

# Cooking



Presented By  
Troop 356



# Safety First

- Some things consider before you begin
  - Injuries that might arise from cooking
  - How to treat these injuries
  - More important, how to prevent them



# Injuries that might arise from cooking and how to treat them

- Burns and Scalds

- Stop the burn

- Put out the flames or remove the victim from the source of the burn

- Cool the burn

- Use large amounts of cool water to cool the burn

- Cover the burn

- Use dry, sterile dressings or a clean cloth to help prevent infection



## More important, how to prevent them

- Take time to prepare meals without rushing
- Always use pot holders that are in good repair
- Keep pot handles turned toward the back of the stove
- Cook on rear burners whenever possible, but avoid reaching over an open flame or hot burner
- Use caution when moving heavy pots of hot liquids from the stove
- Keep all heated liquid and food out of children's reach, and never hold anything hot while carrying a child
- While cooling, try to keep younger children out of the kitchen
- Remove tablecloths when toddlers are present (they can pull the table's contents on top of themselves)
- Purchase and use small appliances with short electrical cords



# Injuries that might arise from cooking and how to treat them

- Cuts
  - Stop the Bleeding
  - If the blood soaks through, apply a second bandage on top. Leave the first bandage on to preserve the clotting that has already taken place
  - If the bleeding continues, raise the wound above the patient's heart level
  - Once the bleeding stops, clean the wound gently with soap and water, or just flush the wound with water to remove all debris and dirt
  - Apply an antibiotic ointment. Cover the cut with a clean bandage

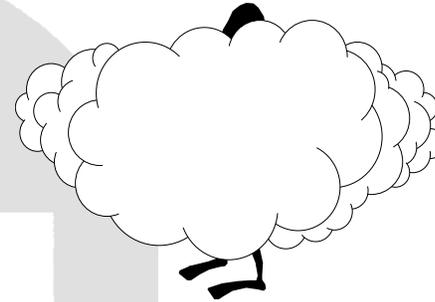


# More important, how to prevent them

- Keep knives and scissors sharp and handle them carefully
- Store sharp items separate from other utensils. Take them out of storage only when they are being used
- Never put knives or scissors in a sink full of water. Wash, rinse, dry and put them away as you go
- When you use a knife to cut, dice or chop, always place the item you are cutting on a flat surface such as a wooden cutting board. Cut away from yourself, making sure your fingers are not in the knife's path



# Injuries that might arise from cooking and how to treat them

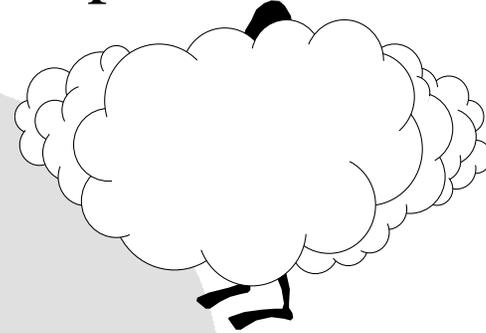


- Smoke Inhalation

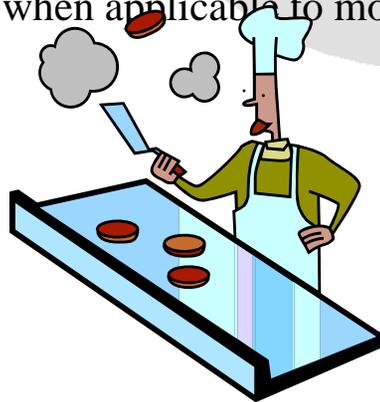
- Inhaling smoke can seriously damage the lungs, and smoke sometimes contains noxious fumes.
- To treat a smoke inhalation victim, first remove the victim from the smoke filled area. Then have the victim take long, deep breaths of fresh air to clear the lungs.
- If coughing or choking continues, or if there is pain, irritation, or raspy breathing, see a doctor as soon as possible.



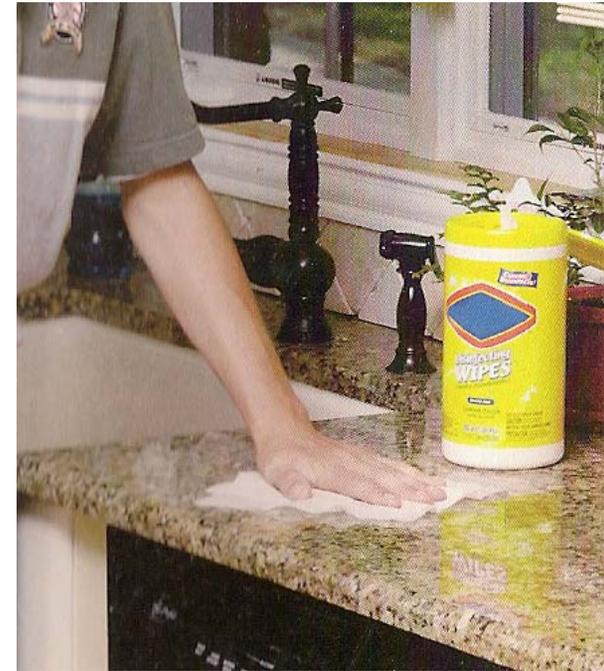
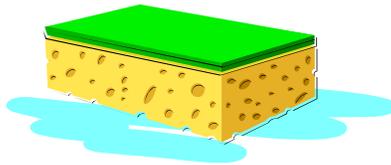
# More important, how to prevent them



- Do not use excessive heat.
  - Overheating oil for example will cause it to smoke. This is called the *Smoking Point*. The point when a fat such as butter or oil smokes and lets off an acrid odor. Not good since this odor can get into what you are cooking and give it a bad flavor. Butter smokes at 350° F, vegetable oil at 445° F, lard at 365°-400°F , olive oil at about 375° F.
- Use negative ventilation
  - Use a vent when applicable to move smoke from the cooking area to outdoors



# Clean as you go



- It keeps the cooking area safer
- It makes your cooking experience calmer and more organized
- It makes cleanup a breeze when you are finished cooking and eating



# Cook Safely



- Food
  - Meats and dairy products must be kept cold before use.
  - Once removed from it's protective wrapper, meat must be kept separated from other food items
  - Because bacteria can grow in meats, the meat must be cooked as soon as it is no longer cold
  - Any uneaten, cooked meat must be properly stored and kept cold to eliminate the risk of growing bacteria



# Cook Safely



- Utensils

- Cooks use many types of equipment to prepare food
- Sharp knives must be used properly to prevent serious cuts and injuries
- Pots on a stove or campfire get extremely hot and always must be handled with hot-pot tongs or hot pads to prevent burns



# Cook Safely



- Heat

- Whether cooking over a fire in camp or on a stove at home, there is always a risk to you, to others nearby, and to your environment.
- Dress appropriately while cooking.



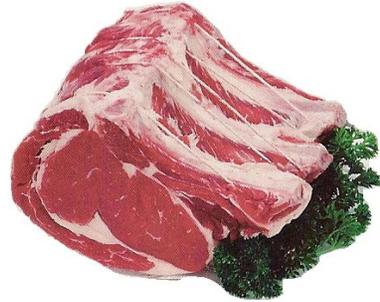
# Safe Food Storage and Transportation



- Keep cold foods cold and hot foods hot. For camp, keep cold food on ice in a cooler
- When you buy food in jars, make sure the safety seal on the lid is intact
- Freeze any fresh poultry or meat that will not be used within two days
- Refrigerate any leftovers as soon as the meal is over
- Keep the refrigerator clean, and discard uneaten leftovers after three days



# General Food-Illness and Prevention Guidelines



- Always follow the food-storage guidelines
- Wash your hands in soap and warm water before cooking, after cooking, as needed while you cook, and before eating
- Keep your work area clean; wipe up spills quickly and thoroughly using soap and water or kitchen cleaner
- Cook all meat and poultry products, including eggs, thoroughly before eating
- Never eat raw cookie dough or cake batter
- Never use foods from cans that bulge
- Failure to follow safe food-handling guidelines can cause serious illness



# Food-Illnesses Worth Mentioning

- **Salmonella Enteritis**
  - This bacteria is linked to raw, uncooked eggs and poultry, and unwashed, raw vegetables and fruits.
  - Help prevent salmonella poisoning by doing the following
    - Do not buy leaking packages; isolate meat packages in plastic bags to prevent contaminating other foods
    - Prepare foods using clean utensils and clean work surfaces
    - Quickly wipe up all raw meat or poultry juices from containers and wash utensils, hands cutting boards and serving plates that are exposed to such juices.
    - Thoroughly cook all foods derived from animals (including eggs).
    - Do not eat raw eggs, cookie dough or cake batter. Consume only pasteurized milk products.
    - Thoroughly wash all fruits and vegetables
    - Refrigerate leftovers promptly



# Food-Illnesses Worth Mentioning

- Staphylococcal Enteritis
  - This bacteria multiplies in warm temperatures and thrives on protein.
  - To prevent staphylococcal enteritis
    - Wash hands and utensils before serving food
    - Thoroughly cook all meats, and refrigerate leftovers promptly in shallow, covered containers



# Food-Illnesses Worth Mentioning

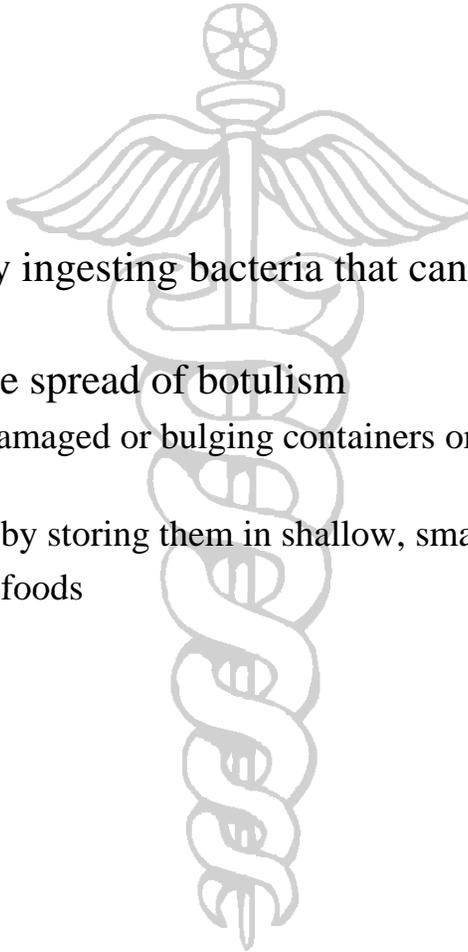
- Escherichia Coli Enteritis (E.Coli)
  - Bacteria that attacks the intestinal tract. It can be transmitted from person to person and grows at temperatures of 44 degrees and above.
  - Precautions to prevent the spread of E. Coli
    - Prepare and store food in a sanitary environment
    - Thoroughly cook all food
    - Refrigerate food at 40 degrees or below be found in many kinds of food



# Food-Illnesses Worth Mentioning

- **Botulism**

- Deadly disease caused by ingesting bacteria that can be found in many kinds of food
- Precautions to prevent the spread of botulism
  - Never use food from damaged or bulging containers or foods that have a strange odor or appearance
  - Cool leftovers quickly by storing them in shallow, small containers
  - Reheat all refrigerated foods



# Food-Illnesses Worth Mentioning

- Trichinosis
  - Trichinosis is caused by the parasite *Trichinella Spiralis*. It's larve can remain alive in human tissue for years. People contract trichinosis by eating undercooked or raw meat, especially pork infected with the parasite.
  - To prevent trichinosis, thoroughly cook meats, especially pork.



# Food-Illnesses Worth Mentioning

- Hepatitis

- Hepatitis A is one of five viruses known to cause inflammation of the liver, the others being hepatitis B, C, D and E.
- To help prevent hepatitis A, do the following
  - Wash hands with soap and warm water before preparing and eating food. Make sure to use a nailbrush to scrub under your fingernails, where bacteria can hide
  - Cook shellfish thoroughly before eating
  - Drink water from approved sources only
  - Keep bathrooms clean and disinfected



# The Food Pyramid



**MyPyramid.gov**  
STEPS TO A HEALTHIER YOU



# Grain Groups



## Grain Group

Make half your grains whole

- Foods made from wheat, rice, oats, cornmeal, barley or another cereal grain are all grain products.
  - These include bread, pasta, oatmeal, breakfast cereals, tortillas and grits.
- Grains are divided into two subgroups:
  - Whole Grains which contain the entire husk or bran, germ and endosperm
    - Whole wheat flour, bulgur (cracked wheat), oatmeal, whole cornmeal and brown rice are examples.
  - Refined Grains have been milled, which removes not only the bran and germ, but also many nutrients and vitamins
    - Refined grains include grits, noodles, pasta (unless it says whole grain), macaroni and pita bread



# Vegetable Groups



- Any vegetable or 100 percent vegetable juice counts as a member of the vegetable group. Vegetables can be raw or cooked, frozen, canned, dried or dehydrated.
- Vegetables are arranged in 5 subgroups based on nutrient content
  - Dark Green Vegetables
    - Broccoli, greens (collard, turnip, mustard), dark green leafy lettuce, kale, watercress, bok choy
  - Orange Vegetables
    - Acorn squash, butternut squash, pumpkin
  - Dried beans and peas
    - Black-eyed peas, garbanzo beans (chickpeas), lentils, lima beans, navy beans, soybeans, split peas, tofu, white beans
  - Starchy Vegetables
    - Sweet corn, green peas, lima beans, potatoes
  - Other Vegetables
    - Artichokes, asparagus, beets, brussels sprouts, cabbage, cauliflower, celery, cucumbers, eggplant, green beans, green or red peppers, okra, radish, turnips



# Fruit Group



**Fruit Group**  
Focus on fruits

- Either 100 percent fruit juice or any type of fruit counts as part of the fruit group.
- Can be fresh, canned, frozen or dried
- Good substitute for sweets
  - Berries
    - Blueberries, raspberries, strawberries
  - Citrus fruits
    - Clementines, grapefruit, lemons, limes, oranges, tangerines, pineapple
  - Melons
    - Cantaloupe, honeydew
  - Pitted fruits
    - Apricots, avocados, cherries, mangoes, nectarines
  - Other fruits
    - Apples, bananas, grapes, kiwi fruit, pears, watermelon



# Oils, Fats and Sweets Group



**Oils, Fats and Sweets Group**  
Know your fats

- Oils and fats that become liquid at room temperature, such as vegetable oils used in cooking. Oils come from various plants and fish.
- Common oils:
  - Canola, sunflower, corn, cottonseed, grapeseed, olive, peanut, safflower, soybean
- Many foods (nuts, some fish, olives, avocados) are naturally high in oils.
- Most oils are high in monounsaturated and polyunsaturated fats and low in saturated fats.
- Oils from plant sources, such as vegetable and nut oils, contain no cholesterol
- Sweets are included in this group because they are often high in fats and oils



# Milk, Yogurt and Cheese Group



**Milk Group**

Get your calcium-rich foods

- Foods in this group are all made from milk.
- All dairy products provide calcium to help build strong bones and teeth.
- Often fortified with vitamin D, which helps your body to absorb calcium
- Milk
  - Fat-free (skim), low-fat (1 percent milkfat), reduced fat (2 percent milkfat), whole milk, lactose-reduced and lactose-free, flavored milks such as chocolate, strawberry and vanilla
- Milk based desserts
  - Ice milk, ice cream
- Other milk based products
  - Flavored yogurts and yogurt based drinks
- Hard natural cheeses
  - Cheddar, mozzarella, parmesan
- Soft cheeses
  - Cottage cheese, ricotta
- Processed cheeses
  - American



# Meat and Bean Group



- Foods made from meat, poultry, fish, dry beans or peas eggs, nuts and seeds are considered part of this group
- Dry beans and peas are part of this group as well as the vegetable group, because they provide protein
- Most meats and poultry choices should be lean or low fat
- Fish, nuts and seeds contain healthy oils, so choose these foods more often than meat or poultry
- Meat alternatives
  - Black-eyed peas, chickpeas (garbanzo beans), falafel, lentils, lima beans, navy beans, split peas, tofu (bean curd made from soybeans), soybeans, veggie burgers



The Pyramid calls for eating a variety of foods to get the nutrients you need and at the same time the right amount of calories to maintain healthy weight.

Use the Pyramid to help you eat better every day...the Dietary Guidelines way. Start with plenty of breads, cereals, rice, pasta, vegetables, and fruits. Add 2-3 servings from the milk group and 2-3 servings from the meat group. Remember to go easy on fats, oils, and sweets, the foods in the small tip of the Pyramid.

### What Counts as One Serving?

The amount of food that counts as one serving is listed below. If you eat a larger portion, count it as more than 1 serving. For example, a dinner portion of spaghetti would count as 2 or 3 servings of pasta.

Be sure to eat at least the lowest number of servings from the five major food groups listed below. You need them for the vitamins, minerals, carbohydrates, and protein they provide. Just try to pick the lowest fat choices from the food groups. No specific serving size is given for the fats, oils, and sweets group because the message is USE SPARINGLY.

#### Milk, Yogurt, and Cheese

1 cup of milk or yogurt	1 1/2 ounces of natural cheese	2 ounces of process cheese
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#### Meat, Poultry, Fish, Dry Beans, Eggs, and Nuts

2-3 ounces of cooked lean meat, poultry, or fish	1/2 cup of cooked dry beans, 1 egg, or 2 tablespoons of peanut butter count as 1 ounce of lean meat	
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#### Vegetable

1 cup of raw leafy vegetables	1/2 cup of other vegetables, cooked or chopped raw	3/4 cup of vegetable juice
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#### Fruit

1 medium apple, banana, orange	1/2 cup of chopped, cooked, or canned fruit	3/4 cup of fruit juice
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#### Bread, Cereal, Rice, and Pasta

1 slice of bread	1 ounce of ready-to-eat cereal	1/2 cup of cooked cereal, rice, or pasta
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# Planning and Preparing Meals at Home



- Good planning and preparation before you start cooking will help you successfully prepare healthy and delicious meals at home.
  - Determine when you will be cooking and the types of meals you will be preparing
  - Find out whom you will be cooking for and whether anyone has any special dietary needs
  - Select recipes using the food pyramid as a guideline
  - Make a list of foods required for meals, then create a shopping list based on the ingredients you will need
  - Create and follow a timetable for the preparation of each meal.



# Understanding the Equipment



- Before you cook at home, understand your cooking equipment, including appliances, utensils, pots and pans.
- Observe all basic safety guidelines and follow manufactures recommendations when using appliances.



# Planning Meals



- When shopping for your family meals, always consider your family's budget
- If you plan wisely, you should not have many leftovers, unless you want leftovers.
- Always look at the servings or yield any recipe promises.



# Finding Recipes

- Cookbooks
- Newspapers
- Internet
- Food Network
- MOM



# Planning and Preparing for Camp Cooking

- Choosing Cooking Equipment
  - Selecting a Stove
    - White Gas
    - Cartridge Stove
    - Propane Tank Stove
    - Kerosene
  - Grills
  - Charcoal





# Using Stoves Safely



- Using Stoves Safely

- Never Fuel, light or operate a gas stove or lantern inside a tent, snow cave or igloo; always do this outdoors
- Use, refuel, and store stoves and lanterns only with the supervision and knowledgeable adult and in Scout facilities only where allowed
- Operate and maintain stoves and lanterns according to the manufacturer's instructions included with the product.
- Store fuel in well-marked, approved containers (never a glass container) and in a ventilated, locked box at least 20 feet from buildings and tents, and below 100 degrees F.
- Allow hot stoves and lanterns to cool completely before changing compressed gas cartridges or cylinders, or refilling from containers of liquid fuel.
- Refill stoves and lanterns outdoors, a safe distance from flames, including other stoves and campfires.
- Place stoves on a level surface before operating.
- Have stoves and lanterns periodically checked periodically by knowledgeable persons.
- To avoid possible fires, locate gas tanks, stoves, etc., downhill from any tents since heavy leakage of gas will flow downhill the same as water.
- Never leave a lighted stove or lantern unattended.
- Do not overload a stove with a heavy pot or large frying pan.
- Carry empty fuel containers home for proper disposal.



## Cook Kits and Utensils

- Deciding which utensils to take on a campout depends on what you what you plan to cook.
  - Plan meals based on
    - Length of trip
    - Destination
    - How you will get there
- Make a standard cook kit (spoons, knives, vegetable peelers, etc.) to take camping. Review your cook kit before departing on each camping trip to ensure you have the right utensils for the trip.
- Know how many people you will be cooking for will determine how many and what size pots you will need.
- Don't forget ziplock bags, seasonings and of course, your own personal eating utensils



# Cooking Techniques

## Just to name a few:

- **Baking** - cooking food in an oven using dry heat
- **Braising** - cooking technique in which the main ingredient is seared, or browned in fat, and then simmered in liquid on low heat in a covered pot
- **Carmalizing** - All meat and vegetables contain some sugar (in the form of carbohydrates). Under intense dry heat, as in roasting or sauteing, these sugars break down. The result is the brown color and rich flavor called caramelisation
- **Grilling** - is a lot like broiling. Both use direct heat, but when grilling the heat source comes from below and when broiling the heat source is from above
- **Render** - the melting of animal fat over low heat so it separates from any connective tissue. This tissue turns crisp and brown (known as crackling) and the clarified (clear) fat is further processed by straining. To cook fatty meats, such as bacon or spare ribs, until the fat melts.
- **Scald** - To heat milk almost to the boiling point -- just until tiny bubbles begin to form around the inside edge of a pan.
- **Saute** - Cooking with a small quantity of fat or oil at a high temperature
- **Sweat** - When foods, usually vegetables, are cooked over low heat in a small amount of fat (usually butter), drawing out juices to remove rawness and develop flavor.

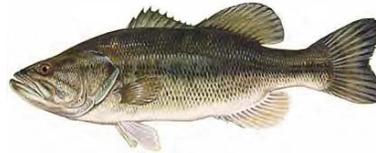


## Pretty Good Stuff to Know

- Always have a backup plan

- For Example:

- If fishing for your dinner is in your plans, have a backup plan.... *Just in case the fish didn't have the same plans.*



- Consider the time of year

- In summer, most people prefer lighter food, in winter hot and hearty meals.



- Find out how many people will be there

- find out if there are any known allergies or dietary restrictions.



- List all meals planned for length of campout

- If weight or cooking time is a concern....

- Consider preparing some food ahead of time, such as dried foods (jerky fruits), chopping vegetables, cutting up meat into bite size pieces)



# Special Needs Diets

## Know Your Guests

- You should know any special dietary needs of your guests / scouts.
- Are any of your Scouts/Guest ADHD or some similar condition?
- Are any diabetic?
- Are there any with food allergies? (peanuts, seafood, etc.)
- Low cholesterol Diets
- Low sodium Diets
- Do any observe religious rituals? (fasting, forbidden foods, religious holiday observed, etc.)



# And of Course.....



One pretty good rule to live by.....



# Never Trust a Skinny Chef



# References

- Cooking Merit Badge Book
- [www.mypyramid.gov](http://www.mypyramid.gov)
- [www.passionateaboutfood.net](http://www.passionateaboutfood.net)
- [www.reluctantgourmet.com](http://www.reluctantgourmet.com)

