



NUTRITION FOR DIRECT CARE STAFF

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TOPICS

- Basic Nutrition Principle
- Implementing Good Nutrition
- Indicators of Poor Nutrition or Changes in Status
- Basic Cooking Skills
 - Shopping
 - Meal Preparation
- Measuring
- Food Safety & Foodborne Illness
- Kitchen Safety



Factors that Influence Food Choices

- Ethnic Background or Religion
- Budget
- Media messages
 - TV, Radio, Magazines
- Availability
- Convenience in Preparation
- Peer Group/Status
- Coupons
- Available Equipment
- Cooking Skills
- Reading Skills
- Health Conditions
- Activity Level
- Age
- Location
 - Home vs. restaurant
- Holidays
- Family Food Preferences
- Altered taste due to medication side effects
- Attitude of planners



THE PREVIOUS SLIDE LISTS WHAT MAY INFLUENCES WHAT YOU MAY CHOOSE TO EAT. HOWEVER, WHEN WORKING WITH OTHERS IN HEALTH CARE FOOD DECISIONS MUST BE GUIDED BY THE NUTRITION CARE PLAN AND NOT THE ATTITUDE OR PERSONAL PREFERENCE OF THE DIRECT CARE WORKER.

Nutrition-Related Issues:

As direct care staff the person you work with may have the following issues. Your job is to help the person embrace compliance with the healthy eating concepts outlined in the Nutrition Care Plan. You are the mentor for healthy living decisions.

- Limited Motivation
- Poor judgment
- Limited education
- Low income
- Inadequate living environment
- Limited social supports
- Lack of independent living skills
- Unusual eating habits and behaviors
- Medication side effects
- Substance abuse

Using Meals as a Learning Model



- Staff should serve as a role model for individuals during meals. ***Staff should eat meals with the person they are helping.***
- When staff set a good example, individuals have the opportunity to learn good manners and eating habits. ***Staff that consume foods that are not encouraged by the person's diet is cruel and not encouraged.***

Mealtimes also offer the opportunity to develop useful skills

- **Socialization**

- Encourage individuals to interact by serving family-style meals.
- Role modeling; staff interacting with individuals and other staff
- Encourage healthful food-related activities outside of the home ***Involve the person in grocery shopping healthful meal planning, growing a garden, going to local fruit markets, involve them in meal preparation***


Mealtimes also offer the opportunity to develop useful skills

- **Skill Development**

- Staff model the appropriate way to eat.
- Individualized meal-time programs to teach utensil use and table manners

- **Developing Positive Attitudes about Food/Eating**

- Expose individuals to a variety of different foods and eating experiences
- Encourage individuals to assist in meal preparation and menu planning
- Provide a pleasant meal time environment (soft music, attractive place settings, etc.)



Persons with disabilities or Mental Illness may have a poor relationship with food using food as an emotional crutch. The person and the team have input into creating a Nutrition Care Plan that outlines the appropriate mealtime needs.

Mealtimes also offer the opportunity to develop useful skills

- **Community Integration**

- Take individuals to a restaurant for a meal
- Attend community activities that involve food.
- Help individuals make sound nutritional choices at restaurants
- ***Fast food and convenience stores are not the only options for food outings.***
- ***Try demonstrating meal sharing or packing up half the serving for a meal at another time. Outings can include physical activity and not just food.***

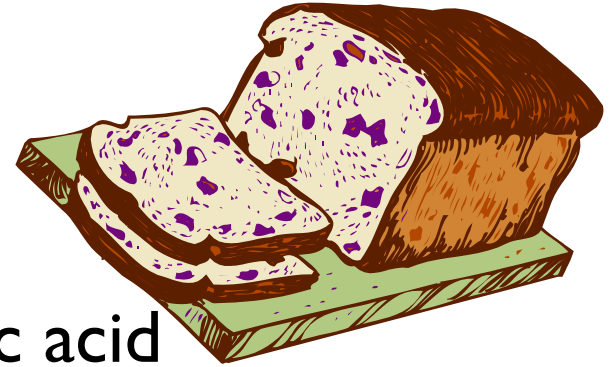
NUTRITION IS THE FOUNDATION OF GOOD HEALTH

You are what you eat is an accurate statement because food consumed eventually becomes the cells and tissues of your neurological, muscular, skeletal and circulatory systems. Choose foods consumed wisely.



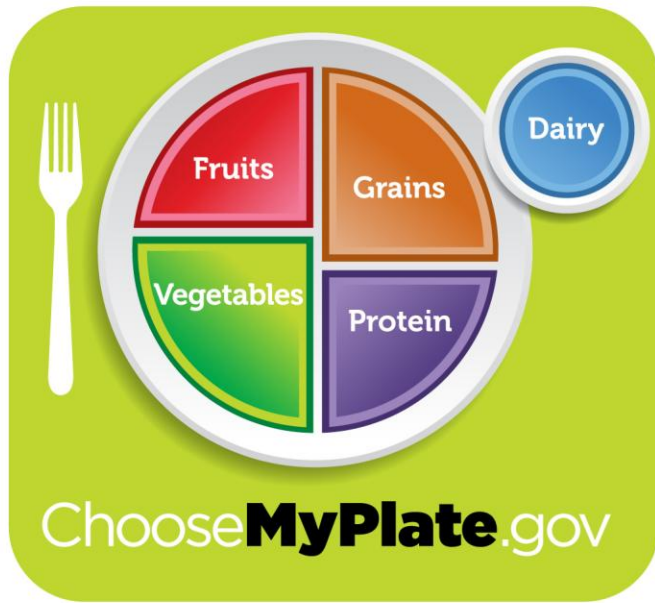
The Six Key Nutrients for Good Health

- Proteins
- Carbohydrates
- Fats
- Vitamins
 - A, D, E, K, C, B complex, folic acid
- Minerals
 - Calcium, Iron, Magnesium, Zinc
- Water



**ALL OF THESE NUTRIENTS NEED TO BE
CONSUMED ON A DAILY BASIS
IN APPROPRIATE AMOUNTS TO PROMOTE
GOOD HEALTH.**

**AS A STAFF YOU ARE NOT EXPECTED TO
KNOW THE NUTRIENT
AMOUNTS NEEDED FOR EACH PERSON
YOU SERVE THE RD CREATES
A PLAN BASED ON THE PERSON'S
NUTRITION NEEDS.**



The latest recommendation for healthy eating is simplified into a single plate.

This web site Myplate.gov helps everyone understand personal nutrition needs based on age, sex and body size.

The web site provides information about making healthy food decisions by each food group.

The next few slides will outline what foods are recommended to be eaten from each food group.

GRAINS

Make half your grains whole

Eat at least 3 oz. of whole-grain cereals, breads, crackers, rice, or pasta every day

1 oz. is about 1 slice of bread, about 1 cup of breakfast cereal, or ½ cup of cooked rice, cereal, or pasta

VEGETABLES

Vary your veggies

Eat more dark-green veggies like broccoli, spinach, and other dark leafy greens

Eat more orange vegetables like carrots and sweetpotatoes

Eat more dry beans and peas like pinto beans, kidney beans, and lentils

FRUITS

Focus on fruits

Eat a variety of fruit

Choose fresh, frozen, canned, or dried fruit

Go easy on fruit juices

MILK

Get your calcium-rich foods

Go low-fat or fat-free when you choose milk, yogurt, and other milk products

If you don't or can't consume milk, choose lactose-free products or other calcium sources such as fortified foods and beverages

MEAT & BEANS

Go lean with protein

Choose low-fat or lean meats and poultry

Bake it, broil it, or grill it

Vary your protein routine — choose more fish, beans, peas, nuts, and seeds

For a 2,000-calorie diet, you need the amounts below from each food group. To find the amounts that are right for you, go to MyPyramid.gov.

Eat 6 oz. every day

Eat 2 ½ cups every day

Eat 2 cups every day

Get 3 cups every day;
for kids aged 2 to 8, it's 2

Eat 5 ½ oz. every day

Find your balance between food and physical activity

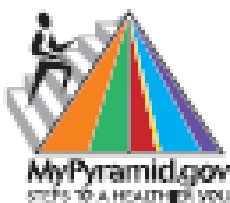
- Be sure to stay within your daily calorie needs.
- Be physically active for at least 30 minutes most days of the week.
- About 60 minutes a day of physical activity may be needed to prevent weight gain.
- For sustaining weight loss, at least 60 to 90 minutes a day of physical activity may be required.
- Children and teenagers should be physically active for 60 minutes every day, or most days.



Know the limits on fats, sugars, and salt (sodium)

- Make most of your fat sources from fish, nuts, and vegetable oils.
- Limit solid fats like butter, stick margarine, shortening, and lard, as well as foods that contain these.
- Check the Nutrition Facts label to keep saturated fats, trans fats, and sodium low.
- Choose food and beverages low in added sugars. Added sugars contribute calories with few, if any, nutrients.

See next slide for explanation



U.S. Department of Agriculture
Center for Nutrition Policy and Promotion
April 2005
ONPP-15



USDA is an equal opportunity provider and employer.

- The previous page shows the portions in a typical 2000 calorie diet - the estimated calorie needs for most people who are at a healthy weight to maintain their weight or for large persons to lose weight.
- Note that portions and selections are highlighted under each category then the amount needed everyday is listed.
- Exercise is recommended on a daily basis as a health need.
- Fats, sweets and salt limitations are listed as a recommendation. A dietitian would individualize this as needed per person.

MyPyramid

STEPS TO A HEALTHIER YOU



Based on the information you provided, this is your daily recommended amount from each food group.

GRAINS 5 ounces	VEGETABLES 2 cups	FRUITS 1 1/2 cups	MILK 3 cups	MEAT & BEANS 5 ounces
<p>Make half your grains whole</p> <p>Aim for at least 3 ounces of whole grains a day</p>	<p>Vary your veggies Aim for these amounts each week:</p> <p>Dark green veggies = 2 cups</p> <p>Orange veggies = 1 1/2 cups</p> <p>Dry beans & peas = 2 1/2 cups</p> <p>Starchy veggies = 2 1/2 cups</p> <p>Other veggies = 5 1/2 cups</p>	<p>Focus on fruits</p> <p>Eat a variety of fruit</p> <p>Go easy on fruit juices</p>	<p>Get your calcium-rich foods</p> <p>Go low-fat or fat-free when you choose milk, yogurt, or cheese</p>	<p>Go lean with protein</p> <p>Choose low-fat or lean meats and poultry</p> <p>Vary your protein routine—choose more fish, beans, peas, nuts, and seeds</p>

Find your balance between food and physical activity
Be physically active for at least **30 minutes** most days of the week.

Know your limits on fats, sugars, and sodium
Your allowance for oils is **5 teaspoons a day**.
Limit extras—solid fats and sugars—to **130 calories a day**.

Your results are based on a 1600 calorie pattern.

Name: _____

This calorie level is only an estimate of your needs. Monitor your body weight to see if you need to adjust your calorie intake.

The previous page is an example of the 1600 calorie diet plan. If you compare this to the 2000 calorie plan food portions change and the amount of sweets and oils are specified.

Anyone can access this website to create an individualized plan.

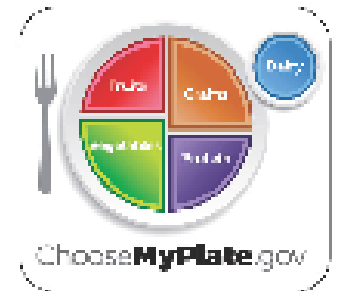
On the next few pages you will find 10 tips that are recommended by the Myplate.gov site to eat healthfully.

10 tips

Nutrition
Education Series

choose MyPlate

10 tips to a great plate



Making food choices for a healthy lifestyle can be as simple as using these 10 Tips.

Use the ideas in this list to *balance your calories*, to choose foods to *eat more often*, and to cut back on foods to *eat less often*.

1 balance calories

Find out how many calories YOU need for a day as a first step in managing your weight. Go to www.ChooseMyPlate.gov to find your calorie level. Being physically active also helps you balance calories.

2 enjoy your food, but eat less

Take the time to fully enjoy your food as you eat it. Eating too fast or when your attention is elsewhere may lead to eating too many calories. Pay attention to hunger and fullness cues before, during, and after meals. Use them to recognize when to eat and when you've had enough.



3 avoid oversized portions

Use a smaller plate, bowl, and glass. Portion out foods before you eat. When eating out, choose a smaller size option, share a dish, or take home part of your meal.

4 foods to eat more often

Eat more vegetables, fruits, whole grains, and fat-free or 1% milk and dairy products. These foods have the nutrients you need for health—including potassium, calcium, vitamin D, and fiber. Make them the basis for meals and snacks.



5 make half your plate fruits and vegetables

Choose red, orange, and dark-green vegetables like tomatoes, sweet potatoes, and broccoli, along with other vegetables for your meals. Add fruit to meals as part of main or side dishes or as dessert.

6 switch to fat-free or low-fat (1%) milk

They have the same amount of calcium and other essential nutrients as whole milk, but fewer calories and less saturated fat.



7 make half your grains whole grains

To eat more whole grains, substitute a whole-grain product for a refined product—such as eating whole-wheat bread instead of white bread or brown rice instead of white rice.

8 foods to eat less often

Cut back on foods high in solid fats, added sugars, and salt. They include cakes, cookies, ice cream, candies, sweetened drinks, pizza, and fatty meats like ribs, sausages, bacon, and hot dogs. Use these foods as occasional treats, not everyday foods.

9 compare sodium in foods

Use the Nutrition Facts label to choose lower sodium versions of foods like soup, bread, and frozen meals. Select canned foods labeled "low sodium," "reduced sodium," or "no salt added."



10 drink water instead of sugary drinks

Cut calories by drinking water or unsweetened beverages. Soda, energy drinks, and sports drinks are a major source of added sugar, and calories, in American diets.



**DIETARY GUIDELINES FOR AMERICANS:
IN GENERAL, FOOD IS ONLY ONE
PIECE OF A HEALTHY LIFESTYLE THESE
FOLLOWING SLIDES OUTLINE THE
GENERAL RECOMMENDATIONS FROM
THE USDA AND THE US DEPARTMENT
OF HHS FOR A HEALTHY LIFESTYLE.**



- **AIM FOR FITNESS**

- Aim for a healthy weight
- Be physically active each day

- **BUILD A HEALTHY BASE**

- Let the Pyramid guide your food choices
- Choose a variety of grains daily, especially whole grains
- Choose a variety of fruits and vegetables daily
- Keep food safe to eat

- **CHOOSE SENSIBLY**

- Choose a diet that is low in saturated fat and cholesterol and moderate in total fat
- Choose beverages and foods to moderate your intake of sugars
- Choose and prepare foods with less salt
- If you drink alcoholic beverages, do so in moderation

Food labels are useful tools to estimate percentage of nutrients in a food to be purchased. Fat percentage should be less than 30% of the overall calories should come from fat. The food should also have some vitamins and minerals in each serving.

① **Start Here** →

② **Check Calories**

③ **Limit these Nutrients**

④ **Get Enough of these Nutrients**

⑤ **Footnote**

Sample label for Macaroni & Cheese

Nutrition Facts	
Serving Size 1 cup (228g) Servings Per Container 2	
Amount Per Serving	
Calories 250	Calories from Fat 110
% Daily Value*	
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

⑥

Quick Guide to % DV

• 5% or less is Low

• 20% or more is High

Body Mass Index or BMI is one tool that RD's use to determine nutritional status. Increased Body Mass Index may be the marker that determines the risk of developing such diseases as Diabetes, Cardiovascular Disease, Stroke, etc.

Compare your own results to the charts listed on the next two slides. The slides depict categories of weight based on the product. Each slide is gender specific.



This is the calculation for measuring BMI.


- 1. Measure height in inches: _____
- 2. Measure weight in pounds: _____
- 3. Multiply weight x 703;
- 4. Divide by height;
- 5. Divide by height again
- 6. The end product is BMI.

BMI Ranges for Healthy American Woman

Underweight	<18.9
Acceptable weight	19 – 24.9
Overweight	25 – 29.9
Obese	≥30

BMI Ranges for Healthy American Male

Underweight	<18.9
Acceptable Weight	19 – 26.4
Overweight	26.5 - 29.9
Obese	>30



HAMWI equation is a quick method of determining calorie needs. This a simple calculation that RD's use to estimate the energy (calorie) needs a person must have on a daily basis to maintain a healthy weight.

- FEMALE

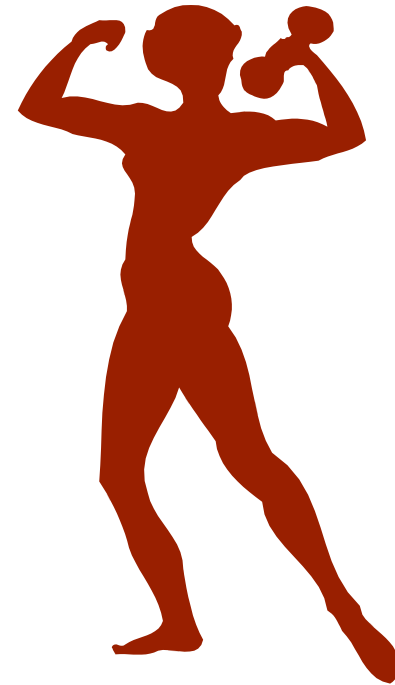
- 5' 100#
- + 5# for each inch


- MALE

- 5' 106#
- + 6# for each inch

- CALORIE ESTIMATE

- 5'6" $100+30 = 130\# \times 10 =$ calorie needs 1300 calories per day would be the estimated needs for a 5' 6" female. An activity factor can be added to this result.





Medications and Food: A direct care staff must be familiar with the medications that your client needs to take. As a direct care staff, one must be aware of when and how a medication should be taken. Staff should report any side effects that that are observed and thought to be a result of taking this medication


The RD is a good resource for knowing the food related side effects of specific medications.

- INTERACTIONS

- Medications may affect the way food is used by the body
- Food can affect the action of the medication
- Medications may interfere with your ability to eat

- REMEMBER

- Know whether the medication should be given with or without food.
- Follow the doctor's and pharmacist's instructions
- Observe for any possible side effects
- Report any unusual symptoms
- Ask questions if you need more information



Signs of Chewing or Swallowing Problems:
Persons with any neurological damage are at risk for choking and dysphagia (swallowing disorder).

The following slides list signs that could indicate a person is having difficulty chewing and swallowing.

Signs of Chewing or Swallowing Problems

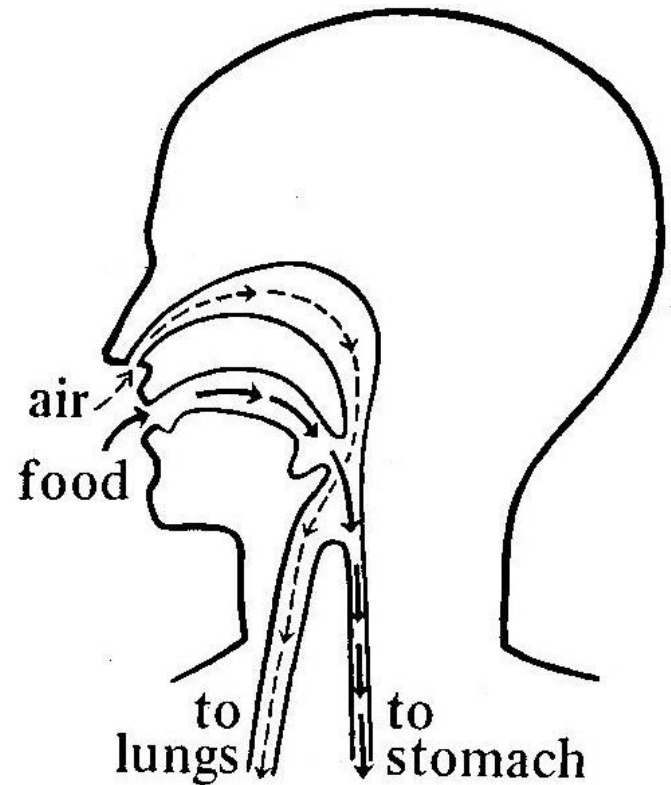
- Gagging or coughing during and after eating or drinking
- Swallowing one bite many times
- Gargly or “wet” sounding voice
- Drooling
- Food remains in mouth or throat after eating



Signs of Chewing or Swallowing Problems

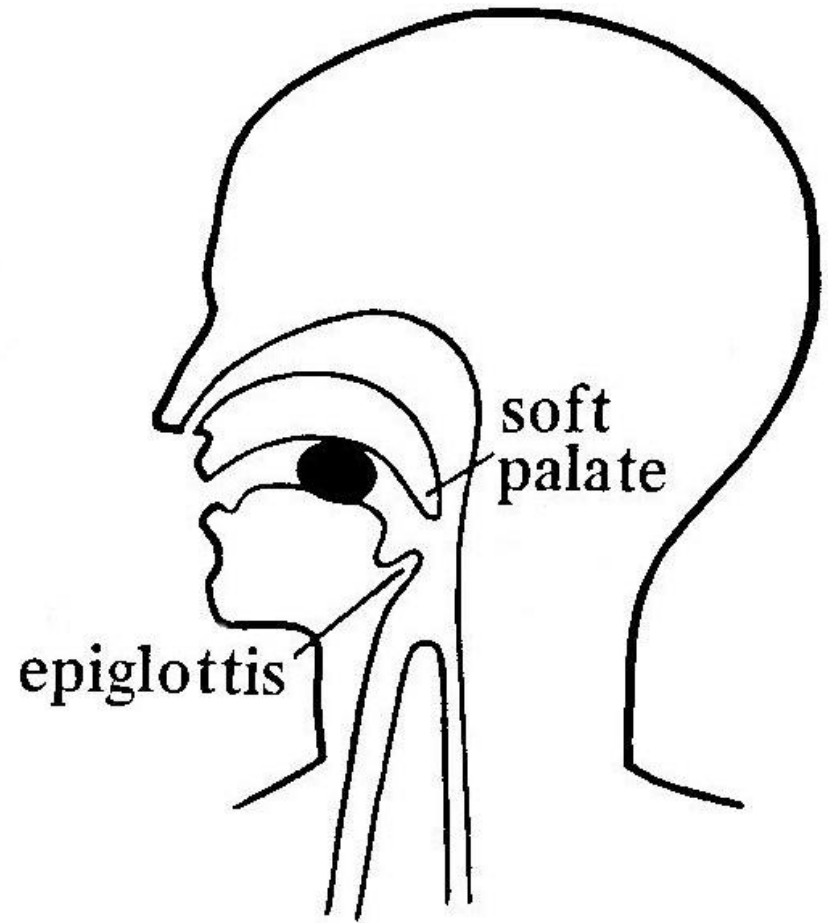
- Breathing difficulties during eating or drinking
- Unexplained weight loss
- Inability to gain weight
- Low body weight
- Persistent unexplained fever or temperature
- Frequent respiratory infections or pneumonia
- Excessive movement of tongue, mouth, or head while eating or drinking

SWALLOWING: Aspiration pneumonia is a real risk for persons with developmental disabilities, stroke victims or other persons with neurological damage. This slide shows how the respiratory and gastrointestinal systems cross paths in the throat. If a person cannot coordinate a swallow appropriately there is an increased risk of food getting into the lungs resulting in aspiration pneumonia.



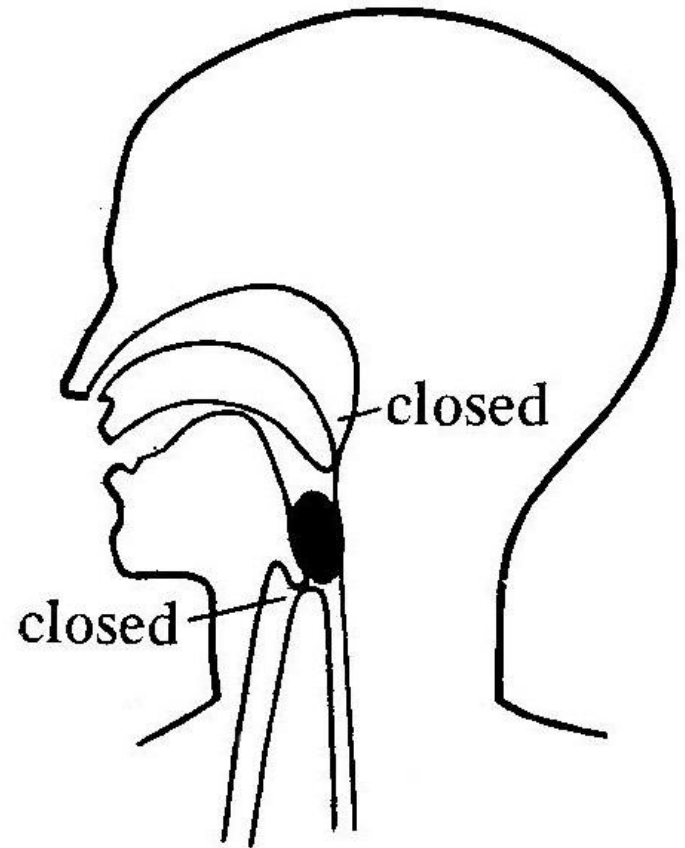
The air passage and the food passage cross each other

Swallowing: The dark ball in this slide illustrates a mound of food that has been chewed and is prepared for a swallow. When the mound (bolus) reaches the soft palate a reflexive swallow is triggered.



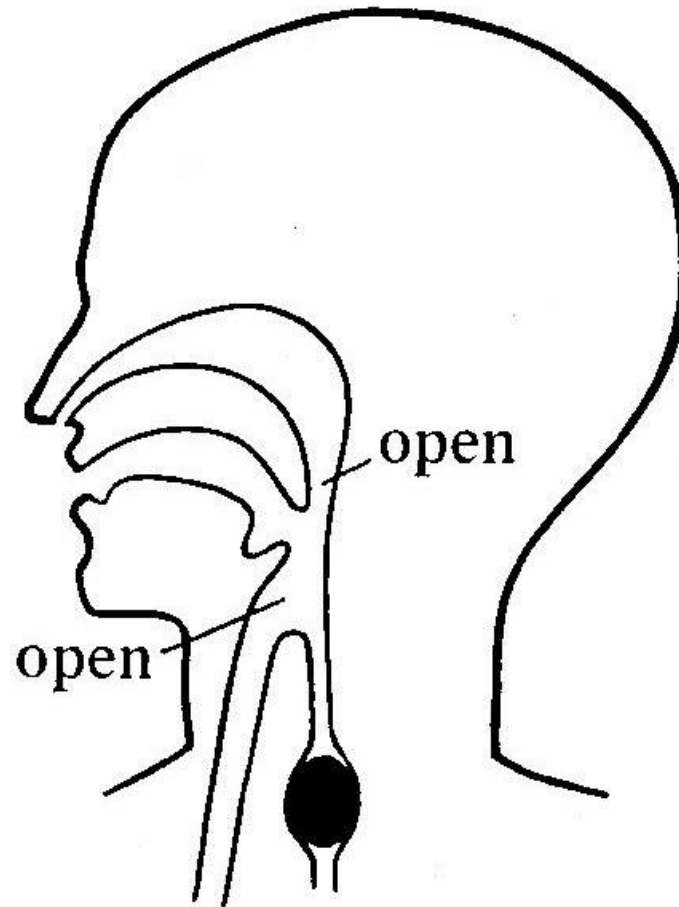
The chewed-up food, the BOLUS, is pushed back by the tongue

SWALLOWING: The swallow process activates the epiglottis to close the airway preventing food particles from entering the lungs. Sometimes this action of the epiglottis is impaired or ineffective resulting in food entering the lungs causing an infection or aspiration pneumonia.



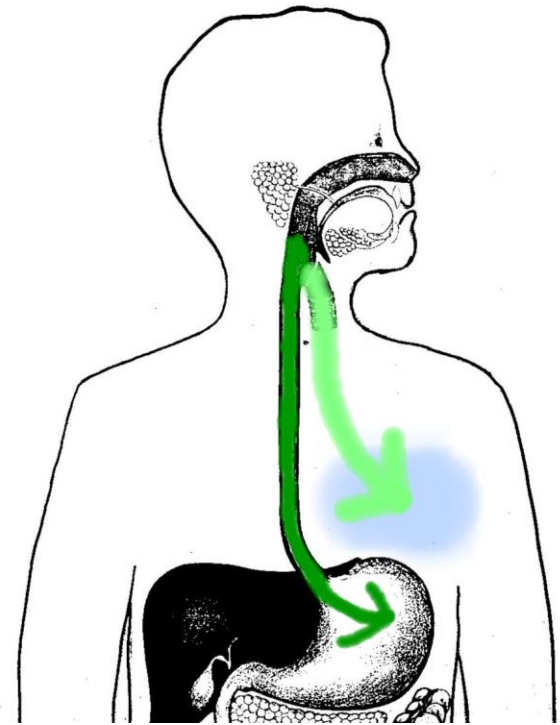
The bolus pushes the soft palate up and the epiglottis down, closing the air passage

SWALLOWING



Once the bolus is in the oesophagus the air passage reopens

Swallowing: The highlighted blue area represents the lungs and if a swallow is uncoordinated the mound of food can be dumped into the lung. This problem is heightened if the person has both a swallowing problem along with chronic reflux which can introduce both food and stomach acids into the lungs.



Responsibility: As a direct care staff it is your responsibility to follow the Nutrition Care Plan as written. Changing textures of diets can endanger the individual to the point of death. This is a real incident of a group home staff involved in a criminal offense when not following a doctor's order



Detroit Free Press

**NEWS IN BRIEF: Group home workers
to be charged in deaths**

March 3, 2007

Care workers at group homes in Grosse Ile and Dearborn will be charged in the deaths of two men -- one who choked after a care worker failed to puree his food,

The man who choked to death was a 61-year-old resident of a Grosse Ile facility.



What to do if someone is choking

- The next two slides outline the signs of choking in various degrees.
- Invention is also highlighted at each degree of choking.

Signs of Choking

- List the signs of a mild block in the airway.
 - Can make sounds
 - Can cough loudly
- What is the care for a mildly blocked airway:
 - Let the victim cough
 - If you are worried, call 911

Choking

- What are the signs of a Severely Blocked Airway?
 - Cannot breath
 - Very quiet cough or no sound
 - Cannot talk or make a sound
 - Cannot cry (younger child)
 - Has high-pitched noisy breathing
 - Has bluish lips
 - Make the choking sign

Care for a Severely Blocked Airway:

- Abdominal thrusts may be necessary at this point while some one calls 911.
- Be aware of how to perform this procedure on a person with a physical deformity.

Choking: Some behavior issues can increase a person's risk of choking so staff need to be vigilant about creating a safe eating environment.

A person is at increased risk of choking if they present with the following symptoms:

- **Difficulty chewing**
 - Absence of chewing
 - Missing or absent teeth
 - Ill fitting dentures
 - Dental problems
- **Difficulty Swallowing**
 - Gagging on food and/or liquids
 - Medications
 - Diagnosis
 - reflux
 - Cerebral palsy
 - Narrowing of the throat
 - Tongue placement/tongue thrust

A person is at increased risk of choking if they present with the following symptoms:

- Environmental Factors
 - Limit distractions during eating, play calm music , staff should focus on the person eating.
 - Rushing while eating, do not eat or drink in the car.
 - Improper positioning
- Behavior Issues
 - Stealing Food - food left to cook on the stove or in a crock pot needs to be monitored
 - Pica is a behavior of eating things that are not considered edible. Staff need to monitor these individuals diligently.
 - Packing too much food in mouth: Give the person only small portions of food at a time to avoid over stuffing the mouth,

To Prevent Choking

- What are some precautions staff can take to prevent a choking emergency?
 - Know which consumers are at highest risk
 - Cut up food into small pieces
 - Only put small amounts of food on the plate
 - Keep meals quiet and free of distractions
 - Watch consumer closely during mealtimes
 - Meals should be eaten at the table
 - Follow Treatment Plan

Food Texture is a physician's order and needs to be carefully followed!



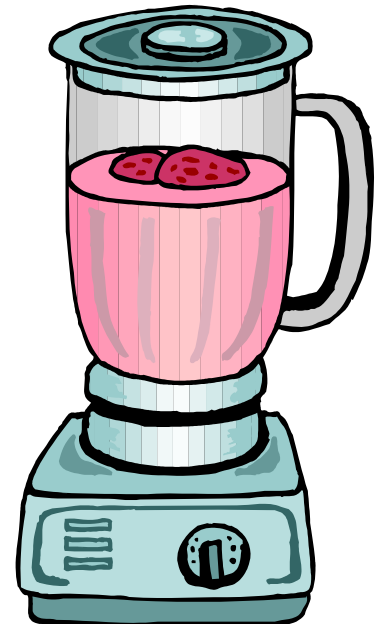
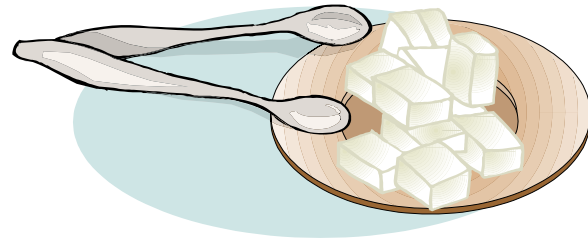
Here are some examples of the food textures a physician may order:


- **Chopped**: food that is $\frac{1}{2}$ to 1 inch size pieces
- **Finely Chopped**: food that is $\frac{1}{4}$ - $\frac{1}{2}$ inch size pieces
- **Ground**: resembles the texture of oatmeal with complimentary moisture
- **Pureed**: resembles the texture of baby food but is not running off the spoon.

Modified diets are doctor's orders and are not changed at the discretion of the staff.

Other examples of physician ordered diets or modified diet are:

- Diabetic
- Tubefeeding
- Low Salt
- Renal
- Low calorie
- Low fat





Weights are the easiest and cheapest methods of measuring nutrition status. Staff are asked to maintain a monthly record of weights on any person that is being followed by a dietitian. If the home is licensed then licensing requires monthly weights are recorded.

STEPS FOR ACCURATE WEIGHT MEASUREMENTS

- Place scale on a flat, hard surface, at least 2 feet away from the wall
- Document the weight in the consumer file
- Remember to check to see if the scale is at zero in between weighing each client.
- Always weigh person at the same time of day with similar clothing amount.
- If weight changes more than 5# or more in one month staff should **REWEIGH** the person to see if the change is occur!




Why are there cycle menus?

CMH RD's develop menus based on all the information that was presented in this session earlier. They CMH version of the menu doesn't need to be used but a menu that has been approved by a Registered Dietitian is highly recommended. If anyone has a modified diet ordered by a physician a planned menu needs to be displayed.

Cycle Menu

- The menu is planned to include the recommended foods and portions according to the Food Guide Pyramid
- It provides a basis for grocery shopping and food preparation
- It may be required for licensing and certification
- It saves time and money



Meal Schedules: Licensed facilities are required to follow meal time guidelines so people being served are not going too long without eating. Mealtimes are not to be based on staff convenience or schedule.

The following slides list licensing regulations regarding timing of meals.

According to ICF/ MR regulation 483,480, not more than 14 hours may elapse between a substantial evening meal and breakfast of the following day.

Not less than 10 hours may elapse between breakfast and the evening meal.

For example, if the evening meal is served at 5:30 p.m., breakfast can be no later than 7:30 a.m.

Timing of meals

Exceptions are allowed for weekends and holidays, where 16 hours may elapse between a substantial evening meal and breakfast IF a nourishing snack is provided at bedtime.

A substantial evening meal must contain at least 3 menu items, including a high-quality protein, and have no less than 20% of the day's total nutritional requirements.


A nourishing snack can be one or more items chosen from the basic food groups. Snacks may be either foods or beverages.

Menu Substitutions:

Although substitutions are not encouraged there are definitely times when substitutions can be made on the menu. There are guidelines on how to do this without changing the nutritional integrity of the menu.

When to substitute

- To take advantage of seasonal availability of foods and special promotions at the store
- Holidays, birthdays, special activities, etc.
- When time is limited due to special activities
- To incorporate extra foods into the menu (special purchase or food near their expiration date)
- To take advantage of weather; grill foods rather than bake them; plan a picnic rather than eat in; use cold foods on hot days & hot foods on cold days.
- **Not because of staff convenience or preference.**
- An example of an appropriate substitute would be grapefruit juice is used in place of orange juice. Both juices have the same amount of vitamin C.



Meal Preparation: Staff are called upon to do many tasks and one of those tasks is cooking for or with the people staff was hired to serve. Organization is key to preventing this task from becoming overwhelming.

What to do first: When staff arrives on shift after they washing hand the following is the sequence of events that is recommended to manage the food delivery

1. Read menu and recipes
2. Check supplies
3. Organize!
4. Measure accurately!



What do you do first?

An example of how to manage cooking time.

MEATLOAF

BROWN & SERVE DINNER
ROLLS

BAKED POTATOES WITH
SOUR CREAM

STEAMED BROCCOLI
WITH CHEESE SAUCE

TOSSES SALAD

FRUIT JELLO

PUMPKIN PIE WITH
WHIPPED TOPPING



1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

What do you do first?

The Correct Order is:

- 24 hours before the meal, thaw meat in the refrigerator and make the pie and jello
- Assemble meatloaf
- bake meatloaf and potatoes both take about an hour to cook
- toss salad
- steam broccoli steams in about 10-15 minutes
- heat up cheese sauce
- serve.



How much time do you have?

The time limit is recommended to limit bacterial growth in food that could cause food born illness. It also helps to be organized to have all food ready for service at the same time including food that needs texture modifications.

**20 minutes
from hot or
cold source
until time of service**



Equal Measures

3 teaspoons = 1 tablespoon

16 tablespoons = 1 cup

1 cup = 8 oz = $\frac{1}{2}$ pint

2 cups = 16 oz = 1 pint

4 cups = 32 oz = 1 quart

2 quarts = 64 oz = $\frac{1}{2}$ gal

4 quarts = 128 oz = 1 gal

1 sq of chocolate = 1 oz

2 tablespoon of butter = 1 oz

1 stick of butter = 4 oz

- How many squares would give you 4 oz of chocolate?
- Two pints of cream would give you how many ounces?
- How many teaspoons would give 3 tablespoons of parsley?

Answers

- How many squares would give you 4 oz of chocolate?
- **4 squares**
- Two pints of cream would give you how many ounces?
- **32 ounces**
- How many teaspoons would give 3 tablespoons of parsley?
- **9 teaspoons**

Equal measures

3 teaspoons = 1 tablespoon

16 tablespoons = 1 cup

1 cup = 8 oz = $\frac{1}{2}$ pint

2 cups = 16 oz = 1 pint

4 cups = 32 oz = 1 quart

2 quarts = 64 oz = $\frac{1}{2}$ gal

4 quarts = 128 oz = 1 gal

1 sq of chocolate = 1 oz

2 tablespoon of butter = 1 oz

1 stick of butter = 4 oz

- How many tablespoons would give you 4 ounces of butter?
- Three quarts would give you how many cups of soup?
- Four sticks butter would give how many ounces?

Answers

- How many squares would give you 4 oz of chocolate?
- **4 squares**
- Two pints of cream would give you how many ounces?
- **32 ounces**
- How many teaspoons would give 3 tablespoons of parsley?
- **9 teaspoons**

SAFE FOOD HANDLING: Preventing food borne illness is one of the biggest responsibilities of any one preparing food for others that may be medically fragile.

Symptoms of Food-Borne illness

- Severe abdominal cramps
- Nausea
- Diarrhea
- Vomiting

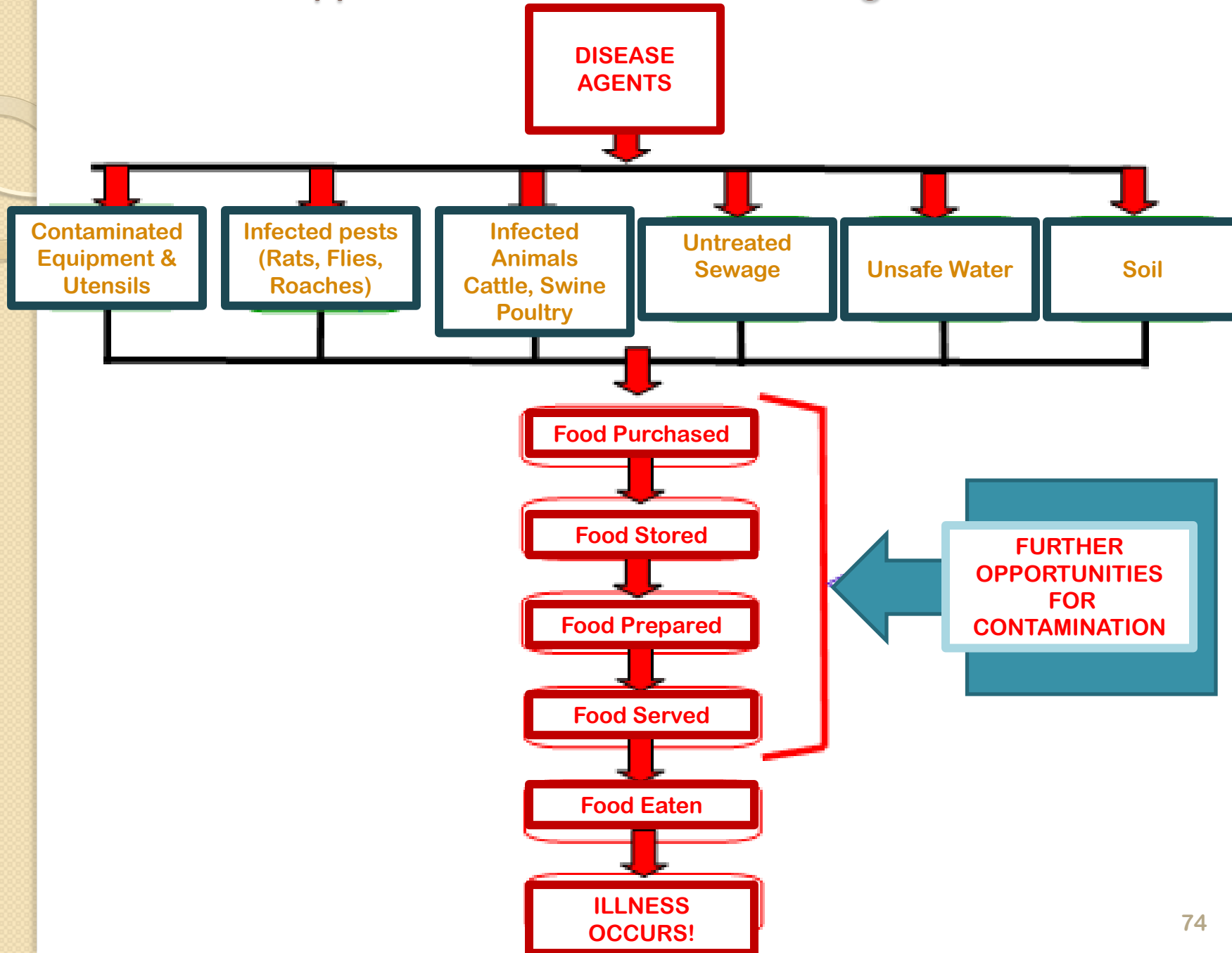


REMEMBER!

If someone has nausea, vomiting, diarrhea, or cramps, notify a health professional *immediately!*

Symptoms of food borne illness can occur anywhere from 30 minutes to 2 weeks after ingestion of tainted food

Opportunities for Contaminating Food



Recipe for Safe Food Preparation

- Ingredient #1 – Personal Hygiene
 - Wash hand with hot soapy water before and after handling food. This is the #1 way to prevent the spread of bacteria
 - Avoid handling food when ill, or if you have cuts or sores on your hands



Recipe for Safe Food Preparation

- **Ingredient #2: Time & Temperature Rules**
 - Refrigerate or freeze perishables, prepared food and leftovers promptly in shallow containers
 - Never defrost (or marinate) food on the kitchen counter, use the refrigerator, cold running water or microwave method
 - Cook food to the proper internal temperature; look for visual signs of doneness and use a thermometer to be sure

Recipe for Safe Food Preparation

- **Ingredient #3: Avoid Cross-Contamination**
 - Separate raw meat, poultry, and seafood in your grocery cart.
 - Store raw meat, poultry, and seafood on the bottom shelf of the refrigerator to prevent juices from dripping.
 - Wash kitchen surfaces, cutting boards and knives before and after food preparation, and especially after preparing raw meat, poultry and seafood
 - Use an approved sanitizer in the proper manner to kill harmful bacteria on kitchen counters, utensils, and eating surfaces.

Keep yourself neat and clean!

Would you let this gentleman serve or prepare your food?



Method of Hand Washing

- Use **SOAP** and **WARM RUNNING WATER**
- **RUB** your hands and forearms vigorously for 20 seconds
 - remember friction is the important factor in removing bacteria
- **WASH ALL SURFACES**
 - Back of hands
 - Wrists
 - Between fingers
 - Under fingernails and rings
- **RINSE** well
- **DRY** hands with a paper towel
- Turn off the water using a **PAPER TOWEL**



When to wash your hands

- After using a handkerchief or tissue, after coughing or sneezing
- After handling hair
- After using the toilet & helping others in the bathroom
- After eating or smoking
- Before beginning to prepare food, & whenever you return after leaving the kitchen.

When to wash your hands

- After handling raw, unclean food, particularly meat & poultry
- After contact with unclean equipment, floors, work surfaces, soiled clothing, and rags.
- After handling soiled dishes and & flatware
- Before handling clean dishes & flatware

Critical Temperatures for Food

140 Degrees F
Minimum holding
temperature for hot
foods

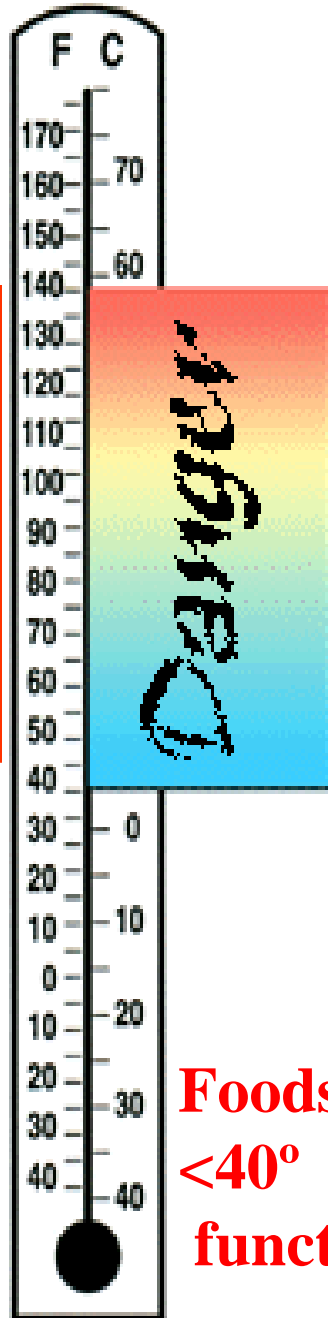
70 Degrees F
Dry Storage

40 Degrees F
Maximum
temperature for
refrigerator

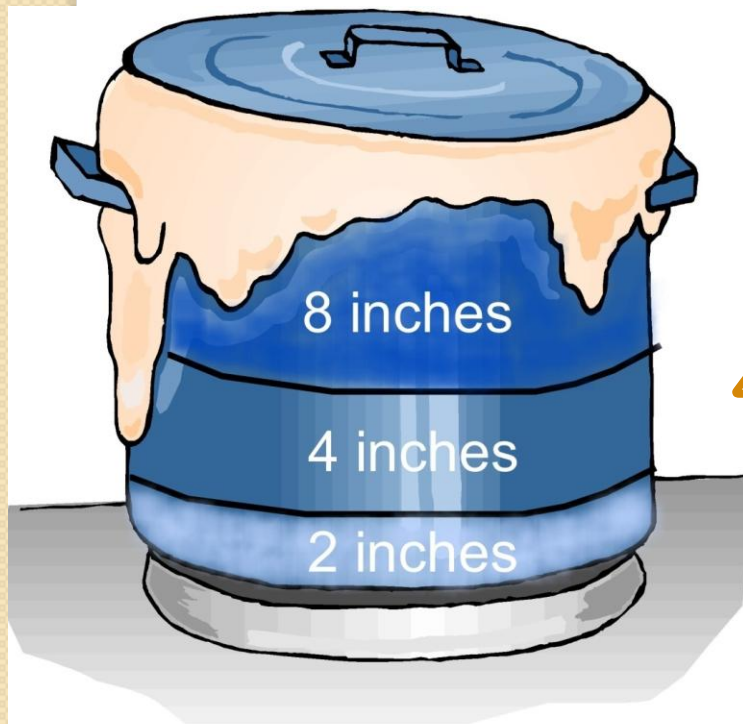
0 Degrees F
Storage of Frozen
Foods

Foods should be stored outside the Danger Zone <40° F or >140 ° F. Each Kitchen should have a functioning food thermometer.

**DANGER
ZONE**
Rapid
Bacterial
Growth
40 – 140
degrees



Foods need to be kept in 2 inch depth containers for rapid cooling and heating. The diagram shows how long it would take food to cool in a refrigerator only 25 degrees. **Separate foods into small flat containers before storing this reduce cooling time.**



8 inches deep – 32 hours

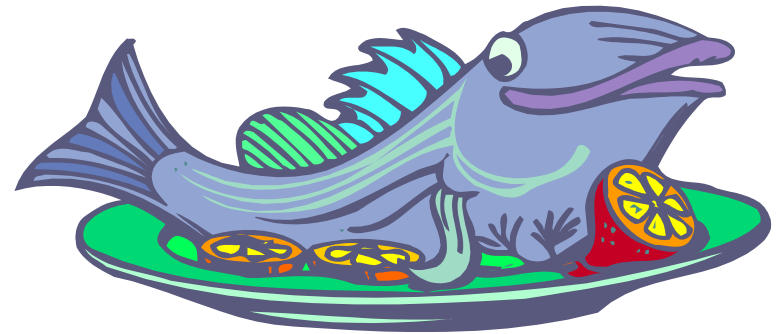
4 inches deep – 8 hours

2 inches deep – 2 hours

“When in doubt, throw it out!”

Label name of food and date all food that is prepared ahead of time or stored as a leftover so all staff know the age of the food.

If food is questionable to spoilage, or hasn't been stored properly,
THROW IT OUT!



DON'T TAKE CHANCES!

Leftover Rules



- Use within 48 hours
- When preparing on night shift, don't cook to completion. Cook right before meal service.
- Cook all leftovers to internal temperature of 165 degrees.
- Remember all lunches should have a cold pack and be insulated to prevent spoilage.

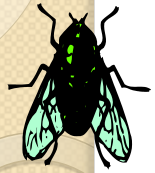
Kitchen Clean-Up Known as the 4 step process.

1. **WASH** Adheres the greasy particles left on the surface.
 1. **Do not use Pinesol® or Lysol® for food surfaces**
2. **RINSE** removes soap and food particles
3. **SANITIZE**
 1. A small amount of bleach is needed, no need to ruin clothes nor should there be an overpowering bleach smell.
 1. ¼ TSP. BLEACH TO 1 PINT WARM WATER (SPRAY BOTTLE)
 2. 2 TBSP. BLEACH TO 4 GALLONS WARM WATER (SINK)
4. **AIR-DRY**, or SANITIZING CYCLE OF THE DISHWASHER, OR A SINGLE SERVICE PAPER TOWEL. (CLOTH TOWELS ARE NOT HYGIENIC) Air drying allows bleach to evaporate.

It is not recommended to use other sanitizing products other than bleach but if other products are used then be sure to read and follow all usage directions carefully and be sure it is safe for food contact surface.



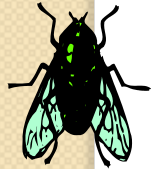
This is what happens when a fly lands on your food!



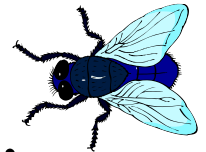
Flies can't eat solid food, so to soften it up they vomit on it.



Then they stamp the vomit in until it's a liquid, usually stamping in a few germs for good measure.



Then when it's good and runny, they suck it all back again, probably dropping some excrement at the same time.



And then, when they've finished eating, it's your turn.

Be sure to keep doors closed and screens are in place in the windows when enjoying the warm weather.

Safety in the Kitchen

The next set of slides reviews prevention of accidents in the kitchen.

- The keys to preventing kitchen accidents are careful kitchen management and safe work habits.



Most Common Kitchen Hazards

- Falls,
- electrical shock,
- cuts,
- burns
- Poisoning



**STAY CALM and
Never hesitate to call for help.**

General Safety Guidelines

- Do not let hair, jewelry, sleeves dangle- catch fire or get tangled in appliances.
- Keep your mind on what you are doing.
- Prevent clutter- Clean up as you go and put things away.
- Close drawers and doors.
- Use the right tool for the job.
- Store heavy or bulky items on low shelves.

Falls

- Keep floors clean and free of clutter. Wipe up spills, splatters and peelings immediately.
- Eliminate other hazards, slippery throw rugs and damaged or worn flooring. Tie shoes, avoid long cloths, and floppy slippers.
- Use a firm step stool or ladder instead of a chair.
- Use a non skid backing on rugs.

First Aid for Falls

- Don't move a person with broken bones unless necessary.
- Call medical help if headaches, dizziness, vomiting, or speech impairment results from head injury.
- Mild bruises/ sprains need ice bag or cold water/ cloths and elevation.



Cuts

- Keep knives sharp and use properly.
- Use a locked drawer or cupboard sharp cutting tools. Sharp knives are safer because it prevents the user from applying pressure leading to cuts that are difficult to heal.
- Don't try and catch a falling knife.
- Don't soak knives in sink, dishpan or water.
- Sweep up broken glass from the floor using broom and dustpan.
- Use a wet paper towel instead of bare fingers to pick up glass shards.

First Aid for Cuts:



- Stop severe bleeding with the pressure of a thick cloth and get medical help.
- Minor cuts- wash with soap and water, blot dry and bandage.

Consumer product safety commission estimates that over 137,000 people receive hospital treatment for injuries from kitchen knives each year.

Electrical Safety

- Appliances save both time and work in the kitchen. But they are a source of shock, burns and other injuries.
- Read owner's manual.
- Water and electricity do not mix.
- Avoid damage to electrical cords- Avoid tugging on cord, stapling, or burning them.
- Use outlet properly- overloading polarized plugs (one blade wider than the other).
- Use care with any plugged in appliance.
- Watch for problems.

First aid for electric shock

- Don't touch the person connected to electricity.
- Turn off power, pull, plug or pull person with cloth loop.
- Administer CPR if qualified and call a medical professional.



Hazardous Chemicals

- Cause burns, breathing difficulties and poisoning.
- Read labels.
- Never transfer hazardous products to another container.
- Never mix different chemical products.
- Never mix compounds such as bleach and ammonia.
- Use charcoal/ hibachi outside **ONLY**- gives off carbon monoxide.
- Follow antidote directions in a well ventilated area if poisoning occurs.
- Store all foods away from pet foods, poisonous or toxic materials including cleaning supplies.

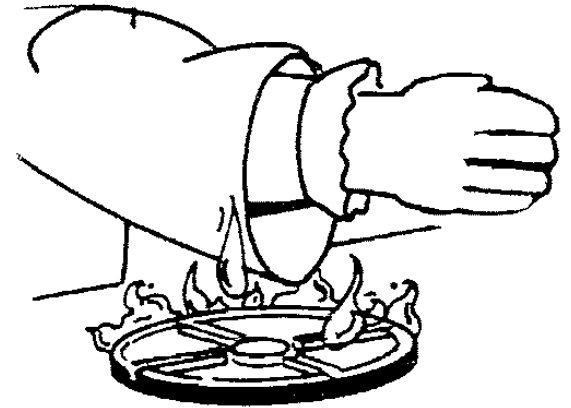
First Aid for Poisons



- Call medical help and if possible use antidote on label.
- If fumes, get person to well ventilated area.
- Flush eyes with water if irritated.

Fires

- Every kitchen should have a fire extinguisher.
- Turn off heat, cover pan or pour salt or baking soda on flames.
- Never use water- grease will spatter and burn.
- Never attempt to carry a pan with burning contents- Call Fire Department – go outside.



In case of fire

- Turn off appliance.
- Use baking soda instead of water.
- Use a fire extinguisher.
- If clothing catches on fire drop to the ground and roll. **STOP, DROP & ROLL!**
- Crawl on the ground to get out of the smoke filled room.

First Aid for Burns



- Cool it with cold water / prolonged ice will freeze tissue.
- Avoid ointments, grease and oil (contributes to the cooking process of the burn).

Signs of Choking

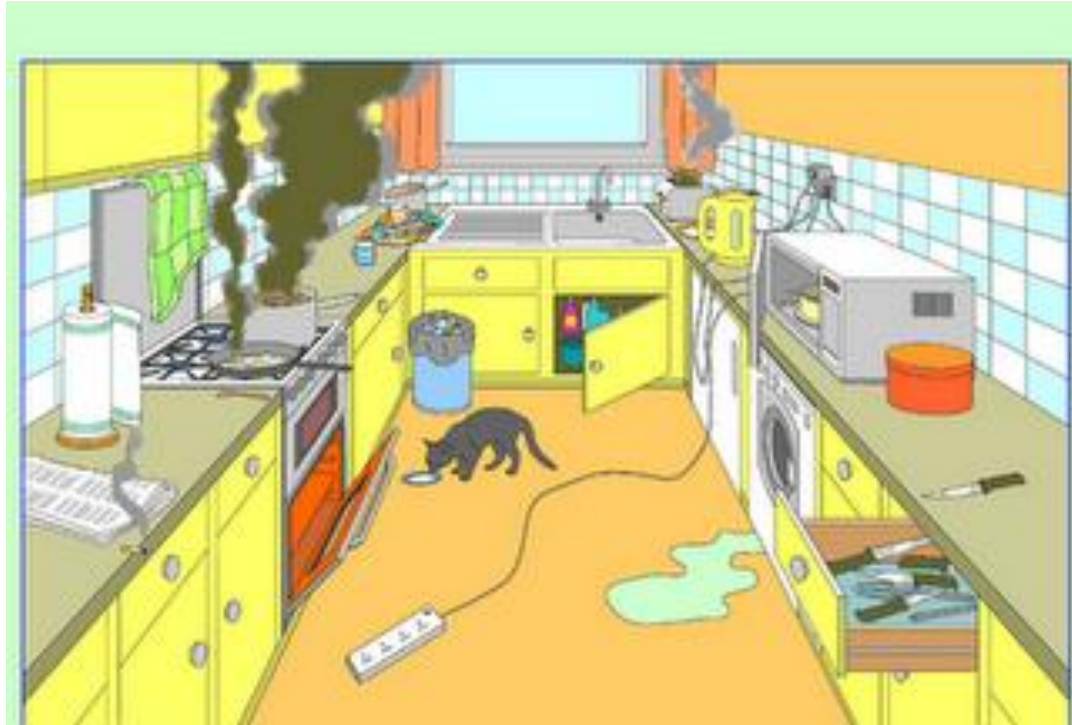
- The person cannot:
 - Speak
 - Breathe
 - Cough
 - Makes the choking sign
 - Lips might begin to turn blue

First Aid for Choking



- If person can speak, cough or breathe,
 - Encourage them to cough
- If the person cannot speak, cough or breathe,
 - Do Abdominal Thrusts.
- If person has become unresponsive
 - Begin CPR

Kitchen Safety Knowledge Quiz



Identify the following practices described as **SAFE** or **DANGEROUS**.

If the practice is dangerous, explain why

SAFE OR DANGEROUS?

- A staff person put her long hair in a ponytail before she went into the kitchen to cook supper.
- **Safe**
- Debra chose to use knives that were not very sharp so that she would not cut herself.
- ***Dangerous***, *dull knives actually are more dangerous than sharp ones because you have to use more effort to cut with them.*

SAFE OR DANGEROUS?

- Kate used a damp paper towel to pick up bits of broken glass where the broom would not reach.
- **Safe**
- The oven was so dirty that Elise decided to mix two strong cleansers in order to clean it.
- ***Dangerous, Never mix cleaning chemicals together; some combinations of chemicals react and produce toxic fumes.***

SAFE OR DANGEROUS?

- Donald lifted the lid on the pan of boiling water with the opening towards his face.
- ***Dangerous, never open the lid of a hot pan toward you; doing so can result in serious steam burn.***
- Bruce always turns the pot handles toward the back or middle of the range.
- ***Safe***

SAFE OR DANGEROUS?

- Claire had the fire extinguisher removed because she did not like the way it looked in the kitchen.
- ***Dangerous, a fire extinguisher is an important, basic piece of kitchen equipment.***
- When Robert couldn't find the pot holder, he grabbed a dishcloth to take the casserole out of the oven.
- ***Dangerous, always use potholders to handle hot dishes.***
- Beverly stood to the side when she opened the oven door.
- ***Safe***

Review

- When do you add the bleach when sanitizing the dishes?
- What is the best substitute for orange juice when you don't know if the item has been fortified?
- What are three acceptable methods of drying dishes?
 - Air drying
 - Drying cycle in the dishwasher
 - Single service paper towel
- What is the single most important factor to prevent the spread of bacteria?

Review

- To help guarantee freshness and quality, choose all of the following
 - Clean, fresh foods
 - Government inspected meats, fish, poultry, eggs, and milk
 - Cans that are free of rust, dents, and bulges
- Lysol and Pinesol are not acceptable cleaning and sanitizing agents for food surfaces

Review

- Leftovers must be cooked to at least 165F
- What should you do if you think a jar of food you just opened might be spoiled?
 - **Cover it back up and throw away –or–**
 - **Return it to the store**
- If you lose power to your freezer, in the first 4-6 hours you should keep the freezer door closed.
- When weighing consumers and the weight appears very different from the last month's weight the first thing you need to do is re-weigh the consumer.



Thank You

For taking “Nutrition”

**You must complete the test to receive credit for
completing the Nutrition course.**

There is no refresher requirement for this course