

Obesity

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Definition of Obesity

- **A Body Mass Index (BMI) between 25 and 29.9 is considered overweight.**
- **A BMI of 30 or higher is considered obese.**
- **A BMI 39 or greater is considered morbidly obese.**
- **35.7% of US adults and approximately 17% of US children and adolescents are obese.**

US Adults

- Obesity prevalence ranges from 21.0% in Colorado to 34.0% in Mississippi (2010).
- No state has a prevalence of obesity less than 20%.
- Thirty-six states have a prevalence of obesity of 25% or more.
- By region:
 - South - 29.4%
 - Midwest - 28.7%
 - Northeast - 24.9%
 - West - 24.1%

<http://www.cdc.gov/obesity/data/adult.html>

US Children

- 12.5 million of children and adolescents aged 2—19 years are obese
- Children with BMI values at or above the 95th percentile of the sex-specific BMI growth charts are categorized as obese
- Hispanic boys are the most likely be obese
- Those from disadvantaged Socioeconomic backgrounds are more likely to be obese

<http://www.cdc.gov/obesity/data/adult.html>

Etiology

- **Imbalance between caloric intake and energy expenditure**
- **Influenced by genes, metabolism, behavior, environment, culture, and socioeconomic status**
- **Increase in obesity prevalence cannot be explained solely by genetics. It is more often due to environmental changes that promote excessive food intake and discourage physical activity**

Consequences

- **Coronary heart disease**
- **Type 2 diabetes**
- **Cancers (endometrial, breast, and colon)**
- **Hypertension (high blood pressure)**
- **Dyslipidemia**
- **Stroke**
- **Liver and Gallbladder disease**
- **Sleep apnea and respiratory problems**
- **Osteoarthritis**
- **Gynecological problems (abnormal menses, infertility)**

Economics

- **Direct medical costs**
 - Preventive
 - Diagnostic
 - Treatment
 - **Indirect costs**
 - Decreased productivity
 - Restricted activity
 - Absenteeism
 - Premature death.
- In 2008 dollars, these costs totaled about \$147 billion
(Finkelstein, EA, Trogon, JG, Cohen, JW, and Dietz, W. Annual medical spending attributable to obesity: Payer- and service-specific estimates. *Health Affairs* 2009; 28(5): w822-w831)

CDC Programs to Fight Obesity

- **Active Transport to School**
- **Enhanced School-Based Physical Education**
- **Urban Design and Transportation Policies and Practices**
- **Food Policy Councils**
- **Limiting Access to Sugar-Sweetened Beverages (SSBs)**

Behavior Related Factors in Obesity

- Avoiding physical activity
- Consuming soft drinks and other sweet beverages
- Eating fast food
- Skipping breakfast
- Watching television
- Video games

Rao G, MD. *Am Fam Physician*. 2010 Jun 15;81(12):1449-1455.

Screening in Primary Care

- Do you eat a nutritionally balanced breakfast soon after awakening?
- Do you eat fast food (e.g., hamburgers, fries) more than once per week?
- Do you consume more than one serving of sweet beverages (e.g., fruit juice, fruit drink/punch, regular soft drink, energy drink) per day?
- Do you engage in at least 30 to 60 minutes of physical activity per day?
- Do you reward yourself with food for good behavior or, for example, after “a hard day” on a regular basis? (Using food as a reward in this way is discouraged.)

Rao G. Obesity. In: *FP Essentials*. No. 349. Leawood, Kan.: American Academy of Family Physicians; June 2008:16–19
Rao G, MD. *Am Fam Physician*. 2010 Jun 15;81(12):1449-1455.

Treatment of Obesity

- Therapeutic Lifestyle Changes
- Medication (new) – not on the market
 - Phentermine-topiramate
 - lorcaserin
- Surgery
 - Gastric Bypass
 - LapBand

Resources

- CDC -
<http://www.cdc.gov/obesity/resources/index.html>
- American Public Health Association
<http://www.apha.org/programs/resources/obesity/>
- Obesity Society
<http://www.obesity.org/about-us/about-us.htm>



Dietary Management Weight Loss Solutions in a Primary Care Setting

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Body weight and Health Outcomes

- **Overweight and obesity lead to an increased risk of:**
 - **Coronary heart disease**
 - **Stroke**
 - **Type 2 diabetes**
 - **Cancers (endometrial, breast and colon)**
 - **Hypertension**
 - **Dyslipidemia**
 - **Liver and gallbladder disease**
 - **Sleep apnea and respiratory problems**
 - **Osteoarthritis (degeneration of cartilage and its underlying bone within a joint)**
 - **Gynecological problems for women (abnormal menstrual periods and infertility).**

Screening

- **Primary care and primary care physicians start the conversation**
- **To assess need for dietary intervention, screen:**
 - **BMI**
 - **Labs**
 - **Blood Pressure**



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Next Steps

- **Nutrition education and counseling-**
finding a Registered Dietitian
 - <http://www.eatright.org/programs/rdfinder/>



Image from Public Domain

Registered Dietitians (RD)

- Licensed nutrition practitioner
- Provide nutrition education and counseling as part of a comprehensive health care program for disease prevention and for chronic conditions.



Image from Public Domain

Medical Nutrition Therapy

- When offered by RDs, MNT has been shown to:
 - Improve patients' health and well-being
 - Increase satisfaction levels through decreased hospitalizations and reduced prescription drug use

Lifestyle Modifications to Reduce Risk

- Achieving a healthy weight is a balancing act between food intake and physical activity
 - EATING SMARTER AND MOVING MORE
- Lifestyle changes make a big difference
- Small changes add up

Eating Right

- Start with a plan for lifelong health
 - There is no quick fix
- Set healthy, realistic goals
- Get a personalized eating plan

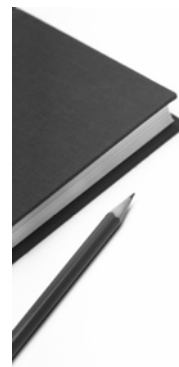


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Eating Right

- **Eat at least 3 meals per day and plan ahead**
- **Balance your plate with a variety of foods**
- **Start each meal with low-calorie foods**
 - **Fruits**
 - **Vegetables**
 - **Salads**



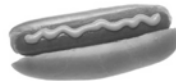
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Eating Right

- **Focus on your food**
 - **Do not eat from a bag or box**
- **Get plenty of fiber**
- **Learn portion sizes**
- **Find balance with physical activity**

Foods to Reduce

- Solid fats, including saturated and trans
- Added sugars
- Refined grains
- Sodium



Images from Public Domain

Tools to Support Weight Loss

- Know your numbers!
- Measurements of Nutrition and Health--
 - A (hgbA1c)
 - B(BP)
 - C (Chol)s...



Image from Public Domain

Tools to Support Weight Loss

- **Self-monitoring**
 - **Food diary (paper or digital)**
 - **Weight**
 - **Measurements**



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Tools to Support Weight Loss

- **National Weight Control Registry**
- **Eat breakfast**
- **Surround yourself with support**
- **Aim for at least 150 minutes of intentional physical activity per week**
- **Get 6-8 good hours of sleep per night**