

**Life Habit factors unique to Asian Indians contributing to higher CardioMetabolic risk!**

- Being sedentary- Couch Potato!
- Meager consumption of fresh fruits and vegetables
- Excess consumption of simple sugars, jaggery, dairy products and fried foods
- Heating edible oil over and over again!
- High carbohydrate and low fiber diets, sweets

**Remedies to prevent and reverse Cardio-Metabolic Syndrome!**

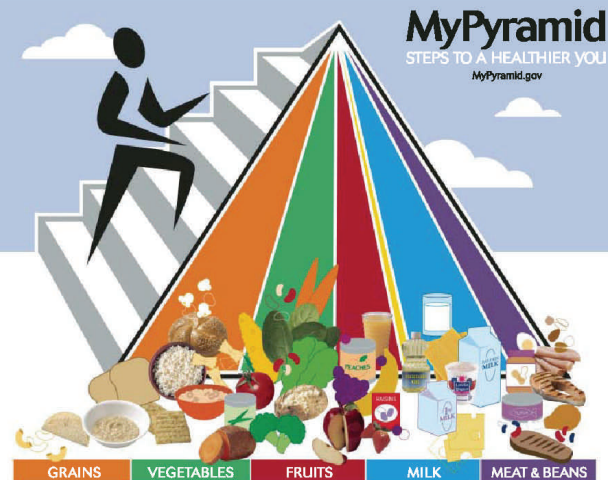
- **Exercise** for **at least** 30 minutes everyday; children need to exercise 60 to 90 minutes a day!

**Nutrition**

- **Bake and Boil!** minimize frying, Stop deep frying, Stop re-heating the edible oils for cooking
- **Eat** at least five servings (cups) each of fresh fruits and vegetables a day. Whole/multi grains, legumes, lentils, variety of nuts, low fat milk products, soy milk and tofu

**Balance your Omega 3 and Omega 6 oils!**

- Olive oil, Canola oil, Nuts and Avocado are rich in Monounsaturated(good) fats
- Flax seed, oily fish like wild salmon are rich in Omega 3 (heart protection)
- Sun flower oil, safflower oil and soy bean oil are rich in healthy polyunsaturated fatty acids. When hydrogenated become Trans Fats
- **Avoid** sugars, white flour, polished rice, Colas
- **Avoid Trans Fats** crispy and crunchy, fried and fast foods, desserts; cookies, cakes, pastries!
- **Lower** Salt intake (pickles, chips, pretzels!)
- **Practice** Yoga, meditation



**Know Your Numbers!**

**AAPI Consensus Target Numbers to prevent CAD in Indians developed by CAD Committee of AAPI**

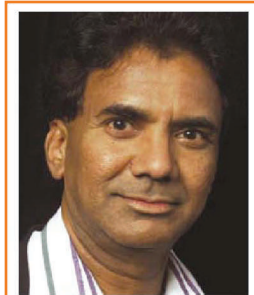
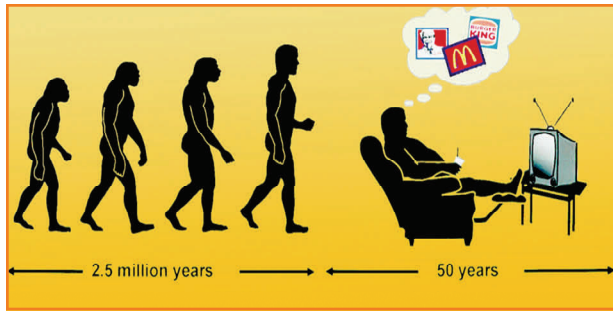
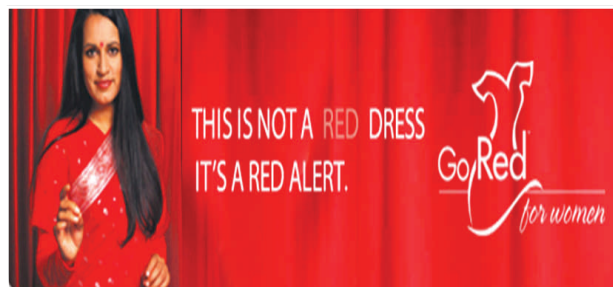
- Waist circumference < 35 inches in men; in women <31 inches
- Non HDL Cholesterol < 130 mg/dl; in Diabetics <100 mg/dl (Total Cholesterol - HDL Cholesterol = Non HDL Cholesterol)
- LDL Cholesterol < 100 mg/dl; in Diabetics & known CAD <70 mg/ dl
- HDL Cholesterol > 40 mg/dl in men;
- in women > 50 mg/dl
- Triglycerides < 140 mg/dl
- Hemoglobin A1c should be less than 6.5
- Blood Pressure < 130/ 80 mm; in Diabetics <120/70 mm
- Quit Smoking
- Exercise for more than 30 minutes every day, for children 60-90 minutes every day
- Heart Healthy Diet
- Physician supervised medications to achieve target numbers

[www.aapiusa.org](http://www.aapiusa.org) [www.ricadia.org](http://www.ricadia.org)

**Change in lifestyle – Urbanisation / Westernisation**



**Indian Americans and CardioMetabolic Syndrome**



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**Purushotham Kotha, MD., FACC**  
**Director, RICADIA**

**Risk Intervention in Coronary Artery Disease in Indian Americans**

[www.heartsmart.info](http://www.heartsmart.info)  
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## Why should Indians be Concerned?

We are in the midst of a **Cardiometabolic** Epidemic !

- High incidence of CardioMetabolic Syndrome with or without Diabetes and with underlying excess of Insulin (Insulin Resistance), small dense LDL, remnant particles, proinflammatory, procoagulant factors contributes to the high incidence of heart disease in Indians.
- Coronary Heart Disease is 3-4 times more common in Asian Indians compared to other populations
- The NIH program 'Healthy People 2010' designated the Asian Indian Immigrant Population in the United States as a "high risk group for heart disease"
- The World Health Report of 2002 projects Cardio Vascular Disease (CVD=heart disease and stroke) to be the largest cause of death and disability in India by 2020
- The World Health Organization estimates that about 60% of the World's heart disease patients will be Indian by year 2010
- CVD is the largest cause of death in women compared to Whites, Blacks and Latinos. Indian women suffered the highest all cause mortality and highest cardiovascular mortality in the U.S.

## CardioMetabolic Syndrome

When you have three or more of the following components:

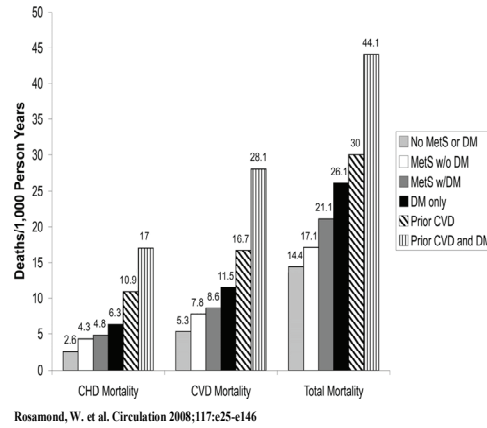
- Central Obesity-Larger the waist line shorter is your life span!
- High Blood Pressure
- High Fasting Blood Sugar
- High Triglycerides
- Low HDL (good cholesterol )

(see know your numbers)

**Life habits-Diet, Exercise** or their lack of play a major role in unmasking the genetic predisposition to CardioMetabolic Syndrome in Indians.

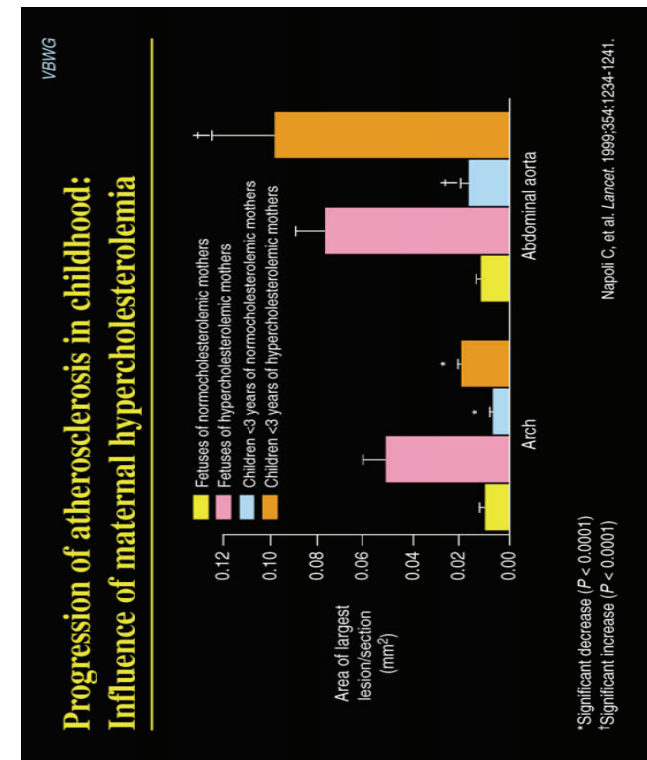
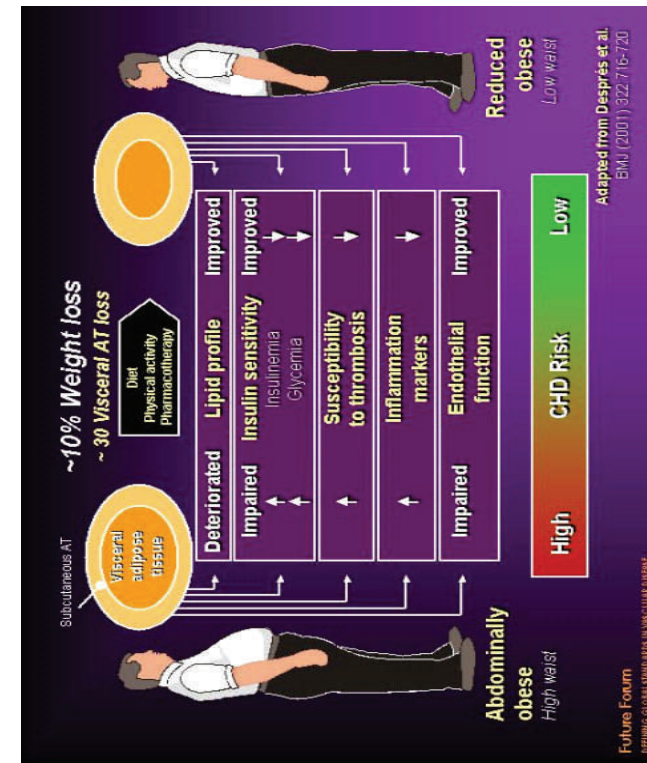
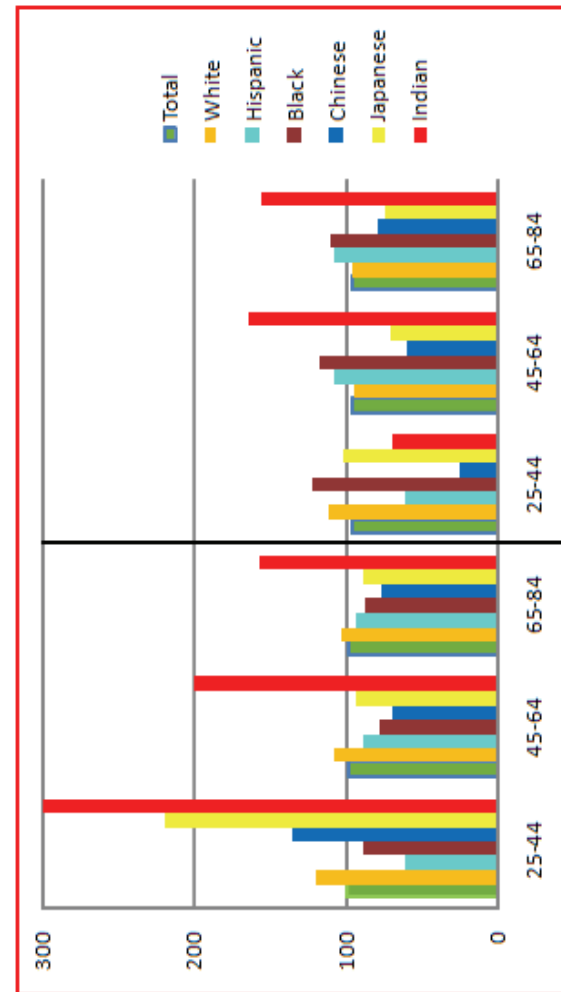
(see Exercise and nutrition)

AAPI/RICADIA sponsored recent randomized study showed that the prevalence of Metabolic Syndrome and Diabetes in Indian Americans is even higher than that reported by earlier, non-randomized, smaller studies.



## Circulation

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Atherosclerosis starts in the womb and ends in the tomb!