

Personal Health and Wellness

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The best six doctors anywhere
And no one can deny it
Are sunshine, water, rest, and air
Exercise and diet
These six will gladly you attend
If only you are willing,
Your mind they'll ease
Your will they'll mend
And charge you not a shilling

Author unknown

Health Care Costs

- In 2015, health care spending rose to \$3.27 trillion dollars, or an average of \$10,000 per person (18% GDP)
 - More than any other country
 - Switzerland \$8,000 (9.5%GDP)
 - Average in most countries-\$5,000
- National health expenditures are expected to reach \$3.6+ trillion in 2017 or about 19% of GDP, \$11,250 per person

Health Care Costs

- The primary drive of high health care costs is the prevalence of chronic diseases
- 133 million Americans have some form of chronic disease
 - Expected to rise to 177 million by 2025
 - Account for 75% of healthcare costs
 - Caused by modifiable risk factors
- Spending more on health promotion and prevention is more effective than putting all of our resources into treating diseases after they occur
 - We currently spend 1% to 3% on prevention

Life Expectancy by Country

- Monaco 89.6 years
- Japan 84.1
- Australia 82
- Italy 82
- Switzerland 82
- Sweden 82
- Norway 81
- Andorra 81
- France 81

- U.S. 78

Women outlive men in all countries

WHO Ranking of Health Care Systems

1. France
2. Italy
3. San Marino
4. Andorra
5. Malta
6. Singapore
7. Spain
8. Oman
9. Austria
10. Japan

37. United States

Personal Wellness

- *Promoting wellness, initiating preventive care, and modifying lifestyles are the most important things we can do to improve the quality and length of our lives*

What Is Wellness?

- **Conventional definition**
 - Absence of disease
 - The body is viewed as a machine – fix the broken part
- **Holistic definition**
 - A state of optimal well being
 - Mind, Body, and Spirit are an integral whole and cannot be separated into isolated parts

Wellness

- **Health is our responsibility**
 - We need to become more active in our care
 - Abraham Lincoln said "The health you enjoy is largely your choice"
- **The body has the innate ability to establish, maintain, and restore health**
- **Most causes of death are directly related to lifestyle**

Wellness vs. Illness

Wellness

We illness

Illness

I illness

Causes of Death

- **Heart disease**
- **Cancer**
- **Chronic Obstructive Lung Disease**
- **Accidents**
- **Stroke**
- **Alzheimers, Diabetes, Flu, Kidney disease, Suicide**

Modifiable Risk Factors

- Obesity
- Diet and Nutrition
- Lack of Exercise
- Smoking
- Stress
- Environmental pollutants
- Aging
 - *Nearly \$250 billion a year is spent on treating the effects of modifiable health risks*

Modifiable Risk Factors

- **Lifestyle**
 - Smoking, physical inactivity, excess alcohol use, excess stress, and environmental pollutants
- **Dietary**
 - High salt intake, high fat, low intake of fruits and vegetables
- **Metabolic**
 - High blood pressure, high cholesterol, overweight or obese, and aging

Modifiable Risk Factors

- **70% to 80% of all heart attacks are caused by modifiable risk factors**
- **70% to 90% of type two diabetes**
- **Most strokes are linked to high blood pressure**
- **Many cancers are preventable by life style changes (American Cancer society)**

Obesity

- 68% of adult men and women have a BMI 25 or above (Overweight)
- 35% of women have a BMI of 30 or above (Obese)*
- 28% of men have a BMI of 30 or above*
- In 1990 4 states had obesity rates above 15% – By 2014 every state had obesity rates above 20% (Miss., Ark., W.Va 35%)
- **Complications of Obesity:**
 - Hypertension, Diabetes, Cancer, Degenerative Arthritis, High Cholesterol, Gallstones, Heart Attack and Stroke, Depression, Sleep Disorder
 - *CDC 2014 (*\$210 billion dollars spent on complications of obesity*)

Childhood Obesity

- **From 1980 to 2012**

- 2-5 years old 5% to 13.9%
- 6-11 years old 6.5% to 19.6%
- 12-19 years old 5% to 21%

Possible Causes:

- Larger portion size
- Eating meals away from home
- Snacking on calorie dense, nutrient sparse foods
 - Refined carbohydrates, high-fructose corn syrup, soybean oil, salt
- Decreased physical activity

Facts About Obesity

- **Food industry produces 3,800 calories per person per day**
 - **\$35 billion/year on advertising vs \$300 million that the government spends on health education**
- **Weight loss approaches are big business – a \$30 billion a year industry**
 - **Some are based on good science and are safe, others are useless, and some are untested and dangerous**
- **Medical expenditures attributed to obesity-- \$117 billion**

Diet and Nutrition

*Food that is healthy and
food that gives pleasure
are not mutually
exclusive*

We Have To Eat To Live

- The body requires energy for all of its functions
 - 6 carbon sugar for energy (glucose)
- Food is the energy source- we take it in, digest it and metabolize its components
 - Combines with oxygen to burn as fuel
- As long as we live we must eat and eat often
- Eating should be a major source of pleasure
 - Spending time with family and friends
- Changing how we eat is one strategy for managing disease and restoring health
 - French paradox, Mediterranean diet
- Many cultures view food as medicine
 - Food may affect the way that genes are expressed (nutrogeomics)

Diet and Nutrition

- **Should be no distinction between medicine and food because diet is fundamental to health**
- **It is important to eat regularly**
- **Limit saturated fat and cholesterol**
- **Consume 20% to 30% fat (7% saturated), 15% protein, 55% to 65% complex carbohydrate, (low glycemic index), 30 grams of fiber and 300mg cholesterol daily**
- **Flaxseeds and flaxseed oil are the richest source of omega 3 and a good source of fiber**
 - **Avocados, nuts, fish, soy products, kale**

Diet and Nutrition

- Switch to low fat dairy products
- Avoid saturated and hydrogenated foods especially trans fatty acids in margarine and baked goods
 - Use plant sterol spreads (Smart Balance, Benecol)
- Eat healthy fats such as olive oil, canola oil, nuts, soy, avocado and olives
 - Avoid safflower, sunflower, corn, palm and peanut (high in omega 6)
- Eat high fiber foods- Aim for 32 to 35 grams daily
 - Grains, beans, green leafy salads, fruits and vegetables
- Substitute green tea for coffee

Standard American Diet = SAD

- Sweets, soft drinks, alcohol account for 25% of all calories eaten
- Chips and fruit flavored drinks (mostly sugar) add another 5% of calories consumed
- Hamburgers, pizza, potato chips, and fries were next and are especially high in saturated fat and calories
- Fruits and vegetables accounted for only 10% of calories eaten (these food are highest in vitamins and minerals and lowest in calories)

Most Common Foods Eaten

- 1. Milk**
- 2. Processed American Cheese**
- 3. White Bread**
- 4. White Flour**
- 5. White Rolls**
- 6. Refined Sugar**
- 7. Colas**
- 8. Ground Beef**

United States Dept of Agriculture

The Three Most Common Causes of Disability, Disease, and Death

- **Breakfast**
- **Lunch**
- **Dinner**

T. Colin Campbell "The China Study"

Metabolic Syndrome

- **An increase in carbohydrates in our diet has lead to marked increase in insulin resistance and Metabolic Syndrome, characterized by:**
 - **Impaired glucose tolerance**
 - **Sugar above 110mg/dl**
 - **High blood pressure**
 - **Greater than 130/85**
 - **Elevated Triglycerides:**
 - **Above 150mg/dl**
 - **Low HDL:**
 - **Less than 40 mg/dl for men and less than 50 mg/dl for women**
 - **Central Obesity**
 - **Waist greater than 40 inches for men and 35 inches for women**

Risks of Metabolic Syndrome

- **3 times the risk for Coronary Heart Disease**
- **2.6 times the risk for heart attack**
- **2.3 times the risk for stroke**
- **1.8 times the risk for death**

Food as Medicine

An Anti-Inflammatory Diet

- **Decrease Omega 6**
 - Margarine
 - Corn, safflower, cottonseed, sunflower oil
 - Products with long shelf life (hydrogenated oils)
 - Reduce saturated fats
 - Animal products
 - Dairy

Increase Omega3

- Flax seed
- Fish oils
- Green leafy vegs
- Walnuts
- Soy
- Algae
- Olive, Canola oil
- Cold water fish

Super Foods

- Spinach
- Salmon
- Broccoli
- Walnuts
- Tomato
- Soy
- Blueberries
- Citrus
- Pumpkin
- Yogurt
- Oats
- Legumes
- Green tea
- Apples
- Avocado
- Dark chocolate
- Olive oil
- Garlic
- Honey
- Kiwi
- Onions
- Pomegranates
- Spinach, collard, kale
mustard greens

Foods High In Anti-Oxidant Activity

- **Fruits**

- Prunes
- Raisins
- Blueberries
- Blackberries
- Strawberries
- Raspberries
- Plums
- Grapes
- Cherries

- **Vegetables**

- Kale
- Spinach
- Brussels sprouts
- Alfalfa sprouts
- Broccoli
- Beets
- Red bell peppers
- Onions
- Corn
- Eggplant

Pesticides in Produce

12 Most Contaminated

- Peaches
- Apples
- Sweet bell peppers
- Celery
- Nectarines
- Strawberries
- Blueberries
- Cherries
- Pears
- Grapes (imported)
- Spinach
- Lettuce

12 Least Contaminated

- Onions
- Avocado
- Sweet corn
- Pineapples
- Mango
- Asparagus
- Sweet peas (frozen)
- Kiwi
- Bananas
- Cabbage
- Broccoli
- Papaya

Tips For Weight Loss

- **Reduce caloric intake**
 - Eat less, watch portion size, avoid seconds
- **Eat low density, low glycemic foods**
 - Fruits, vegetables and whole grains have the fewest calories per ounce of any foods
 - Decrease or eliminate sugar from your diet
- **Eat slowly**
 - It takes 15 minutes for the message to reach the brain that your stomach is full
- **Have realistic goals**
 - Focus on losing 10% to 15% of your body weight
 - 150 fewer calories per day = 17 pounds lost in one year
 - (3,500 calories = 1 pound)
- **Avoid crash diets**
 - Rapid weight loss can damage your health and it is rarely sustainable
- **Exercise**
 - Moderate exercise 3 to 5 times per week can help to maintain weight loss

American Institute For Cancer Prevention Guidelines

- Eating right, plus staying physically active and maintaining a healthy weight, can cut cancer risk by 30% to 40%
- Good diet, not smoking and avoiding secondhand smoke, have the potential to reduce cancer risk by another 20%
- As many as 375,000 cases of cancer, at current rates, could be prevented each year through healthy dietary choices
- Eating at least 5 servings of fruits and vegetables each day could itself reduce cancer rates by more than 20%

Get Regular Physical Activity

- **Most studies show that regular physical activity is one of the most important predictors of long life**
 - **Reduces risk of heart attack**
 - **In one large study, walking 3 hours a week, cut the risk of heart attack by 50%**
- **Regular exercise is essential for good health**
 - **Every hour you exercise increases your life span by 2 hours**
 - **More successful at weight management**
 - **Sick less often**
 - **Have more energy**
 - **Less depression**

Causes of Stress

- *Change of any kind (positive or negative)*
- **Felling of hopelessness or helplessness**
- **Undemanding, boring situations**
- **Loss of someone or something of value**
- **Levels of demand that are too high or too low**
- **Unfilled dreams**
- *Unsatisfactory interpersonal relationships*
- **Fear of success or failure**
- *An extreme need to be strong and totally self-sufficient*
- **Unrealistic attitudes, beliefs and expectations**
- **Unrealistic feelings of hurt and rejections**
- **Family demands**
- **Role ambiguity (not knowing what is expected of you)**
- *Moralistic thinking about how others should lead their lives which leads to constant feelings of frustration, anger and moral indignation*

How To Reduce Stress

- **Make your life interesting**
- **Manage your time**
- **Be optimistic**
- **Engage in positive self-talk**
- **Relinquish control**
- **Learn to say NO!!**

Control of Chronic Diseases

- Hypertension
- Diabetes
- Obesity
- Hyperlipidemia
- Emotional factors
 - Chronic Depression
 - Chronic Stress
- *Be aware of side effects of long term medications (Drug interactions)*

Supplements Complement But Do Not Replace a Healthy Diet

- **The whole of the plant is greater than the sum of its individual parts. The combination of nutrients as contained in whole foods seem more effective for reducing the risk of various chronic diseases**

The numerous other phytochemicals found in foods rich in antioxidant nutrients may be necessary to act synergistically to provide effect against chronic diseases

Susan F. Clark, RD, PhD

Dietary Supplements

- It's still preferable to get all vitamins and minerals from diet
- Many people have an unhealthy diet
- As aging occurs we may not be able to adequately absorb vitamins from foods
 - Many drugs inhibit absorption
- Certain disease states cause deficiency
 - Habitual dieters, vegetarians, malabsorption syndromes, infancy and elderly
- Supplement if diet is inadequate
- Large doses of supplements can have side effects

Drugs that deplete B vitamins

- Tylenol
- Antibiotics
- Antidepressants
- Oral Contraceptives
- Sulfa
- Some Tranquilizers
- Alcohol
- Smoking--interferes with absorption
- Acid blockers
- Anticonvulsants

Dietary Supplements

- **Vitamin A: Best to take in the form of mixed carotenes--20,000IU/day**
- **Vitamin C: 250mg/day**
- **Vitamin D: 1,000IU/day (sublingual)**
- **Vitamin E: 160mg (natural mixed tocopherols)**
- **Vitamin B1: 50 to 100 mg/day**
- **Vitamin B2: 50mg/day**
- **Vitamin B3: (niacin) 50mg/day**
- **Vitamin B6: 50mg/day**
- **Folic Acid: 400 mcg/day**
- **Vitamin B12: 100mcg to 1000mcg/day (sublingual)**
- **Selenium : 200mcg/day**
- **Omega 3 1,000 mg to 3,000 mg daily**
- **Calcium 1200 mg daily (from all sources)**

Vitamin D Benefits Beyond Bone Health

- Muscle weakness and falls
 - Adults aged 60 to 90 who had higher levels of vitamin D had stronger leg muscles and better mobility
- Cardiovascular health
 - Low levels associated with higher risk of stroke, CHF and high blood pressure (northern climates or dark skin)
- Autoimmune disease
 - Helps to regulate immunity. Supplementation may decrease incidence of MS, Rheumatoid Arthritis, and type 1 diabetes in infants
- Cancer
 - Helps regulate cell growth and may lower the risks of many cancers
 - 1,000IU daily reduced risk of colon cancer (50%)
breast and ovarian cancer (30%)

Environmental Pollutants

- **Persistent organic pollutants – PCB's, dioxin, furans, pesticide residue**
- **PM 10 and PM 2.5-- Tiny particulate matter in air emitted from diesel combustion, coal burning, and hazardous waste burning smokestacks**
- **Asbestos**
- **Nuclear Waste**
- **Metals: Lead, Arsenic, Mercury**
- **Microwaves, electromagnetic fields, and UV radiation (holes in ozone layer)**

Tips For The Home

- **Never microwave in plastic or cover with plastic**
- **Use baking soda to clean**
- **Vinegar in water to clean glass**
- **Vegetable oil with lemon juice to polish**
- **Non Chlorine bleach-- Use non bleached coffee filters**
- **Skip air fresheners-use natural scented candles**
- **Minimize dry cleaning which uses chlorinated chemicals**

Immunizations

- Td every 10 years (Tdap one time)
- Pneumococcal vaccine -- once
- Hepatitis A -- two injections
- Hepatitis B -- three injections
- Influenza yearly
- Chickenpox (Varicella) 2 doses **
- MMR
- Shingles (Zostavax) at 60 years
- Meningococcal -- college age
- Tuberculin skin test

Goals

- **Decrease inflammation**
 - Check levels of CRP
 - Eliminate infections (periodontal, H. Pylori)
 - Reduce insulin resistance
- **Moderate exercise-30 minutes daily**
- **Stress reduction**
- **Adequate sleep**
- **Avoid Smoking, pesticides, herbicides, cleaning chemicals and other contaminants**
- **Diet**
 - Lots of vegetables, no trans-fats, avoid high glycemic foods, and red meats
 - Increase omega 3 foods and decrease omega 6 foods
 - Increase plant sources of protein

- **Reduce oxidative stress**
 - Antioxidants
 - Coenzyme Q10

- **Reduce Homocysteine below 7**
 - B6,(50mg) B12,(500mcg) Folic acid(400mcg)

- **Daily low dose aspirin ?**

Conclusions

- **Lifestyle and behavior are the most common causes of death and disability**
 - **Avoid environmental pollutants**
- **Even small changes can make a difference in improving health**
- **Have appropriate screening tests done for your age group on a regular basis**
- **Maintain positive attitude**
- **Take time to play**

Thought For The Day

*“We can do no great things---
only small things with great
love.”*

Mother Teresa

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