



Medical Student Training Manual

This manual contains information relevant to the obesity screenings at health fairs.

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Implementing Obesity Screenings at Health Fairs

Required Tools

<p>Portable Scale</p>		<ul style="list-style-type: none"> • Can be purchased online or in stores from \$10-30. • Recommend purchasing a scale with non-slip base. • Batteries may be needed.
<p>Measuring Tape</p>		<ul style="list-style-type: none"> • Can be purchased online or in stores from \$3-6. • Measuring tape should be at least 7 feet long. Or get two and tape together • Affix the measuring tape to wall.
<p>Body Fat Analyzer</p>		<ul style="list-style-type: none"> • Can be purchased online or any local store for ~\$35.00. • Reading takes <1min.

Instructions

1. Read the instructions for each tool, especially the body fat analyzer.
CONTRAINDICATION TO TESTING!!! Depending on the type and model, the body fat analyzer may **NOT** be used by people with **pacemakers** or **pregnant women**. Double-check with your machine's instruction.
2. Measure height and weight to obtain BMI. (See attached worksheet for BMI calculation).
3. Obtain body fat percentage using Body Fat Analyzer machine.
4. Counsel patient on obesity risks. (See attached counseling manual).
5. Incorporate additional health education seminars. (See attached suggestion).

Health Education Seminars

Exercise Seminar

Demonstrate simple exercise routine to patients. For instance, jumping jack, leg raises, stretches, etc. Suggest taking daily walks or Tai Chi.



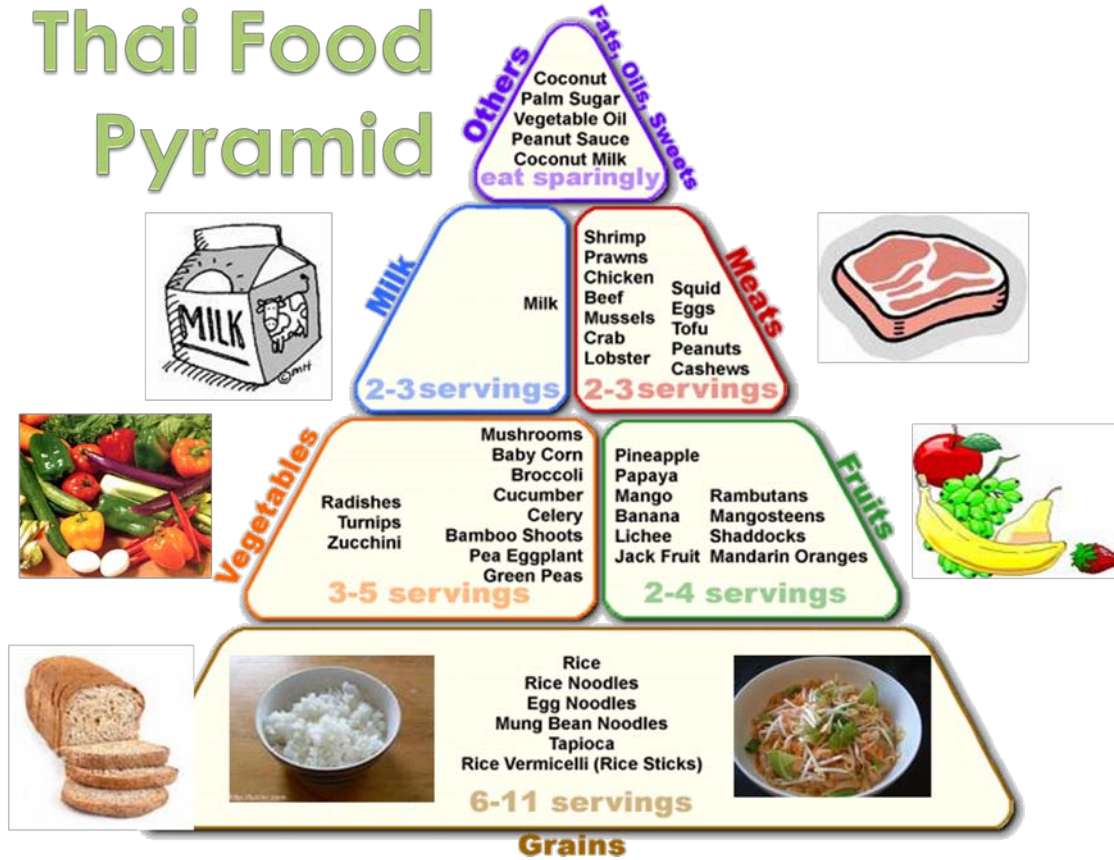
Healthy Diet Seminar

Counsel patients on serving size, low-fat diets, etc. Suggest replacement of non-healthy foods with more healthy alternatives. Be familiar of different cultural foods and counsel accordingly. (See attached modified food pyramid on next page)

Thai Food Pyramid

Thai Food Pyramid

http://www.semda.org/info/pyramid.asp?ID=4



Instead of	Try
Fried Foods 	Fresh, Steamed, Baked, or Boiled Foods 
Fried Rice 	Plain White Rice or Brown Rice 
Butter 	Olive Oil or Vegetable Oil 

Counseling Manual^{1,2}

Introduction

In the United States, the lifetime risk of becoming overweight or obese is approximately 50 and 25 percent, respectively.³

Body Mass Index

$$BMI = \frac{\text{Body Weight (kilograms)}}{\text{Height}^2 \text{ (meters)}}$$

or

$$BMI = \frac{\text{Body Weight (pounds)} \times 703}{\text{Height}^2 \text{ (inches)}}$$

Overweight: BMI \geq 25.0 to 29.9 kg/m²

Note: For Asians, Overweight is a BMI of 23 to 29.9

Obesity: BMI \geq 30.0 kg/m²

Health Risks Increase if a Person (Regardless of BMI)

1. Has other risk factors: excess abdominal fat (weight circumference >35 inches in women and >40 inches in men), high blood pressure, high levels of cholesterol in the blood, heart disease.
2. Has a strong family history of diabetes.
3. Is a male.
4. Was obese before age 40.

¹ Up-to-date, Online. Screening for and clinical evaluation of obesity in adults. Accessed October 2009.

² Up-to-date, Online. Behavioral strategies in the treatment of obesity. Accessed October 2009.

³ Vasan, RS, Pencina, MJ, Cobain, M, et al. Estimated risks for developing obesity in the Framingham Heart Study. *Ann Intern Med* 2005; 143:473.

Consequences of Obesity

Obesity increases the risk of many medical conditions, while weight loss can decrease these risks:

- Reduced life expectancy
- Coronary heart disease
- Diabetes mellitus
- Hypertension (high blood pressure)
- Osteoarthritis
- Stroke
- Cancer (colon and prostate cancer in men; uterine and gallbladder cancer in women)

Counseling

A person at high risk for developing diabetes mellitus who loses 5% of their body weight and maintains this weight will reduce their risk for diabetes by about 50%.

1. Set realistic weight loss goals. First goal should be to prevent weight gain and maintain current weight.
2. Behavior changes. Change eating habits—(i.e. not eating after 7pm, identify triggers to eat) Increase physical activity
3. Balanced low-calorie diets. When starting a diet, it is important to determine an appropriate calorie level, as well as a combination of foods, to meet an individual weight loss goal. It is best to choose foods that contain adequate protein, carbohydrates, essential fatty acids, and vitamins.
4. Reduce empty calories. Alcohol, sugar-containing beverages, and most highly concentrated sweets (candy, cakes, cookies) should be eliminated from weight-loss diets since they rarely contain adequate amounts of nutrients other than calories.
5. Portion-controlled diets. One simple way to diet is to buy packaged foods, like frozen low-calorie meals. This can be supplemented with formula diets using powdered or liquid drinks. A typical meal plan for one day may include a formula diet or breakfast bar for breakfast, a formula diet or a frozen meal for lunch, and a frozen calorie controlled entree for dinner. This would give the person 1,000 to 1,500 calories per day.
6. Low-fat diets. High fat diets, especially diets that are high in saturated and trans fat foods, increase the risk of obesity, heart disease, and certain forms of cancer,

among other adverse effects. Almost all dietary guidelines recommend limiting fat intake to 30 percent of total calories or less. **As one guideline, if a food "melts" in the mouth, it probably has fat in it.**

7. Low-carbohydrate diets. Carbohydrates are found in fruits, vegetables and grains (including breads, rice, pasta, and cereal), alcoholic beverages, and in dairy products. Meat and fish do not contain carbohydrates.
8. (Reference only) weight loss medications. People who are overweight who want to start a weight loss medication must carefully evaluate the risks and benefits with a healthcare provider, only. Drug therapy may be helpful for some obese people when used in combination with diet, exercise, and behavior modification.

The information provided on this page should not be used during any medical emergency or for the diagnosis or treatment of any medical condition. A licensed medical professional should be consulted for diagnosis and treatment of any and all medical conditions. Call 911 for all medical emergencies. Links to other sites are provided for information only – they do not constitute endorsements of those other sites.