**How Body Mass Index (BMI) Effects Your Health**

*Emerald Health and Wellness–Week 5*

Today’s Objectives

* Describe what BMI is and how it’s measured
* Why it’s used
* What is “Normal”?
* Supporting Evidence
* Aim for a healthy weight
* Personal Challenge
* Check your knowledge

What is BMI?

* **BMI** or Body Mass Index is used as a measure of body composition based on height and weight of an adult male or female. BMI does not measure fat directly, but it is a reliable **indirect** indicator of body fatness.
* It is an inexpensive, easy-to-perform method of screening for weight categories that may lead to health problems.
* It is measured by taking a person’s weight and dividing by their height squared.

Standard BMI = (Weight in Pounds x703)

(Height in Inches)(Height in Inches)

Metric BMI = (Weight in Kilograms)

(Height in Meters) (Height in Meters)

* To assess an individual younger than 20 years of age, a corresponding BMI for age percentile is available for children and teens between the ages of 2 and 19 years.
* There a many web sites where you can just plug in your numbers and avoid all the math! You can try this one out! Http://www.bmi-calculator.net/

Why is it used?

* Used as a screening tool to identify possible weight problems
* Should not be used as a diagnostic tool
* Great way to determine if further screening is needed
* if a person has a high BMI further testing may want to be done to determine if it is a health risk because BMI is not a direct measure of body fat percentage
* Further testing includes:
* Body Fat Analysis
* Diet and Lifestyle Evaluations
* Family History Screening

BMI Categories

* Underweight = <18.5 kg/m2
* Normal Weight = 18.5 - 24.9 kg/m2
* Overweight = 25 - 29.9 kg/m2
* Obesity = ≥30 kg/m2
* For our purposes we want you to have a general understanding of what the categories are, what your BMI is, and what the normal range is.

Supporting Evidence

*According to the CDC...*

* The correlation is fairly strong and BMI is considered to be a reliable **indirect** measure of body fatness.
* This correlation varies by:
* Sex
* Race
* Age
* NOTE: BMI does not take into account the increased muscularity of a highly trained athlete, so they may not have an accurate correlation.
* Other tools:
* Waist Circumference
* Direct Measures
* Other Risk Factors
* Increased health risks of overweight and obese adults include:
* High Blood Pressure
* High Cholesterol
* Type 2 Diabetes
* Coronary Heart Disease
* Stroke
* Gall Bladder Disease
* Osteoarthritis
* Sleep apnea and respiratory problems
* some cancers

Aims for a Healthy Weight

* BMI can be Modified!
* Assess your weight
* Healthy Eating
* Regular Physical Activity
* HEALTHY EATING
* Emphasize:
* Fruits
* Vegetables
* Whole Grains
* Fat-free/Low-fat milk products
* Include:
* Lean meats
* Poultry
* Fish
* Beans
* Eggs
* Nuts
* Ask yourself →Is it low in...
* Saturated fats?
* Trans fat?
* Cholesterol?
* Salt?
* Added Sugars?
* Does it stay within your daily caloric needs?
* NOTES:
* You have already learned about added sugars, but it is important to emphasize it again with regards to BMI
* Naturally occurring sugars found in fruits and vegetables are not the problem, but foods made with white sugar are!
* Too much sugar can lead to weight gain, metabolic disorders, precursor to type 2 diabetes, heart disease, and some cancers
* Based on a 2,000 calorie diet, you should have no more than:
* 25 grams added sugar (women)
* 40 grams added sugar (men)
* What about “Comfort Food”?
* Typically high in calories, fat or added sugars, BUT...
* Have it less often
* Have it in smaller amounts
* Balance it with healthy food and increased physical activity
* We do not have to completely eliminate these foods
* A lifestyle change is not about deprivation, it is about BALANCE!
* Planning Meals & Counting Calories
* Tips for Planning Meals
* Find Healthy recipes
* Stock up on healthy foods
* Use ingredients that you like
* “Grab and Go” healthy snacks
* Bananas, apples, oranges, etc.
* Incorporate MyPlate
* Be creative
* Having your meals planned makes it easier to avoid last minute meals and eating fast foods.
* If you are always on the go, try finding quick healthy recipes that you can prepare ahead of time and use in place of unhealthy or time consuming meals.
* What is a calorie?
* A calorie is a unit of energy supplied by food
* Caloric balance is like a scale and weight management is all about balancing the number of calories you consume with the number of calories your body uses or “burns off”
* Maintain Weight: calories in = calories out
* Gain Weight: calories in \_ calories out
* Lose Weight: calories in \_ calories out
* It is very important to have an idea how much you are taking in from foods on a daily basis compared to how much energy your body is using or burning off to determine your caloric balance.
* Using MyPlate and my fitness pal are great ways to count your calories!
* Get Moving!
* How much physical activity do you need?
* The ACSM/AHA recommend:
* moderate physical activity (brisk walking) 5 times a week for 30 minutes **AND** muscle strengthening activities targeting all major muscle groups 2 or more days per week

OR

* vigorous physical activity (jogging, running) 5 times a week for 15 minutes **AND** muscle strengthening activities 3 or more days per week
* These recommendations are directly related to health gains and improved quality of life
* Incorporating these recommendations into your lifestyle can also help to improve your cardiorespiratory fitness
* However, greater than 30 minutes of moderate activity most days of the week may be needed in order to see greater health gains such as weight maintenance and weight loss.

Check Your Knowledge

* What is the Normal Range for BMI?

12-16 kg/m2

16-18 kg/m2

18.5-24.9 kg/m2

25-29.9 kg/m2

**Answer:** **C**

The “Normal “Category” is 18.5-24.9 kg/m2!

Personal Challenge #1

* Limit your ADDED sugar intake

-Women: No more than 25 grams

-Men: No more than 40 grams

* DO’s:
* Limit the amount of foods that have:

Sugar, brown sugar, high fructose corn syrup

* **TIP: Cut down on sugary drinks!**
* DON’T:
* Eliminate the naturally occurring sugar found in fruits & vegetables
* According to the USDA and AHA most Americans get more than 22 teaspoons or 355 calories of added sugar a day, which far exceeds their guidelines. Your goal should be to consume no more than 6 teaspoons of added sugar for women and 9 for men. This is going to be difficult but you can do it!

Personal Challenge #2

* BE ACTIVE!
* Meet the recommendations of the ACSM/AHA
* Try your best to complete **150 minutes** of moderate-intensity physical activity **5** days this week! **AND** strength training **2** days this week!
* What if you already meet the recommendations?
* Take it up a notch!
* Increase duration
* Increase intensity
* Add an additional day
* We know you are meeting with your trainer, but we also want you to incorporate physical activity on a daily basis. This will help to improve your health and cardiorespiratory fitness, but also to reduce health risks mentioned earlier.

References

http://www.nhlbisupport.com/bmi/

http://www.cdc.gov/healthyweight/assessing/bmi/adult\_bmi/english\_bmi\_calculator/bmi\_calculator.html

http://apps.who.int/bmi/index.jsp?introPage=intro\_3.html

http://www.mayoclinic.com/health/obesity/DS00314/DSECTION=complications

http://www.webmd.com/cholesterol-management/obesity-health-risks

http://www.health.gov/dietaryguidelines/dga2010/DietaryGuidelines2010.pdf

http://www.acsm.org/about-acsm/media-room/acsm-in-the-news/2011/08/01/acsm-aha-support-federal-physical-activity-guidelines

http://www.fitsugar.com/Healthy-Eating-Tip-Limit-Your-Added-Sugar-Intake-40-Grams-3035229