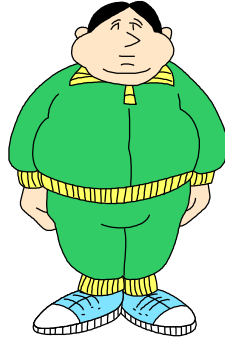


Metabolic Syndrome

Exists if any 3 or more:

- Abdominal obesity:
waist >40" men
>35" women
- Blood pressure =130/85
- Fasting serum glucose = 100
- HDL cholesterol <40 men
<50 women
- Serum triglycerides = 150



Prevalence:

47 million US residents (24% overall)

20-29 yrs old	6.7%
30-39	13%
40-49	23%
50-59	34%
60-69	43%
70+	42%

Causes:

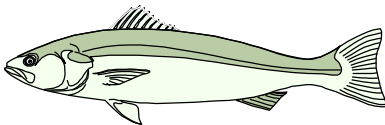
Improper nutrition
Inadequate physical activity
Genetic
Fetal malnutrition

Mechanism:

Insulin resistance
Glucose not burned, stored as fat
Arteries clog

Results if untreated:

Cardiovascular disease - heart attacks, strokes,
kidney disease, blindness
Diabetes and its complications
Other diseases



Treatment:

- lose excess weight
- get regular exercise
- don't smoke
- greatly reduce fat and alcohol intake
- eat fish, walnuts, flaxseed (omega-3 oils)
- use canola and olive oils (monounsaturates)
- reduce white (refined) carbohydrates, including sugar, soda, white rice, pasta, white bread, sweet/refined cereals, beer
- eat whole grains, beans, other vegetables, fruits

MetabSyndr-HBP 11-1-04

High Blood Pressure (Hypertension)

optimal	< 115/75
normal	up to 120/80
pre-hypertension	120-139/80-89
stage 1 hypertension	140-159/90-99
stage 2 hypertension	= 160/100



Treatment:

- see metabolic syndrome
- low salt
- extra veggies, fruits
- less or no red meat
- adequate calcium
- get adequate sleep
- stay calm
- be optimistic
- practice relaxation
- don't smoke
- limit alcohol, caffeine
- losing 5-10 pounds can drop BP significantly
- see physician for medical treatment if still =130/85



The DASH* Diet has shown that up to 10 daily servings of fruits and vegetables will lower blood pressure as much as medications do!

*Dietary Approaches to Stop Hypertension

<http://rover2.nhlbi.nih.gov/health/public/heart/hbp/dash/dashing.htm>

Quiz!

What food eaten 2-3 times a week reduces risk of death from coronary artery disease/heart attack by 38-40%?

What common legal product doubles a consumer's risk of impotence?

What amino acid, if elevated in the blood, is linked to atherosclerosis (hardening of the arteries) as much as is smoking, high cholesterol, or high blood pressure?

What common vitamin will help control that risk?

<http://rover2.nhlbi.nih.gov/health/public/heart/index.htm>