

Section 2-2: Personal Hygiene

Section Overview

A high standard of personal hygiene is essential for persons who work in facilities where food is prepared or processed. Many potential physical contaminants such as hair or microbiological contaminants such bacteria arise from direct contact with the person handling food during the preparation, storage, or distribution phases.

This learning module covers the requirements for effective control and management of personal hygiene. The following topics will be discussed:

- System development
- Hand washing
- Personal cleanliness
- Illness
- Personal behavior in a food handling area
- Visitor procedures within a facility

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Learning Objectives

At the conclusion of this section, the learner will be able to:

- describe the elements of a system to ensure compliance with personal hygiene requirements in a food facility,
- explain the importance of appropriate hand washing and other personal hygiene procedures,
- list the times and circumstances when food workers must wash their hands in a food facility,
- describe the correct procedure for hand washing,
- discuss the use of antiseptics, hand sanitizers and skin protectants in hand hygiene systems,
- describe the required elements of an adequate hand washing station in a food facility,
- discuss approaches to monitoring the effectiveness of hand washing procedures,
- discuss requirements for managing protective clothing, jewelry and personal belongings in a food facility,
- describe appropriate procedures for managing cuts and other lesions that might present a risk to food,
- discuss the reasons for restricting ill workers from handling food and describe procedures for managing ill workers,
- discuss personal behaviors which should be discouraged among workers who handle food, and
- describe appropriate procedures concerning personal hygiene for visitors to food facilities.

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System Development

As the person responsible for food safety within your facility, you must develop procedures to train and monitor your staff on:

- good personal cleanliness practices
- good personal behavior practices
- reporting possible illnesses

Any system will have to be clearly and concisely documented and communicated effectively to appropriate staff within the company.

It is important to work closely with key company staff to ensure that they clearly understand the importance of such systems and the ways they can influence effective compliance.

Since the responsibility for food safety rests with you, direct verification of systems is extremely important. You should personally monitor activities on a regular basis and record your findings.

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Hand Washing

It is widely recognized that hands are a potential source of contamination. Food handlers, if poorly trained and managed, pose possibly the greatest risk of microbiological contamination to food. In short, food handlers who practice poor personal hygiene practices may unwittingly poison foods and thus harm consumers.

Frequent hand washing and good personal hygiene practices will significantly minimize the risk of product contamination. You must establish and maintain a system that ensures food handlers wash their hands:

- upon entering a food handling or processing area, including before starting work,
- after any absence from a work station, including breaks,
- after blowing nose or touching face,
- immediately after using the toilet,
- after handling raw food or any contaminated material which could result in contamination of other food items,
- after eating, drinking, or smoking,
- after handling equipment cleaning machines or equipment cleaning utensils,
- after picking up objects from the floor, and
- before and after wearing disposable gloves.

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Hand Washing

Hand Washing Methodology

Each food handler should use the following method to ensure hands are appropriately clean.

1. Wet hands with warm running water and apply liquid soap or use a clean soap bar.
2. Rub hands vigorously for at least 20 seconds, giving special attention to the backs of the hands, wrists, between the fingers, and under the fingernails.
3. Rinse hands well while leaving the water running.
4. Dry hands with a clean single-use disposable towel or air drier.
5. Where a disposable towel is used, dispose of it without risk of contamination to the food products.
6. When turning off the water (if it is not automatically done), use dry hands or a clean disposable towel.



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Hand Washing

Options in Hand Washing

There are many choices in hand washing including soaps, antiseptics, hand sanitizers, and skin protectants. Soap uses basic detergent action to physically remove microorganisms from the skin. Many times, soap formulations are supplemented with chemical antiseptics to increase their effectiveness. These are quite effective for food manufacturing plants.

Antiseptics commonly used for hand hygiene include alcohol (concentrations of 62-72%), iodine and iodophors (special formulations), chlorhexidine gluconate (used for washing), chloroxylenol (concentrations of 0.3-2.5%), and triclosan (common in hand washing formulations).

Hand sanitizers are also commonly used in food operations. Hand sanitizers typically use alcohol to kill microorganisms. Because of the high alcohol content in these products, moisturizers are usually used as well to counteract the strong drying effect of these solutions. Hand sanitizers are most effective when used following appropriate hand washing with soap and water. Use of hand sanitizers alone is not an acceptable substitute for hand washing.

Skin protectants such as lotions and creams can also create a protective barrier over the skin. These can help to prevent skin from shedding, which could result in increased microorganism shedding from skin. Also, disposable gloves may be used to prevent hand contact with food.

Antiseptics, hand sanitizers, skin protectants, and gloves are useful in combination with soap and water, but are never a substitute for proper hand washing.

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Hand Washing

Equipment

The facility must have an adequate number of wash basins at suitable locations designated for hand-washing. Wash basins need to have a supply of hot and cold running water (or suitably temperature controlled water) of appropriate microbiological and chemical quality.

A sufficient quantity of appropriate materials for cleaning hands needs to be available at all times. These materials should be appropriate and suitable for use in a food preparation area. For example, unscented soaps or proprietary cleansers designed for hand washing should be readily available.

An appropriate means to provide for the hygienic drying of hands must be available. The best options are single-use disposable towels or air dryers. Multiple use towels are not recommended for hand drying due to the potential for cross contamination. Any materials used for hand-drying must be disposed of without risk of contamination to food products.

Sinks used for washing of utensils and equipment or for washing and preparation of food items must be separate from the hand washing facilities and must not be used for hand washing.



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Hand Washing

Hand Washing Verification

Since proper hand washing is critically important for the microbiological safety of food, the person responsible for food safety within the facility should monitor this activity carefully.

Employees should be monitored on a routine basis to ensure they are washing their hands at appropriate times and using correct hand washing techniques. This monitoring should not follow a set schedule and should occur at a frequency sufficient to ensure compliance with requirements established in the facility.

It may also be necessary to conduct occasional visual checks on the cleanliness of hands. These random checks should focus on high risk periods such as after toilet visits and shift changes.



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Personal Cleanliness

Food handlers are held to a high standard of personal cleanliness that other jobs may not require. Policies regarding personal cleanliness of employees in food operations are intended to minimize the risk of product contamination with physical, chemical, and microbiological contaminants.

Food handlers should:

- wear clean protective clothing to protect food from contamination,
- not wear jewelry, and should be aware of where you have placed personal belongings,
- be aware of ways in which injuries might occur and know what to do in the event of an injury that potentially impacts food safety.

Each of these requirements will be discussed in sequence.



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Personal Cleanliness

Protective Clothing

Every food handler should wear protective clothing designed to protect the food products from contamination. If not controlled and monitored, protective clothing itself can become a source of product contamination. Buttons, fibers, or dirt may fall into or contaminate the product. Therefore, food handlers must wear clean, undamaged protective clothing. Domestic clothing must not be worn.

Protective clothing should be stored under clean hygienic conditions and be regularly cleaned and thoroughly laundered to a high level of cleanliness. The company needs to ensure that a sufficient quantity of clean protective clothing is available at all times.

Lockable storage facilities should also be available in designated changing areas where protective clothing is available. This will allow workers to easily change their clothes and confidently store their belongings that are not suitable to bring production floor.

Hair also poses a major contamination risk. To prevent this risk, hair must be fully covered by suitable head coverings (hairnets/ hats), or in the case of facial hair, beard nets or snoods. Foot wear must be clean, free from debris, and designed in a way that does not pose any risk to the product.

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Personal Cleanliness

Jewelry and Personal Belongings

Jewelry, which often harbors dirt and bacteria, can contaminate food. Also, jewelry can be a potential physical contaminant if it falls off into the production stream. It is generally understood that certain jewelry (such as a wedding ring) may be worn, but it must not pose a risk of contamination to the product. A common rule of thumb in food facilities is to allow no metal above the waist of workers.

Other types of jewelry such as rings and earrings may be allowed in certain jurisdictions, but these must be of a design to ensure easy cleaning and not have any components that can fall off. Good examples of jewelry that may be acceptable are solid band rings and one-piece sleeper earrings. Watches cannot be worn in the production area.

You should defer to regulations and other applicable standards to determine policies with regard to jewelry in your location. For example, in the United States the 2009 FDA Model Food Code is particularly restrictive with regard to the wearing of jewelry in food establishments, stating: “Except for a plain ring such as a wedding band, while preparing food, food employees may not wear jewelry including medical information jewelry on their arms and hands.”

Other personal effects, such as money, ink pens, and mobile telephones, must be stored away from any production area and are never allowed in the immediate vicinity of food production.

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Personal Cleanliness

Injury Exposure

Cuts and open skin lesions can be a source of microbial pathogens and must be treated appropriately. If a worker is injured action should be taken immediately. At the very least, wash the affected area, disinfect if necessary, apply a bandage, and cover with a barrier such as a glove. Water proof dressings may be necessary, and constant care must be taken to not allow injuries or dressings to contaminate foods. It is also essential that, in the event of an injury in a food facility, any food that was contaminated by blood or other tissues is discarded.

If there is any risk of food contamination, even with a company-issued dressing or barrier protection such as a glove, the individual must be relieved of duties and not allowed to resume activities until considered deemed fit to do so by the manager responsible for food safety.

For injuries that are covered, the dressing must be issued by the company and a record must be made of the issuing of this dressing. Supervisors need to be aware of the issuing of the dressing and be vigilant in ensuring that it is in place and that it poses no risk of product contamination.



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Personal Cleanliness

Importance of Hand-Washing

This module has stressed, for obvious reasons, the need for rigorous hand washing regimes.

Continually reminding your staff and verifying that they are abiding by hand washing rules will serve to remind them of the absolute necessity for personal cleanliness at all times.

The hand washing regime, which should instill personal discipline, must be encouraged by those responsible for food safety.

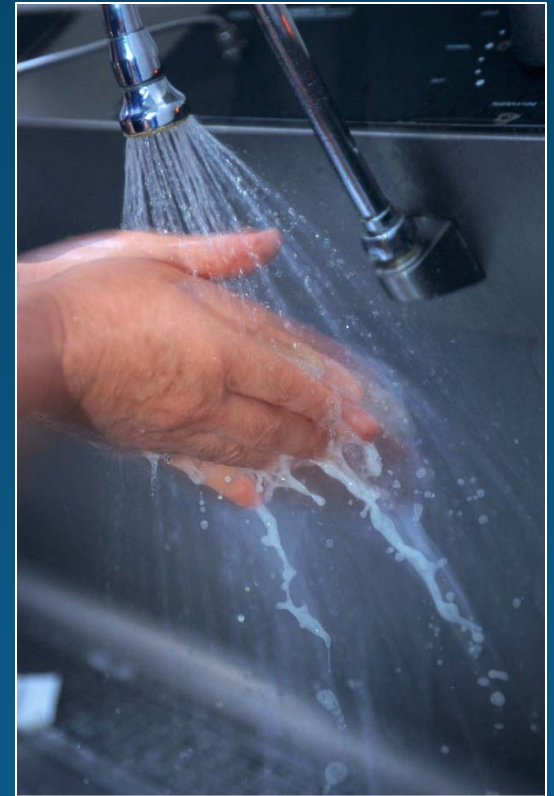


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Illness

Food handlers who have an illness pose a direct hazard to food products because they might directly contaminate food with pathogenic microorganisms they shed. People who are known or suspected to be suffering from, or to be a carrier of, a disease or illness likely to be transmitted through food should not be allowed to enter any food handling area if there is a likelihood of their contaminating food. Any persons who are ill should immediately report illness or symptoms of illness to the management.

Any person working with food who exhibits any of the following symptoms must be excluded from the facility or production area until the illness has subsided and that employee has been given clearance to return to work by the person responsible for food safety :

- jaundice
- diarrhea
- vomiting
- fever
- sore throat with fever
- visible, infected skin lesions (boils, cuts, etc.)
- discharges from the ear, eye, or nose
- excessive coughing and sneezing



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Illness

Identifying Illnesses

As the person responsible for food safety, you must be fully aware of the symptoms of possible illnesses and you must also train supervisory staff to identify signs of illness in the employees they supervise. Supervisory staff should be trained to look for the visual signs of illness such as excessive sweating, fever and sneezing. They should also be aware of other signs such as frequent visits to the toilet.

You, as a supervisor, must also be aware of outbreaks of illnesses and look collectively at staff in the company to determine if certain individuals could have infected or are infecting others who work in the facility. In such cases, supervisory staff must be increasingly vigilant to identify those exhibiting symptoms of illness.

Workers also must be trained to recognize signs of illness and encouraged to report any symptoms that they notice.

You should refer to regulations in your location to determine specific criteria for excluding or restricting workers from food facilities. In the United States, the FDA Model Food Code has detailed guidance that may be useful to reference if no clear requirements are available in your area.

*Supervisory staff
need to ensure
steps are taken to
exclude any
employee
who is identified
as unwell.*

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Illness

Identifying Illnesses

Many foodborne illnesses caused by microbial pathogens have very common symptoms and persons exhibiting these symptoms should be recognized as a risk. You should pay close attention if these symptoms are reported by a worker and carefully determine if they should be excluded from working with food. The following is a list of some common foodborne illnesses and symptoms commonly associated with them.

- *Escherichia coli* (pathogenic strains) – diarrhea, vomiting, mild fever.
- *Salmonella enteritidis* (and other *Salmonella* strains) – abdominal cramps, headache, fever, nausea, diarrhea.
- *Listeria monocytogenes* – flu-like symptoms, meningitis, encephalitis, spontaneous abortions in pregnant women.
- *Campylobacter jejuni* – diarrhea, vomiting, headache, fever, muscle pain.
- Norovirus (Norwalk virus) – nausea, diarrhea, headache, mild fever.
- Hepatitis A virus – fatigue, nausea, vomiting, abdominal pain or discomfort, mild fever, jaundice.

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Illness

Reporting an Illness

In many countries it is a legal obligation for an individual to inform his or her employer if he or she feels unwell or is suffering from an illness. Also, medical examination of a food handler may be required and should be carried out if clinically or epidemiologically indicated.

You should instill a culture of openness about reporting illnesses. When employees begin working for the company, they should be trained to report illnesses and not work in the facility if they believe they are unwell. A level of trust between the workers and food safety management should allow employees the discretion to recognize and report symptoms of illness to a supervisor without taking advantage of this liberty. The organization should not penalize workers for self reporting illness, especially when hourly workers face a loss in pay if they must leave work. A policy should be in place to address these concerns such that it is easy and fair for workers to self report illnesses without fear of negative consequences.

Staff should also be encouraged to report if members of their family are unwell and may thus have infected the worker who could then infect the food, even if he or she does not seem infected. In such cases, a supervisor should make a decision on the most appropriate course of action.

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Illness

Control of an Illness

If you have been informed of staff who are unwell or if you suspect that staff are unwell, you need to ensure that they are excluded from the food production areas until their symptoms subside and they no longer pose a risk of contamination to the product. In this event, the worker may be relocated to another job or department where there is minimal risk of contaminating food products. Alternatively, ill workers might be required to take a leave of absence until they are allowed to reenter the production facility.

You should consult with a doctor or health practitioner to ensure appropriate tests and examinations are performed to determine that the ill employees do not return to work until it is safe.

When new employees are being considered, they should be questioned about their medical history and diseases or illnesses they have had or currently have that could compromise the safety of the product. In the event that the product manufactured is high risk, then medical screening of applicants before employment may be necessary as a routine matter. In this regard, it is important to note that laws and regulations concerning employer access to employee information and other labor issues must be respected, and these laws can vary considerably across jurisdictions.

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Personal Behavior

A person's behavior and personal habits can have a significant effect on the safety of a food product they handle or produce. Staff should be trained and supervised to ensure certain behaviors are discouraged.

Wherever possible, you should promote a culture of personal professionalism and pride in working in a food production environment. Employees should reflect the behavior expected of them. They should be carefully supervised to ensure appropriate behavior.



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Personal Behavior

Improper Activities

To prevent contamination of the product, people working within a food production area must refrain from the following activities:

- smoking
- spitting
- chewing or eating
- sneezing or coughing over unprotected food, food packaging, or utensils that are used for food contact or cleaning
- licking fingers
- biting of fingernails

Preferably, drinking of any liquid should not be allowed in the production area. However, when drinking is allowed in the production area, it should be controlled and supervised to make sure safety of the product is not compromised. Any drink vessel should be disposed of in an appropriate manner.

Food employees also must keep their fingernails trimmed, filed, and maintained so the edges and surfaces are cleanable and not rough. Fingernail polish and artificial nails are discouraged as they may contaminate food products.



Illustration: International Association for Food Protection

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Visitor Procedures

Visitors to a food facility are subject to the same personal hygiene requirements as permanent employees.

Visitors, such as contractors coming to work on equipment or to perform supply services such as pest control, may not be accustomed to working within a food production environment. This means that there could be an increased risk of food product contamination since these visitors may not be aware of appropriate procedures to minimize the risk of food contamination. For this reason, food facilities must implement effective procedures to ensure that visitors practice proper hand-washing, wear appropriate protective clothing, properly manage personal effects, and follow other practices essential to food protection.



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Visitor Procedures

Personal Hygiene for Visitors

All visitors and contractors visiting the production area of the facility are subject to the same personal hygiene requirements as food handlers.

They must be provided with company-issued protective clothing and instructed to follow the equivalent standards of personal behavior and personal cleanliness as the food handlers.

Visitors to the facility can be permitted into the factory production area with appropriate protective clothing and instruction on hygiene standards. However, they must not be allowed in direct contact with food products or pose any risk of product contamination.

Visitors to the facility who have no reason to enter food production areas, such as transport drivers, are usually excluded from entering the production areas.

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Visitor Procedures

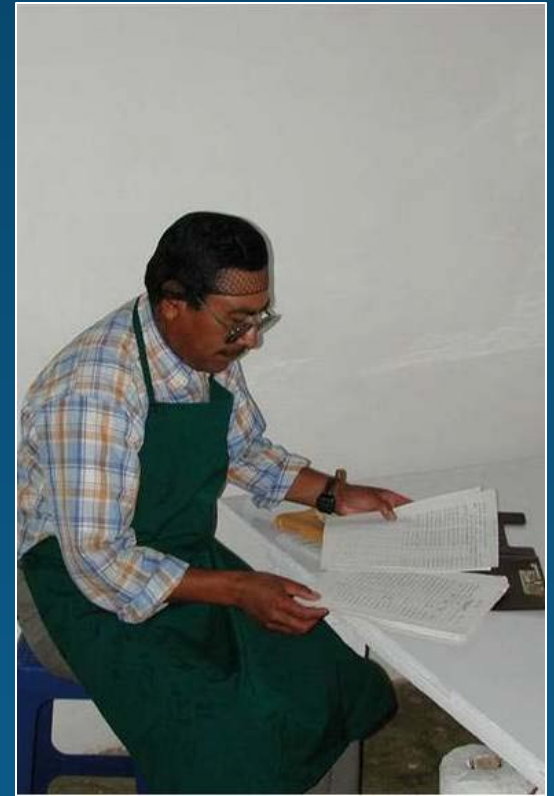
Visitor's Registration

Regardless of the good practices employed by a company, its reputation may be compromised by malpractice and the ignorance of visitors.

You must be fully aware of all visitors to the facility, their purpose for visiting the facility, and their movements within the facility. The method of recording such information is a visitor's register that will not only provide this information but will also instruct the visitor what your company requirements are and how they are to be met. Visitors must confirm that they have fully understood the instructions and will comply with their obligations.

Visitors should always be greeted by an appropriate staff member who understands the importance of completing the register and can instruct the visitors on their obligations to meet the company's hygiene practices.

It is good practice to restrict visitor access only to areas of the facility where their presence is required. Visitors should not be allowed to wander through the facility unsupervised.



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Personal Hygiene Implementation Issues

food safety manager should clearly explain personal hygiene requirements to employees and educate them on various issues concerning implementation of these requirements in the facility. The workers should be aware of what they're supposed to do, as well as how and when they're supposed to do it. Adequate training is extremely important, as compliance with personal hygiene practices often requires continuous follow-up to ensure adequate implementation.

There should be adequate training to cover the scope of personal hygiene issues and impart this knowledge among workers. Training should be easily understood, in local languages, and cultural issues taken into account.

In some settings, workers may not fully understand how to appropriately use hand washing or toilet facilities. Such situations can arise particularly when migrant laborers are used in food production or processing operations. Training should include very basic knowledge pertaining to this in order to ensure proper understanding and use of provided facilities.

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Personal Hygiene Implementation Issues

Adequate facilities and supplies must be in place so that it is easy for employees to comply with the personal hygiene requirements. There should be adequate numbers of toilets and hand washing facilities in close proximity to workers. Facilities must be clean, well stocked, and maintained in a manner that encourages their use.

As always, appropriate documentation of maintenance and cleaning of toilet and hand-washing facilities should be maintained.

Finally, it is critically important to design systems that implement personal hygiene training to new workers and provide refresher training on a regular basis. Globally, the food industry has very high turnover rates of employees. One consequence of this high turnover is that new, untrained employees are frequently joining the establishment. There must be an effective system in place to rapidly train these employees on appropriate personal hygiene practices.



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