

A PREPARATION MANUAL AND STUDY GUIDE FOR A SERVSAFE RE-TEST



THIS MANUAL IS WRITTEN FOR SERVSAFE EXAM STUDENTS WHO ARE TESTING FOR THE 2ND OR 3RD TIME

THIS MANUAL CONTAINS ONLY MATERIAL THE STUDENTS COULD EXPECT TO SEE ON THEIR NEXT SERVSAFE EXAM AND ELIMINATES EXTRA MATERIAL

THIS MANUAL IS WRITTEN IN “SIMPLIFIED ENGLISH” AND THIS WILL HELP STUDENTS AT ALL LEVELS OF EXPERIENCE, EDUCATION AND COMPREHENSION LEVELS

FOODBORNE ILLNESS – A sickness people get after eating food.

FOODBORNE ILLNESS OUTBREAK -

1. When 2 or more people get the same sickness
2. All ate the same food
3. The food and/or people were checked by a laboratory
4. Your health inspector has come to check the food

HIGHER RISK POPULATIONS- are people who get sick from food more often

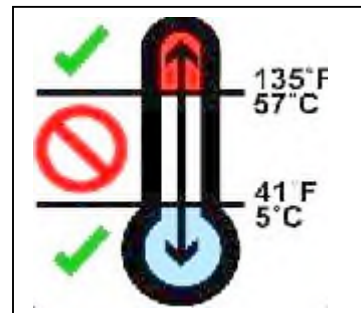
1. Very young children (pre-school age)
2. Older people
3. People taking medicine and people who are very ill and getting medical treatment

SOME FOODS NEED TEMPERATURE CONTROL FOR SAFETY (TCS Foods)

TCS Foods must be kept out of the **Danger Zone (41° - 135°)**

TCS FOODS-

- Milk, Eggs
- Meats, Shellfish, Fish
- Untreated Garlic & Oil Mixtures
- Baked Potatoes, Cooked Rice and Cooked Vegetables
- Sprouts
- Soy
- Cut Tomatoes, Melons and Leafy Greens



CONTAMINATES: BAD THINGS IN OUR FOOD

3 KINDS OF CONTAMINATES

1. **BIOLOGICAL** – Bacteria, Virus, Parasites, Fungi, Toxins
2. **CHEMICAL** – Cleaners, Sanitizers, some Soft Metals, Pesticides
3. **PHYSICAL** – Hair, Glass, Paper, Metal

THE CENTER FOR DISEASE CONTROL (CDC) TOP 5 WAYS FOOD GETS CONTAMINATED

1. BUYING food from unsafe source
2. Not COOKING food to high enough temperature
3. HOLDING food at wrong temperatures
4. Dirty EQUIPMENT
5. DIRTY and SICK FOOD HANDLERS

4 WAYS FOOD BECOMES CONTAMINATED

1. TCS foods left in danger zone for too long (41°- 135°for more than 4 hours)
2. Cross-Contamination
3. Dirty or sick food handlers
4. Poor cleaning & sanitizing

CROSS-CONTAMINATION: When food contaminates are moved from one food to another, or one surface to another, or from one piece of equipment to another

READY TO EAT FOODS:

Customer can eat food with no more preparation or cooking

Examples: Fruit, Bakery, Cooked Food

KEEPING FOOD SAFE

Keep food out of temperature danger zone (41°- 135°for more than 4 hours)

No cross-contamination

Clean, Safe Food Handlers

Clean, Safe Food Suppliers

Cleaning and sanitizing our equipment

Training

- Train when food handlers are first hired
- Have frequent training classes
- Watch your food handlers to make sure they are using training
- Document training (something in their file showing training)

GOVERNMENT AGENCIES WHO HELP WITH FOOD SAFETY:

FDA (The Food and Drug Administration) checks all food except meat, poultry, and eggs. (Food must cross state lines)

USDA checks all meat, poultry and eggs (Food must cross state lines)

CDC (Centers for Disease Control and Prevention) does food safety research

PHS (U. S. Public Health Service) does food safety research

- FDA writes the FOOD CODE
- STATE writes the LAWS based on food code
- LOCAL HEALTH DEPARTMENT and local health inspectors make sure laws are followed



MORE ON CONAMINATION

HOW CONTAMINATION HAPPENS

Contaminants are found in humans, animals, air, water, dirt, and in some food

Food handlers contaminate food when:

- They don't wash their hands after using the restroom
- They don't wash their hands after handling garbage
- They don't wear gloves when they should
- They work when they are sick

MICROORGANISMS: Living things that can only be seen under a microscope

PATHOGENS: BAD microorganisms

TOXINS: Poison left behind by dead pathogens

SPORES: Little pieces of bacteria left behind when they die that come back to life later

FOODBORNE INFECTIONS happen when we eat pathogens

We can get sick from too many bacteria or by the toxins (poison) they leave behind when they die

Common Symptoms of Foodborne Illness

Diarrhea
Vomiting
Fever
Nausea
Abdominal cramps
Jaundice (yellowing of skin and eyes)

Onset times (time from eating food until we are sick)

From 30 minutes to 6 weeks

FOODBORNE INTOXICATIONS happen when bacteria die in our body but leave behind some toxins (poisons)

BACTERIA are of the biggest problem in our food

Bacteria are everywhere

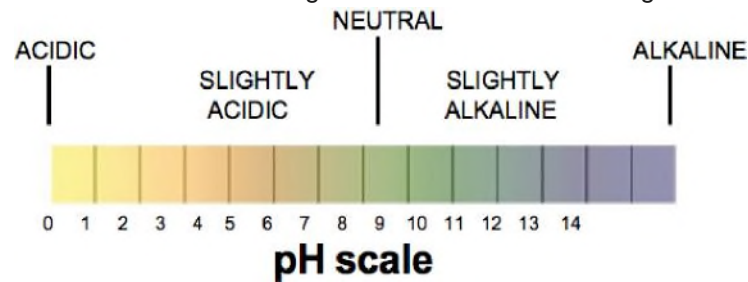
Bacteria need 6 things to grow in our food

The 6 things are known by these 6 letters: **FAT TOM**

Food – Bacteria need food to grow (proteins and carbohydrates)

Acidity - Bacteria don't like foods that are ACIDIC. You know acid, like lemons, vinegar and things that burn and tingle in the mouth.

The sign for ACIDITY is pH, look for it on the test. ACIDITY goes from 0 to 14. Bacteria grow at 4.6pH - 7.5pH



EXAMPLES OF acidic foods INCLUDE:	EXAMPLES OF neutral foods INCLUDE:	EXAMPLES OF alkaline foods INCLUDE:
CITRUS JUICES TOMATOES RHUBARB CRANBERRIES	MILK MEATS CHICKEN FISH	EGG WHITES SODA CRACKERS BLACK OLIVES

Temperature - Bacteria grow fast between 41°F and 135°F (the temperature danger zone)

Time - Bacteria need time to grow. The more time bacteria are in the temperature danger zone, the more they grow. Bacteria double every 20 minutes

Oxygen - Some bacteria need oxygen to grow, while others grow when oxygen isn't there

Moisture - The amount of moisture/water in food is called water activity. The sign for water is aW, look for this on the test

4 MAJOR BACTERIA THAT CAUSE PEOPLE TO GET SICK

1. Salmonella Typhi
2. Enterohemorrhagic and shiga toxin-producing Escherichia coli (E. coli)
3. Shigella spp.
4. Nontyphoidal salmonella

Salmonella Typhi

- Only bacteria carried by food handlers
- Gets in their blood, feces and saliva
- Food handlers must wash hands after smoking
- Food handlers must drink with a covered cup and straw
- Biggest concern is staff working with ready-to-eat food since no cooking will be done to kill bacteria

Nontyphoidal Salmonella Typhi

- Come from farms. They are all over farms and animals, especially chickens and eggs
- Avoid cross-contamination of farm foods
- Cook farm foods to correct temperature to kill these
- Produce contaminated with dirty irrigation and rinsing water has bacteria in and on them

Shigella spp.

- Are carried by flies
- Shigella are found in the feces of animals and people
- Flies eat feces and carry Shigella to food
- Biggest worry is staff working with ready-to-eat food since no cooking will be done to kill Shigella

E. coli

- Found normally in intestines of cows
- Gets on outside meat when cows are slaughtered
- GROUND BEEF gets contaminated when meat is ground into hamburger
- Avoid cross-contamination with other foods
- Cook ground meats to correct temperature
- Bacteria die in humans but leave toxin behind that hurt the human intestines and cause bloody diarrhea

ALL 4 BACTERIA WILL REMAIN IN THE FECES OF HUMANS FOR WEEKS AFTER THEY ARE NO LONGER SICK

VIRUSES CAUSE PEOPLE TO GET SICK

A virus does not grow in food

It comes into our food service by sick food handlers or some food (mostly food handlers)

Viruses are spread from people to: (1) other people, (2) food or (3) equipment

The main way viruses get into our operation is by sick food handlers and poor hand washing after using the restroom (feces)

Destruction

- Not killed by normal cooking temperatures
- Quick cleanup of vomit is important with correct cleaning chemicals

The food that could bring a virus into our operation is SHELLFISH, especially oysters

2 VIRUSES THAT ARE A CONCERN TO US:

Hepatitis A

- ✓ Found in the feces (poop) of people
- ✓ Can come in with shellfish from contaminated water
- ✓ Passed to food when sick food handlers touch food or equipment with fingers that have feces on them
- ✓ Only a small amount of the virus can make a person sick
- ✓ Cooking does not kill Hepatitis A

Norovirus

- ✓ Found in the feces (poop) of people
- ✓ Can come in with shellfish from contaminated water
- ✓ Passed to food when sick food handlers touch food or equipment with fingers that have feces on them
- ✓ Only a small amount of the virus can make a person sick
- ✓ Cooking does not kill Norovirus
- ✓ Norovirus will stay in the AIR for hours
- ✓ Norovirus will stay on surfaces for days
- ✓ ASSOCIATE OYSTERS AND SHELLFISH FROM CONTAMINATED WATER WITH VIRUSES



PARASITES

Location

- Require food to live and reproduce

Source

- That food is seafood(fish) and wild game
- Buy food from **approved, reputable suppliers**
- Supplier will freeze fish and game to kill parasites
- Fish that will be served raw or undercooked, must be frozen by the supplier

FUNGI:

Molds and yeast

Some molds have harmful toxins (poison)

Yeasts will make a bad smell or taste of alcohol

Yeasts will look fuzzy and look green, white or yellow

Mushrooms are a FUNGI

- Some mushrooms have toxins (poison)
- You cannot see or smell them
- Buy mushrooms from approved, reputable suppliers

BIOLOGICAL TOXINS

Toxins are a poison

Some seafood has toxins

2 examples:

- **SCOMBROID** –Toxin – Fish that are in time-temperature zone too long (41°-135°). Bacteria grow, die, leave toxins
- **CIGUATERA** – Toxin- Fish that have algae on them. Algae die and leave toxins

Purchase fish from APPROVED SUPPLIERS

Cooking or freezing cannot destroy these toxins.

CHEMICAL CONTAMINANTS

Can come from:

- Soft metals
- bug sprays
- cleaning supplies
- sanitizers
- first aid and personal care items

Chemical Rules:

- all chemical containers must be labeled
- all chemicals must be stored away from food
- never put chemicals in a food container
- don't use copper, zin or pewter (soft metals) for food
- never use more sanitizer than needed (use a TEST STRIP to check)
- only use approved chemicals
- buy chemicals from approved reputable suppliers
- MSDS (SDS) Manual:
 - Tells what chemicals are used for
 - Gives chemical use directions
 - Tells how to throw it out
 - Tells what to do if a person gets some in mouth

Symptoms if anyone gets in body:

- Occurs right away
- Vomiting and diarrhea
- Dizzy, blurred vision, muscle weakness

PHYSICAL CONTAMINATION

- metal shavings
- staples
- glass
- fingernails
- hair
- Band-Aids
- dirt

Symptoms

Cuts, teeth damage, choking, bleeding and pain

WE MUST BE ALERT TO MAKE SURE NO ONE CAN GET TO OUR FOOD AND PUT BAD THINGS IN IT. TERRORISTS HAVE TRIED TO DO THIS MANY TIMES

THE FOOD CODE HAS A REMINDER CALLED A.L.E.R.T.

Know what each letter stands for:

A ssure	Make sure food comes from safe supplier
L ook	Always keep an eye on your food
E mployees	Know who is in your building
R eports	Keep all food information and invoices on file
T hreat	Know who to call if someone is in your building who should not be

Foodborne-Illness Outbreak

- Train staff on what to do
- Have an emergency-contact list
- Have a form to fill out
- Take information
- Know who to call with information
- Get bad product away from all other food
- Where does form go
- Work with health department

FOOD ALLERGIES

A protein in food some people can't have in their body
The body tries to get rid of
This is an ALLERGIC reaction

Allergy Symptoms:

- ❖ itching,
- ❖ tightening of the throat
- ❖ wheezing
- ❖ hives
- ❖ swelling of face
- ❖ vomiting
- ❖ ANAPHYLAXIS (Can't breathe, even death)

8 Common Food people are allergic to:

- Milk
- Eggs
- Fish
- Shellfish, including lobster, shrimp, and crab
- Wheat
- Soy
- Peanuts
- Tree nuts, such as almonds, walnuts, and pecans

What can we do:

SERVERS AND FRONT STAFF:

- ❖ Have ingredient labels on all retail food
- ❖ Keep ingredient labels on cases in storage
- ❖ Be willing to go back to store room and check ingredients
- ❖ No secret ingredients
- ❖ Mark allergy free orders clearly

KITCHEN FOOD HANDLERS:

- ❖ Wash, rinse and sanitize all equipment before using
- ❖ Avoid CROSS-CONTACT
- ❖ Deliver food by itself

CROSS-CONTACT IS WHEN AN ALLERGEN FOOD TOUCHES A NON-ALLERGEN FOOD

Food adulteration is serving a cheaper food for a more expensive food. It can cause an allergic reaction because people should always know what the food is they are eating

THE SAFE FOODHANDLER

FOOD HANDLERS can contaminate food when:

- They are sick
- They have cuts or wounds
- They sneeze or cough
- Don't wash their hands
- Don't wear gloves when they should
- Live with someone who is sick

If they live with someone who is sick they may be a **carrier**. A **carrier** is someone who brings bacteria and viruses into our operation even though they are not sick. They can work, but need to be very careful.

One bacteria over 50% of healthy people **carry** is staphylococcus. To prevent this food handlers should wash hands after touching body parts like ears, nose, mouth or cuts.

Dirty uniforms can also **carry** bacteria and viruses

Managers must do this:

- Write food safety rules
- Train food handlers on these rules at hire
- Retraining them on these rules often
- Follow the rules themselves
- Update rules when the food code changes

PROPER HAND WASHING

WHEN:

- before starting work
- after using the restroom
- after sneezing, coughing
- after smoking, eating, drinking
- after handling raw food
- after handling garbage
- BEFORE working with any food

HOW:

Turn on hot water - 100° or as hot as you can take it

1. Use soap
2. Scrub hands & arms for 10-15 SECONDS.
3. Rinse
4. Dry with a single-use towel or air dry
5. The total time for hand washing should be 20 seconds

HAND ANTISEPTICS

- Only lower the number of bacteria on skin
- Must comply with the CFR and FDA standards (look for these words on test)
- Use only after hand washing
- Never be used in place of hand washing
- Should be allowed to dry before touching food, equipment or GLOVES

HANDS:

- short & clean nails
- NO false fingernails
- NO nail polish

cuts & wounds must be covered with clean bandage then put glove or a finger cot over bandage

GLOVES:

- Should never be used in place of hand washing
- Hands must be washed before putting on gloves and when changing to a new pair
- Gloves used to handle food are for single-use and should never be washed or reused
- They must be changed at least every FOUR HOURS
- When they become dirty or torn
- When beginning a new job

***Note: You don't need to wash hands when changing gloves if you don't change the job you are doing**

CLEAN FOOD HANDLERS

- 🧼 All food handlers must take a bath or shower before work
- 🧼 Keep their hair clean
- 🧼 Put on clean clothing
- 🧼 Wear hair restraint or hat and a beard net when needed

JEWELRY & APRONS

Must take off jewelry from hands and arms

Only a plain wedding band is allowed

Aprons must be taken off when the food handler leaves food-preparation area

EATING, DRINKING, SMOKING, CHEWING GUM OR TOBACCO is not allowed when preparing, serving or working in food-prep areas.

FOOD HANDLERS WHO ARE SICK

Food Handlers who are sick must be:

RESTRICTED: Can work, but NOT with food

EXCLUDED: Can NOT work

All food handlers who work with high-risk are NOT allowed to work when sick, including sore throat and fever

THIS IS CALLED EXCLUSION

They must have a **DOCTORS** release to return to work at high-risk

Food Handler has sore throat and fever:

RESTRICT. Cannot work with food

Can return when not sick for 24 hours

Food Handler has vomiting and diarrhea:

EXCLUDE. Cannot work

Can return when not sick for 24 hours

Food Handler has been to doctor and has food borne illness

EXCLUDE. Cannot work

Contact health department to let them know

Must have doctors release to come back to work

Food Handler has Hepatitis A

EXCLUDE. Cannot work

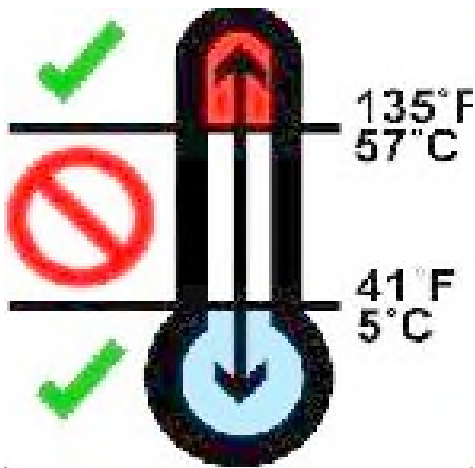
Manager is person who must call health department

Must have all of these to come back to work:

- No jaundice for 7 days
- No vomiting/diarrhea for 14 days
- Doctors release
- Health Department release

**IT IS THE FOOD
SERVICE MANAGER
WHO MUST CALL THE
HEALTH
DEPARTMENT IF ANY
FOOD HANDLERS
HAVE HEPATITIS A**

THE FLOW OF FOOD



AVOID TIME & TEMPATURE ABUSE

Keep food below 41°F and above 135°F
Use Thermometers

THERMOMETERS

- washed, rinsed and sanitized and air-dried before each use
- calibrated before each shift
- inserted into the thickest part of the product
- take the temperature in 2 or more places
- wait 15 seconds

KINDS OF THERMOMETERS

BIMETALLIC STEMMED THERMOMETER

- has a dimple, insert so food is up to dimple
- calibrate at start of every shift (32° in ice water)
- not good for thin food

THERMOCOUPLES & THERMISTORS

- electronic, takes temperature in tip, good for thin food
- can't calibrate, send back to factory every year for calibration
- has 4 probes: Immersion, Surface, Air, Penetration

MAXIMUM REGISTERING

- used to measure final rinse, sanitizer water temperature in a dish machine

TIME AND TEMPERATURE INDICATOR

- used to take temperatures in delivery truck

GLASS THERMOMETER

- used by bakers to make candy
- must be in a shatterproof cover in case glass breaks

INFRARED

- takes temperature of food without touching it
- since it doesn't touch food it does not need to be washed, rinsed and sanitized between uses

When using thermometers:

Wash, rinse, sanitize, and air-dry thermometers before and after using them

Calibrate them before each shift

Thermometers used to measure the temperature of food can be wrong by $\pm 2^{\circ}\text{F}$

Thermometers used to measure the temperature of the air can be wrong by $\pm 3^{\circ}\text{F}$

Take temperatures in warmest part of cooler

Take temperatures in coolest part of heating equipment

PURCHASING & RECEIVING

APPROVED SUPPLIER – Has been inspected and meets all applicable local, state, and federal laws. Food must be purchased from approved, reputable suppliers. These inspections can be from the U.S. Department of Agriculture (USDA), or the Food and Drug Administration (FDA)

RECALLS-

If a food is found to have contaminates in it, the maker of that food will RECALL it

Keep all food in the box it is delivered in until you are ready to use it

Then you can read label if you get food that is recalled

Simply match the code in the recall notice

REMOVE item from normal storage area and mark DO NOT USE and DO NOT DISCARD

KEY DROP OFF DELIVERIES –

Food is delivered when store is closed

Driver has a key to get in so it is called a key drop delivery.

Deliveries must meet these rules

- First food handler in checks order
- Food must come from approved supplier
- Driver must put food in the correct storage location
- Protected from contamination (6 inches off floor)

RECEIVING

Schedule deliveries so you have time to check it in properly

Train food handlers on what to look for and correct temperatures

PRODUCTS MUST BE DELIVERED AT THE PROPER TEMPERATURES

Cold TCS Foods – 41°F or Lower

- Put the thermometer into the thickest part of the food
- ROP, MAP, vacuum-packed, and sous vide food- Insert the thermometer between 2 packages
- Cartons- Open the carton check temperature

4 items that can be delivered in a 45 ° truck

1. Milk
2. Eggs
3. Shellfish out of the shell
4. Live shellfish, like oysters, mussels, clams, and scallops (internal temperature no greater than 50°F)

These must be cooled to 41°F or lower in 4 hours

Hot TCS Foods delivered at 135°F or higher

Frozen – **Frozen solid**

Shellfish:

Live Shellfish must have a **shell stock identification tag:**

- Tag needs company name
- Company address
- State or country
- Date shellfish came out of the water
- Tags must be kept on file for **90 days** from the date the last shellfish was used

Fish that will be eaten raw or partially cooked

- Must also have a tag
- Must show fish was frozen
- Keep tag for **90 days** from the sale of the fish
- This tag is probably kept at your supplier's location

Food Quality:

Reject food that is moldy or has a bad color.

Reject meat, fish, or poultry if:

- It is slimy, sticky, or dry
- It has soft flesh
- Has a bad smell

Reject dented cans

Reject food with ice crystals or freezer burn

Reject any vacuum package that the seal has been broken

STORAGE

- Storage shelves should be 6 inches off the floor and away from the wall
- Table top equipment must be 4 inches off table
- **NEVER** put food in empty chemical containers
- Use FIFO (First in First out)
- **Dry storage room should be 50°F and 70°F with a humidity of 50-60%**
- If you store fresh fish, always cover it in ice

Keep everything in original packaging

Label everything not in original packaging

NAME OF THE FOOD

THE DATE PREPARED

DATE TO BE THROWN OUT

NEVER store food in these areas

- Locker rooms or dressing rooms
- Restrooms or garbage rooms
- Mechanical rooms (ANYWHERE ELECTRIC BOXES ARE)
- Under sewer lines or water lines
- Under stairwells

LABEL ALL FOOD PREPARED IN YOUR STORE FOR RETAIL SALE

- Common name of the food it.
- Quantity of the food
- List the ingredients most amount to smallest amount
- List of artificial colors and flavors and chemicals
- Name and place of the manufacturer
- Any of Big 8 allergens
- Say if any allergens are used in the building where food is made

FOODS YOU PREPARE must have a label with:

Name of the food, and the date it should be sold, eaten or thrown out (also label if it has any Big 8 Allergens in it)

It can be used for no more than 7 DAYS

Cooler Storage:

- 🗑 The higher the temperature you cook food, the lower in the cooler it goes
- 🗑 We do not want foods to drip on each other (cover food in coolers)
- 🗑 Store ready-to-eat food in its own cooler OR on the TOP shelf
- 🗑 The storage order does not need to be used in the freezer

135° Ready-to-eat
145° Fish, Beef
155° Ground Meat
165° Chicken/Poultry

Preparation

PREPPING FOOD:

Take only as much food from the cooler as you can prepare in a short time.
Return prepared food to the cooler as quickly as you can

Only add things to food that are approved by the health department

NEVER use more than are allowed by health department

NEVER use add things to change what the food looks like

Don't use sulfites (this is a chemical that makes food last longer)

4 Methods for Thawing Food

1. Thaw food in a cooler at 41 °or lower
2. Thaw in running water at 70°F or lower (DON'T TAKE LONGER than 4 hours)
3. Thaw food in a microwave if cooked right away after thawing
4. Thaw when you cook it

Produce

Don't allow produce to touch raw meat, seafood, or poultry

Wash it under running water (take gloves off to wash produce)

Produce can be washed in water that has OZONE in it

Don't mix produce from different cases

Refrigerate and hold sliced melons, cut tomatoes, and cut leafy greens at 41°F or lower

Do NOT serve raw seed sprouts in a high-risk population

Eggs

- When combining several eggs (pooling) refrigerate immediately or cook
- Some high risk operations are required to cook eggs 1 at a time because of above
- All egg except shell eggs are PASTUERIZED (cooked lightly to kill bacteria)
- ONLY serve pasteurized shell eggs to high-risk customers

Note: All egg products (like liquid eggs) are pasteurized. The only egg not pasteurized are eggs in the shell

Ice:

NEVER use ice in food if the ice was used to keep food cold

NEVER carry ice in containers that held chemicals or raw meat, seafood, or poultry

Store ice scoops outside ice machines

NEVER use a glass or hands to scoop ice

COOKING TEMPERATURES

We can cook food too as hot of a temperature as we want
HOWEVER, Cooking too hot can ruin the food

DON'T SERVE UNDERCOOKED MEAT, POULTRY OR EGGS TO CHILDREN OR HIGH-RISK

We MUST cook all food to at least these temperatures:

135 °	Vegetables and Grains and Commercially Processed Foods
145 °	EVERYTHING from the Farm, Field and Forest (beef, pork, lamb, wild game, eggs, all seafood)
155 °	Ratites (emu and ostrich), eggs that will be hot held, ground or tenderized meat from above
165 °	Poultry and anything stuffed (Also reheat to this temperature)

MUST BE ON MENU:

FDA DISCLOSURE: Tell your customers which foods on your menu can be ordered and served undercooked

FDA REMINDER: Remind your customers that if they eat undercooked food they could get sick

Partial Cooking During Preparation - If partially cooking meat, seafood, poultry, or eggs

Never cook the food longer than 60 minutes during initial cooking.

- A. Refrigerate right away
- B. Mark as PARTIALLY COOKED
- C. Heat the food to 165°F before selling or serving it.

COOLING TCS FOODS –

Never place hot food in refrigerators

You have a total of 6 Hours to cool food.

Step 1 - Cool food from 135°F and above to 70°F in the first two hours

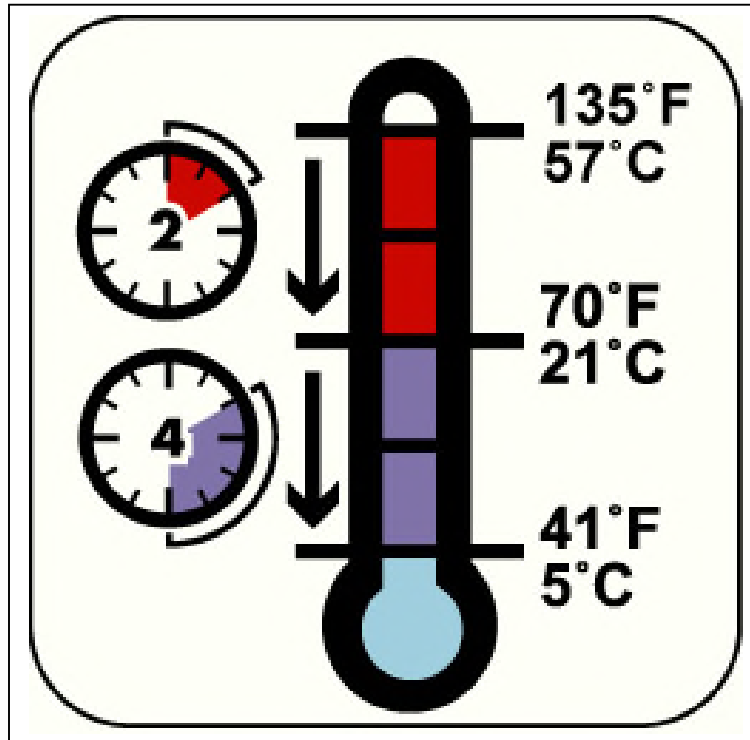
Step 2 – Cool food from 70°F to 41°F in 4 hours

Cut larger items into smaller pieces

Divide large containers of food into smaller containers or shallow pans

Use metal not plastic

BELOW IS COOLING WINDOW:



4 ways to cool:

1. Ice water bath
2. Ice paddles
3. Blast Chiller
4. Add ice to food

Service

Holding Food

Cover food with sneeze guards or lids

(SNEEZE GUARDS MUST BE 14 INCHES ABOVE FOOD AND 7 INCHES OUT FROM FOOD)

Hold TCS food at the right temperature

- Hot food: 135°F or higher
- Cold food: 41°F or lower

Check temperatures at least every 4 hours

- If you check food every 2 hours you can fix it if it falls into temperature danger zone
- THIS IS CALLED **RECONDITIONING**
- Reconditioning means you can reheat the food to 165°
- Don't take longer than 2 hours when reheating

NEVER use hot-holding equipment to reheat food

Serving and Holding Food Without Temperature Control (no Sterno, no ice)

Cold food can be served without temperature control for up to 6 hours

- Label the food with the time you took it out of refrigeration
- Put throw away time on the label
- Don't allow food to go above 70°

Hot food can be served without temperature control for up to 4 hours

- Label the food with the time you took it out of heat
- Put throw away time on the label

Other Guidelines for Serving Food

Store ladles in hot food ABOVE THE RIM

GLASSWARE AND DISHES should be held at the bottom and not be stacked when serving

FLATWARE AND UTENSILS should be stored handles

RESERVING – Only un-opened individually packaged condiments are okay to re-serve. Plate garnish, breads or open dishes of condiments can never be served to a new guest.

NEVER re-serve:

- Food returned by one customer to another customer
- Uncovered condiments
- Uneaten bread
- Plate garnishes

Generally, only unopened, prepackaged food in good condition can be re-served:

Condiment packets

Wrapped crackers or breadsticks

SELF SERVICE AREAS - Never allow customers to re-use dirty plates

- Keep hot food at 135°F or higher
- Keep cold food at 41°F or lower
- Keep raw meat, fish, and poultry separate from ready-to-eat food
- Each food item must have its own spoon, ladle or utensil

Labeling Bulk

Have manufacturer label with the bulk food

A label is not needed for bulk unpackaged food in a BAKERY CASE if:

- The food makes no claim about health or nutrient content
- The food is made on the premises
- The food is made at another operation owned by the same person or company

Off Site Serving

- ✓ Use insulated, food-grade containers
- ✓ Clean the inside of delivery vehicles regularly
- ✓ Check internal food temperatures when leaving food prep and again when arriving at off site
- ✓ Label food with a use-by date and time, and reheating and service instructions
- ✓ Make sure the service site has the correct utilities
 - Safe water for cooking, dishwashing, and hand washing
 - Garbage containers

VENDING MACHINES

- All the same food safety rules apply to vending machines that apply to all other food
- Vending operators must watch contamination and time-temperature abuse during delivery, and service.
- Check product shelf life daily. Check expiration or a use-by date. If the date has expired, throw out the food immediately.
- Prepared vending machine foods have a 7-day shelf life
- If the machine vends TCS food it must have SHUT-OFFS that prevent food from being served if the temperature stays in the danger zone

FOOD SAFETY MANAGEMENT SYSTEMS

A Food Safety Management System are rules and actions is your operation used to prevent foodborne illness

ACTIVE MANAGERIAL CONTROL

Controlling the five most common risk factors responsible for foodborne

These include:

1. Purchasing from unsafe sources
2. Not to cooking food to a high enough temperature
3. Holding food at wrong temperatures
4. Using dirty equipment
5. Dirty food handlers

HAZARD ANALYSIS CRITICAL CONTROL POINT (HACCP)

This system looks for points in your operation where we can prevent or fix food contamination

7 Steps of HACCP

1. Conduct a Hazard Analysis
2. Determine the critical control points where the hazards can be prevented, eliminated or reduced to safe levels
3. Determine and establish maximum and minimum critical limits that must be met
4. Determine and establish monitoring procedures
5. Identify what corrective actions will be taken when critical limits have not been met
6. Verify that your plan is working
7. Establish procedures for record keeping and documentation

EXAMPLE:

Chicken Breast

- | | | |
|---------------------------|---|--|
| 1. HAZARD ANALYSIS | ⇒ | NONTYPHOIDAL SALMONELLA |
| 2. CRITICAL CONTROL POINT | ⇒ | GRILL |
| 3. CRITICAL LIMIT | ⇒ | COOK CHICKEN TO 165° |
| 4. MONITORING PROCEDURES | ⇒ | COOK WILL USE A THERMISTOR THERMOMETER TO CHECK |
| 5. CORRECTIVE ACTIONS | ⇒ | IF CHICKEN IS BELOW 165°, COOK WILL COOK FOR LONGER TIME |
| 6. VERIFY PLAN | ⇒ | MANAGEMENT TEAM WILL REVIEW RECORDS WEEKLY TO MAKE SURE PLAN WORKS |
| 7. FILE THE PAPERWORK | | |

FACILITIES AND EQUIPMENT

FLOORING should be strong, durable and easy to clean

COVING (COVE BASE) is a curved edge placed between the floor and the wall to eliminate cracks between the floor and the wall that would make it hard to clean.

HANDWASHING STATIONS:

1. hot & cold water
2. soap
3. paper towels or moving air to dry hands
4. waste container
5. sign telling food handlers to wash hands before returning to work

FOOD SERVICE GRADE EQUIPMENT: purchase equipment that has the **NSF Label**

STATIONARY EQUIPMENT must be at least **six inches off the floor, or it can be sealed to the floor**. Tabletop equipment should be on legs 4 inches between off the tabletop or it can be sealed to the tabletop.

POTABLE WATER-safe to drink

- Private water sources such as a well must be tested at least once a year

PLUMBING - Only licensed plumbers should install and maintain plumbing systems

Biggest problem with water safety comes from **cross-connections**-a connection where water from drains, sewers, and dirty mop bucket water can flow backwards into the clean water supply.

Air gaps are the only sure way to prevent backflow

LIGHTING is measured in foot-candles

Food prep should be brightest (50 foot candles)

Next should be food service area (20 foot candles)

Last is food storage area (10 foot candles)

SHATTER-RESISTANT BULBS AND PROTECTIVE COVERS prevent broken glass from contaminating food.

VENTILATION removes smoke, grease, steam and heat. **If there is good ventilation, there will be no buildup of grease and condensation on walls and ceilings.**

GARBAGE CONTAINERS must be leak proof, water proof, pest proof, easy to clean, and durable. They must have tight-fitting lids and must be kept covered when not in use. All garbage containers should be regularly. Garbage should be removed from food-preparation areas as soon as possible, and **must not be carried across a food-preparation area.**

DUMPSTER AREA:

- Dumpster must be on concrete or asphalt
- Lids must be closed and drain plugs in bottom

CLEANING AND SANITIZING

SANITIZING means reducing the number of pathogens to a safe. Test the solution regularly with a sanitizer test kit.

	Chlorine		Iodine	Quats
Water temperature	75- 100°F		68°F	75°F
Water pH			Water PH That is too low or too high will require an adjustment in chemical levels	
Water hardness			Water too HARD will require an adjustment in chemical levels	
Sanitizer concentration range	50-99 ppm		12.5-25 ppm	200 ppm
Sanitizer contact time	7 sec		30 sec	30 sec

5 Step Cleaning Process (make sure it is in correct order)

- 1. Scrape or remove food**
- 2. Wash**
- 3. Rinse**
- 4. Sanitize**
- 5. Allow the surface to air-dry.**

DISHWASHING

A tag should be on the machine giving you

- proper water temperature (wash and final rinse)
- conveyor speed
- water pressure
- chemical concentration (if chemicals)

High-Temperature Machines

Final sanitizing rinse must be at least 180°F in conveyor dishwasher

Final sanitizing rinse must be at least 165°F in stationary rack dishwasher

THREE-COMPARTMENT SINK –

- 🧼 scrapped clean
- 🧼 washed in detergent with 110F water
- 🧼 rinsed in clean water, sprayer or sink of water (no temperature needed)
- 🧼 sanitized in either hot water at least 171F or a chemical-sanitizing solution (chlorine, quats or iodine)
- 🧼 all items should be air-dried inverted

Keep Material Safety Data Sheets (MSDS) for each chemical

MASTER CLEANING SCHEDULE lists all cleaning jobs, as well as when and how jobs should be done

INTEGRATED PEST MANAGEMENT (IPM)

DON'T LET PEST IN

DON'T GIVE PESTS FOOD

DON'T GIVE PESTS SHELTER AND WATER

CALL A LICENSED PEST CONTROL OPERATOR (PCO) to get rid any pests that get in

ROACHES like dark, warm moist places. Check for a strong oily smell, **droppings look like grains of black pepper**, and capsule egg cases

RODENTS: Look for droppings, signs of gnawing, tracks, nesting materials and holes.