



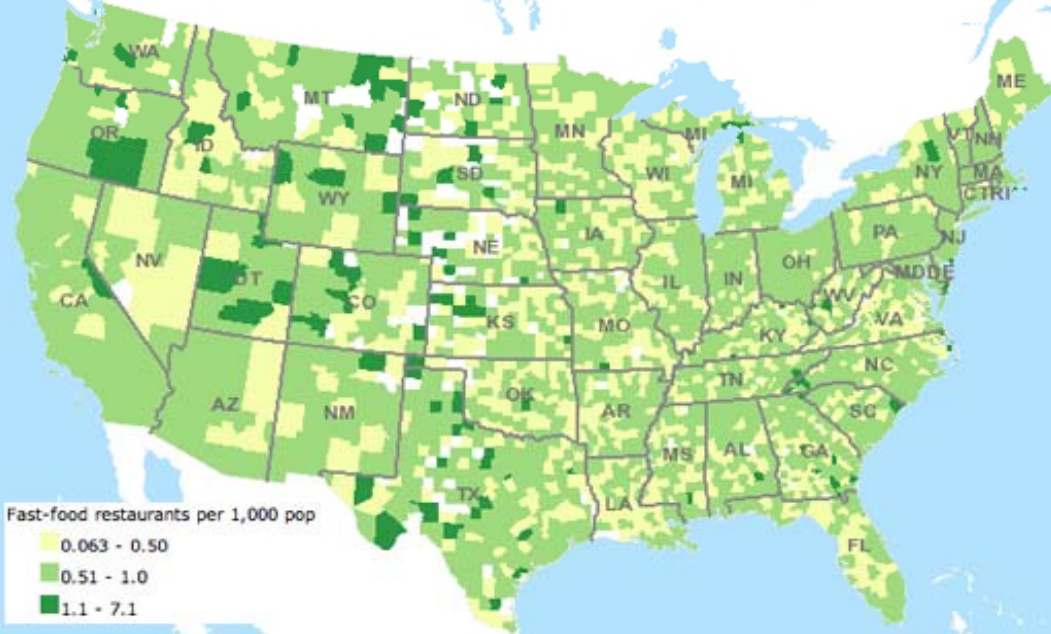
Meats Role in Proper Nutrition

ASC 300

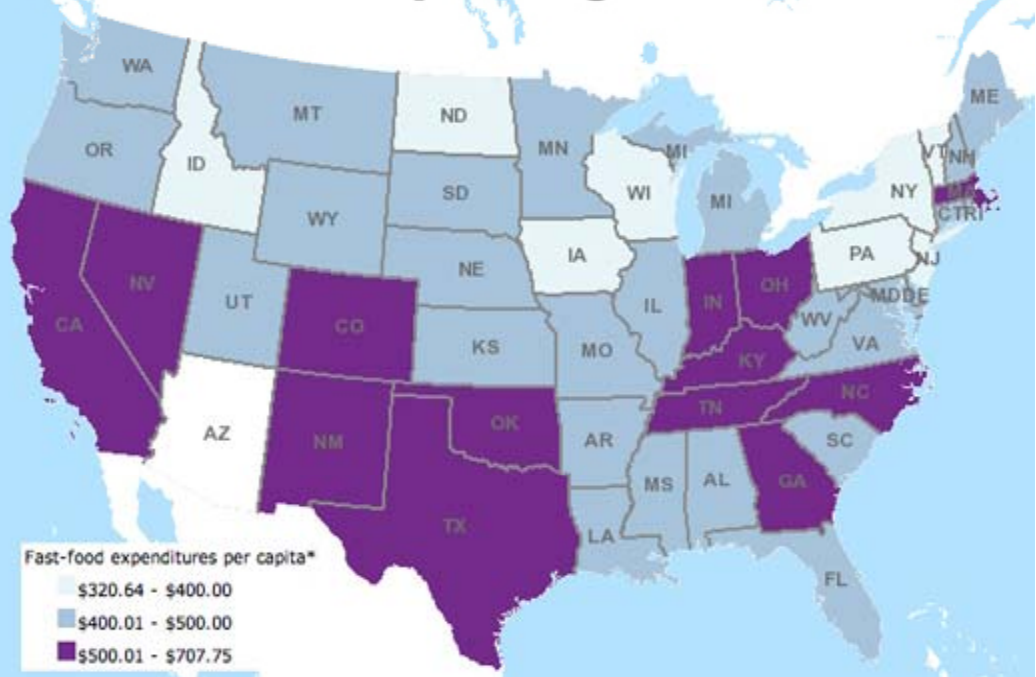
Dr. Gregg Rentfrow, Ph.D.

Assistant Extension Professor – Meat Science

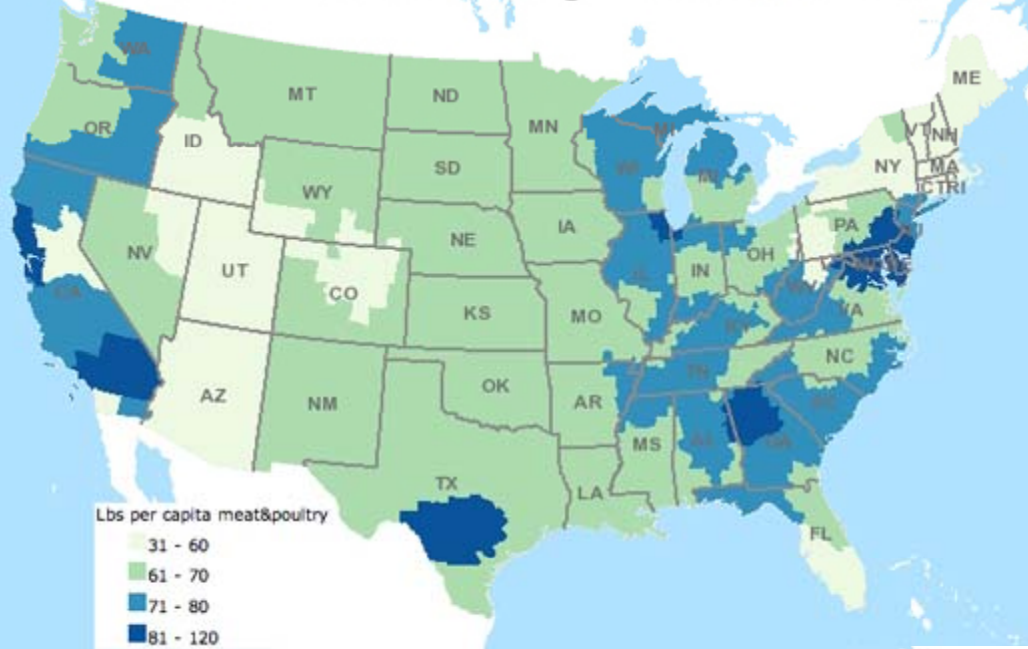
Fast Food Restaurants Per 1,000 People



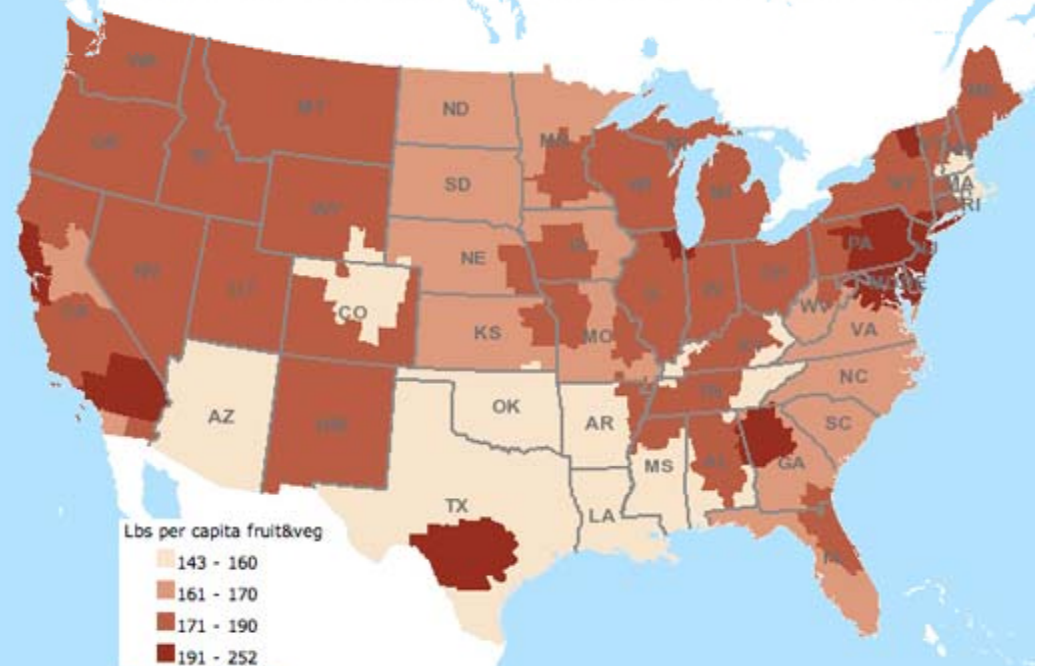
Fast-Food Spending Per Person



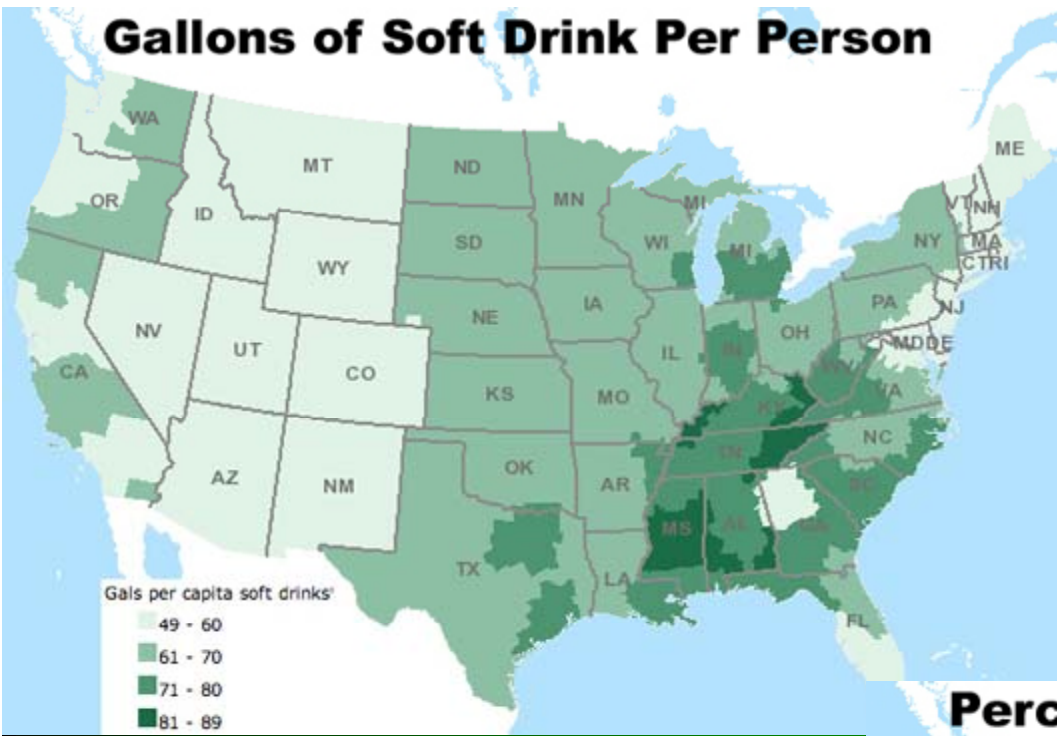
Pounds of Meat/Poultry Eaten Per Person



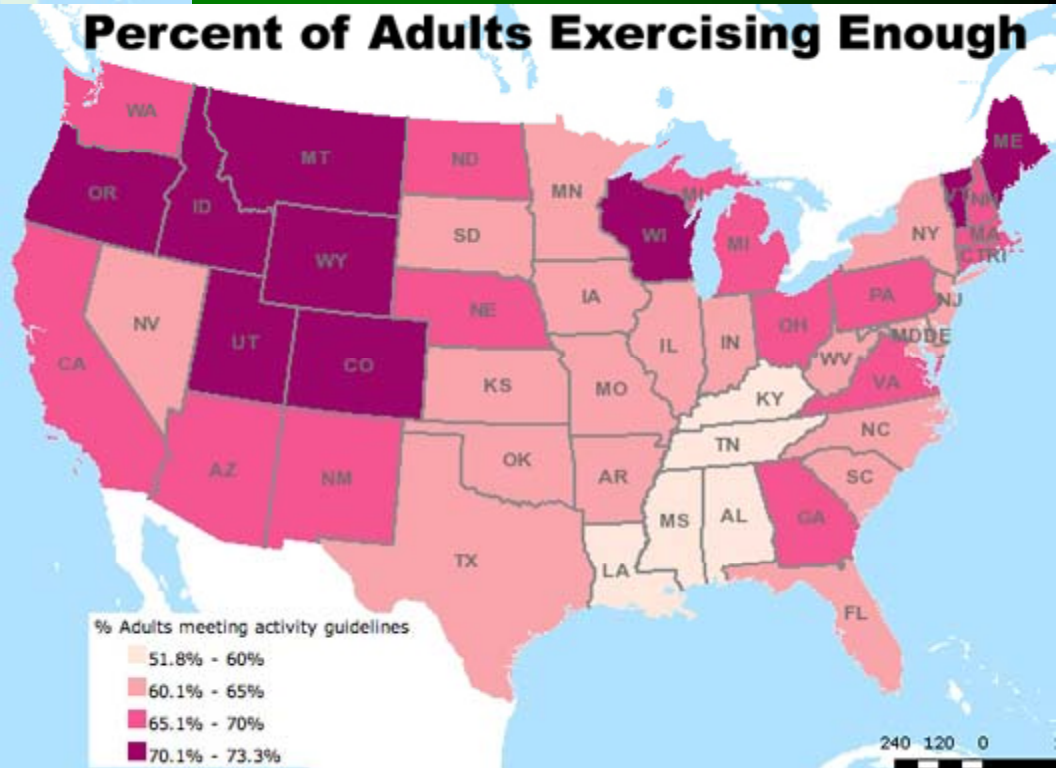
Pounds of Fruits/Vegetables Per Person



Gallons of Soft Drink Per Person

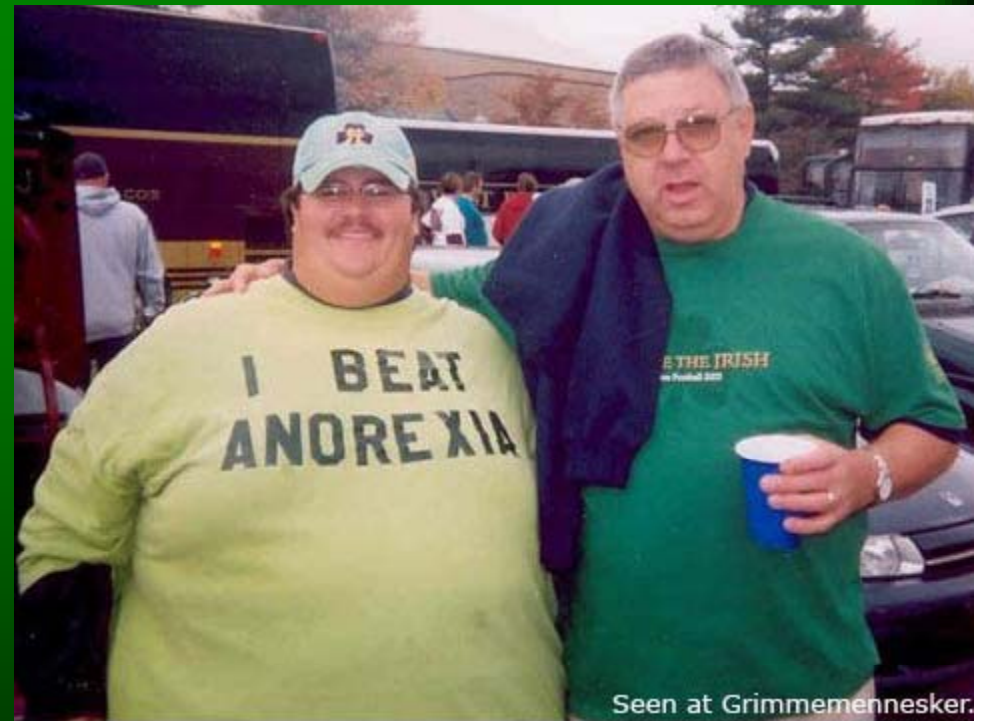


Percent of Adults Exercising Enough



The Obesity Epidemic

- Obese = 30% more than ideal weight
- Morbidly Obese = 50 to 100% or 100lbs over ideal weight
- 3.8 million weigh over 300lbs
- 400,000 (mostly males) weigh over 400lbs



I beat anorexia

The Obesity Epidemic

- Compared to the late 1970's
 - Men are 17lbs heavier
 - Women are 19lbs heavier
- According to the Military; 40% of women and 25% of men are too heavy to enlist



AMERICA

Is this what we've become?

Obesity in America

- 1981 obesity rate 15%
- 1991 no state was over 20% obese
- 38 states over 25% obese
- 8 states over 30% (Kentucky 7th)
- Blacks & Latinos are more obese
- Southern states are more obese
- Socioeconomic <\$15,000 – 35%; >\$50,000 – 24%; high school diploma 34%; college graduate 22%



Childhood Obesity

- Kentucky 3rd
- 1/3 (25 million) overweight or obese
- Type II Diabetes
- “Childhood obesity is a matter of national security”
Gen. Petraeus



Why???

Cheap Food

- U.S. has the most abundant food supply
- More disposable income
- 11 – 13%, but going up recently



Bad Food Choices

- Purchase on flavor and convenience, nutrient content and dietary needs secondary
- Go, go life style
- 50% of our meals are eaten outside the home
- \$15,000 year “eating out”
- “Your fat because of McDonalds!”



Portion Sizes

- Larger Portion sizes
- Studies show that using smaller plates = less food, larger plates = more food
- It takes about 20 minutes for the full feeling



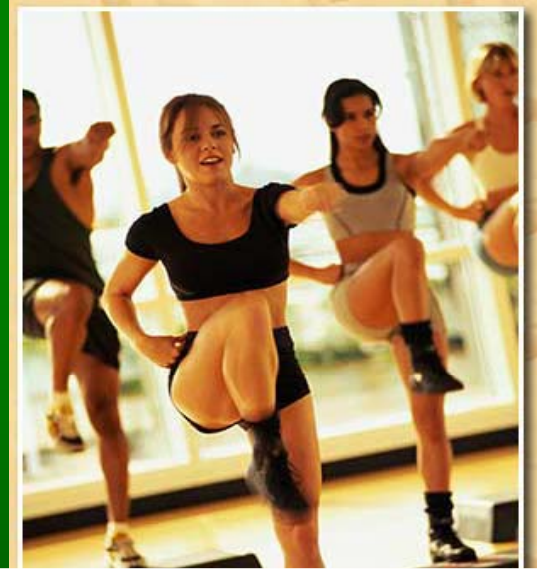
Marketing to Children

- Junk foods are marketed to children
- Use of “cartoon characters” to market food
- Removal of soda and snack machines from schools



Lack of Exercise

- Most Americans do not exercise on a regular basis
- Seeing more vitamin D deficiencies
- Removal of gym from school curriculum



Other Reasons

- Stress
- Stopped Smoking
- Genetics
 - May load the gun, but your environment pulls the trigger
- Getting older
- Food Insecurity
- What you are drinking, soda & alcohol
- Pregnancy



The Business of Weight Loss

- \$42 billion spent on weight loss (books, videos, pills, specialty foods, etc)
- 28,752 hits on Amazon.com for weight loss
- Joining a gym has become the “in thing”



**How does meat fit
into a healthy diet?**

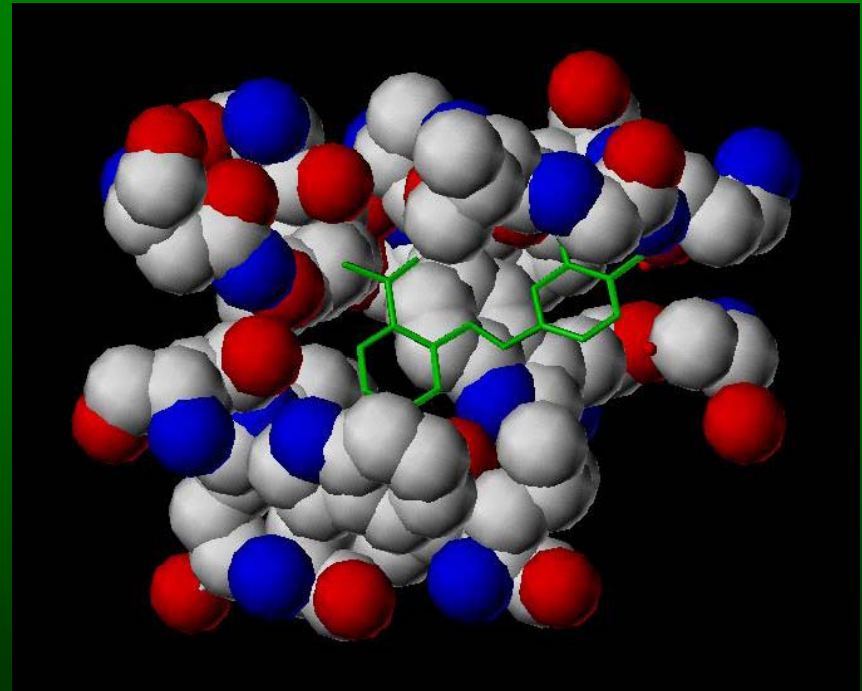
Nutrition

- Meat, poultry, and fish significant portion of the US diet
- 14% Calories, 39% Protein, & 24% Fat
- Meat occasionally gets a bad rap
- Good source of protein, fats, minerals and vitamins



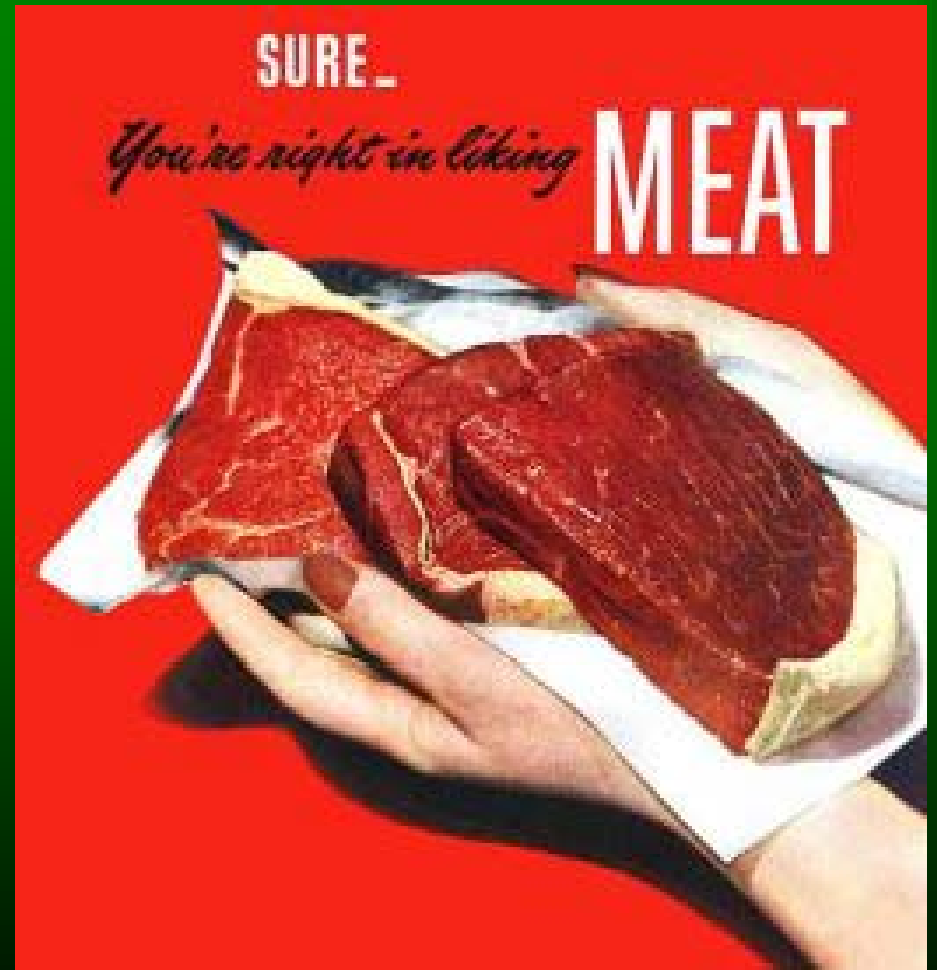
Proteins

- 19 to 23% Protein
- Increases to 25 to 30% after cooking
- 43-gm of the 110-gm consumed are from meat, poultry, fish
- High quality protein source
 - Contains all the essential amino acids
 - Phenylalanine, valine, tryptophan, threonine, methionine, leucine, isoleucine, lysine, and histadine



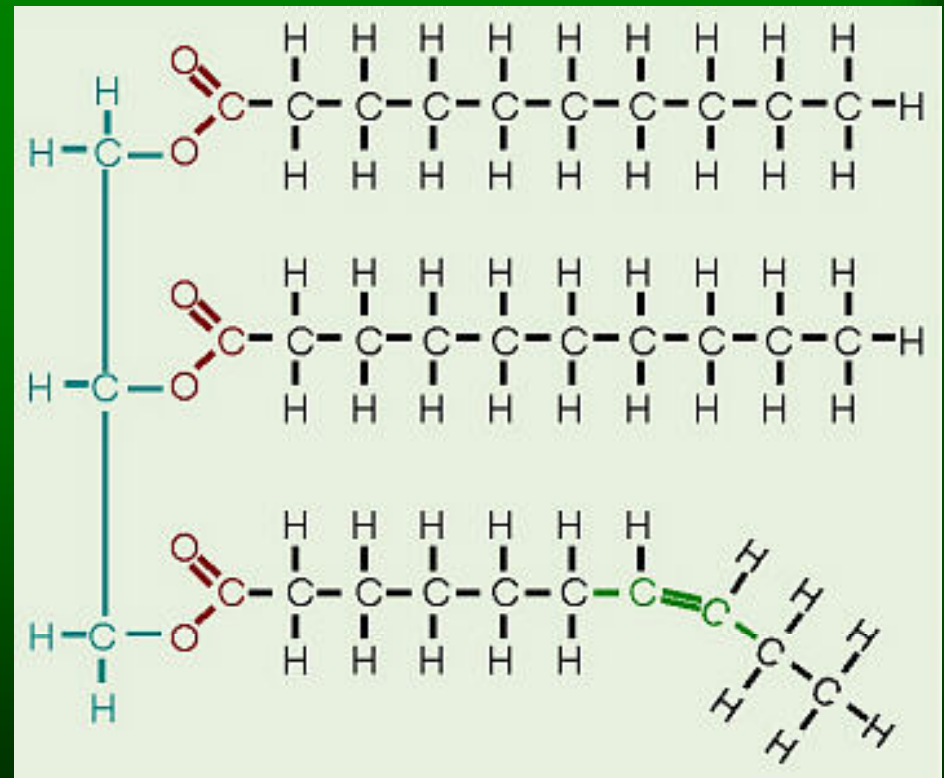
Proteins

- Meat proteins are 95 and 100% digestible
- Plant proteins are 65 to 75% digestible



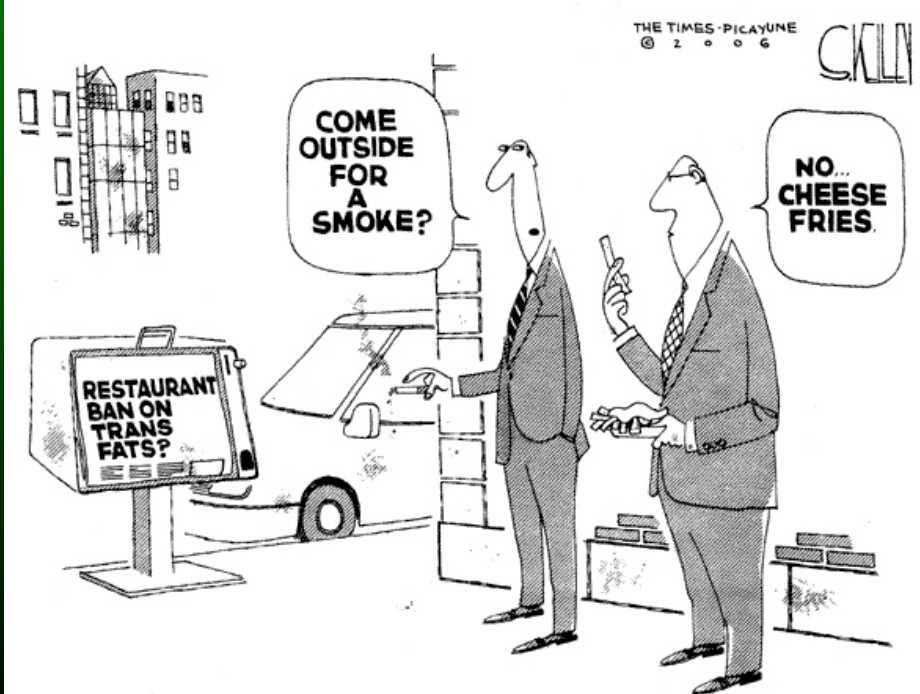
Fats (Lipids)

- Subcutaneous fat 33%, 45%, 54%, & 58% saturated from chicken, pork, beef, & lamb, respectively
- Monounsaturated oleic acid
- Saturated = palmitic and stearic acids



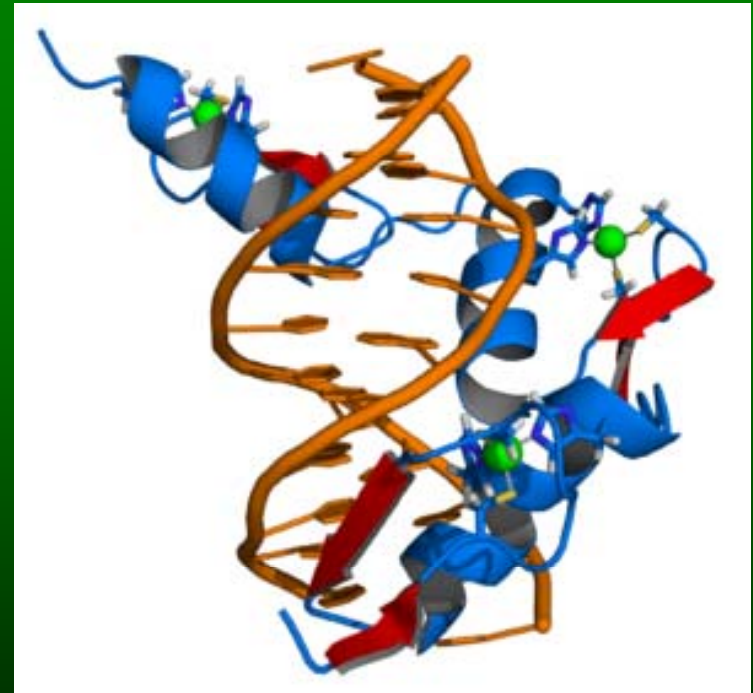
Fats (Lipids)

- Beef (ruminants) contains trans fats
- High consumption of saturated fatty acids have been linked to cardiovascular disease
- USFA in trans configurations act like SFA
- Its hydrogenated saturated trans fats that are the problem; i.e. man made fats!



Minerals

- **Good source of all minerals, except Ca**
- **Iron**
 - Highly absorbable
 - Lean meat same as navy beans, but 4x more absorbable
- **Zinc**
 - 40% of daily intake
 - Wound healing, immunity, taste acuity, DNA synthesis



Vitamins

- Meat excellent source of B complex vitamins
- Thiamine, Riboflavin, Niacin, B6, and B12
 - Studies show an increase in cognitive development when meat is added to diet
- Not a good source of Carbohydrates
- Meat does fit into a healthy lifestyle
- Remember all things in proper amounts!

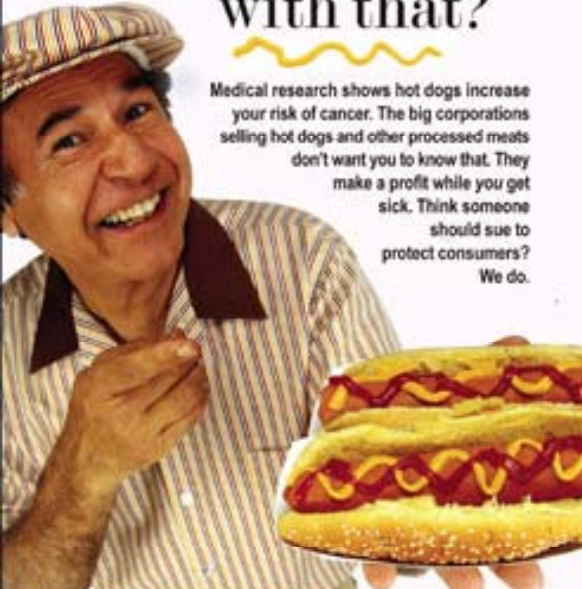


Meat causes Cancer?!

- **2008 Report**
 - Eating meat causes cancer
 - High energy food
 - Avoid processed meats
 - 18 grams per week
- **Hot Dogs need a warning label**
- **Nitrites**

Meat and Cancer

- Mainly meat causes obesity, thus cancer
- Author later admitted to “cherry-picking” research articles
- Are Nitrites a carcinogen?
 - Can, but Nitrate converted to Nitrite in the gut



You want *CANCER* with that?

Medical research shows hot dogs increase your risk of cancer. The big corporations selling hot dogs and other processed meats don't want you to know that. They make a profit while you get sick. Think someone should sue to protect consumers? We do.

To join our hot dog lawsuit,
contact the Physicians Committee for Responsible Medicine
at 202.527.7314 or legal@pcrm.org

Why do we add Nitrate/Nitrites

- **Control *Clostridium botulinum***
- **Color**
 - Produces the typical cured meat color
- **Flavor**
 - Produces the desired cured meat flavor
- **Starting to see non-nitrite added cured meats**
 - But..use ingredients that are high in natural nitrites

Benefits of Nitrites/Nitrates

- **Controlled levels in cured meats**
- **High in leafy green vegetables**
- **Has been shown to lower Blood Pressure**
- **Widen arteries**



Are their hormones in Foods?

If so what does this mean?

**What is this doing to my body
& the bodies of my children?**

[http://www.youtube.com/watch?
v=oEaF4OG2t2A](http://www.youtube.com/watch?v=oEaF4OG2t2A)

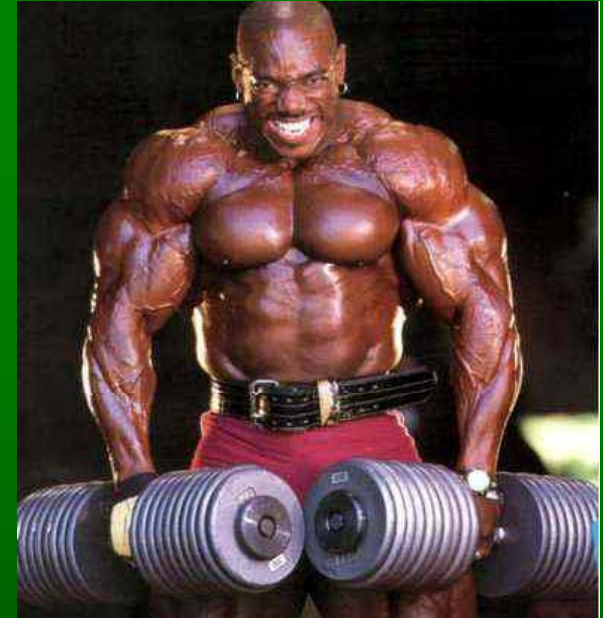
Are There Hormones in Foods?

- Yes!
- Animals cannot grow without hormones
- Fruits and Vegetables cannot grow without hormones
- Yes, there are residual hormones left in the final product



Do we add hormones to animals?

- Pigs = no
- Sheep = no
- Chickens = no
- Fish = no
- Shellfish = no
- Cattle = yes
- Dairy Cattle = yes and no

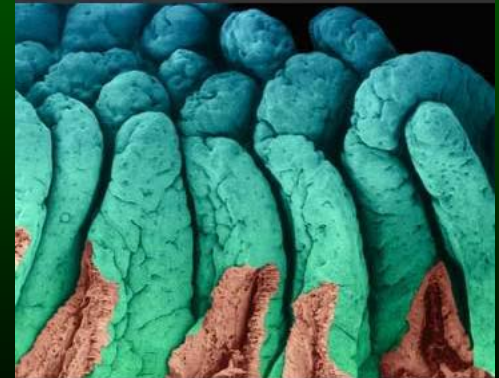


Estrogen Levels in Various Foods

- 3 oz portion
- Non-implanted beef = 1.3 ng of estrogen
- Implanted beef = 1.9 ng of estrogen
- Cabbage = 2,000 ng of estrogen
- Birth Control Pill = 35,000 ng of estrogen
- Soybean Oil = 168,000 ng of estrogen

Hormones in Food

- Hormones don't like heat
- Cooking denatures hormones
- Some hormones are too big to be absorbed in the small and large intestine
- rBST is a protein hormone that is destroyed in the stomach



**How to lose
weight!**

You can follow a diet plan

- **Atkins**
 - Low CHO, High Fat & Protein
- **The Zone Diet & South Beach Diet**
 - Low CHO, High Protein, Controlled Fat
- **Pritiken Diet**
 - High CHO, Low Fat
- **Jenny Craig**
 - Buy their food, meet weekly to discuss your progress
- **NutriSystem**
 - Low glycemic CHO, High Protein
- **Weight Watchers**
 - One of the oldest; points system

Or you can do this

- **Gastric By-Pass Surgery**
 - Small pouch is created at the top of the stomach, “by-passing” the majority of the stomach
 - Walnut sized pouch hold an ounce
- **LAP-BAND**
 - Band placed on the top part of the stomach, a small canal is created between the two pouches

Measuring your progress

- **Scale**
 - Get one that will weight you
- **Tape Measure**
 - Chest, Belly, Arm, Leg, Waist, Hips
- **Body Fat Scale**
 - Expensive
- **Body Mass Index**
 - Not a big fan



Body Mass Index (BMI)

- **Combination of Height and Weight**
- **Normal = 18.5 to 29.5**
- **Overweight = 25 to 29.9**
- **Obese = 30 or higher**
- **Two cases**
 - **5'9"; 280, BMI = 41.3**
 - **6'1"; 312, BMI = 41.2**

Chris Farley 280 lbs 5'9"
BMI = 41.3



**Mariusz Pudzianowski (5 time World's
Strongest Man); 6'1" 312;bs
BMI = 41.2**



What you are up against

- Starting a diet
- Initial weight loss is water
- Body wants to maintain fat mass
 - Burn CHO and Muscle
- Metabolism will slow to maintain fat mass
 - Your body is telling you to eat!
- You need to:
 - Keep metabolism going while cutting calories

A Whole New Life

- Things I've learned and tips
- Eat slowly
 - 20 min. to get full feeling
- Eat every 3 hours
 - Avoid junk
 - Eat like a Caveman
- Lose 2 lbs per week
- Exercise
- Small changes can have big impact on your life
- It has to be a true life-style change!!!
- Recently, diets, regardless of type of diet will work as long as it is a lifestyle change

