



Food Handler Training

Online Presentation

Outline

- Public Health Laws
- Role of the Food Handler
- Types of Inspections
- Micro-organisms
- Food Contamination
- Foodborne Illness
- Food Allergies
- Wash, Rinse and Sanitize
- Personal Hygiene
- Safe Food Handling Practices
- HACCP: A Food Safety System
- Taking Care of a Food Premises
- Pest Prevention
- Review Questions



Public Health Laws

There are three public health laws that impact food safety:

1. The Health Protection and Promotion Act

- gives Public Health Inspectors in Ontario the responsibility to make sure food premises are meeting safe standards

2. The Food Premises Regulation

- sets the minimum health standards for all food premises in Ontario

3. The Food Safety Disclosure By-law

- local Region of Peel law makes food safety inspection results available to the public using FoodCheck Peel's [website](#) and signs that are posted at the entrance of food premises

Public Health Laws: FoodCheck Peel Signs



Peel Health Inspection Summary

Pass

Date of Inspection: _____ Results of previous inspection on: _____

Premises Name: _____ Address: _____

On this day this premises was inspected by a Public Health Inspector for compliance with the Ontario Food Premises Regulation and passed the inspection.

Inspection Summary Definitions

- Pass** Substantial compliance with the Ontario Food Premises Regulation.
- Conditional Pass** Significant non-compliance with the Ontario Food Premises Regulation which may affect food safety.
- Closed** Conditions in the food premises are an immediate health hazard to the general public.

David McKeown
De David McKeown
Medical Officer of Health
Region of Peel

FoodCheck Peel www.foodcheckpeel.ca **Region of Peel**
For more information, please call the Region of Peel - Public Health at 905-709-7700.

Peel Health Inspection Summary

Conditional Pass

Date of Inspection: _____ Results of previous inspection on: _____

Premises Name: _____ Address: _____

Infractions found at time of inspection

- ☐ Failed to ensure safe food handling/storage temperatures
- ☐ Failed to provide, maintain and/or clean equipment and utensils
- ☐ Failed to protect food from contamination
- ☐ Failed to provide/clean/disinfect foodservice and/or handwashing basins
- ☐ Failed to practice adequate food handler hygiene
- ☐ Failed to store and/or remove waste adequately
- ☐ Failed to provide adequate pest control
- ☐ Failed to maintain the sanitation of the premises

Inspection Summary Definitions

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Peel Health Inspection Summary

Closed

THESE PREMISES ARE CLOSED
By Order of the Medical Officer of Health
Under authority of the Health Protection and Promotion Act, R.S.O., 1990 as amended, pursuant to section 13

DATE: _____ TIME: _____

Premises Name: _____ Address: _____

Inspection Summary Definitions

- Pass** Substantial compliance with the Ontario Food Premises Regulation.
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- Closed** Conditions in the food premises are an immediate health hazard to the general public.

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The **green** pass sign means that the food premises is following the Food Premises Regulation

The **yellow** conditional pass sign means that the food premises has not met all standards of the Food Premises Regulation

The **red** closed sign means that a Public Health Inspector found a health risk/danger and closed the food premises until the risks are removed



Role of the Food Handler

Foodborne illness, also known as food poisoning, is what happens when a person becomes sick after eating food or drinking a beverage that is unsafe. Learning how to safely handle food is important because your actions can prevent foodborne illness.

As a food handler, you are responsible for:

- Making sure food is handled safely
- Contacting your local health department if someone becomes sick from eating at your food premises



Protect yourself and your business by learning and following safe food handling practices

Types of Inspections

Public Health Inspectors use two types of inspections to help prevent and reduce foodborne illness:

- 1. Compliance Inspections:** Inspectors make sure standards in the *Food Premises Regulation* are followed. The number of inspections in one year depends on the risk level given to the food premises.
 - High risk premises are inspected 3 times a year
 - Medium risk premises are inspected 2 times a year
 - Low Risk premises are inspected 1 time a year
- 2. HACCP Audits:** Inspectors set up an appointment to watch how food is handled from receiving to serving.

Micro-organisms

Foodborne illness is often caused by micro-organisms which are very small forms of life. Four types of micro-organisms include:

Bacteria



Viruses



Parasites



Mould



Micro-organisms: Bacteria

**Bacteria are the number one cause
of foodborne illness!**

Bacteria need 3 things to grow:

1. **Hazardous Food** which is usually high in protein and moist
2. **Temperature** in the Danger Zone between 4°C - 60°C
3. **Time**- the longer a hazardous food stays inside the temperature danger zone (4°C - 60°C), the more quickly bacteria grow making the food unsafe to eat



Micro-organisms:

How does temperature affect bacteria?

At **74°C (165°F)** and **hotter**, bacteria will **die**.



At **60°C (140°F)** and **hotter**, bacteria **do not grow** and some bacteria **will die**. This is called the **hot holding temperature**.



Between 4°C and 60°C (40°F and 140°F), bacteria **grow quickly**. This is called the **temperature danger zone**.



At **4°C (40°F)** and **colder**, bacteria **grow slowly**. This is called the **refrigeration temperature**.



At **-18°C (0°F)** and **colder**, bacteria **do not grow** but are still **alive**. This is called the **freezer temperature**.





Micro-organisms:

How does time affect bacteria?

Bacteria double in number every 10 to 20 minutes in the temperature danger zone.

Lets see what happens to one bacteria cell in
2 hours and 45 minutes.



🕒 00:00 = 1 Bacterium



00:15 = 2 Bacteria





00:30 = 4 Bacteria





00:45 = 8 Bacteria





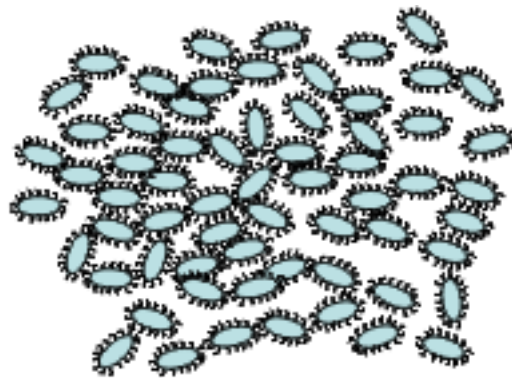
01:00 = 16 Bacteria





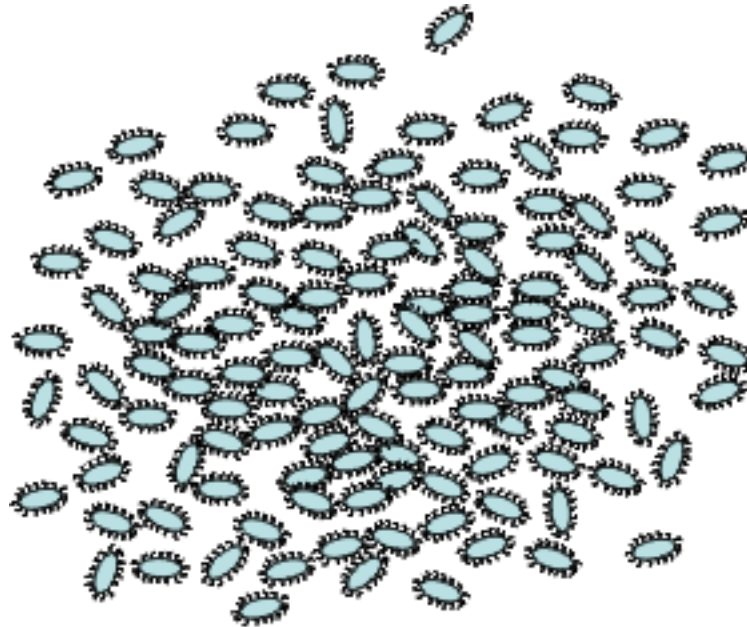
01:15 = 32 Bacteria





01:30 = 64 Bacteria





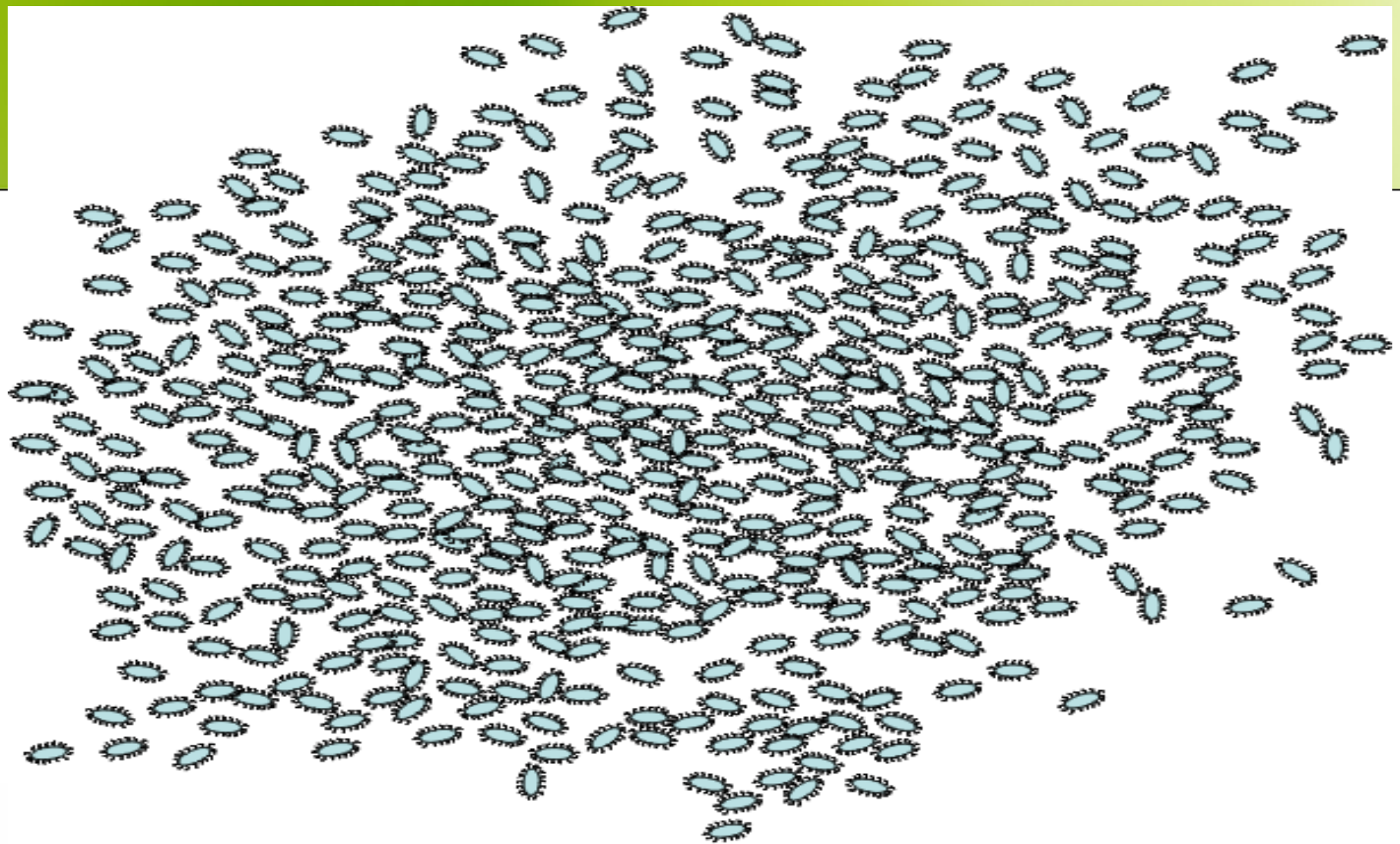
01:45 = 128 Bacteria



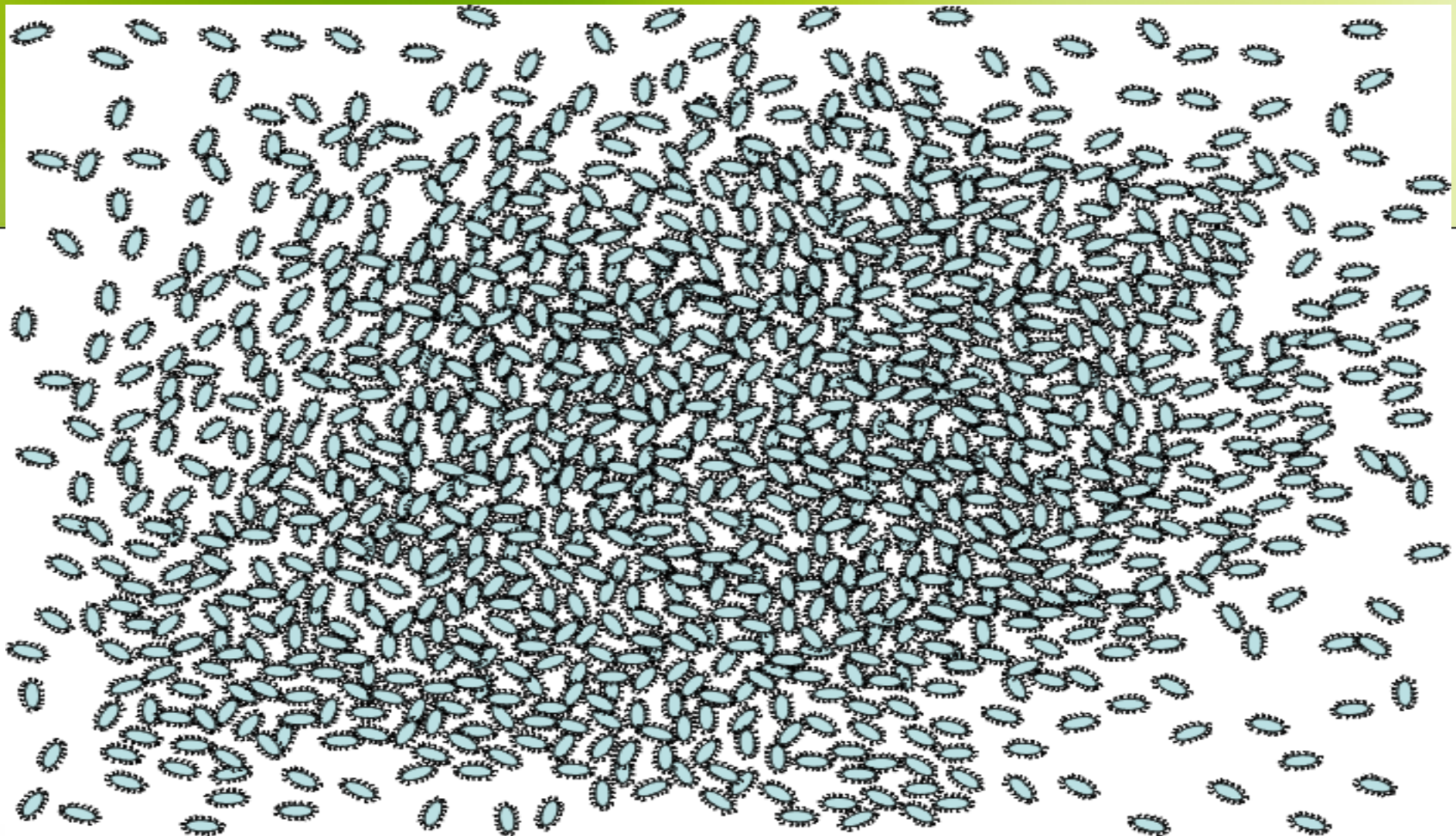


02:00 = 256 Bacteria

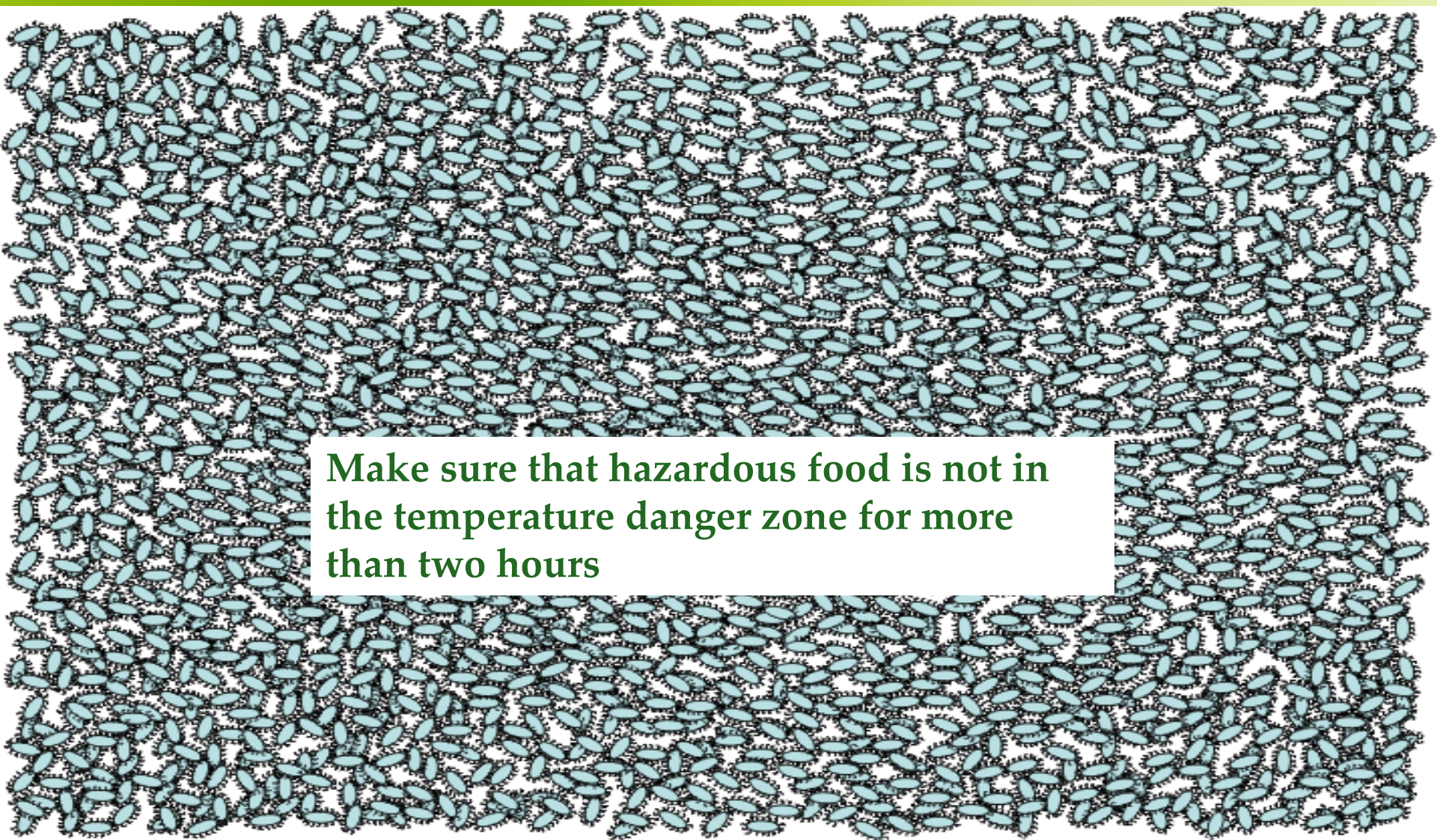




02:15 = 512 Bacteria



02:30 = 1024 Bacteria



Make sure that hazardous food is not in the temperature danger zone for more than two hours



02:45 = 2048 Bacteria

Food Contamination

Food contamination happens when something harmful goes on or in food. These harmful things are also called contaminants and can make someone sick.

There are three types of contaminants:

1. **Biological (Micro-organisms)**
 - Bacteria, Viruses, Parasites, Mould
2. **Chemicals**
 - Pesticides, Cleaning Products
3. **Physical Objects**
 - Hair, glass, bandages



Food Contamination

Contamination can happen in 3 ways:

1. Food spreading contaminants to other food

Prevent food-to-food contamination by:

- Storing raw food separately (especially raw meats/poultry/seafood) and on the lowest shelves of a fridge or freezer
- Storing cooked food and food that need to be reheated on middle shelves of a fridge or freezer
- Storing food that is ready to eat on the highest shelves of a fridge or freezer
- Preparing raw, cooked and ready to eat food separately



Food Contamination

2. Equipment spreading contaminants to other food

Prevent equipment-to-food contamination by:

- Using different equipment (dishes, utensils, surfaces) when preparing raw food, cooked food, and ready-to-eat food
- Wash rinse and sanitize equipment in between uses



Food Contamination

3. People spreading contaminants to other food

Prevent people-to-food contamination by:

- Washing your hands often
- Covering cuts/injuries on hands with a clean bandage and glove
- Not working when sick (especially with diarrhea or vomiting)
- Not eating food or chew gum while working with food
- Wearing a hat, hair tie, or hairnet to keep hair away from food
- Not scratching, sneezing or coughing near food
- Not putting fingers in mouth, nose, or hair
- Using clean utensils instead of hands to handle food
- Tasting food using a clean spoon or bowl to taste



Foodborne Illness

There are three types of Foodborne Illness:

1. Foodborne Infection

Illness caused by eating food containing harmful microorganisms

Ex. Salmonella, Campylobacter

2. Foodborne Intoxication

Illness caused by food contaminated with a toxin

Ex. Ciguatera fish poisoning, Staphylococcus aureus

3. Chemical Intoxication

Illness caused by eating food containing manufactured chemicals

Ex. Pesticides, cleaners



Foodborne Illness: Symptoms

1. Foodborne Infection

Symptoms include **cramps, fever and diarrhea**

Symptoms show several hours to a few days after eating contaminated food

2. Foodborne Intoxication

Symptoms include **vomiting**

Symptoms show a few minutes to a few hours after eating contaminated food

3. Chemical Intoxication

Symptoms include **vomiting, headache, dizziness, dry/burning throat and/or severe allergic reactions**

Symptoms show immediately to a few minutes after eating contaminated food



Foodborne Illness

The main cause of foodborne illness is
hazardous food kept in the temperature danger zone for more than 2 hours

Food handlers must use probe thermometers to measure the internal temperature of food to make sure food is being stored, prepared, cooked and held at safe temperatures.



Food Allergies

Food allergies are immune system reactions that some people have to certain foods.

- People with food allergies must avoid those food ingredients which cause their allergy such as peanuts, tree nuts, seafood, wheat, soy or milk
- Anaphylactic Shock is a life threatening allergic reaction that lowers blood pressure and causes swelling in the lungs or throat leading to suffocation



Provide your customers with the correct ingredient information.



Wash, Rinse and Sanitize

It is important to clean dishes, utensils, surfaces and equipment to get rid of micro-organisms that cause foodborne illness.

Cleaning involves 3 important steps:

1. **Washing:** Washing means removing leftover food, waste and grease using hot water and soap or dish detergent.
2. **Rinsing:** Rinsing means taking off the soap using clean hot water.
3. **Sanitizing:** Sanitizing means lowering the number of harmful microorganism to reduce the risk of foodborne illness.

The two ways to sanitize include using **Heat** or **Chemicals**



Wash, Rinse and Sanitize:

Heat and Chemical Sanitizing

Using Heat to Sanitize

- With an industrial dishwasher, the water must be at least 82°C (180°F) or hotter during the sanitizing cycle and must be sprayed onto the dishes for at least 10 seconds
- When sanitizing without a dishwasher, the temperature of the water must be at least 77°C (171°F) and be in contact with the items for at least 45 seconds

Using Chemicals to Sanitize

- You are allowed to use one of the following solutions:
 - **Chlorine solution** , which is also known as sodium hypochlorite or bleach, at 100 ppm
 - **Quaternary ammonium solution** (quats) at 200 ppm
 - **Iodine solution** at 25 ppm
- It is important to mix the right amount (ppm) of chemical into water to make a sanitizing solution that it works well and will not damage any equipment

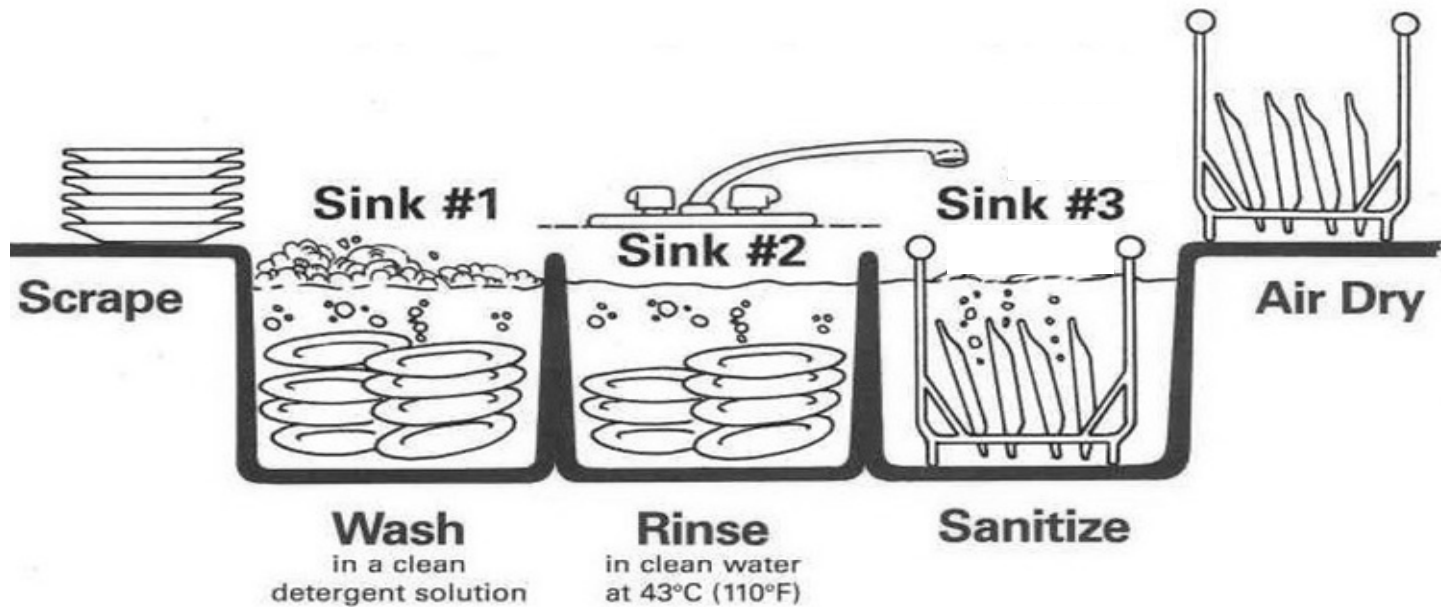
Wash, Rinse and Sanitize: Using a Dishwasher

When using an industrial dishwasher:

- Temperature of wash water must be 60° C - 71° C (140° F-160° F)
- Temperature of sanitizing rinse water must be
 - 82° C (180° F) for at least 10 seconds in a high temperature dishwasher
 - 24° C (75° F) for at least 45 seconds in a low temperature dishwasher.
Chemical sanitizer must be added.



Wash, Rinse and Sanitize: Using a 3 Compartment Sink



When sanitizing in sink #3 for at least 45 seconds using one of the following methods:

Use clean hot water at least 77° C (170° F)

OR

Chlorine bleach at least 100 ppm

OR

Quaternary ammonium (quats) at least 200 ppm

OR

Iodine at least 25 ppm



Wash, Rinse and Sanitize: Using a 2 Compartment Sink



When sanitizing in sink #2 for at least 45 seconds use one of the following methods:

Use clean hot water at least 77° C (170° F)

OR

Chlorine bleach at least 100 ppm

OR

Quaternary ammonium (quats) at least 200 ppm

OR

Iodine at least 25 ppm



Cleaning and Sanitizing: Tips for Using Sanitizing Solution

Follow these tips when using a sanitizing solution:

- All sanitizing solutions should be 24° C (75°F) or room temperature so it is best to use room temperature water to make these solutions
- All three chemical sanitizing solutions should be in contact with the dishes, utensils, surfaces or equipment for at least 45 seconds
- Mix a fresh batch of sanitizing solution each day and store in labelled containers
- Use a sanitizer test kit to measure the amount (ppm) of the chemical in your solution
- Make sure you follow the directions when using the test kit
- if the ppm is too high, add water to the solution
- If the ppm is too low, add more of the chemical



Picture of chlorine sanitizer test kit



Safe Food Handling Practices: Receiving



To make sure you are receiving food safely:

- Food must be from government inspected sources
- Check best before and expiry dates
- Check the temperature of hazardous foods
- Check all deliveries for signs of spoilage, damage, dirt, insects and rodents
- Keep receipts



Examples of government inspected stamps



Safe Food Handling Practices: Dry Storage

Foods in dry storage must be:

- Kept in its original, unopened container or covered to prevent contamination
- Stored away from chemicals
- Kept at least 15 cm off the floor because:
 1. it is the law
 2. it keeps food dry
 3. makes it easier to clean the floor
 4. makes it easier to see insects and rodents
- Use the **First In First Out (FIFO)** method of storing by placing new supplies behind old supplies so that the old supplies are used first



Safe Food Handling Practices: Fridge and Freezer Storage

To store food safely in fridges and freezers:

- Keep fridges and freezers clean
- Cover, label and date all food items separately
- Store food that is ready to eat on the highest shelves
- Store cooked food and food that need to be reheated on a middle shelves
- Store raw food on the lowest shelves
- Keep all food at least 15 cm (6 inches) off of the floor
- Keep fridges at 4°C (40°F) or colder and freezers at -18 °C (0°F) or colder



Safe Food Handling Practices: Best Before and Expiry Dates

Best Before Dates

- Required by law on all goods with a shelf life of less than 90 days
- It is the time until a product stored under proper conditions will stay at its best quality
- Products may still be safe to eat after this date but the taste, texture and nutrition might decline
- Do not accept food past the best before date



Expiry Dates

- It is not recommended to consume or use the item after the expiry date.

Example: vitamins, formula



Safe Food Handling Practices: Storing Chemicals

To store chemicals safely:

- Store cleaning supplies separate and away from food
- Store in original labeled container, tightly closed
- Clean up any spills as soon as possible
- Wash hands before and after handling chemicals
- Know what to do in case of an emergency



Safe Food Handling Practices: Defrosting/Thawing Hazardous Food

To safely defrost hazardous food, use one of the following three methods:



Microwave



Refrigerator



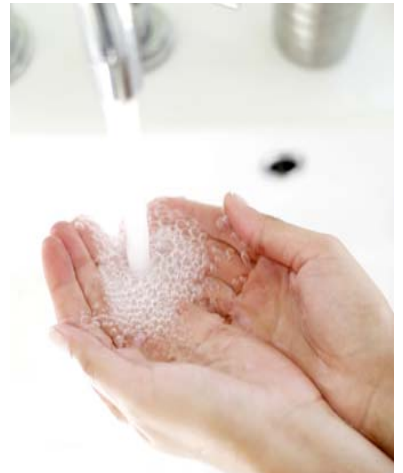
Cold running water



Safe Food Handling Practices: Preparing

To prepare food safely:

- Wash your hands often
- Wash, rinse and sanitize cutting surfaces, utensils and equipment before preparing food and between preparing raw food, cooked food, and/or ready-to-eat food on the same surface (i.e. cutting board) or using the same utensils
- Water used in cooking, for washing, and making ice must be safe to drink
- If your water comes from a private well, please speak to your Public Health Inspector
- Keep hazardous food out of the **temperature danger zone**, which is between 4°C and 60°C (40°F and 140°F)



Safe Food Handling Practices: Cooking

Cook all hazardous food to their minimum safe internal temperature

- See Cooking and Reheating Temperatures for Hazardous Foods poster
- Using a probe thermometer to check the **internal temperature** of the food
 - Put the probe into the centre or thickest part of the food
 - Wait until the temperature stops changing on the display for 15 seconds to read the correct temperature
 - Measure the internal temperature in more than one part of the food
 - Do not let the probe touch the container holding the food
 - Wash, rinse, sanitize and air dry the probe between each food item
 - To sanitize, use an alcohol wipe or one of the three approved chemical solutions



Safe Food Handling Practices: Reheating

Hazardous food must be reheated to the original internal cooking temperature or 74°C (165°F) within 2 hours. To safely reheat food:

- Divide food into smaller amounts to help reheat faster
- Do not use hot holding equipment, such as a steam table, to reheat or to cook food since it cannot cook food quickly or to a high enough temperature



Safe Food Handling Practices: Hot or Cold Holding



For holding foods at hot temperatures:

- Hazardous food must be reheated to their minimum safe internal temperature before being placed into a hot holding unit
- Use safe hot holding equipment including steam tables, double boilers, Sterno candles, heated cabinets and chafing dishes
- Pre-heat the hot holding equipment by following the instructions in the user manual

For holding foods at cold temperatures:

- Food being kept cold must have an internal temperature of 4°C (40°F) or colder before it is placed into a cold holding unit
- Use safe cold holding equipment including refrigerators, salad bars, display coolers, stainless steel pans on ice and ice packs

Safe Food Handling Practices: Cooling



Hazardous food must be cooled to an internal temperature of 4°C (40°F) or colder in less than 2 hours.

Before placing hot food into a refrigerator or freezer, use the following safe food handling practices to cool food safely:

- Divide food into smaller amounts
- Place into shallow metal pans and stir often to let heat escape
- Place pots/pans into ice baths and stir



HACCP: A Food Safety System

Hazard Analysis Critical Control Point



- HACCP stands for Hazard Analysis Critical Control Point
- HACCP is a food safety system that:
 - identifies food safety risks and the safe food handling practices (also called Critical Control Points) that will keep food safe
 - creates a list of specific instructions for staff to safely handle food
- Using a HACCP audit, a Public Health Inspector will make sure that the food is being prepared safely



Personal Hygiene



- Remember the safest way to prevent people-to-food contamination is to practice good personal hygiene
- Practice hand washing in a separate hand washing sink
- If you are sick, do not work with food



- Avoid: coughing near food, smoking near food, putting fingers in mouth, nose, hair; sneezing near food, scratching; chewing gum



Taking Care of a Food Premises

- Lighting in a food premises must be bright enough for food handlers to see what they are doing and clean properly
- Ventilation is needed in a food premises over cooking and dishwashing equipment and in every washroom to remove heat, steam, condensation, smoke, and smells
- Walls, ceilings and floors must be made of strong and well-fitted material that is in good condition and easy to clean
- Live birds and animals are not allowed in a food premises, with a few exceptions



Taking Care of a Food Premises: Emergencies

There are 4 main types of Emergencies:

- Power Failures
- Flood/Sewage back ups
- Water disruption
- Fires



In the case of any of the 4 emergencies, close your food premises immediately and call your Public Health Inspector. The Inspector will give you white Closed sign to post at the entrance of your food premises. A voluntary closure will not appear on FoodCheck Peel.



This food premises is	
CLOSED	
By order of the Public Health Inspector/Medical Officer of Health	
Under authority of the Health Protection and Promotion Act, R.S.O., 1990 As amended, pursuant to section 13	
Date:	Time:
Premises name:	
Address:	
Due to the following emergency :	
For more information call Region of Peel – Public Health at 905-799-7700	
Region of Peel Working for you Public Health	

Pest Control

A pest infestation can cause the food premises to be closed by a Public Health Inspector

- The main problem with pests is that they can spread pathogens to food and food contact surfaces
- The three pests that cause the most problems for food premises are cockroaches, flies and rodents
- Some ways to prevent pest problems in food premises include:
 - keeping them out
 - knowing the signs of pests
 - getting treatment from a licensed pest control operator
 - and removing pest homes



Review Questions

Why do we store food 15cm above the floor?



- ✓ It is the law
- ✓ Makes it easier to clean the floor
- ✓ Makes it easier to see insects and rodents



Review Questions

What temperature is the danger zone?

4°C - 60°C



What do microorganisms need to live and grow?

- 1) Food
- 2) Warm temperatures
- 3) Time



What type of law is the Food Premises Regulation?

Provincial



What do you use this to check the internal temperature of food?

An internal probe thermometer.



What does HACCP stand for?



Hazard
Analysis
Critical
Control
Point



What does FIFO stand for?

First In First Out

