Fattening of America—What Does *DENTISTRY* have to do with it?

Lisa F. Mallonee, MPH, RDH, RD, LD
Professor and Graduate Program Director, Caruth School of Dental Hygiene
Texas A&M University College of Dentistry
3302 Gaston Avenue, Room 139F Dallas, Texas 75246
Phone 214-828-8914 Fax 214-874-4525
smilebfit@yahoo.com

Calculate Your BMI

- Multiply your weight in pounds by 703.
- Multiply your height in inches by itself.
- Divide the first number by the second number.
- Round to the nearest whole number.

http://www.nhlbi.nih.gov/guidelines/obesity/BMI/bmicalc.htm

Waist Circumference A Better Judge Of "Fatness"

- Waist Circumference > or = 40 (Men)
- Waist Circumference > or = 35 (Women)

Overweight and Obesity: A Challenging Eating Disorder

Guidelines for Providing Oral Health Care: What's Your Role?

- Comprehensive review of the medical history to determine e if client has other systemic diseases that coexist with increased weight which may present risk factors for treatment.
- Information regarding medications, supplements or herbal products used for weight management should be noted in the dental chart.
- Even though a patient is overweight, they may still be malnourished and present with signs of vitamin and mineral deficiencies.
- During oral exam, be aware of changes that suggest deficiency, in including glossitis, stomatitis, ulceration, and angular cheilitis. IF any of these signs are present, offer palliative oral health care tips.
- Referral to a registered dietitian and physician is necessary for further evaluation and treatment of the etiology.
- Dental professionals may also collaborate with a registered dietitian to offer support through nutrition counseling and weight management and to reinforce the effects of healthy eating on oral health.
- Caries risk management: assess diet to determine intake of carbohydrates—diets high in carbohydrates are associated with overweight and obesity.

- Provide information about the relationship between diet and caries formation, educate about caries control.

- Meticulous oral hygiene and daily fluoride may be indicated depending on caries status.

- Practically speaking, some patients who are obese may have difficulty breathing when required to lay supine for extended periods of time. Placing the patient in a more upright position may make the individual more comfortable.

- Stress the need for regular physical activity—but always remind them to visit with a physician prior to beginning a new exercise program.

2015 Dietary Guidelines

Updated Guidelines continue to encourage healthy eating patterns involving a variety of vegetables, whole fruits, whole grains, low-fat dairy, and a variety of lean proteins, all while limiting intake of saturated and trans-fats.

NEW ADDITIONS:

- ✓ Less than 10% of total daily calories should be consumed from added sugars.
  - Eating more whole fruits, vegetables, and whole grains can help reduce the amount of added sugars in your diet.

- ✓ Other major change involves protein in males. The guidelines say males are consuming too much protein and should "reduce their overall intake of protein foods".
- ✓ Other key recommendations include consuming less than 2,300 milligrams of sodium per day
- ✓ If alcohol is consumed, it should be done so in moderation (one drink per day for women and up to two drinks per day for men).
- ✓ It is recommended that adults need 150 minutes of moderate intensity physical activity along with muscle strengthening activities 2 or more days per week.

Dietary guidelines for Americans 2015-2020. Available at: http://health.gov/dietaryguidelines/2015/guidelines/.

Choose My Plate: http://www.choosemyplate.gov

American Heart Association Diet and Lifestyle Recommendations:

- ♥ Use up at least as many calories as you take in.
- ♥ Eat a variety of nutritious foods from all food groups
- ♥ Eat less of nutrient poor foods
- ♥ Choose lean meats and poultry without skin
- ♥ Eat fish, especially oily fish, at least twice a week.
- ♥ Select fat-free, 1 percent fat and low-fat dairy products.
- ♥ Cut back on foods containing partially hydrogenated vegetable oils; avoid trans fats

- ♥ Limit intake of saturated fat (</=5-6%), *trans* fat (<1%) and cholesterol (<300 mg day).
- ♥ Cut back on beverages and foods high in calories, low in nutrition with added sugar.
- ♥ Choose and prepare foods with little or no salt.
- ♥ If you consume alcohol, do so in moderation.
- ♥ Monitor portion sizes when eating out
- ♥ Don't smoke—avoid secondhand smoke

For more information: http://www.americanheart.org

♥♥♥ What's YOUR Nutrition IQ? ♥♥♥

HOW do we get fat??

1. Drink anything but water
2. Don't walk
3. Genetics
4. Grow older
5. Eat junk food
6. Eat more calories
7. Eat out regularly
8. Excessive alcohol
9. Never read food labels
10. No exercise
11. Get pregnant
12. Stress

Obesity Blame Game:

1. Food and Drink Industry
2. Advertisement
3. Family
4. Schools

Foods and Beverages: Sugar*free* or Sugar*ful*—better or worse?

Sugars Content of Carbonated Non-Diet Soft Drinks	Sugars*
Minute Maid Orange Soda (Coca-Cola Co.)	48
Mountain Dew (PepsiCo)	46
Pepsi	41
Dr Pepper (Cadbury Schweppes)	40
Coca-Cola Classic	39
7Up (Cadbury Schweppes)	39
Sprite (Coca-Cola Co.)	38

*Grams per 12 fl. oz (360 mL) (10 teaspoons of sugar per 40 grams)
4 grams= 1 tsp sugar

BONE UP on your Calcium:

Any dietary source of calcium will count toward daily intake, but low-fat milk is clearly the most efficient and readily available. Lactose-free milk, soy and rice drinks have recently become more easily obtainable and less expensive.

In addition to milk, there are a variety of foods that contain calcium and can help your patients get sufficient levels of calcium in their daily diet. Some examples include:

Sources of calcium in food

Food group	Examples:
Dairy foods	Milk, yogurt, cheese
Leafy green vegetables	Broccoli, kale, spinach, turnip greens, collard greens
Fruits	8oz Calcium fortified orange juice and grapefruit juice
Beans and peas	2.8 oz Tofu 300 mg, black beans, baked beans, white beans, great northern (1/2 cup) 60-100 mg
Fish	Canned salmon, or sardines with bones 100-350mg
Grains	Total cereal (1/2 cup) 500 mg, Quaker instant oatmeal for Women 1pkt 500mg
Miscellaneous	Sesame seeds, blackstrap molasses, corn tortillas, ¼ cup almonds (100 mg), brown sugar, bok choy , brussel sprouts, rhubarb

REMEMBER:

Vitamin D is also necessary to allow the body to absorb the calcium. In the US, milk is fortified with Vitamin D, and a few other foods are sometimes also vitamin D-fortified (such as some types of cereal and bread). This vitamin occurs naturally in only a few foods, such as fatty fish (salmon, sardines) and egg yolks. In addition to dietary sources, sunlight can provide the body with Vitamin D as it is synthesized through the skin.

Recent research has pointed to phosphorus and carbonated beverages (which contain phosphoric acid) as having a negative impact on bone density. Theoretically, the equilibrium between phosphorus and calcium causes the latter to be replaced in bone by the former. While this has *yet* to be proven as a significant cause of calcium loss, milk is still considered the preferred drink when compared with carbonated drinks of any sort.

Foods Over Time: Same Names, Different Sizes

Waistlines have expanded and so have serving sizes.

Food Item	20 Years Ago	Today!	How much bigger is it?
Blueberry Muffin	1.5 oz, 210 calories	5oz, 500 calories	Over 3 times larger!
French Fries	2.4 oz, 210 calories	6.9 oz, 610 calories	Almost 3 times as large!
Soda	6.5 oz, 85 calories	20oz, 250 calories	3 times as large!
Chicken Caesar Salad	1 ½ cups, 390 calories	3 ½ cups, 790 calories	Twice as large!
Chocolate Chip Cookie	1.5 inch diameter, 55 calories	3.5 inch diameter, 275 calories	2 times as large
Movie Popcorn	5 cups, 270 calories	11 cups, 630 calories	More than double!

Source for chart: National Heart, Lung and Blood Institute: Portion Distortion Quiz at http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/portion/index.htm

What counts as a serving?

Bread, cereal, rice and pasta		
1 slice of bread	1 ounce of ready-to-eat cereal	1/2 cup cooked cereal, rice, pasta
Vegetable		
1 cup of raw leafy vegetables	1/2 cup of other vegetables, cooked or chopped raw	3/4 cup vegetable juice
Fruit		
1 medium apple, banana, orange	1/2 cup of chopped, cooked, or canned fruit	3/4 cup fruit juice
Milk, yogurt and cheese		
1 cup of milk or yogurt	1.5 ounces of natural cheese 1/3 cup shredded cheese	2 oz processed cheese
Meat, poultry, fish, dry beans, eggs and nuts		
2-3 ounces of cooked lean meat, poultry or fish.	1/2 cup of cooked dry beans 1 egg 2 tablespoons of peanut butter 1/3 cup of nuts	

Refer to http://www.choosemyplate.gov for further information on serving sizes for each food group.

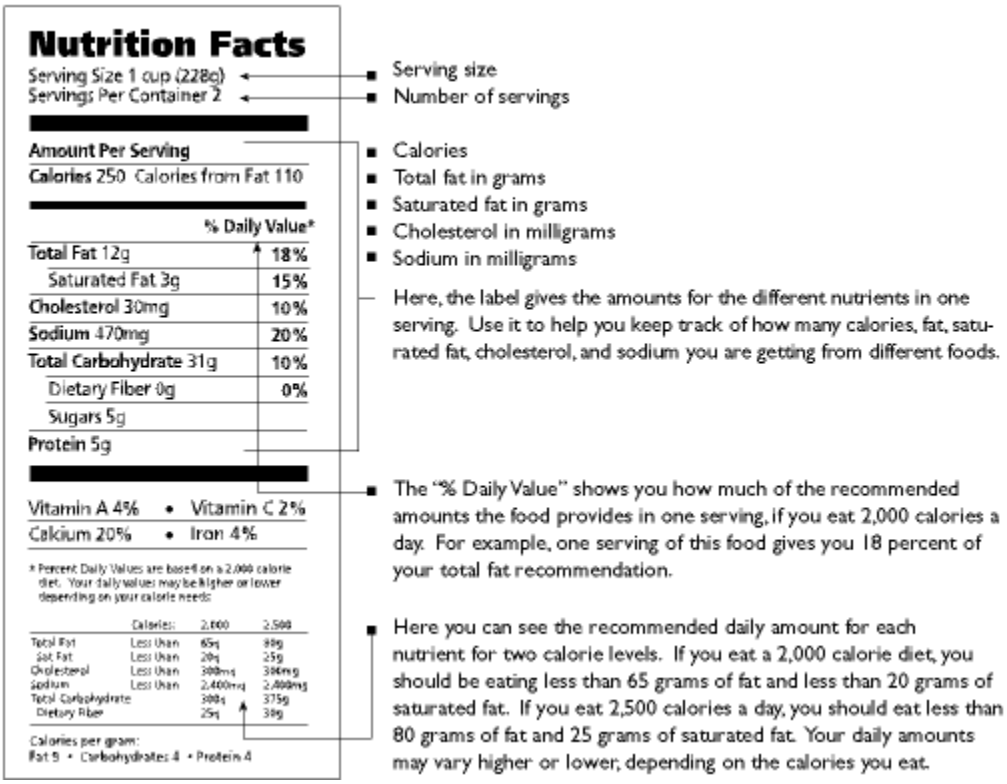
Visualize correct serving sizes. Consider this:

- 1 serving of fruit or vegetable = a tennis ball
- 1 serving of pasta, rice, cereal or 1 bagel = a hockey puck
- 1 serving of meat or chicken = palm of hand, a bar of soap, deck of cards
- 1 serving of fish= a checkbook
- 1 serving of cheese (1 oz) = four dice

*****Remember bigger isn't always better! Bigger sizes = Bigger waistlines!**

Know Your Labels

Product: **Check for:**



Tips on decoding nutritional information:

- 5 percent or less of 'Daily Value' on a nutritional label means a food is relatively low in a nutrient, while 20 percent or higher means a food is relatively high.
- Total calories are more significant for weight control than fat calories or carbohydrate calories.
- Remember to check the portion size on the label since nutritional values are based on that rather than package size.
- Keep in mind how the individual foods fit into your total diet. A good rule of thumb is to fill no more than a third of your plate with meat, poultry or fish, and fill two-thirds of your plate with vegetables, fruits, whole grains and beans.

Should I Worry about the Fat, the Calories OR BOTH?

Fat-Free or Reduced-Fat		Regular	
	Calories		**Calories**
Reduced-fat peanut butter, 2 T	187	Regular peanut butter, 2 T	191
Reduced fat chocolate chip cookies, 3 cookies (30 g)	118	Regular chocolate chip cookies, 3 cookies (30 g)	142
Fat free fig cookies, 2 cookies (30 g)	102	Regular fig cookies, 2 cookies (30 g)	111
Nonfat vanilla frozen yogurt (<1% fat) 1/2 cup	100	Regular whole milk vanilla frozen yogurt (3-4% fat) 1/2 cup	104
Light vanilla ice cream, (7%) fat, 1/2 cup	111	Regular vanilla ice cream, (11%) fat, 1/2 cup	133
Fat free caramel Topping, 2 T	103	Caramel topping, homemade with butter, 2 T	103
Lowfat granola cereal, approx. 1/2 cup (55 g)	213	Regular granola cereal, approx. 1/2 cup (55 g)	257
Lowfat blueberry muffin, 1 small (2 1/2 inch)	131	Regular blueberry muffin, 1 small (2 1/2 inch)	138
Baked tortilla chips, 1 oz.	113	Regular tortilla chips, 1 oz.	143
Lowfat cereal bar, 1 bar (1.3 oz.)	130	Regular cereal bar, 1 bar (1.3 oz.)	140

Fad Diets and Oral Health

- High Protein Diets
- 1-2 Meals Day
- High CH0, low fiber
- Caffeine rich beverage diets
- Avoiding Food Groups

Bariatric Surgery Patients: Whats OUR Role?

- Re-mineralization protocols
- Dental sealants placed for teeth at risk of decay or incipient lesions.
- Monitor salivary pH
- Educate patients on effective plaque removal and use topical fluorides (OTC or prescription)
- In office application of sensitivity gel or fluoride gel
- Salivary substitutes
- Xylitol for caries prevention—may be contraindicated for GERD pts. (post surgery side effect)
- Other Recommendations:

Duley SL and Fitzpatrick PG. The Bariatric Treatment Team. Dimensions of Dental Hygiene. November 2006: 14-16.
Silverman C, Raisberg F, Willis S. Treating Patients After Weight Loss surgery. Dimensions of Dental Hygiene. 2013; 11(2):52-55.
Moravec JL, Boyd LD. Bariatric Surgery and Implications for Oral Health: A Case Report. JDH . 2011; 85(3), 166-176.
Barbosa CS, Barbério GS, Marques VR, et al. Dental Manifestations in bariatric patients—a review of the literature. J Appl Oral Sci. 2009; 17 (sp. Issue): 1-4.