

Upstream solutions for downstream problems

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The Growing Crisis of Chronic Disease in the United States

Chronic Diseases: What Are They?

Chronic diseases are ongoing, generally incurable illnesses or conditions, such as heart disease, asthma, cancer, and diabetes. These diseases are often preventable, and frequently manageable through early detection, improved diet, exercise, and treatment therapy.

Chronic Diseases: Costing Lives, Reducing Quality of Life

Chronic diseases are the leading cause of disability in the United States.

- 133 million Americans have at least one chronic condition.

- The CDC estimates that eliminating three risk factors – poor diet, inactivity, and smoking – would prevent:
 - * 80% of heart disease and stroke;
 - * 80% of type 2 diabetes; and,
 - * 40% of cancer.

• The CDC estimates that chronic diseases account for 91% of hospital admissions; 91% of all physician visits, and 76% of all physician visits.⁴

Chronic diseases also account for the vast majority of health spending. In the U.S., total spending on public and private health care amounted to approximately \$2 trillion during 2005.⁵

- Of that amount, more than 75% went toward treatment of chronic disease.⁶

Chronic Diseases: Costing Lives and Employees

U.S. employers spend more on health care for employees with chronic conditions than for those without.

Employers

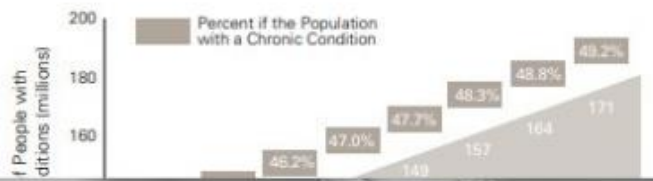
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Costing Our Future

As the population ages, the chronic disease crisis will become larger tomorrow. By 2025, chronic diseases will affect an estimated 164 million Americans – nearly half (49%) of the population (see Chart 1).¹³

Chart 1: The Number of People with Chronic Conditions is Rapidly Increasing



Modifiable lifestyle factors

- ▶ Sleep and relaxation
- ▶ Exercise and movement
- ▶ Nutrition
- ▶ Stress
- ▶ Relationships

Epigenetics: the study of biological mechanisms that will switch genes on and off.

In other words, how your genes interact with your lifestyle choices.

Upstream Causes:
Lifestyle choices
Genetics
Environment

Result in:
Altered body composition
Inflammation
Insulin resistance

Downstream problems:
Type II Diabetes
Cardiovascular disease
Irritable bowel issues
Stroke
Skin conditions



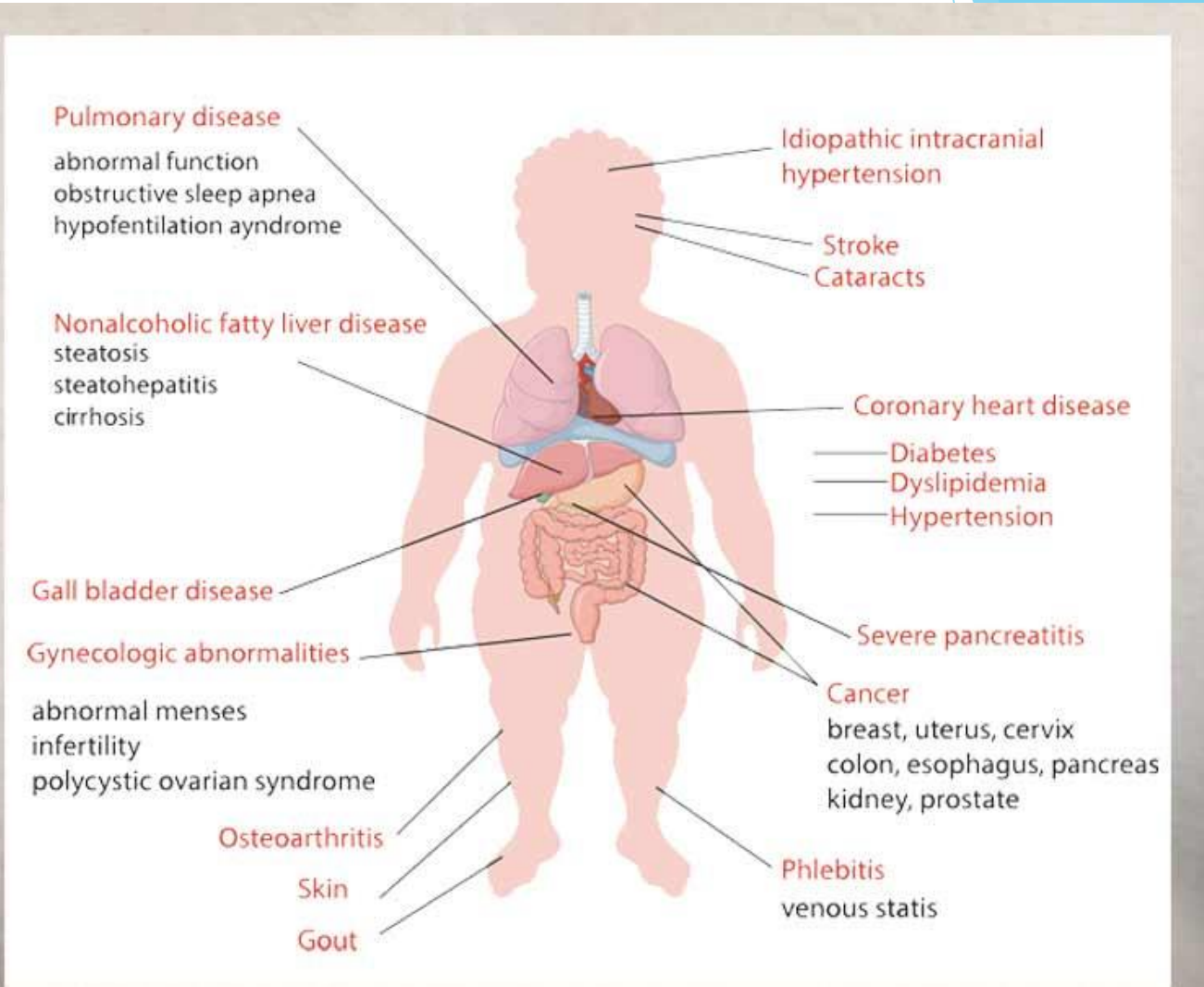
Inflammation

Chronic Inflammation is directly correlated with an increase in many chronic diseases, including diabetes.

Cardio metabolic Syndrome

If you have at least 3 out of 5 of the following:

- ▶ Waist circumference >35” for women and 40” for men
- ▶ High blood pressure >130/85 or on high blood pressure medication
- ▶ Fasting blood sugar >100mg
- ▶ Triglycerides >150
- ▶ Low HDL cholesterol <50 for women or <40 for men



Controlling your numbers is only half the battle

THE GOAL IS OPTIMAL HEALTH, NOT THE ABSENCE OF DISEASE.

So what do we do?

Modifiable Risk Factors

- Sleep and relaxation
- Exercise and movement
- Nutrition
- Stress
- Relationships

Sleep and Relaxation

- ▶ Make sure you get enough sleep
- ▶ Practice good sleep hygiene
- ▶ Keep room cool
- ▶ Drink less caffeine and drink it only early in the day
- ▶ Don't drink too many liquids close to bed time
- ▶ Carve out time for meditation or flow - UU church in Churchville has transcendental meditation classes on Tuesdays at 7:00pm, \$12. Jordan Lally also offers meditation classes at Love Evolution in Bel Air.
- ▶ Breathe: 4,7,8 breathing to trigger the vagus nerve.

Exercise and Movement

The best exercise is the one you are willing to do and stick with

Walking is the official Maryland exercise, inexpensive and accessible. Many high schools have open rubber tracks, Cedar Lane has a 2 mile paved walking area, www.healthyharford.org for list of hiking trails, Ma and Pa trail, Joe P trail in Havre de Grace, Rockfield Manor.

Senior/Activity/Rec Centers have lists of free and low cost classes.

Wintertime mall walkers

Arena Club has PREP program, \$60 for 60 days

Emmorton Recreation has \$25 per year membership to use their small gym.

Dog walking at the human society

Fitness Tracker

First 20 minutes matter the most

Nutrition

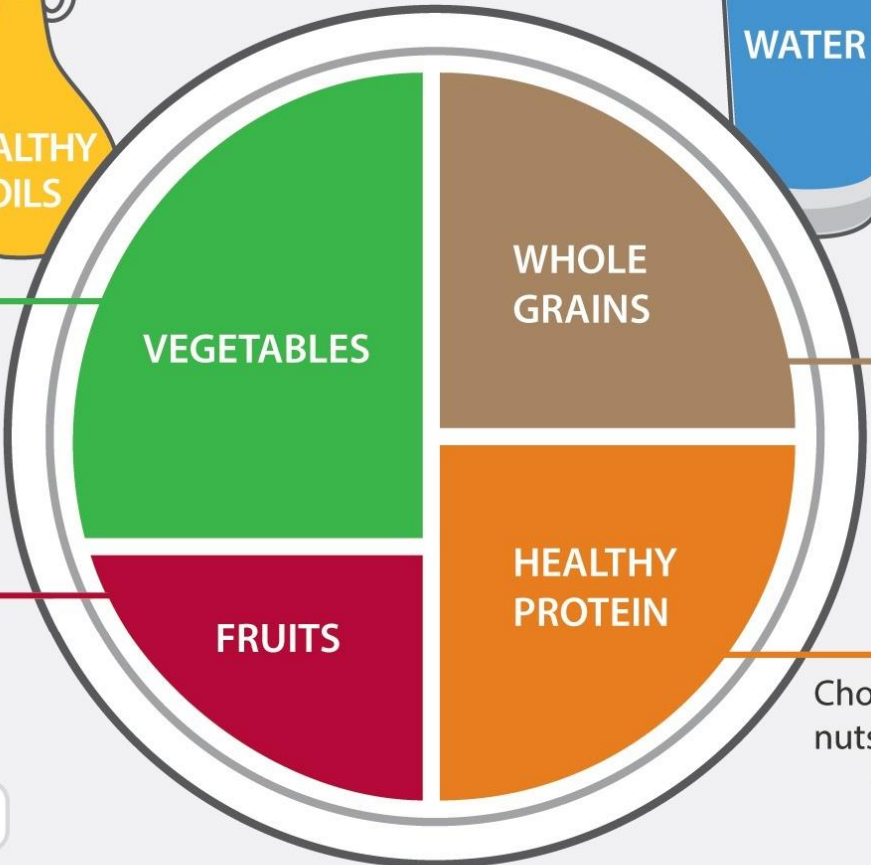
- Aim for balance blood sugar; centered around quality protein, fat and carbs
- Eat food with low glycemic index and low glycemic load
 - kidney beans
 - lentils
 - chickpeas
 - nuts, seeds
 - Non starchy vegetables
 - whole grains
 - berries
- Balance higher glycemic foods with healthy fats, include fish oil and other sources of omega 3s.
- Eat whole unprocessed foods, high fiber if your system can handle it.
- Include phytonutrients such as those found in green tea, cinnamon, leafy green vegetables, dark chocolate, and onions and garlic.
- Drink more water

HEALTHY EATING PLATE

Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.



The more veggies – and the greater the variety – the better. Potatoes and French fries don't count.



Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.

Eat plenty of fruits of all colors.

Eat a variety of whole grains (like whole-wheat bread, whole-grain pasta, and brown rice). Limit refined grains (like white rice and white bread).

Choose fish, poultry, beans, and nuts; limit red meat and cheese; avoid bacon, cold cuts, and other processed meats.



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The Nutrition Source
www.hsph.harvard.edu/nutritionsource

Harvard Medical School
Harvard Health Publications
www.health.harvard.edu



Stress

Chronic stress is toxic to your body, Causes fat to be deposited around your organs, Disrupts sleep, Elevates heart rate, hormones, impacts disease, shrink telemeters, etc.

- Movement, exercise
- Music
- Learning a new skill, knitting, drumming, hand/eye sports
- Breathing
- Swinging, rocking
- Yoga or other flow movement such as tai chi, available at Senior Centers, Y of Central MD.
- VIA strengths to learn to build resiliency.
- Flow
- Fidget beads
- Good relationships

relationships

- Blue Zone, longevity, centenarians
- Sense of belonging, helping others releases endorphins.
- Faith, spirituality
- Family ties
- Pets
- Book clubs at public libraries
- Bocce Ball at Harford Mutual
- Master Gardeners, Havre de Grace Green Team
- Senior Centers
- UM Upper Chesapeake, Rock babies
- LASOS
- Chesapeake Therapeutic Riding

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