

Food and beverage control

Level III

Based on November, 2022, Curriculum Version I,



Module Title: -Maintain and practice food safety and quality.

Module code: - **CTH FBC3 03 1021**

Nominal duration: 48 Hours

Minister of Labor and Skill November, 2022

Addis Ababa

Acknowledgement

Ministry of Labor and Skills wish to extend thanks and appreciation to the many representatives of TVT instructors and respective industry experts who donated their time and expertise to the development of this Teaching, Training and Learning Materials (TTLM).

Page 2 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
--------------	---	--	---

Acronyms

HVAC -Heating, Ventilation, Air Conditioning

PPE- Personal Protective Equipment (and clothing

RA - Risk assessment

SOP - Standard Operating Procedure

RM -Risk management

Table of Contents

Page 3 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
--------------	---	--	---

Acknowledgement	2
Acronyms	3
Introduction.....	5
Module units	6
Learning objectives of the Module	6
Unit one: Follow hygiene procedures and identify food hazards	7
1.1 work place hygiene in organization	7
Personal hygiene practices	8
Hygiene requirements	8
1.2. Reporting unsafe practices that breach hygiene procedures	10
1. 3 Food hazards and contamination	11
1.4 Method of minimize food hazards	17
Self-check	24
Unit Two: Report any personal health issues	25
2.1 Identifying and reporting personal health issues	26
2.3 Cause of food handlers contamination.....	29
Self-check	32
Unit three: Prevent food contamination	33
3.1 Personal Protective Equipment (PPE)	35
3.2 Preventing food contamination from worn out clothing.....	37
3.3 Prevent food contamination by avoiding unnecessary direct contact.....	39
3.3.1 Direct Contact and Indirect Contact	39
3.4 Ensuring personal hygienic contact	41

3.4.1 Personal hygiene	41
3.5 Maintaing hygienic practices to prevent food-borne illnesses.....	44
3.5.1 Five principles to help prevent foodborne illness:	44
Self-check	47
Reference	48

Introduction

In food and beverage control field, the food safety and quality is very important for the overall health of the people. Having under stood what food safety is, let us discuss food quality, Follow hygiene procedures, identify food hazards, report any personal health issues and prevent food contamination.

Page 5 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1
			November, 2022

This module is designed to meet the industry requirement under the food and beverage control occupational standard, particularly for the unit of competency: - Maintain and practice food safety and quality.

Module units

- Follow hygiene procedures and identify food hazards.
- Report any personal health issues.
- Prevent food contamination

Learning objectives of the Module

At the end of this session, the students will be able to:

- Follow organizational hygiene procedure
- Report unsafe practices that breach hygiene procedure
- Identify food hazards that affect the health and safety of customers and colleague
- Minimize and report hygiene hazards

Module Learning Instructions:

- Read the specific objectives of this Learning Guide.
- Follow the instructions described below.
- Read the information written in the information Sheets
- Accomplish the Self-checks
- Perform Operation Sheets

Unit one: Follow hygiene procedures and identify food hazards

This learning unit is developed to provide the trainees the necessary information regarding the following content coverage and topics:

- work place hygiene in organization
- Reporting unsafe hygiene procedures and practices
- Food hazards and contamination
- Method of minimizing hazards

This unit will also assist you to attain the learning outcomes stated in the cover page.

Specifically, upon completion of this learning guide, you will be able to:

- Follow organizational hygiene procedure
- Report unsafe practices that breach hygiene procedure
- Identify food hazards that affect the health and safety of customers and colleague
- Minimize and report hygiene hazards

1.1 work place hygiene in organization

Page 7 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
--------------	--	--	--

Hygiene refers to the set of practices associated with the preservation of health and healthy living. The focus is mainly on personal hygiene that looks at cleanliness of the hair, body, hands, fingers, feet and clothing, and menstrual hygiene. Improvements in personal knowledge, skill and practice that modify an individual's behavior towards healthy practice are the focus of hygiene promotion. Safe hygiene practice includes a broad range of healthy behaviors, such as hand washing before eating and after cleaning a child's bottom, and safe faces disposal.

Hygiene procedures are required for all areas of the organization. These procedures vary according to the tasks required and the business policy standards. Some examples of specific practices for specific areas include:

- **Kitchen/food preparation areas** – correct hand washing and food safety procedures should always be followed
- **Food service areas** – gloves should be used for handling food and for food preparation
- **Storage areas** – cooked and uncooked foods should be stored at the correct temperatures.
- **Garbage storage and disposal** – correct handling and hand-washing procedures should be observed when disposing of kitchen and accommodation garbage.

Personal hygiene practices

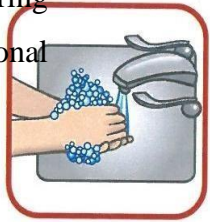
Personal Hygiene is the principle of maintaining cleanliness and grooming of the body. It can also be defined as preserving individual and community health in all dimension. Personal hygiene are practices performed by an individual to care for one's bodily health and well-being through cleanliness. Many people equate hygiene with 'cleanliness' but hygiene is a broad term including including personal habits choices as how frequently to bathe, wash hands, trim fingernails and change clothing. Also includes keeping the environment clean and pathogen free.

Hygiene requirements

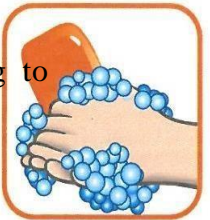
Page 8 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1
			November, 2022

Personal hygiene as a food safety regulation in organization does not only govern hand washing but also the covering of hair and cuts on the body, wearing clean clothing to work, and covering the mouth and nose when sneezing or coughing and then washing the hands again. Personal hygiene:-

- Wash hands thoroughly with soap and water and dry them at each of these times:
before starting to prepare food; after touching raw meat, including poultry; after touching raw eggs; after going to the toilet; after touching the bin and after touching pets or other animals
- Cover or tie back hair and wear a clean apron/cloth whenever you are going to prepare food
- Avoid touching face or hair while preparing food
- Keep fingernails clean and short
- Do not cough or sneeze over food
- Avoid wearing rings, earrings or watches when preparing food
- Cuts and wounds should be covered with a waterproof dressing
- A person, who has been ill, especially with food poisoning, should not work with food or be in the food preparation area.



1. Hands are only washed in the basin provided.



2. Use soap to work up a lather.



3. Wash palms, fingers, thumbs, and wrists



4. Rinse off soap by washing hands under running hot water.



5. Dry with paper towel.

Wash your hands often when working with food and drinks- this gets rid of germs that can make people sick. Wash your hands for approximately 20 seconds with warm running water and soap, and then dry them with clean paper towels, or an air dryer.



Fig-Personal Hygiene

Double Hand washing

It is necessary to wash your hands a second time:

- After you go to the restroom (use the toilet) wash hands again.
- After you blow your nose, cough or sneeze, because your hands have touched your nose.
- After you eat or drink an open beverage
- After smoking or using tobacco products

Hands washing Procedures

Health authorities believe that the single most important aspect in preventing food poisoning outbreaks is for food handlers to wash their hands as set out by the regulations. For your information, this is what the regulations state:

The recommended method of hand washing is to use warm running water (40°C is the recommended temperature), a nail brush, and antibacterial soap (bars of soap can pass on bacteria to the next user) coupled with an air dryer or disposable paper towels for drying.

You can easily see dirt, but you can't easily see germs.

Are they clean? No obvious sign of dirt, but what about germs? Just because you can't see germs doesn't mean that they aren't there. They are invisible to the naked eye. Take a magnifying glass and look at your hands. Is the skin smooth or can you see tiny cracks and lines?

You really need to rub your skin well with soapy water & rinse them in clean water to get rid of them.

Germs are all around us; most of them are harmless. Some can make us sick, especially if we let them hitch a ride from our hands onto the food we eat.

1.2. Reporting unsafe practices that breach hygiene procedures

How to Make a Complaint Environmental health staff can help residents address many health nuisances and hazards in housing, neighborhoods, commercial Reporting enables poor food

Page 10 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	---	--	--

handling practices to be identified, and helps to prevent these practices occurring in the future. If you suspect a business should have a license, or the license is not clearly visible notify your local government with the following detail. Good hygiene: the primary way to prevent infections The first line of defense is to keep germs at bay by following good personal hygiene habits. If you think a certain food is to blame, keep the food wrapped in the fridge so it can be tested by the local government. It should also state what the business is willing to provide employees.

1. Report any personal health issues.
2. Report unsafe practices that breach hygiene procedures promptly
3. Identify food hazards that may affect the health and safety of customers, colleagues and self. You do not need to wait for an inspection team to come by. Poor domestic and personal hygiene practices can help the transmission of disease-causing germs: directly by the faces-oral route, or by person to person or pet to person contact indirectly by vectors coming into contact with people or their food, people breathing in airborne droplets of moisture which contain germs or eating contaminated food.

You need to select the most effective controls that are proportionate to the risk, and appropriate to your work situation. Do you have a patient safety concern/complaint about a health care organization? When employers violate these rules and standards, it is generally presumed that they are not providing a safe working environment for their employees and are leaving them open to all types of work injuries

1.3 Food hazards and contamination

Contamination is the capacity of a substance to produce harm or injury of any kind under any conditions. *Hazard* is the relative probability that harm or injury will result when a substance is not used in a prescribed manner and quantity. Hazards can be physical, chemical and biological causing harmful/adverse effects on the health of consumers.

1.3.1 Hazards in the organization workplace

Page 11 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

A hazard is any item, condition, event or situation that could lead to a potential accident or harm. Some of the hazards commonly found in hospitality workplaces such as kitchens, food and beverage service areas and customer service areas can pose a significant threat to safety. They require careful management, safety awareness, strict work procedures and safety equipment to reduce the risk of harm. Before starting work, make sure you know the potential hazards and are familiar with ways of reducing any risk of harm to yourself or other.

Types of Hazard in Work Place

A. Physical Hazards in Food

Physical hazards are either foreign materials unintentionally introduced to food products (ex: metal fragments in ground meat) or naturally occurring objects (ex: bones in fish) that are hazardous to the consumer. A physical hazard contaminates a food product at any stage of production. Food processors should take adequate measures to avoid physical hazards in food.

Physical Hazards Risk in Food hazard or sharp objects are potential physical hazards and can cause:

- cuts to the mouth or throat
- damage to the intestines
- damage to teeth or gums

Factors Determining a Potential Risk

Factors that cause potential risk to consumers in foodproducts include:

- **Size:** Health Canada states that anything in a foodproduct, that is extraneous, and measures twomillimeters or more in size can be a health risk.
- **Type of consumer:** Products that target infants, theelderly, etc. have a higher risk level.
- **Type of product:** The form the product takes such asinfant formulas, beverages, etc. can increase risklevel.
- **Physical characteristics:** hardness, shape andsharpness of a product can affect risk level.

Common sources of physical hazards in food

Page 12 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

- **Glass:** light bulbs, glass containers and glass foodcontainers
- **Metal:** fragments from equipment such as splinters, blades, needles, utensils, staples, etc.
- **Plastics:** material used for packaging, fragments of utensils used for cleaning equipment
- **Stones:** incorporated in field crops, such as peas and beans, during harvesting
- **Wood:** splinters from wood structures and wooden pallets used to store or transport ingredients or food products
- Natural components of food: hard or sharp parts of a food (ex: shells in nut products)

B. Biological Hazards

Biological hazards are organisms, or substances produced by organisms, that pose a threat to human health.

They are a major concern in food processing because they cause most food borne illness outbreaks.

These organisms can affect human health, including infection, intoxication and even death. Infection occurs when organisms invade the host and multiply in the body. Intoxication occurs when bacteria produce toxins that affect the body.

Infection can be prevented by properly processing and handling food products because pathogens are easily destroyed by heat. However, some bacteria that produce spores can survive cooking temperatures. For example, steam cooking significantly reduces non-spore-forming food borne pathogens, but only inactivates spores. Examples of spore forming bacteria include *Bacillus cereus*, *Clostridium botulin* and *Clostridium perfringens*.

Toxins are produced when toxin producing bacteria are present in high numbers. Bacteria must first grow in the food before producing toxins. These toxins are very difficult to eliminate. They survive normal cooking temperatures and even temperatures higher than 80°C (176°F).

Major biological hazards

- Bacteria ex: *Salmonella*
- Virus ex: hepatitis A virus,

Page 13 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	---	--	--

- Parasites ex: *Toxoplasma Gondii*.

The major sources of biological contaminants in food are:

- animal guts: faecal contamination
- soil and water contaminated by non-treated manure
- cross contamination:
- human contamination due to poor personal hygiene, faecal contamination, failure in infection control (illness not reported)
- Cross-contamination of food products spread from processing environment due to poor/improper.

C. Chemical Hazards

A chemical hazard is any substance that can cause a health problem when ingested or inhaled. They include toxins, dangerous chemicals, residue of excess chemicals used in processing food products. If your facility follows Good Manufacturing Practices (GMPs), you can prevent chemical hazards.

Types of chemical Hazards

- **Naturally occurring** – These are toxins produced by plants, animals or microorganisms (ex: aflatoxins in peanuts, poisonous neurotoxins in mushrooms, scrobotoxins in fish).
- **Intentionally added** – These are chemicals added to food that are beyond the acceptable limits established by the Food and Drugs Act and its regulations (ex: food additives like sodium nitrate).
- **Unintentionally added** – These are chemicals that accidentally contaminate food being processed (ex: sanitation or maintenance chemicals, pesticides or environmental pollutants).
- **Food allergens** – These substances in food can cause a dangerous reaction in people who are allergic (ex: peanuts, fish, and dairy products).

Risk of Hazards

Chemical hazards may lead to acute foodborne illness, or chemical poisoning. These illnesses can be caused when abnormally high doses of chemicals are consumed (ex: nitrites). Risk factors include:

- **Exposure** – The amount of chemical concentration in food and the amount of the food ingested will determine the exposure risk.
- **Toxicity** – The amount of chemical or toxin that is consumed affects the risk level.

Potential Hazards

There are many potential sources of chemical hazards in food processing. Regular, formal hazard analysis will help you determine the risk levels that could affect your product. A proper analysis will consider potential hazards, including:

- **Incoming materials** – Contaminated with toxins producing bacteria or mould, pesticides, veterinary drugs, non-food grade chemicals/ink used in packaging materials.
- **Allergens** – Undeclared allergens on ingredient labels or cross-contamination with allergens are a potential risk.
- **Food contact surfaces** – Use of unapproved materials may lead to migration of chemical to food.
- **Non-food chemicals** – Sanitation or maintenance chemicals (used or stored near food contact surfaces), dyes or inks from coding machines, water treatment chemicals, etc. are all potential risks.
- **Employees** – Employee errors in adding excessive food additives or unapproved ingredients into the process are a potential risk.

Table 1.1 Types of Hazard in Work Place

Types of	Common hazards in the hospitality workplace		
Page 15 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1
			November, 2022

hazards	
Physical hazard in food	Physical hazards are either foreign materials unintentionally introduced to food products (ex: metal fragments in ground meat) or naturally occurring objects (ex: bones in fish) that are hazardous to the consumer. A physical hazard contaminates a food product at any stage of production. Food processors should take adequate measures to avoid physical hazards in food.
Biological	Biological hazards are organisms, or substances produced by organisms, that pose a threat to human health. They are a major concern in food processing because they cause most food borne illness outbreaks.
Chemical	A chemical hazard is any substance that can cause a health problem when ingested or inhaled. They include toxins, dangerous chemicals, residue of excess chemicals used in processing food products. If your facility follows Good Manufacturing Practices (GMPs), you can prevent chemical hazards.

Food contamination sources

There are many possible scenarios where food contamination may happen. Food products can become contaminated at any point from farm to table, as well as during production, processing, shipping, and distribution.

Food contamination can be classified as biological, chemical, physical, or of cross-contamination nature. Briefly, biological contamination is when food is contaminated with infectious bacteria (such as *Salmonella*) or toxin-producing organisms (such as *Clostridium botulinum*) and viruses (such as norovirus), which are a common cause of food poisoning and food spoilage. Chemical contamination happens when a food product is exposed to chemicals (such as food additives, heavy metals, dioxins, , veterinary drug residues and pesticides residues, as well as

contaminants from processing and packing or other environmental contaminants) that can lead to chemical food poisoning.

Physical contamination occurs when foreign objects (such as metal filings, glass, and jewelry, stones, or bone chips) contaminate foods and sometimes these objects can also be the vehicle for biological contamination (cross-contamination) if they harbor dangerous bacteria. .

Some of the most important contamination sources during processing are related with:

- 1.External raw food contamination due to environmental contamination (example of pesticides, fertilizers, toxic heavy metals, antibiotic residues, etc.);
2. Transport of raw materials to the factory where they will be processed (caused by vehicle exhaust from petrol and diesel or cross contamination in the vehicle used for food transportation);
3. Food conditioning, which involves the storage of raw materials, preheating, disinfection, cleaning, and sterilization steps (some common surfactants used to clean are quaternary ammonium compounds and nonionic surfactants);
4. Heating, which includes boiling, cooking, baking, frying, or combining with other ingredients at high temperature in an oven or in a reactor?
- 5.food packaging (different additives such as antioxidants, stabilizers, slipping agents, or plasticizers are commonly added to the package polymers to improve material properties that can end up transferred to food in a phenomenon called migration);
- 6.Transport, storage, and food distribution

1.4 Method of minimizing food hazards

You can reduce the risk of harm to yourself or others by:

- eliminating the hazard altogether
- replacing the hazard with a safer option
- repairing the hazard (if it is faulty, unclean or unsafe)

Page 17 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

- adapting work tasks to make it safer when dealing with the hazard
- using protective equipment such as guards, signs, gloves
- Training all staff in safe work practices

Steps of minimizing food hazard and poisoning are

- Ensure that workers wash their hands before and after handling food.
- Ensure your staffroom has a working refrigerator and it's free from outdated food at the end of the week.
- Keep food preparation areas, such as bench tops, microwave ovens, clean.
- Provide workers with clean utensils to enable them to prepare and eat their food. If your business provides biscuits or other snacks, tongs should also be provided to avoid contamination.
- Provide a sink and draining board with hot water and detergent so that cutlery and crockery can be cleaned after each use. Buckets or tubs may be provided when fixed facilities are not available. These should only be used for dishwashing purposes and should be cleaned after each use.

If food is being prepared for other people, ensure that appropriate clothing is worn, including gloves and hairnets, and that any open wounds are covered with sterile strips, e.g. Band-Aids.

- Make sure hot food is either kept hot or reheated to avoid the risk of contamination (check with Food Standards Australia for the correct temperatures for frozen, chilled and hot foods).
- Ensure that cooked foods are kept separate from raw or uncooked foods, particularly during food preparation, and that different utensils are used for each.
- Ensure that any cleaning equipment that regularly gets wet, e.g. mops, cloths and dishwashing brushes, is thoroughly washed and dried after each use.
- Keep bins free of insects and vermin to minimize the risk of disease spreading.

Four basic food safety principles work together to reduce the risk of food borne illness—Clean, Separate, Cook, and Chill.

Page 18 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

A. Cleaning is the removing unwanted particles (dust, dirt or other contaminants) from food and utensils or equipment.

B. Hands wash- Hands should be washed before and after preparing food, especially after handling raw seafood, meat, poultry, or eggs, and before eating. In addition, hand washing is recommended after going to the bathroom, changing diapers, coughing or sneezing, tending to someone who is sick or injured, touching animals, and handling garbage. Hands should be washed using soap and water. Soaps with antimicrobial agents are not needed for consumer hand washing, and their use over time can lead to growth of microbes resistant to these agents. Alcohol-based ($\geq 60\%$), rinse-free hand sanitizers should be used when hand washing with soap is not possible. Hand sanitizers are not as effective when hands are visibly dirty or greasy. Wash Hands with Soap and Water. Wet hands with clean running water (warm or cold), turn off tap, and apply soap. Rub hands together to make lather and scrub the back of hands, between fingers, and under nails for at least 20 seconds. If you need a timer you can hum the “happy birthday” song from beginning to end twice. Rinse hands well under running water. Dry hands using a clean towel or air dry them.

C. Surfaces wash Surfaces should be washed with hot, soapy water. A solution of 1 tablespoon of unscented, liquid chlorine bleach per gallon of water can be used to sanitize surfaces. All kitchen surfaces should be kept clean, including tables, countertops, sinks, utensils, cutting boards, and appliances. For example, the insides of microwaves easily become soiled with food, allowing microbes to grow. They should be cleaned often.

- Keep Appliances Clean
- At least once a week, throw out refrigerated foods that should no longer be eaten.
- Cooked leftovers should be discarded after 4 days; raw poultry and ground meats, 1 to 2 days.
- Wipe up spills immediately—clean food-contact surfaces often.
- Clean the inside and the outside of appliances. Pay particular attention to buttons and handles where cross-contamination to hands can occur.

D. Foods washes

Page 19 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

Vegetables and fruits-All produce, regardless of where it was grown or purchased, should be thoroughly rinsed. However, any precut packaged items, like lettuce or baby carrots, are labeled as prewashed and ready-to-eat. These products can be eaten without further rinsing.

- Rinse fresh vegetables and fruits under running water just before eating, cutting, or cooking.
- Do not use soap or detergent to clean produce; commercial produce washes are not needed
- Even if you plan to peel or cut the produce before eating, it is still important to thoroughly rinse it first to prevent microbes from transferring from the outside to the inside of the produce.
- Scrub the skin or rind of firm produce, such as melons and cucumbers, with a clean produce brush while you rinse it.
- Dry produce with a clean cloth towel or paper towel to further reduce bacteria that may be present. Wet produce can allow remaining microbes to multiply faster.
- Seafood, meat, and poultry. Raw seafood, meat, and poultry should not be rinsed.
- Bacteria in these raw juices can spread to other foods, utensils, and surfaces, leading to food borne illness.

E. Separate foods-Separating foods that are ready-to-eat from those that are raw or that might otherwise contain harmful microbes is key to preventing food borne illness. Attention should be given to separating foods at every step of food handling, from purchase to preparation to serving.

Separate Foods When Shopping

- Place raw seafood, meat, and poultry in plastic bags. Separate them from other foods in your grocery cart and bags.
- Store raw seafood, meat, and poultry below ready-to-eat foods in your refrigerator.
- Clean reusable grocery bags regularly. Wash canvas and cloth bags in the washing machine and wash plastic reusable bags with hot, soapy water.
- **Separate Foods When Preparing and Serving Food**
- Always use a clean cutting board for fresh produce and a separate one for raw seafood, meat, and poultry.

- Always use a clean plate to serve and eat food.
- Never place cooked food back on the same plate or cutting board that previously held raw food.

F. Cook and Chill-Seafood, meat, poultry, and egg dishes should be cooked to the recommended safe minimum internal temperature to destroy harmful microbes .It is not always possible to tell whether a food is safe by how it looks. A food thermometer should be used to ensure that food is safely cooked and that cooked food is held at safe temperatures until eaten. In general, the food thermometer should be placed in the thickest part of the food, not touching bone, fat, or gristle. The manufacturer’s instructions should be followed for the amount of time needed to measure the temperature of foods. Food thermometers should be cleaned with hot, soapy water before and after each use.

Temperature rules also apply to microwave cooking. Microwave ovens can cook unevenly and leave “cold spots” where harmful bacteria can survive. When cooking using a microwave, foods should be stirred, rotated, and/or flipped periodically to help them cook evenly. Microwave cooking instructions on food packages always should be followed.

- Keep Foods at Safe Temperatures
- Hold cold foods at 40°F or below.
- Keep hot foods at 140°F or above.

Foods are no longer safe to eat when they have been in the danger zone of 40-140°F for more than 2 hours (1 hour if the temperature was above 90°F).

- When shopping, the 2-hour window includes the amount of time food is in the grocery basket, car, and on the kitchen counter.
- As soon as frozen food begins to thaw and become warmer than 40°F, any bacteria that may have been present before freezing can begin to multiply.

Use one of the three safe ways to thaw foods:

- in the refrigerator,
- in cold water (i.e., in a leak proof bag, changing cold water every 30 minutes), or
- In the microwave.
- Never thaw food on the counter.

Keep your refrigerator at 40°F or below.

- Keep your freezer at 0°F or below. Monitor these temperatures with appliance thermometers.
- Food safety requirements include:-
- Cooking and serving food
- Disposing waste and garbage materials
- Identifying food labels
- Preparing ingredients
- Storing cooked and uncooked food

Table 1. 2 Terms and their Definition

Term	Definition
Cross contamination	The passing of microorganisms from contaminated food or surfaces to other foods or surfaces
Food	Food is any substance consumed to provide nutritional support for the body's
Basic principles of food safety	Four basic food safety principles work together to reduce the risk of food borne illnesses—Clean, Separate, Cook, and Chill
Food poisoning	Illness occurring when a person ingests contaminated foods or beverages
Hazard	Recognizing the risk of an item or situation that may lead to a potential

identification	accident or harm to a person
Hazards	An item, condition, event or situation that could lead to a potential accident or harm
Prevention	Preservatives can expand the shelf life of food and can lengthen the time long enough for it to be harvested, processed, sold, and kept in the consumer's home for a reasonable length of time.
Manual handling	Using human force to move or support a load (including moving, lifting, putting down, pushing pulling, or carrying)
Personal hygiene	Factors that maintain positive, clean personal care and health of a person
Pest control	Actions designed to control and eradicate pests and vermin from workplaces

G. Cooling food

The cooling medium in the cooler can be ground water, water recirculating over a cooling tower, or water, eventually mixed with agents like glycol, which is recirculate via a mechanical refrigeration system or ice-water system. The equipment used for freezing can also be used for cooling.

- Potentially hazardous food need to be cooled after cooking as quickly as possible. Hot food needs to be chilled to below 5°C as quickly as possible.
- Placing hot food straight into the cool room or freezer is not advisable as it raises the temperature of these storage areas placing the food into the danger zone.
- Small portions and shallow containers cool food quickly.
- Transfer hot foods into smaller shallow containers.
- Stir food to decrease temperatures.
- Cool the food container in some ice or cold water.

Self-check

Directions: Answer all the questions listed below.

Part I. Matching

AB

- 1. Physical hazardA. Toxicity
- 2. Chemical hazardB. Bacteria
- 3. Biological hazardC. metal fragments in ground meat

Part II. Answer the following questions correctly and briefly:

1. Write the types of hazards that can be occur in your work area? (2pts)

.....

2. What is the meaning of hazard? (2pts)

.....

3. What is a personal hygiene practice? (2pts)

.....

4. What are types of physical Hazards? (5 pts)

.....

5 .How to preventchemical Hazards? (3 pts)

.....

Unit Two: Report any personal health issues

This learning unit is developed to provide the trainees the necessary information regarding the following content coverage and topics:

- Personal health issues
- Reporting incidents of food contaminations.
- Causing of food handlers contamination.

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Report Personal hygiene risk
- Report Incidents of food contamination.
- Participate the cause food contamination in food handling activities

2.1 Identifying and reporting personal health issues

Personal health issue includes:

- Air-borne diseases
- Cuts, bruises and open wounds
- Food-borne diseases
- Infectious disease
- Muscle strains and back pain

A major cause of food poisoning is the lack of personal hygiene practiced by food handlers. Food handlers must be aware that they themselves, their actions, their health and their personal habits have a great impact on the wholesomeness of food served to the organization.

As with many aspects of control in other areas, all personal hygiene requirements and regulations must be abided by: failure to follow just one rule can (and has) led to massive outbreaks of food poisoning causing not only loss of trade and jobs at the venue, but also deaths in the community especially among the very young, the very old, and the very weak.

Reporting personal health issues

Employees are required to report to the Employer:-

- When ill with any of the diseases listed below, or they live in the same household as a person with one of these diseases. An employee that has diarrhea, vomiting, jaundice, and sore throat with fever must also report this information to the Food service employees must report any illnesses that are transmissible through food, including the date of the onset of the following illnesses:
- It is imperative that all workers follow work place safety procedures and it is also a legal requirement that the procedures be issued to each worker. The following are the most common injuries to workers in the household settings are: burns, cuts, falls, strains, chemical accidents and electrical shocks

- Policies for Reporting Illness and Injury food handlers must report health problems to the owner of the organization before working with food. If they become ill while working, they must immediately report their condition, and if food or equipment could become contaminated, the food handler must stop working and see a doctor. There are several instances when a food handler must either be restricted from working with or around food or excluded from working within the establishment.

Reporting incidents of food contaminations

Definition of an Incident Report

An incident report is an official recording of the facts related to an incident on the worksite. An incident is broadly defined as any event or accident that leads to personnel injury or damage to equipment or property.

Incidents also include events or accidents that have the potential to cause harm, or in other words, near misses.

The Importance of Incident Reporting in the Workplace

Here are five reasons why it's important to report incidents in the workplace and how it can benefit both employees and employers.

- Prevent more serious accidents
- Improve other health & safety measures in the workplace
- Save time and resources
- Reporting incidents can protect companies
- Boost overall well-being

Employees are report in day to day in incident activities to employer .such as

Page 27 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

- Injuries, illnesses and fatalities
- Near misses
- Damaged or faulty equipment
- Health and safety hazards
- Suggestions and improvements

Serious and life-threatening hazards must be reported immediately. When

- Death
- Serious injury or illness
- Potentially dangerous incident

Workers should report health and safety issues to their:

- supervisor
- manager, or
- health and safety representative or health and safety committee

Way of Workers report can raise health and safety issues by:

- Talking to a manager or supervisor
- Completing a hazard/incident report form
- Raising it at a staff meeting
- A register should be kept for all issues and incidents.
- Take action reports

Appoint someone to action hazard and incident reports. This could be a supervisor, manager or health and safety representative.

Encourage reporting

- Train all your workers in the reporting procedure.
- Train your workers to recognize hazards.

Page 28 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

- Encourage them to speak up quickly about safety issues.
- Praise them for reporting safety issues, including near misses.
- Encourage regular discussions about opportunities to improve health and safety.
- Consider appointing a health and safety representative or forming a health and safety committee.

2.3 Causing of food handlers contamination

A. **Food handling** is any activity that involves the handling of food (including preparing, cooking, thawing, serving, displaying food), so it is important these notes are read in conjunction with other food safety information provided.

B. Food handlers

Food handlers should avoid directly touching food whenever possible. Utensils like tongs, spoons and scoops act as barriers between your hands and the food. Napkins or sheets of waxed paper can be used to pick up foods like muffins, donuts, cookies, bread, and ice cream cones without directly touching the food with your hands.

A better understanding of how food can become contaminated, and how food borne illnesses can be avoided through proper food handling procedures. Examples of basic knowledge of food hygiene: Skills and significance of maintaining good personal hygiene practices Knowledge and skills of cleaning and sanitizing Pest control It is a good practice for a business to identify the training needs of each staff member s It is also a good practice to keep training records of every staff member .

Food handlers should:

- Wear a clean hat or other hair restraint. A hair restraint will keep hair away from food and keep the food handler from touching it. Food handlers with facial hair should also wear beard restraints.
- Wear clean clothing daily. The type of clothing chosen should minimize contact with food and equipment, and should reduce the need for adjustments. If possible, food handlers should put on work clothes at the establishment.
- Remove aprons when leaving food-preparation areas. For example, an apron should be removed and properly stored prior to taking out garbage or using the restroom.
- Wear appropriate shoes. Wear clean, closed-toe shoes with a sensible, non-slip sole.

- Remove jewelry prior to preparing or serving food or while around food-preparation areas. Jewelry can harbor microorganisms, often tempt food handlers to touch it, and may pose a safety hazard around equipment.
- Remove rings (except for a plain band), bracelets (including medical identification jewelry), watches, earrings, necklaces, and facial jewelry (such as nose rings, etc.).

C. Cause of contamination

The illness could contaminate food; their illness could spread to customers eating the food they prepare; their illness could cause financial loss to the business by hurting its reputation if there was a food poisoning outbreak because of their illness. Cuts, Burns and boils Any cuts, burns, boils, sores, skin infections, or infected wounds should be covered with a bandage when the food handler is working with or around food or food-contact surfaces. Bandages should be clean, dry, and must prevent leakage from the wound.

Main pathways for food contaminants

1. cross-contamination

It is the passing of contaminants from one food to another. It can be produced by mixing raw and cooked foods (in cooked foods we have eliminated most of the bacteria but not in raw foods, and they can pass from one to another, making cooked foods dangerous to health). Cross contamination can also occur when using the same utensils (cutting board, knife....) to treat raw and then cooked food without cleaning them first.

2. Contamination from origin

Food at its source can become contaminated or altered due to the effect of environmental toxins, agricultural pollutants or livestock products.

3. Contamination by handling

This is one of the most common types of food handling. The food handler is the major risk factor for food contamination because he or she is in constant contact with food. For this reason, good

Page 30 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

food handling practices should be maximized to minimize risks as much as possible. General hygiene is essential, both in the workplace, in utensils and in personal hygiene. Handler's diseases, such as colds, can also be transmitted to food by coughing or sneezing.

Ways of knowing food contaminated

Contaminated food does not always show obvious signs of spoilage. In packaged foods, it is essential to accept or reject the food on the basis of the expiry date indicated on the package. If the food is out of date, the safest option is to discard it, since although it may appear to be in good condition, it may have begun its natural deterioration process.

Meat

The most obvious signs of contamination in meat are: green or brown coloration, rotten smell or slimy texture. In the case of birds, it is most common to observe a slimy film on the skin and meat, accompanied by an unpleasant smell.

Fish and seafood

Fresh fish shall have reddish eyes of the same color and bulging, whole scales and reddish gills. Fresh fish has firm, abundant and shiny scales. When the scales are removed too easily, it is an indicator that the skin of the fish is soft and therefore not fresh. On the other hand, the fish that has lost its freshness has dark, brownish gills, sunken, opaque eyes, and detached scales in parts.

Eggs and milk products

In the case of eggs, a good way to find out quickly and without having to spend time checking them is to fry them or open them in a container. If the bud is in good condition, it will remain centered in the center of the egg white and whole. A tip for when several eggs are going to be collected, such as for example to make an omelet, is to open it in a container different from the recipient, because if it is in poor condition can be discarded without throwing all the eggs that have been collected in the same container. Another very reliable, though somewhat more

laborious, way is to immerse them in salt water: if they sink, that means they are fresh and ready for consumption, but if they float, it means they are in poor condition and cannot be consumed.

On the other hand, in the case of milk or other milk products such as cheese, it is easier to differentiate whether they are in poor condition or whether they are still suitable for consumption. The milk in poor condition is very evident, has a yellowish or greenish color and a sour taste that possibly, although we do not realize that it is in poor condition when served, the taste will certainly take us out of doubt and we cannot consume it. Cheeses in poor condition have a green or brown color, an unpleasant smell and a slimy layer. They may also have fungi that are not typical of a variety of cheese.

Fruits and vegetables

The case of contamination in fruits is also quite visible. Thus, signs of contamination present in fruits can be: fungus pieces too soft or with a part of the piece too soft compared to the rest, presence of flies around or the fruit cover of a slimy film.

Self-check

Directions: Answer all the questions listed below.

Part I. Match the following questions

A

B

-----1. Cross-contamination A. Food

-----2. Personal health issue B. Food-borne diseases

-----3. Source can become contaminated C. raw meat and sea food

Page 32 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

Part II. Answer the following questions correctly and briefly:

1. What is cross-contamination? (2pts)

2. How to workers report the hazard? (2pts)

3 write the cause of contaminations? (2pts)

4. Write the cause of cross-contamination? (5 pts)

5 .How to food handlers prevent contamination? (3 pt)

Unit three: Prevent food contamination

This learning unit is developed to provide the trainees the necessary information regarding the following content coverage and topics:

- Personal protective equipment's (PPE)
- Preventing food contamination from worn out clothing
- Preventing food contamination by avoiding unnecessary direct contact
- Ensuring personal hygienic contact
- Maintaining hygienic practices to prevent food-borne illnesses

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Identify the cause of food contamination.
- Use and Maintain enquire Clean personal protective clothes
- Food contamination is prevented from clothing and other items worn
- Prevent unnecessary direct eat food contact.
- Ensure personal hygiene contact with food and surfaces.
- Maintain Hygienic cleaning practices to prevent food-borne illnesses

3.1 Personal Protective Equipment (PPE)

Personal Protective Equipment's (PPE) is equipment's and clothing items designed to protect the user from potential hazards or injuries whilst doing a task at work. PPE: includes

- Face masks
- Gloves and apron
- Hairnets
- Protective shoes



Figure.3.1 PPE/personal protective equipment's/

Uniforms – Wear a clean uniform every day and only put it on at the workplace

Page 35 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

Aprons – Different full aprons should be worn at different prep stations (e.g. seafood and vegetables)

Gloves – Different disposable gloves to be used when handling raw and cooked food

Shoes – Wear only non-slip, full covered shoe

A .Safe work practices:

Personal protective equipment (PPE): Personal protective equipment must be worn as protection from potential injury. Common examples of PPE in hospitality workplaces include:

- Goggles or glasses - eye protection
- Aprons - body protection
- Hairnets - hair protection and containment
- Safety boots - foot protection
- Masks - fumes, infection protection
- Towels- hand protection working in a kitchen

When working in a kitchen or hospitality situation, ensuring safety of all workers is a priority. You need to know the risks, any dangers (hazards) and how to work safely in what can be busy, noisy situations.

B. Food Processing Personal Protective Equipment

Product contamination not only has a major impact on food quality and shelf life, it is also of consequence to both image and costs. That’s why PPE is a first choice of operational personnel and visitors for limited-use protective garments.

In the food processing industry, product contamination and infection risks stemming from the people employed in the manufacturing process are very high. Even the notorious “hair in the soup” is undoubtedly sufficient grounds for complaint.

C. Hazards in the workplace

A hazard is any item, condition, event or situation that could lead to a potential accident or harm. Some of the hazards commonly found in hospitality workplaces such as kitchens, food and

Page 36 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	---	--	--

beverage service areas and customer service areas can pose a significant threat to safety. They require careful management, safety awareness, strict work procedures and safety equipment to reduce the risk of harm. Before starting work, make sure you know the potential hazards and are familiar with ways of reducing any risk of harm to yourself or other.

Table 1.3 Types of Hazard in Work Place

Types of hazards	Common hazards in the hospitality workplace
Physical	heat, cold, sharp objects, heavy or bulky loads, spills, slips, trips, falls, noise, broken glass, poor lighting, slippery surfaces, steam
Biological	infectious diseases, food contamination
Chemical	cleaning chemicals, pest control chemicals, oil, gas, dust, fumes
mechanical/ electrical	electrical appliances, slicers, grinders
Psychological	stress, fatigue, personal security, cash handling and financial responsibility, aggressive and angry customers or colleagues

You can reduce the risk of harm to yourself or others by:

- Eliminating the hazard altogether
- Replacing the hazard with a safer option
- Repairing the hazard (if it is faulty, unclean or unsafe)
- Adapting work tasks to make it safer when dealing with the hazard
- Using protective equipment such as guards, signs, gloves
- Training all staff in safe work practice.

3.2 Preventing food contamination from worn out clothing

A. Clothes and towels germs

Germes on clothes and towels can come from our own body. We all have bacteria on the surface of our skin, in our noses and in our gut. These are often harmless, but some can cause infection, particularly in people with skin problems or wounds.

Most germes cannot penetrate through normal skin but may harmlessly colonize it. Washing your hands regularly is likely to be significantly more important than clothes washing at preventing most infections.

Underwear is more likely to have germes on it than outer clothing like jumpers or trousers. Underwear contains germes from traces of faces (poo) and from genital infections, such as thrush. Germes can also get onto outer clothing if you handle contaminated food or brush against a soiled object.

B.stop germ clothes spreading

Normal washing of clothes will reduce the risk of germes being transmitted. In certain situations clothes should be washed at higher than normal temperatures and with a bleach based product to minimize the transmission risk as much as possible.

Washing high-risk items

If the items you are washing are likely to cause illness (high-risk), they should be washed at 60C with a bleach-based product. Items are likely to cause illness if you have someone in your home who has an infectious illness.

The following items are also high risk:

- clothes soiled with vomit or farces (including reusable nappies)
- sports clothes from high contact sports, such as judo or wrestling
- cloths used in food preparation

Page 38 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	---	--	--

- healthcare workers' uniforms
- shared towels
- clothing worn over a wound or infected skin
- farmers' clothing, especially during lambing season

Always remove any vomit or feces from clothing before washing and flush it down the toilet. Heavily soiled items and items used in food preparation should be washed separately from other items. You can protect yourself from infection by wearing gloves when handling high-risk laundry and always washing your hands thoroughly afterwards.

Washing everyday items

If you are washing lightly soiled everyday items that are not likely to cause illness, a normal wash with a detergent will be very effective at reducing the risk of transmitting any infection.

- keep and wash heavily soiled clothes separately from other items
- wash high risk items separately from other items
- Wash your hands after handling unwashed clothes.

3.3 Preventing food contamination by avoiding unnecessary direct contact

3.3.1 Direct Contact and Indirect Contact

In disease transmission, direct contact requires physical contact and indirect contact can include touching surfaces, previously touched by an infected person. Direct contact can include touching, kissing and sexual contact so that the microorganisms can be physically transferred. Many organisms can live on surfaces for extended periods of time, allowing for indirect contact. The surfaces involved with indirect contact can include door knob and handles, tables, beds, cups, dishes, faucets, sinks, computer keyboards and mice, phones and children's toys. To reduce indirect contact, it is important to disinfect frequently touched surfaces. Direct transmission easily occurs between members of the same household, family and friends.

Prepare or serve ready-to-eat food while avoiding contact with my bare hands? You may use any of the following utensils to prepare or serve foods without bare hand contact:

Page 39 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	---	--	--

- tongs
- forks and spoons
- deli paper
- disposable gloves
- waxed paper
- scoops
- spatulas

Keep raw and prepared food separately

- While shopping, keep raw meat, poultry and sea food separate from other foods.
- In refrigerator, store raw meat, seafood and poultry below cooked or ready to eat foods to avoid cross contamination.
- Store food in containers with lids to avoid contact between raw and prepared food.
- Wash plates used for raw food. Use a clean plate for cooked food.

Required to wear disposable sanitary gloves the regulation does not require gloves to be worn, but does require that ready-to-eat foods be prepared and served without bare hand contact. Wearing disposable sanitary gloves is one of several acceptable ways to comply with the regulation. Remember that gloves are just an extension of your hands. If the gloves become soiled, they can pass contamination just as easily as unclean hands. When do I have to replace or change gloves? Always change gloves if the gloves are ripped, torn, or contaminated. Contamination can occur after using the toilet room, smoking, coughing, sneezing, and preparing different raw foods.

Gold Rules: 5 Keys to Food Safety

The “5 Keys to Food Safety” are five simple and effective steps for people to prevent foodborne diseases when handling food. Here are some practical tips for all food handlers:

- During food preparation, food handlers should always wash their hands, especially after touching raw food and right before handling cooked/ready-to-eat food.

Page 40 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	---	--	---

- Storage of raw food and cooked/ready-to-eat food in close proximity inside the same fridge should be avoided.
- Raw food should be placed below cooked/ready-to-eat food in the fridge to prevent juices from dripping onto cooked/ready-to-eat food.
- Wash utensils and worktops with hot water and detergent after each use, especially after preparing raw food.
- Use separate utensils to handle raw food and cooked/ready-to-eat food.

3.4 Ensuring personal hygienic contact

3.4.1 Personal hygiene

Personal hygiene is all about managing your body hygiene, essentially caring for your well-being incorporating some physical hygiene habits. Also, there are mental health benefits as well, as they affect each other immensely.

A. Bad personal hygiene

Those little unconscious acts like picking your nose or ear with your finger, or habitual ones like not brushing your teeth properly, these are all bad personal hygiene. Along these, there are those activities we do consciously just because we feel lazy or don't feel the value in it, like not taking a shower every day or not believing frequent hand washing.

The following common symptoms will tell you if there is an issue with your personal hygiene.

B. Good personal hygiene habits

Good personal hygiene includes but not limited to-

- Take regular shower
- Maintain oral hygiene
- Wash your hands frequently
- Wash your genitals
- Keep your clothes and surrounding dry and clean

These habits should be practiced on a regular basis, at home, at work, basically where you are that's the whole idea of preventing your body system collapse over a tiny microbe.

C. Personal Hygiene Practices at work place

Your home should be the most comfortable and convenient for you to keep up your personal hygiene level to a standard, yet, we find ourselves procrastinating over hygiene issues when we are at home. Even though some of these tasks barely take a minute.

1. Take Regular shower

Do not wait up to feel the dried sweat in your body to feel the urge to take shower, make it a routine, you have the choice to either take them before you head to work or after the long day or even before you head to sleep, whichever one suits your routine. Make sure to rinse your body thoroughly, especially the genitals and underarms as they produce more sweat and are more prone to fungal activities.

2. Wash your hands frequently

It is our hands that we use to do our most physical acts, from picking up the keys, browsing through our phones to attending our pets. While we acknowledge the importance of washing hands before eating and after visiting the toilet, it is also important to wash our hands with soap or sanitizer every now and then.



Figure.4.1 Steps of hand wash

3. Maintain oral hygiene practices

Caring for your teeth and gum is important, not only to prevent decay related issues but also as they affect neurologically some other sensual organs, they shouldn't be taken in a light manner. Just brushing them twice a day is not enough, make sure you are using fluoride toothpaste and brushing properly.

Also, you should floss after eating, as this practice will remove plaque, bacterial, and debris that were trapped between teeth which your toothbrush cannot reach. It is a great way to prevent bad breath too. Don't hesitate to pay a visit to your dentist in slightest discomfort.

4. Trim your nails and wash your hairs

Your nails and hair store dirt and grease. None not to mention the microbes could be in there stuck and spreading. Bad nail hygiene can cause severe food poisoning since you would be preparing or eating your food with your hands. Trim the nails every once they are inappropriately long and wash your hairs at least twice a week to keep them healthy.

5. Clean your nose and ears

Every time you are outside, you are most likely to breathe in some pollutants, and most of the particles are bound to be stuck in your nasal hair. You should rinse your nose and ear with warm water upon return. Especially if you have any specific allergies.

6. Wear fresh and warm clothes

Page 43 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

Try to change into some warm and dry clothes; you'll feel the mental effect immediately as they will boost your mind. Also, regular washing with right detergent matters since like your body, your clothes can be contaminated with germs or microbes, especially if they have been used for several days.

7. Food hygiene is important too

You can get severely sick from food-borne diseases, as most of your foods are raw, purchased from outside, they risk being cross-contaminated with harmful microbes.

3.5 Maintaing hygienic practices to prevent food-borne illnesses

3.5.1 Five principles to help prevent foodborne illness:

1. Wash Your Hands

One of the most important personal hygiene habits can also prevent foodborne illness. Following these simple steps ensures that you are making the most of your hand washing:

- Wet your hands with warm water.
- Apply soap to your hands
- Wash and scrub for 20 seconds (this is about how long it takes to sing Twinkle, Twinkle, Little Star at normal speed).
- Rinse off the soap
- Dry your hands with an air dry or paper towel. If possible, turn off the faucet with a paper towel.

Frequent and thorough hand washing can help keep everyone safe. You should wash your hands:

- Before handling food

Page 44 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

- After touching raw meat
- After going to the bathroom or changing a diaper
- Handling garbage
- After sneezing, coughing, or blowing your nose
- Anytime you think your hands may be contaminated

Although it seems simple, washing your hands is the first line of defense in preventing foodborne illness. More information can be found here about proper hand washing techniques.

2. Properly Handle Raw Animal Products

Improperly handled animal products are a common source of foodborne illness. It's important that you take proper steps to ensure these products are safe for consumption.

When preparing meat, do not rinse it under water. This can spread bacteria from the meat to other surfaces in your kitchen, increasing the risk of foodborne illness. If there is liquid from the packaging you would like to remove, you can pat it dry with a paper towel. Cross-contamination can increase those risks. Don't allow these products to touch other surfaces or foods.

In addition, if you are thawing any frozen meat or poultry products, use proper thawing techniques to prevent the growth and spread of bacteria. The FDA has approved several thawing techniques, including placing food in the refrigerator in advance, thawing food under cool, running water, and thawing in the food in the microwave. Never place food at room temperature for long periods of time because it will allow bacteria to grow and cause foodborne illness.

When cooking the products, use a meat thermometer to ensure you are cooking the product to the proper temperature. Follow the chart provided here to decrease the risk of foodborne illness in meat products.

3. Use Clean and Sanitized Utensils, Equipment, and Surfaces

Before preparing food, ensuring the surfaces and equipment food will touch are clean and sanitized can prevent spreading harmful bacteria in the food.

Page 45 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

Cleaning involves removing food, dirt, and pathogens with soap and water. Sanitizing kills the bacteria once the utensils and equipment have been cleaned.

You should always start with a clean prep station and, after working for 4 continuous hours, you should clean and sanitize your station. That's the amount of time that bacteria will grow to dangerous levels.

Avoiding cross contamination can also prevent the growth and spread of dangerous pathogens.

4. Use Food Before It Expires

There's a common belief that, as long as there are no apparent signs of spoilage, expired foods are fine to eat. That isn't necessarily the case.

Often times, pathogens will grow to dangerous levels even if we cannot see, smell, or taste them.

It is safest not to use food after the printed date has passed. Foods are at higher risk for going rancid or spoiling. No amount of cooking or other food preparation techniques can guarantee the food will be safe.

5. Keep Animals Away from Food and Food Preparation Areas

When it comes to carrying diseases, animals are some of the worst culprits. Chances are, you don't bathe your dog or cat as regularly as yourself, and as such, they often carry more diseases.

Think of all the places your pet has been, the things that it could have collected in its fur, and all the surfaces their paws have touched. The diseases it could have come in contact with are not cleaned off as frequently, increasing the chances of it spreading.

Because of this, your pets should have limited contact with places food are prepared. Except in the case of service animals, often it is not safe for your pets to be in the kitchen, as they can also get burned, injured, or ingest something harmful. It's safest for both you and your furry friend if they stay out of the kitchen.

Page 46 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	---	--	---

It is also important to keep food service areas free of pests and rodents. They can carry many different diseases. Learning to recognize the signs of pests and eradicating them promptly can decrease the risk of spreading disease.

Self-check

Directions: Answer all the questions listed below.

part I. Matching

A

B

----1.used to prevent foodborne illnessA.Personal protective Equipment

----2.used to avoid contact of contaminated B. tong

----3. PPEC. Hand washing

Part II. Answer the following questions correctly and briefly:

Page 47 of 50	Author/Copyright Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	--	--	--

1.Name the common food poisoning bacteria? (2pts).....

.....

2. Personal hygiene practices? (2pts)

.....

.....

3.WhatHands washing Procedures? (3pts)

.....

.....

4.Whenmustyouwashyourhands (2pts).....

.....

Reference

1. WHO.Foodsafetyandhealth:astrategyfortheWHOAfricanRegion(AFR/RC57/4).
2. WorldHealthOrganizationRegionalOfficeforAfrica,Brazzaville,2008.
3. Barnes, Christopher P. P 2003, *The personal travel safety manual: security for business people traveling overseas*, Tally Ho Consulting, Nicosia, CA
4. Barth, Stephen C 2012, *Hospitality law: managing legal issues in the hospitality industry*, 4th ed, Wiley, Hoboken, N.J
5. Conway, Des 2006, *Holiday & travel security handbook*, How To Books, Oxford
6. Crutchfield, Nathan 2014, *Safety culture: An innovative leadership approach*, Elsevier Butterworth-Hein, Oxford
7. Mansfeld, Y. (Yoel) &Pizam, Abraham 2006, *Tourism, security and safety: from theory to practice*, 1st ed, Elsevier Butterworth-Heinemann, Burlington, Mass
8. Newsome, Bruce 2014, *A practical introduction to security and risk management*, Los Angeles SAGE

Page 48 of 50	<u>Author/Copyright</u> Ministry of Labor and Skills	Module title Maintain and practice food safety and quality	Training module Version -1 November, 2022
---------------	---	--	---

9. World Tourism Organization *Tourist safety and security: practical measures for destinations* (2nd ed. (rev. Sept. 1997)). World Tourism Organization, Madrid, Spain, 1997

Participants of this Module (training material) preparation

N o	Name	Qualification (Level)	Field of Study	Organization/ Institution	Mobile number	E-mail
1	Birhanu Getnet	Degree	Hotel Management	DebreMarkos Pollay	0912324914	Birhanugetnet2014@gmail.com
2	AdaneAyele	BA	Hotel Management	Arba Minch	0926350634	
3	BirhanuRegea	BA	Hotel Management	NegeleArsi	0917441469	berhanuregea@gmail.com

