Lifestyle Prescription for Disease in the South Asian Population

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Risk Factors for CVD

30% of the Indian Population smokes!

This is an increasing trend among youth.
Burden of CVD in India

- 25% of all deaths due to CVD
- Number of lives lost due to CVD between 1999-2010 increased by 59%
- 14 fold increase from 2% to 14% in urban areas
- 7 fold increase from 1.7% to 7.4% in rural areas
- Prevalence of HTN has gone up by 138% from 1990-2013.
CVD related deaths

Before age 70 - prevalence of CVD related deaths 23% around the world, 52% in India

Case fatality rates are also much higher in India
Causes of Death have changed over time.
Worse outcomes

Compared to other ethnic groups, Indians develop CAD and suffer MI at least 10 years earlier.
Burden of Diabetes in India

1 in 12 adults are living with Diabetes in the South East Asian region of the International Diabetes Federation.
Diabetes Complications

- Diabetic neuropathy
- Diabetic nephropathy
- Cardiovascular disease
- Diabetic foot ulcers
- Diabetic retinopathy
- Cognitive deficit
Definition of Metabolic Syndrome

There are two factors involved in the metabolic syndrome

- Central Obesity
- Insulin Resistance
Definition of Metabolic Syndrome

- Central obesity PLUS (women >35 in and men >40 in waist circumference):
  - Raised Triglycerides >150
  - Reduced HDL <40 in males and <50 in females
  - Raised BP >130 systolic and >85 diastolic
  - Raised fasting plasma glucose or previously diagnosed type 2 diabetes
Overweight Prevalence

- As of 2014, 39% of Indians were overweight.
- South Asians and East Asians have a higher risk of developing diabetes at lower weights.
Elevated Waist Circumference Definition

- In South Asians, Men should have waist circumference 35 inches and women should have less than 31 inches.
- BMI cut offs in Indians are also lower:
  - 23-26.9 is “overweight”
  - > or = 27 is “obese”
ONE IN TWO ASIAN AMERICANS WILL DEVELOP DIABETES OR PREDIABETES IN THEIR LIFETIME
So What Can We do?
Be an advocate for wellness in your community
Change your plate
Some examples of Healthy Plates
Introduce Physical Activity into your Life

- The CDC Physical activity guidelines suggest:
  - MOVE MORE AND SIT LESS
  - Preschool aged children age 3-5 should be active throughout the day
  - Children age 6-17 should do 60 minutes of moderate to vigorous physical activity daily
    - Include Aerobic, muscle strengthening and bone strengthening
  - Adults should MOVE MORE and SIT LESS throughout the day
  - ANYTHING IS BETTER THAN NOTHING
  - For SUBSTANTIAL health benefit, we should engage in 150 minutes of moderate to vigorous physical activity per week
    - Additional benefits are gained from 300 minutes per week
Physical Activity for Older Adults

- The KEY GUIDELINES ALSO APPLY TO OLDER ADULTS
- Older adults should do multicomponent physical activity that includes:
  - Balance
  - Aerobic
  - Muscle Training
Create a Lifestyle Medicine Practice in your Life

- Spend 2 Hours per week doing one thing towards your health
  - Prep meals for the week
  - Host a healthy food potluck
  - Have an ACTIVE outing with your family
  - Increase NON-Exercise Activity Thermogenesis
A Note about Genetics
Lifestyle Practices can Impact Gene Expression

- Wholefoods Plant Based Diet
- Movement
- Mindfulness
- Bonding and social connection
- Environmental Toxin Exposure
- Microbiome – laying the correct soil
Effects of Traditional and Western Environments on Prevalence of Type 2 Diabetes in Pima Indians in Mexico and the U.S.


CONCLUSIONS—The much lower prevalence of type 2 diabetes and obesity in the Pima Indians in Mexico than in the U.S. indicates that even in populations genetically prone to these conditions, their development is determined mostly by environmental circumstances, thereby suggesting that type 2 diabetes is largely preventable. This study provides compelling evidence that changes in lifestyle associated with Westernization play a major role in the global epidemic of type 2 diabetes.