Overview: The purpose of this presentation is to help you understand how nutritional needs for women change and stay the same across the lifespan, and how they change based on different health and disease states. This guidance includes information on nutrients, vitamins, and the evidence behind dietary recommendations, which can protect against or contribute to the development of chronic health issues, such as obesity, osteoporosis, and other diseases.

DRI: Dietary Reference Intakes are the recommended amounts of key nutrients. DRIs are available for water-soluble vitamins (B, B12, Folate, and Vitamin C), and fat-soluble vitamins (A, E, K, D) suggestions generally stay constant between age 19-50. One exception is calcium, which changes across time (during adolescence and old age). After age 50, women often require different nutritional levels.

Multivitamins: Nutritional supplements are meant to supplement a healthy diet, not replace food-derived nutrients. While dieticians still encourage the use of multivitamins, repeated studies find little or no long-term benefit to taking a multivitamin. Exceptions are found in disease states such as magnesium supplements in diabetes treatment.

Disease Prevention: Healthy foods can prevent or delay chronic diseases. According to the American Heart Association, a diet that includes natural sources of potassium can be protective against hypertension via blood pressure control (by lessening the effects of sodium). Reducing sodium intake is also important. Sodium recommendations vary by age, race, and health status. Holly Herrington highlighted the large quantities of sodium at even “healthy” restaurants such as Subway.

Heart disease can also be mitigated by reducing the amount of saturated and, especially, trans fat in one’s diet. Saturated and trans fats are found in animal products. While saturated fats raise LDL (low-density lipoproteins; “bad” cholesterol), trans fats are a “double whammy” because they increase LDLs and decrease HDLs (high-density lipoproteins; “good” cholesterol). Furthermore, consuming enough fiber is important as fiber decreases cholesterol. Increasing fiber consumption can reduce LDL by 5-10%. One study that examined three fruit and veggie-rich diets showed they lowered systolic blood pressure by 13-16 points, lowered LDL cholesterol up to 24 points, and lowered triglycerides up to 16 points. Fruit and vegetable recommendations are 2 cups of fruit per day and 2.5 cups of veggies per day.

Consuming certain types of fish in one’s diet (salmon, mackerel, etc.; not catfish) provides omega 3 fatty acids, which improve joint and brain health. Recommended levels are 8 ounces per week. For people who do not eat fish, fish oil supplements are good alternatives. When taking these
supplements, people should have 1000 mg of fish oil per day – this should be comprised of EPA + DHA.

**Menopause:** During the menopausal transition and afterward, women need to pay attention to preserving bone health, muscle mass, and minimizing weight gain. Reducing caloric intake and increasing physical activity, especially muscle strengthening and resistance training (which can also prevent muscle wasting) can aid in weight control.

Menopausal symptoms can also be aggravated with a high sugar and high-fat diet. To preserve bone health, women should make sure to get enough calcium, vitamin D, and potassium. Alkaline (high acid) diets may contribute to prevention of muscle wasting by promoting lean tissue mass and stronger bones. Ensuring enough intake of lean food (not supplement) proteins (found in beans, quinoa, white meat, and low fat red meat) can aid in the preservation of muscle mass after age 65.

**Calories:** According to the Dietary Guidelines for Americans 2010, “Poor diet and Physical inactivity are the most important factors contributing to an epidemic of overweight and obesity.” Caloric intake varies for each individual based on age, weight, height, activity level, and overall health status. Women need to consume 1800-2000 calories for weight management and 1200-1500 for weight loss. These calories should be rich in vitamins and minerals, not “empty calories” such as those found in french fries, etc. Approximate calories are as follows:

- 50% carbohydrates from whole grains which are high in fiber
- 20% lean protein
- 30% fat

**Body Mass Index (BMI):** BMI gives an indication of how one stands in the weight/obesity range.  

\[
BM = \frac{\text{weight (pounds)} \times 703}{\text{height squared (inches}^2)}
\]

All adults ages 18-65 should aim for the “Normal” BMI category (18.5-24.9). Over 65 the “overweight” category (25-29.9) is actually health protective. What nutritional factors may have a significant affect on BMI? Dietary calcium decreases fat storage and increases fat breakdown. Dairy-derived calcium is more effective than supplements at decreasing fat storage. Alcohol intake also affects BMI and overall health as one drink (1.5 oz liquor, 12 oz beer, or 4-5 oz wine) contains 100 – 150 calories. In addition, drinking more alcohol increases risks of alcoholism, high blood pressure, obesity, stroke, breast cancer, suicide and other accidents. Increasing intake of soy and “superfoods” can also aid in a healthy body weight and nutrition.

**Take-away message:** Imagine a product-- not a drug -- powerful enough to help you lower your cholesterol, reduce your risk of heart disease and cancer, improve mood, reduce your weight and provide all your nutrition needs. Now imagine this product has NO side effects. What is it?  

Superfood!