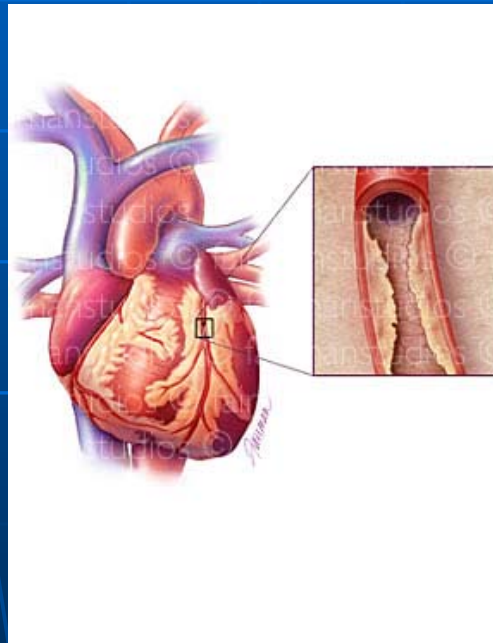
Cardiovascular Disease

- High Blood Pressure
- Coronary Heart Disease
- Peripheral Arterial Disease
- Congestive Heart Failure
- Stroke
- Arrhythmias
- Valvular Heart Disease
- Congenital Defects

Cardiovascular Disease in the United States

- High blood pressure – 50 Million
- Coronary Heart Disease – 13 Million
- Stroke – 5 Million

Coronary Heart Disease CHD



Coronary Disease



Your Healthy Heart

What are the facts?

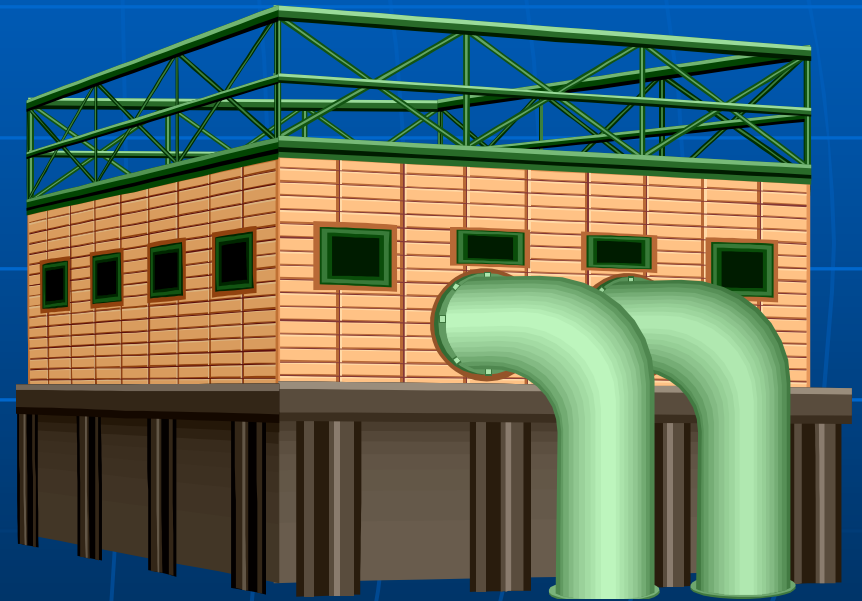
The Amazing Power Plant That Is Our Heart

- Our heart beats on average 3.4 billion times over the span of our lifetime



The Amazing Pumping Station That Is Our Heart

- Our heart pumps out approximately 50 million gallons of blood over the course of our lifetime



Preventive Maintenance

Why is our car more important than our heart?



LINE ART - CARTOON AUTOS

Heart Attack

- 1.2 Million heart attacks each year in this country
- 0.5 Million deaths each year due to coronary disease(20% of all deaths)
- 13 Million people have documented Coronary Disease(~1/25 people in this country)
- 60 Million people have atherosclerosis
- 150,000 cardiovascular deaths are in people under the age of 65
- 350,000 people each year die without being hospitalized

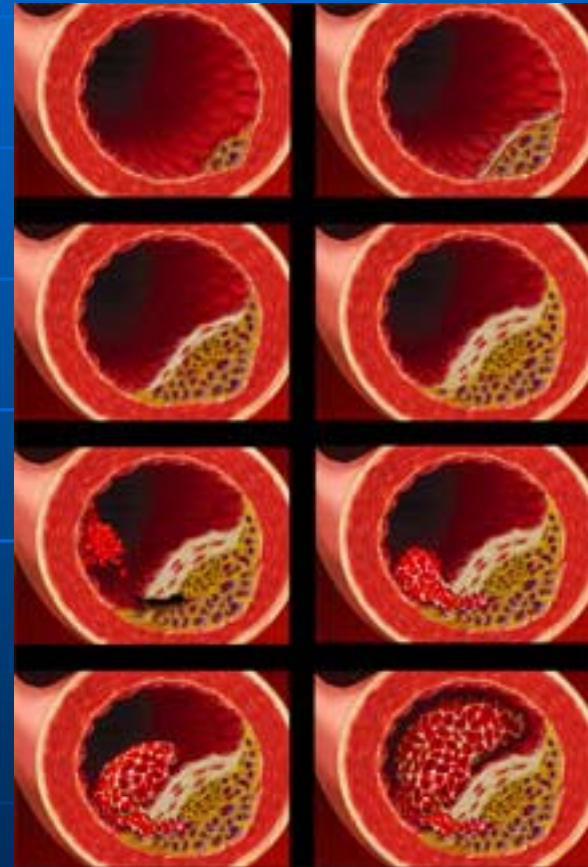
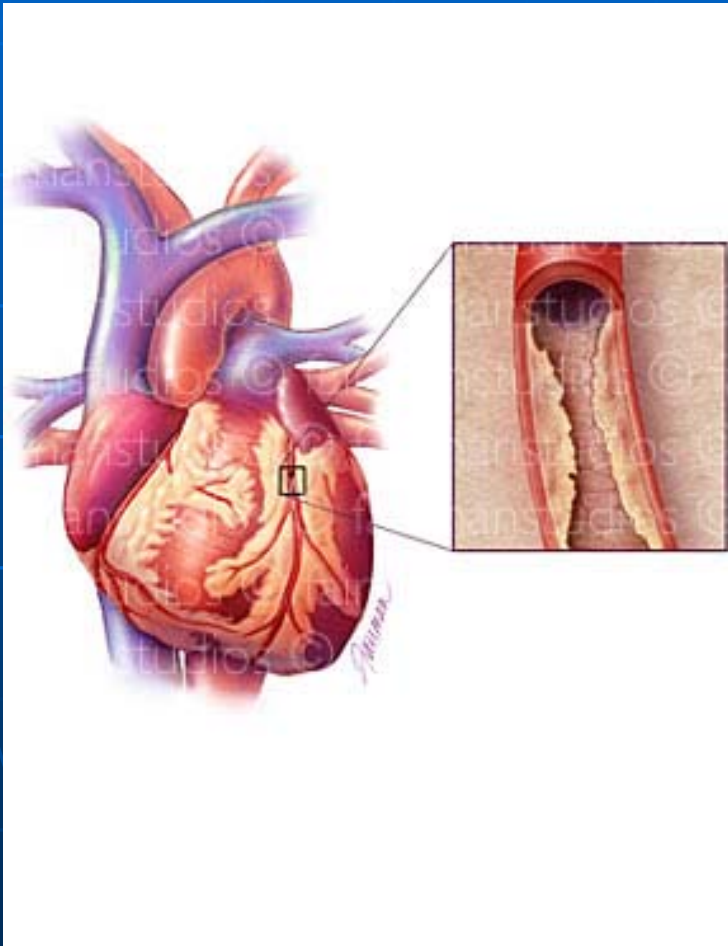
Coronary Heart Disease

An Epidemic That Can Be
Prevented

Heart Attack



Atherosclerosis



Heart Procedures Related to Atherosclerosis Performed in USA 2004

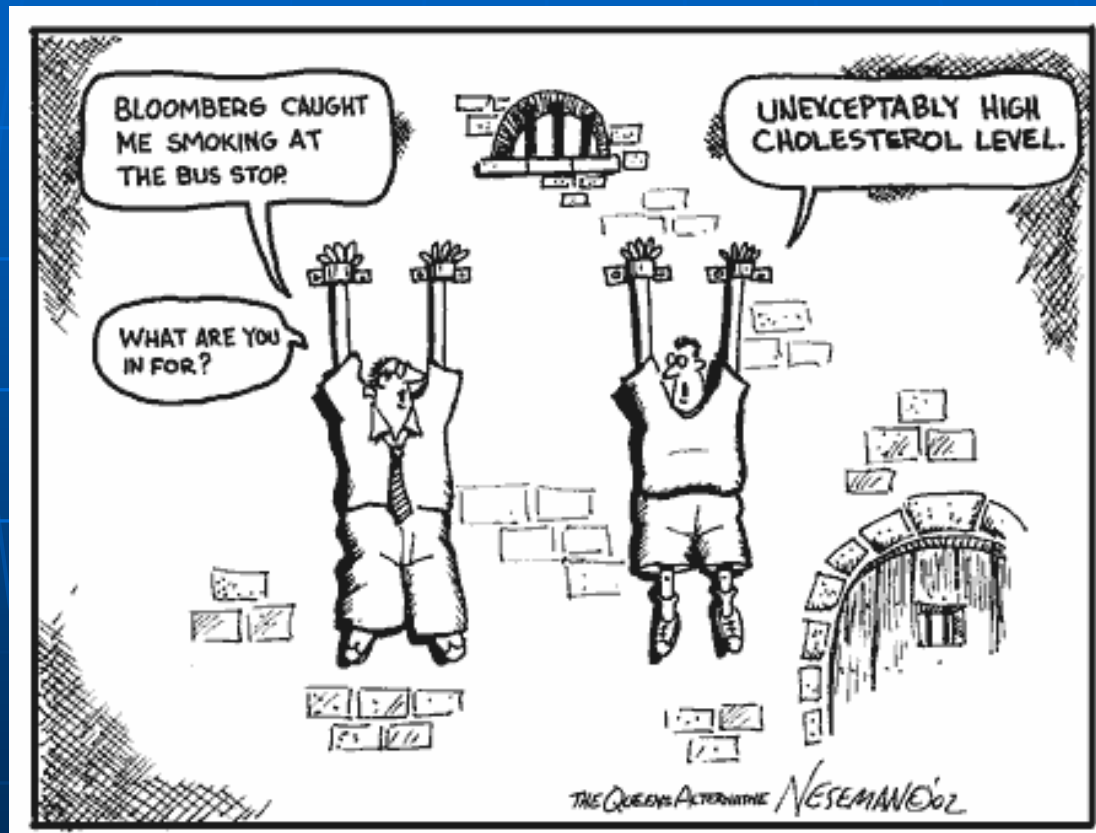
- ~1 million coronary interventions
- ~1.5 million stents
- ~350,000 CABGs

The Cost of Cardiovascular Disease

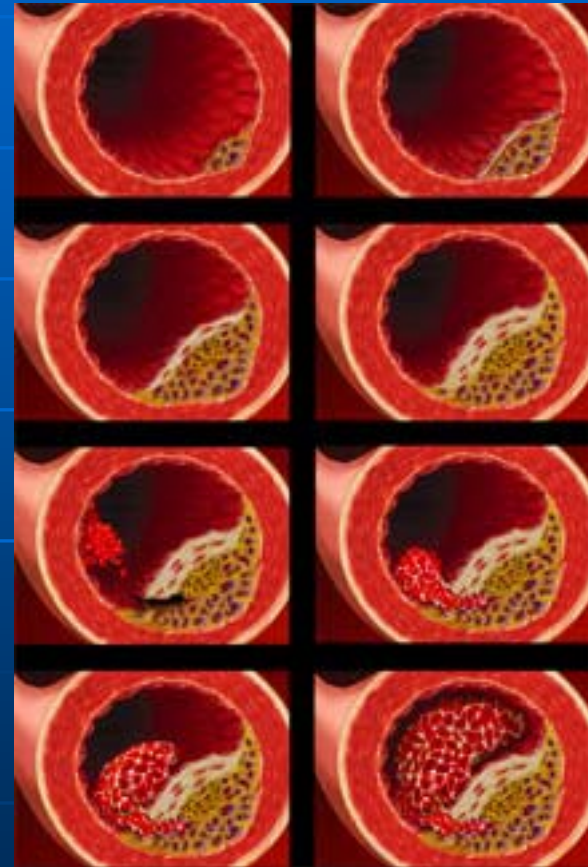
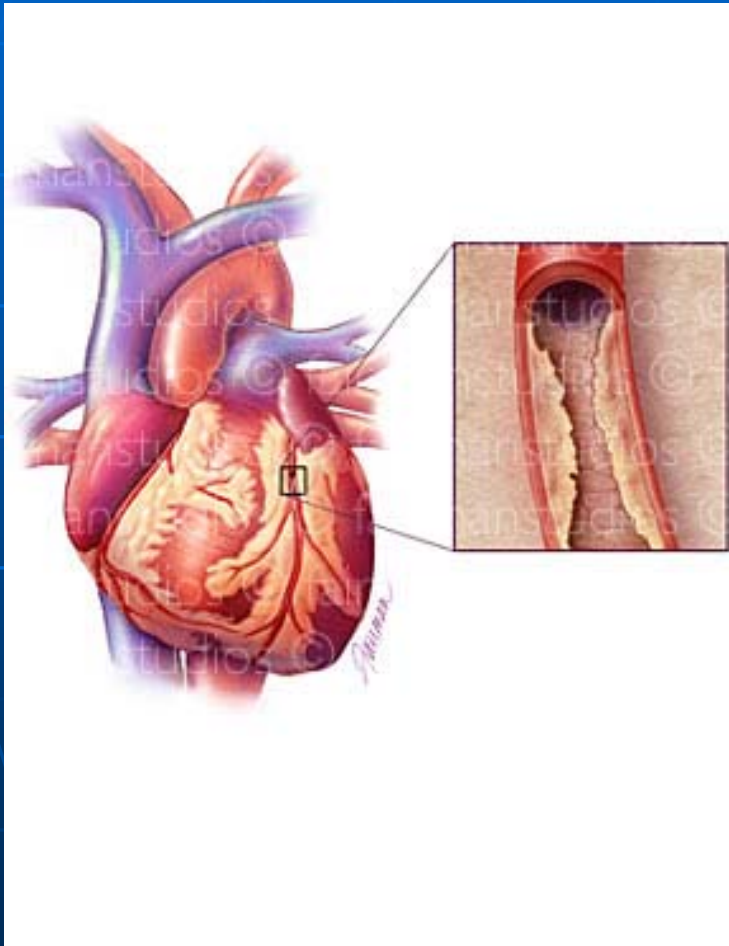
- Cost of Coronary Heart Disease in US is approximately 100 billion dollars per year
- Cost of Cardiovascular Disease in US is approximately 300 billion dollars per year

Your Healthy Heart

What Can We Do To Keep It Healthy?



Atherosclerosis



Cardiac Risk Factors

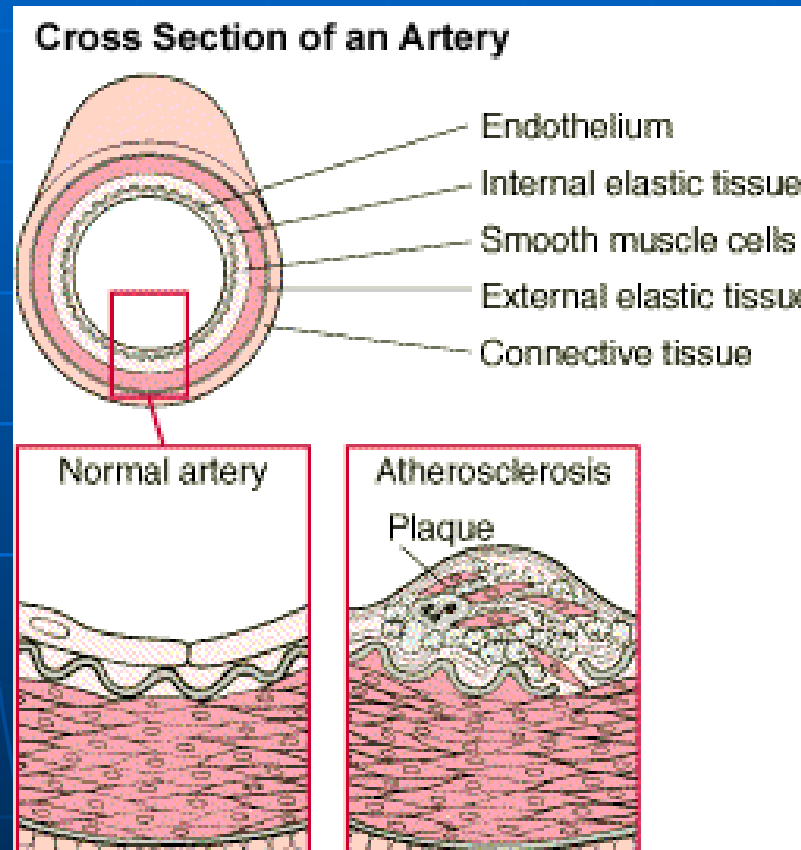
- Dyslipidemia(High LDL Cholesterol, High Triglycerides, or low HDL Cholesterol)
- Hypertension
- Smoking
- Diabetes
- Obesity/Sedentary Lifestyle

Cardiac Risk Factors

- High Cholesterol(High LDL, Low HDL, High Triglycerides)
- Hypertension
- Smoking
- Diabetes
- Obesity/Sedentary Lifestyle

Your Healthy Heart

The endothelium

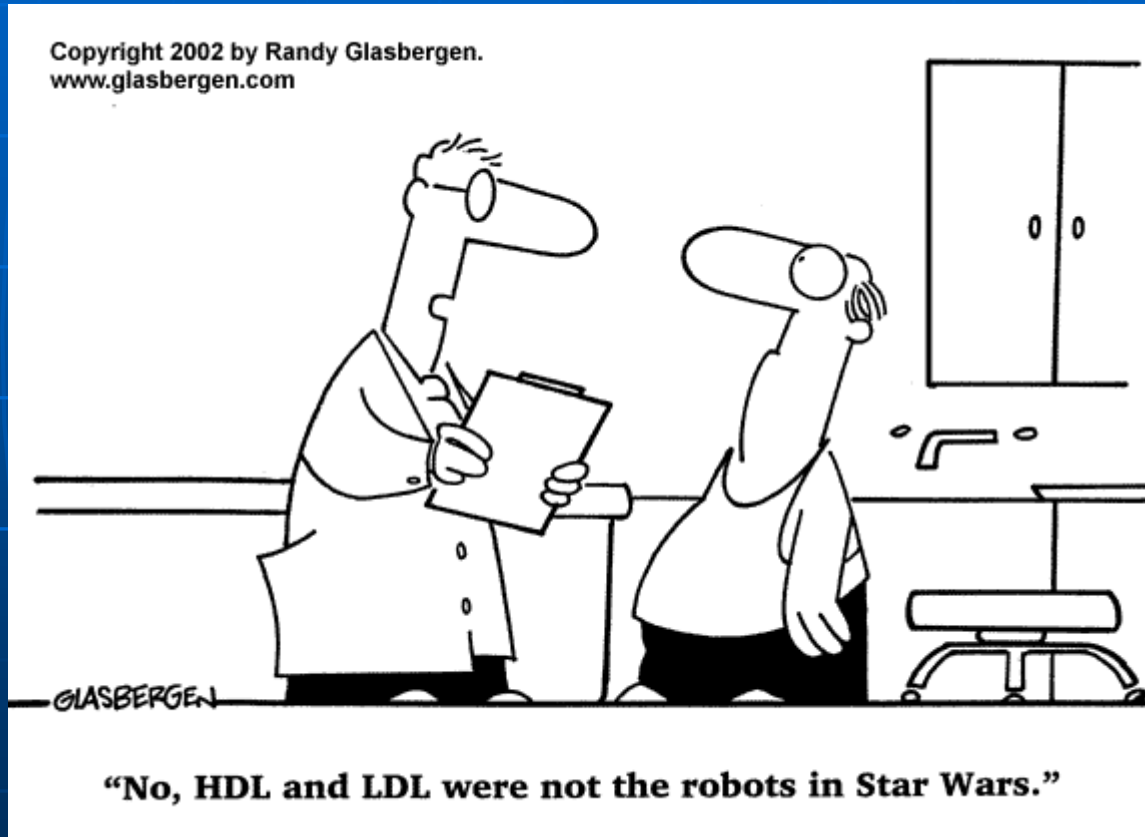


Cholesterol Levels

- Total cholesterol less important
- LDL cholesterol should be less than 160(130) in patients with any risk factors
- LDL cholesterol should be less than 130(100) in patients with two or more risk factors
- LDL cholesterol should be less than 100(70) in diabetics or in patients with known CAD
- HDL cholesterol levels should be above 40(50)
- Next ten years will see focus on subunit fractions of LDL and HDL and other non-cholesterol markers of disease

Your Healthy Heart

Cholesterol: The Good, the bad, and the Ugly



Hypertension

| | Systolic | Diastolic |
|--------------|----------|-----------|
| Optimal | <120 | <80 |
| Normal | <130 | <85 |
| High Normal | 130-139 | 85-89 |
| Hypertension | | |
| Stage 1 | 140-159 | 90-99 |
| Stage 2 | 160-179 | 100-109 |
| Stage 3 | >180 | >110 |

Smoking

- 1 billion people worldwide smoke cigarettes(1/3 live in China)
- Prevalence of smoking in US is 20-25%(45-48 million people)
- Smoking causes between 20% and 30% of all cardiovascular deaths
- Risk of CHD drops by 50% within 1 year of stopping
- Risk of CHD drops to baseline within 3-4 years

DON'T SMOKE!!



DON'T SMOKE!!



Diabetes

- 16-20 Million people in US have diabetes
- 150 Million people worldwide have diabetes
- 90% of diabetics have Type 2 diabetes
- Prevalence of diabetes will double in the next 20 years
- Lifestyle changes and/or pharmacologic intervention could prevent or delay type 2 diabetes

The Metabolic Syndrome

“The Pre-diabetic State”

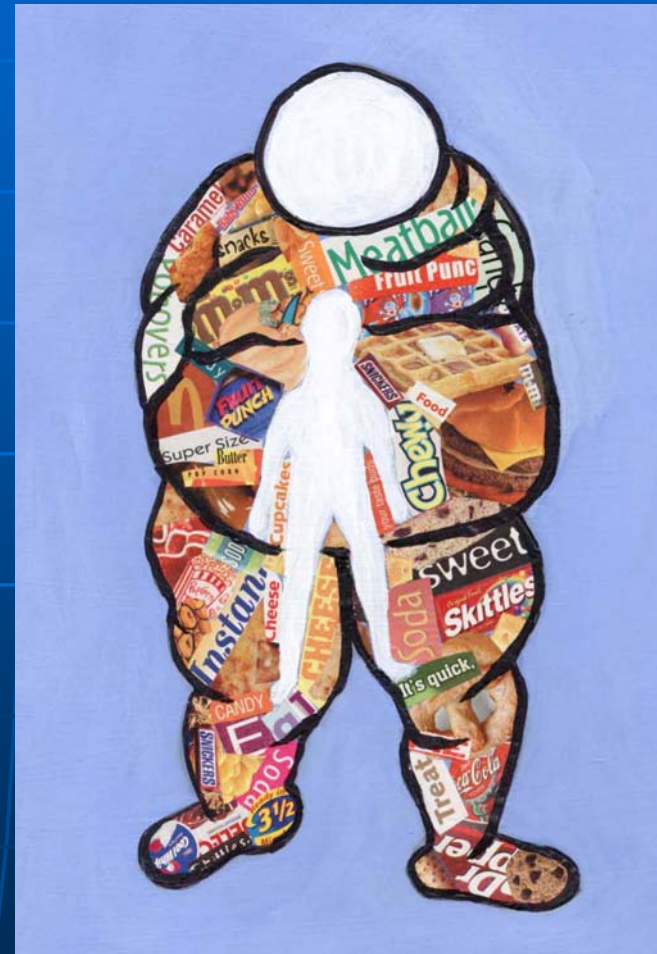
- Abdominal obesity
- Elevated triglycerides/VLDL
- Low HDL levels
- Hypertension
- Insulin resistance

Your Healthy Heart Obesity



Obesity/Sedentary Lifestyle

- 40% of American adults are sedentary
- Exercise lowers cardiovascular death rate
- 24% reduction in mortality over 16 years with energy expenditure of 2000kcal/week
- Benefit appears to increase with more exercise
- Significant benefit at whatever age you start



Your Healthy Heart Obesity

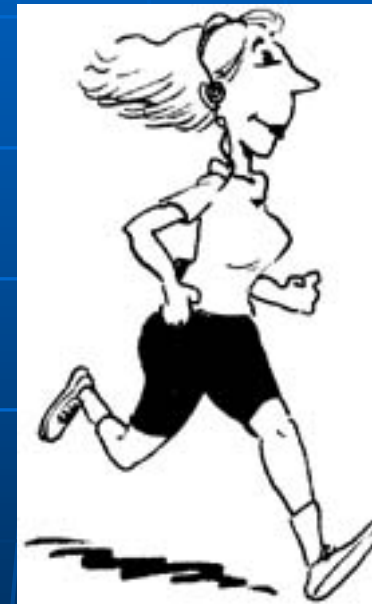


Fed up with how her diet is going, Charlene takes a more serious aim at her target weight.

Your Healthy Heart Exercise



Your Healthy Heart Exercise



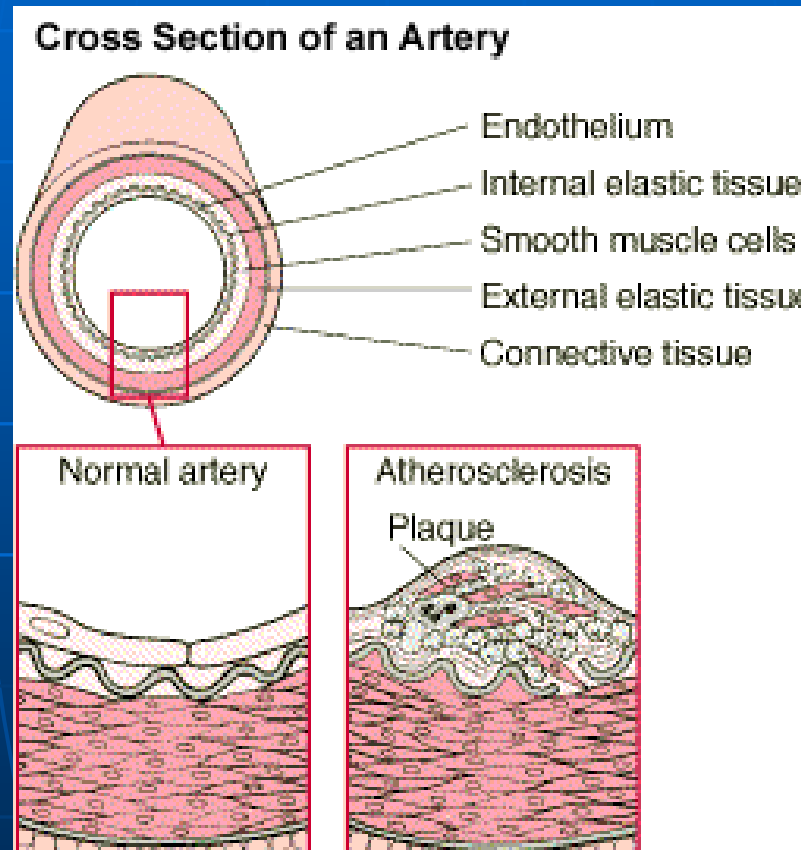
Your Healthy Heart

The benefits of exercise

- Lowers blood pressure
- Improves glucose metabolism/prevents onset of diabetes
- Promotes weight loss
- Decreases triglyceride levels
- Increases HDL levels
- Lowers clotting tendency
- Decreases markers of inflammation
- Improves endothelial function

Your Healthy Heart

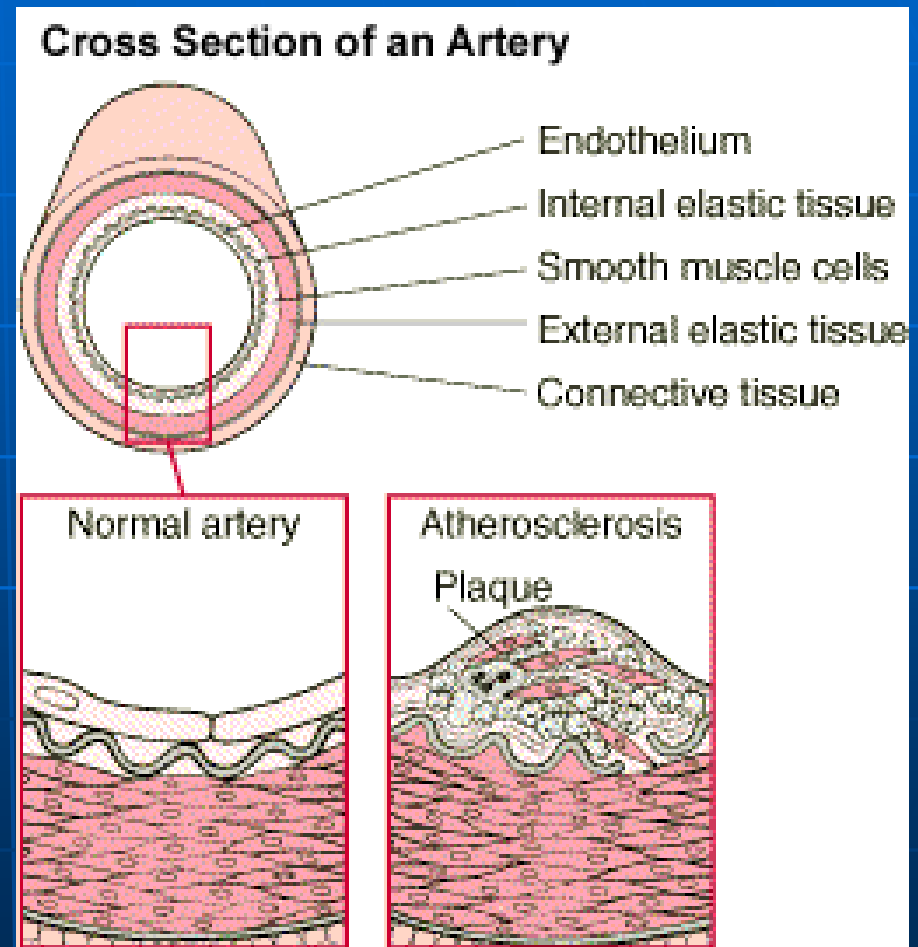
The endothelium



Your Healthy Heart

The endothelium

- Smoking
- Hypertension
- Diabetes
- Elevated LDL Cholesterol
- Low HDL Cholesterol
- Lack of exercise



Your Healthy Heart

Other Risk Factors

- Homocysteine
- Lipoprotein(a) – Lp(a)
- hsCRP (C-reactive protein)
- Chronic infection
- Family history

Your Healthy Heart

What Should We Do?

- Don't Smoke
- Exercise
- Diet
- Control Blood Pressure
- Control Diabetes
- Control Lipids



Your Healthy Heart

What Treatments Work?



Your Healthy Heart

Can Medications Help?

- Statins
- Anti-platelet Therapy
- ACE inhibitors
- Folate
- Niacin
- Estrogen Therapy
- Other Lipid Lowering Therapies



Your Healthy Heart At Any Cost



Cardiovascular Disease

What Lies Ahead?

Cardiovascular Disease

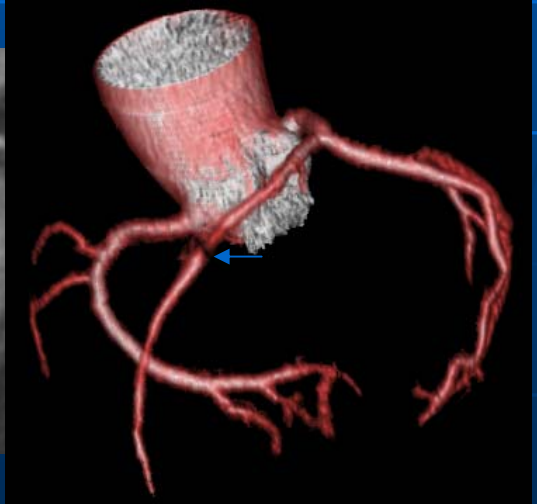
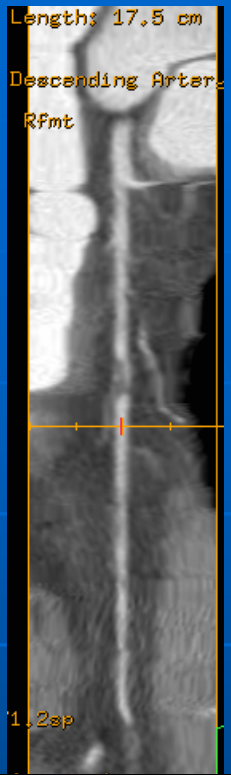
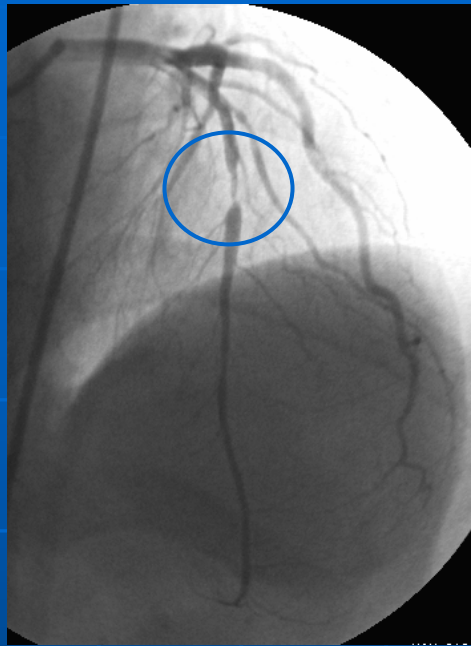
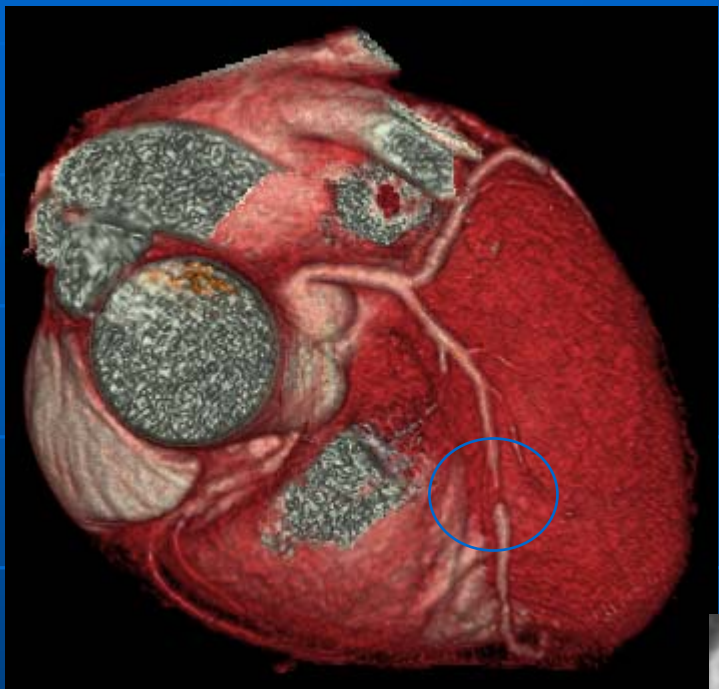
What Lies Ahead?

Cardiovascular Disease 2010

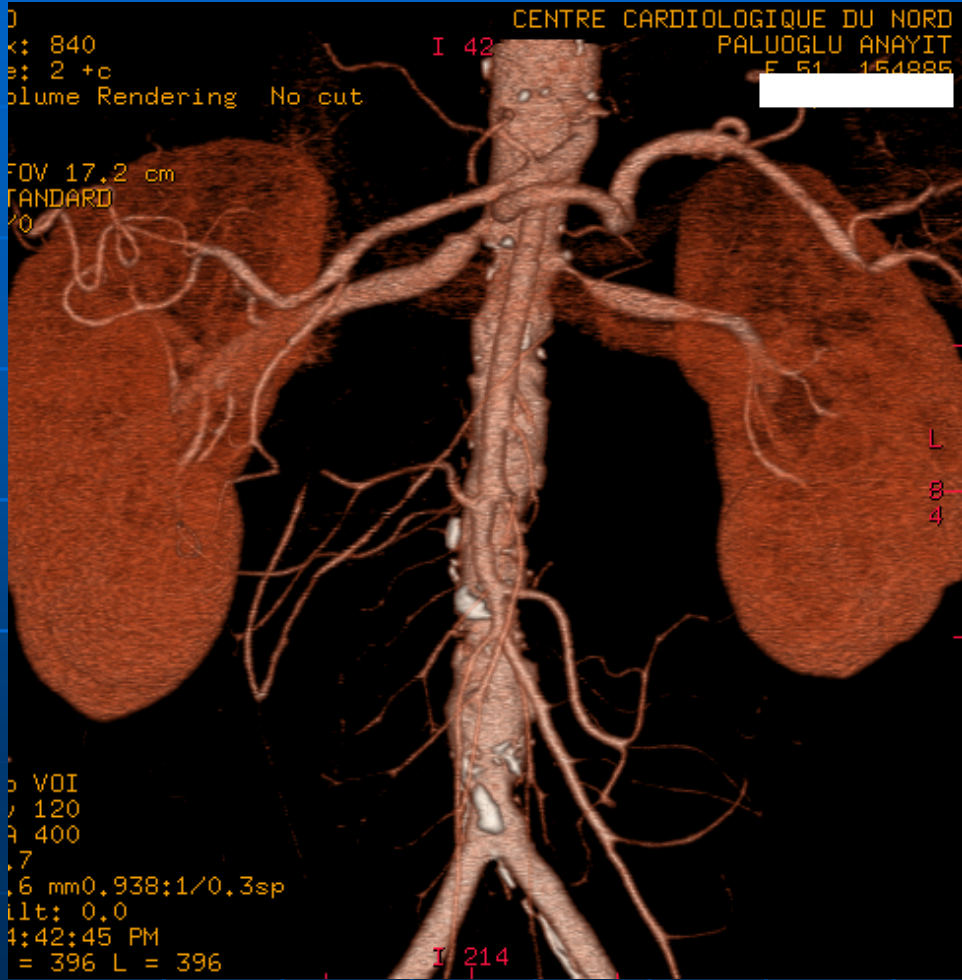
- Earlier diagnosis
- Less Invasive diagnosis
- Earlier treatment
- Less Invasive treatment
- More specific treatments

West Suburban Cardiologists 64 slice GE Scanner





Chest Pain, LAD Stenosis
8 sec breath hold; 1.25mm slices
Courtesy of Ren Ji Hospital, China



Dr J.L. Sablayrolles, CCN, Paris, France

EMR

Electronic Medical Record

EMR

Electronic Medical Record

- ***Better Patient Care!!***
- Difficult to implement
- Costly
- Accessible and private
- Drug alerts
- Drug interactions
- On line prescriptions
- Patient Care Alerts
- Protocols/Guidelines

Your Healthy Heart

Questions?