

# DINNER- BEEF

CLASS 12



JUDY JOHNSTON, MS, RD, LD

Research Instructor

Department of Preventive Medicine and  
Public Health

University of Kansas School of Medicine -  
Wichita



# BEEF NUTRITION

- A. Beef is a good source of Zinc, Iron, Protein & B-Vitamins. One 3 ounce serving of cooked beef has the same amount of:**
- **Zinc as 10 cups of sliced cooked carrots**
  - I. Serves as a cofactor for over 100 enzymes in the body, especially those involved with the metabolism of protein, carbohydrate, fat and alcohol
  - II. Essential for protein synthesis, integrity of cell membranes, maintenance of DNA and RNA, tissue growth and repair, wound healing, taste acuity, prostaglandin production, bone mineralization, proper thyroid function, blood clotting and cognitive functions.



# BEEF NUTRITION

- A. One 3 ounce serving of cooked beef has the same amount of:**
- **Iron as 3 cups of spinach**
    - I. About 65-75% of the body's iron is in the blood in the form of hemoglobin. Myoglobin, the compound that carries oxygen to the muscle cells, also requires iron
    - II. Iron is involved in reactions within the body that produce energy
    - III. Any excess iron is stored in the body as a reserve
  - **Protein as 1 ½ cups of cooked kidney beans**
    - I. Muscles, organs and many of your hormones are made up of protein
    - II. Used in the manufacture of hemoglobin, the red blood cells that carry oxygen to your body
    - III. Used to manufacture antibodies that fight infection and disease
    - IV. Integral to your body's blood clotting ability



# BEEF NUTRITION

- A. **One 3 ounce serving of cooked beef has the same amount of:**
  - **B-Vitamins, Folate, B12, B6, Riboflavin and Niacin**
    - I. Support and increase the rate of metabolism
    - II. Maintain healthy skin and muscle tone
    - III. Enhance immune and nervous system function
    - IV. Promote cell growth and division — including that of the red blood cells that help prevent anemia
    - V. Reduce the risk of pancreatic cancer, one of the most lethal forms of cancer when consumed in food, but not when ingested in vitamin tablet form
    - VI. Help combat the symptoms and causes of stress, depression, and cardiovascular disease



# BEEF NUTRITION

## B. Comparison: Ground Beef and Ground Turkey

Ground Beef	3 oz. cooked	Daily Value	Ground Turkey	3 oz. cooked	Daily Value
<b>Total Fat</b>	5 gm.	8%	Total Fat	11 gm.	17%
<b>Saturated Fat</b>	2 gm.	11%	Saturated Fat	3 gm.	14%
<b>Cholesterol</b>	62 mg.	21%	Cholesterol	87 mg.	29%
<b>Calories</b>	139	7%	Calories	200	10%
<b>Protein</b>	22 gm.	44%	Protein	23 gm.	47%
<b>Iron</b>	2.4 mg.	13%	Iron	1.6 mg.	9%



# HANDLING AND COOKING BEEF SAFELY

## ○ Control Measures

The Partnership for Food Safety Education recommends following these four simple steps to Fight “BAC”! (bacteria):

1. **Clean**
2. **Separate**
3. **Cook**
4. **Chill**



# HANDLING AND COOKING BEEF SAFELY

## ○ Control Measures- (1) Clean

1. Always wash hands in hot, soapy water for 20 seconds before preparing or eating food, and after using the bathroom, changing diapers and handling pets
2. Wash cutting boards, counter tops, knives and utensils in hot, soapy water after they come in contact with raw meat, poultry and seafood, and before preparing other foods





# HANDLING AND COOKING BEEF SAFELY

## ○ Control Measures- (2) Separate

1. Bacteria can spread from one food to another through cross-contamination
2. To decrease the risk of cross-contamination, keep raw meat, poultry and seafood and their juices away from ready-to-eat foods, such as fruits and vegetables
3. If possible, use one cutting board for raw meat products and another for salads and other ready-to-eat foods
4. Never place cooked food on a plate that previously held raw meat, poultry or seafood



# HANDLING AND COOKING BEEF SAFELY

## ○ Control Measures- (3) Cook

1. Cooking foods to proper temperatures will kill the harmful bacteria that cause food-borne illness
2. Cook ground meats (beef, pork, veal, lamb) to an internal temperature of at least 160 degrees F, non-ground meat cuts such as roasts (beef, veal, lamb) to an internal temperature of at least 145 degrees F
3. Using an instant-read thermometer is the best way to determine doneness in ground meats and poultry. If an instant-read thermometer is not available, cook ground beef until the center is no longer pink and the juices show no pink color
4. Reheat leftovers to 165 degrees F



# HANDLING AND COOKING BEEF SAFELY

## ○ Control Measures- (4) Chill

1. Cold foods should be kept at or below 40 degrees F
2. Refrigerate or freeze prepared food and leftovers within two hours
3. Never defrost food on the kitchen counter. Use the refrigerator, cold running water or the microwave.
4. Marinate foods only in the refrigerator
5. Carefully follow “keep refrigerated”, “sell by” and “use by” dates

## ○ Other Measures

- Individuals with compromised immune systems should consult a physician regarding special food and food safety recommendations
- Never drink unpasteurized milk or other dairy products or untreated water, and never eat raw or undercooked foods of animal origin



# FOOD SAFETY

## ○ Is U.S. beef safe?

- U.S. beef remains the safest in the world
- The BSE agent (related to Mad Cow Disease) is not found in meat like steaks, roasts and ground beef (it is found primarily in central nervous system tissue such as brain and spinal cord)
- There was a single case of BSE in a single animal in 2003 and the potentially infective parts of this animal were not allowed into the food supply

## ○ Is U.S. milk safe?

- The U.S. food supply, including milk and beef, is very safe
- A substantial body of scientific research shows that beef and milk do not carry the BSE disease agent
- National and international public health organizations such as the World Health Organization have consistently stated that milk and milk products are safe regardless of whether the country producing them has had cases of BSE



# RECIPES

- Inside Out Lasagna
- Layered Enchilada Casserole
- Florentine Ravioli Casserole

