





- To know the good practices of personal Hygiene
- To recognize the importance of the fulfilment of the rules of personal hygiene

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The expression "food hygiene" is often associated to personal hygiene, being many times limited to the care of washing hands.

The concept of food hygiene really refers to the general cleanliness state of the food handlers' body and clothes. Man holds bacteria in the mouth, nose, hands and intestines and can contaminate food while handling, coughing or sneezing over it. Although food contamination can result from different sources, from the field to the consumer, one of the main causes for foodborne dissemination is inadequate food handling during processing and distribution.

That is why it is of extreme importance for the handler to correctly sanitize everything that is going to come into contact with the food, the handler must also be found in good health condition to avoid any kind of contamination. Microorganisms can easily pass to food and reach the consumer if the handler comes into contact with any pathogenic microorganism by their clothes, hands, hair, nails, rings and then sets out to prepare food. As so, the personal hygiene of whoever contacts with food, as well as behaviours they assume during its processing, constitute an important preoccupation in the food business.

The set of rules, conditions and practices that assure adequate personal hygiene make up the good practices for personal hygiene.

## 1 Hand washing

The food handlers' personal hygiene is essential for a safe and innocuous production of any kind of food product. Food handlers are persons that come into contact with food.

The correct hygiene of hands is one of the most important and simple control measures to take when handling food. Presently, people still don't have the habit to wash their hands frequently, or when they do, they don't wash them correctly.

Hands can transfer various dangerous microorganisms such as *Escherichia coli*, the presence of these microorganisms in food can result in serious problems to the consumers' health. Hand nails must be short, nail polish free and vigorously clean. The use of fake nails is absolutely prohibited.

Nails can be cleaned with Q-tips and while washing a nylon bristle plastic brush can be used. These brushes must be regularly cleaned and disinfected by heat or with a hypochlorite solution. After this process the brushes must be stored bristles up.

# 1.1 How to wash your hands correctly

The procedure to follow to guarantee the correct washing of the hands is as follows:

- 1. Wet hands and forearms up to the elbows with hot water (35°C 45°C);
- 2. Soap hands and forearms well with a sufficient amount of disinfecting liquid soap;
- 3. Vigorously scrub interdigital spaces, thumbs and back of your hands, for at least 20 seconds;
- 4. Brush nails with an appropriate brush, which must be kept clean and dry between uses;
- 5. Rinse hands and forearms well with hot water to remove all traces of soap;
- 6. Dry hands well, especially in between fingers, with single-use paper towels, which should be properly disposed into a lidded foot pedal recipient; If the liquid soap does not have bactericide properties, after washing the hands a bactericide should be applied by spreading it all over the hands and between fingers.

Figure 1 illustrates the correct procedure of hand washing.

# 1.2 When should you wash your hands?

Hands should be washed in the following situations:

- After changing into the uniform;
- Before initiating work;
- After every break;
- Before putting on and changing gloves;

## **Hand Disinfection and Cleanliness**



1. Wet hands and foreams up to the elbows with hot water



2. Soap hands and foreams well with disinfecting liquid soap



3. Vigorously scrub interdigital spaces, thumbs and back of your hands, for at least 20 seconds

# The greatest risk of food contaminations in your hands



4. Brush nails with an appropriate brush, which must be kept clean and dry between uses



5. Rinse hands and foreams well with hot water to remove all traces of soap



6. Dry hands well with single-use paper towels

Figure 1 - Hand washing procedure

- Every time you carry out a different task;
- Before and after handling any food;
- After going to the bathroom;
- After touching hair, eyes, nose, mouth, ears or any other body part;
- After blowing your nose, sneezing our coughing;
- After eating, drinking or smoking;
- After doing household chores;
- After handling cleaning chemical products and equipment;
- After touching filthy surfaces;

It is recommended to use gloves

- After handling money;
- After touching leftovers, garbage bags and/or bins.

disinfected with a disinfecting solution.

Every time gloves are used to carry out a certain task, it should not be interrupted. Otherwise, hands should be washed again and a new pair of gloves put on.

#### 2. Use of Gloves

for handling ready to eat foods. They should be disposable, impermeable and always clean. The use of gloves does not exclude hand washing! It is understood that the use of gloves during food handling, does not mean safety or guarantee of quality. On the contrary, it can increase the risk of contamination if improperly used. So, food handlers' must wash their hands correctly before putting on their gloves. Once pot on, the gloves should be

### 3. Uniform characteristics

In the work place, all personnel must use protection clothing/uniform which must have the following characteristics:

- Light coloured;
- Always clean and in good state;
- Should not have exterior pockets;
- Should be regularly changed;
- Should cover the whole body;
- Should be made of wash resistant material:
- Should only be used in the work place;
   An apron can be used to protect the uniform, as long as kept in good state.

Regarding footwear, it should be:

- Made of rubber or other impermeable material;
- Light coloured;
- Without openings;
- Clean:
- Exclusively used in the work place.

Hair must be protected with a cap, hat or hair net. Bobby pins should not be used to help keep the cap, hat or hair net in place, since these may fall into the food. The caps should be kept in place by using the elastics they come with. Protection masks are recommended for handling prepared foods that present

high probability of being contaminated by the handlers breathing over the product. Persons that work inside refrigerated chambers should use special individual protection equipment, namely, warm wool clothing and footwear that protect from cold and humidity.







#### 4 - Personal behaviour

During work hours, food handlers must avoid certain behaviours that may contaminate food:

- No smoking during food handling, or inside the production facilities, since the cigarette (with saliva) may contaminate surfaces, as well as cause mal being to non smokers and even to smokers;
- No spitting or expectorating inside facilities;
- No blowing nose, coughing or sneezing beside food; when it is not possible to avoid, wipes should be used and hands and face should be washed immediately;
- No chewing or eating while carrying out the job;
- Avoid touching nose, mouth, ears, eyes and hair;
- Do not use jewellery, watches, and other objects that may cause threat to food. Wedding bands may be allowed as long as they are simple and do not constitute danger to the food handler;
- In case of persons that use medical ID tags (jewellery) (for example, diabetics), these are permitted as long as they are resistant, regularly washed and used under the clothes.
- It is not recommended to use make-up products that may pass to foods;
- It is not recommended to use beards/moustaches. In these

cases it is advised to use proper protection.

#### 5 Illnesses and lesions

At the beginning of his professional activity the food handler should carry out medical exams to evaluate his health state. For workers that handle food products it is recommended that they undergo periodic medical exams (at least once a year), the company is responsible for carrying out these exams. No individual should be authorized to work in food handling zones if he is infected or even if there is suspicion of any infection that may contaminate food. According to the Codex Alimentarius the below health states should be communicated to persons responsible for this matter to see if it is necessary to submit the person in question to medical exams:

- Jaundice;
- Diarrhoea;
- Vomiting;
- Fever;
- Throat pains;
- Visible infected skin lesions (furuncles, cuts, etc.);
- Ear, eye or nose infections.

In the above described situations, the worker must consult with a medical doctor who will indicate the preventive measures or treatment to carry out. Skin cuts must be correctly closed with coloured and

impermeable Band-Aids. Disposable gloves should be used. Aside from cuts, skin burns should also be properly protected.

## 6 Training for food handlers

Food handlers should receive appropriate and up to date training about personal hygiene rules in their work place.

Training of newly admitted workers should be immediate and then periodically, as it should be submitted to revisions and up dates.

Warnings should be placed in necessary places, for example, informative posters of how to correctly wash your hands, near sinks.

The training should be illustrative, involve real situations and demonstrative activities, so that the manipulators may become aware of the importance of their function in preventing food intoxications.

#### **7 Visitors**

Visitors should follow all previously mentioned personal hygiene rules that are applied to food handlers.
Visitor kits should be available, containing some disposable pieces such as, a cap, a lab coat and shoe protectors.

In the following table, you will find a resumed list of the main personal hygiene rules used in the food business, followed by a brief explanation of each rule.

# Personal Hygiene in the food business

Good practices	Why
Hands should always be washed before preparing food	Food handlers' hands may contain pathogenic bacteria that easily pass to work surfaces, equipments, etc. One of the most effective ways to prevent contamination is by correctly washing your hands.
Every time <b>disposable gloves</b> are used, these should be disposed of after use.	Rubber gloves can hold bacteria inside them.
Work clothes should cover the whole body and not have exterior pockets.	This avoids the skin from contacting with food, and also avoids hair, fibres and pocket contents (which may contain bacteria) from falling into the food.
Light colour work clothes	Light colours make it easy to detect filthiness.
When starting a job, clean work clothes must be used, these clothes should not be used outside the food preparation areas.	Clothes may bring filth and bacteria to the food preparation zones. Using clean clothes helps prevent this situation.
The use of a <b>clean/disposable apron</b> is recommended to use over top work clothes, especially if you are working with raw meat or eggs.	Aprons help and avoid filth and bacteria from passing to the work clothes. They are easy to take off for wash or to throw out if they are disposable.
Hair should be tied back and correctly protected with a hat/cap/hair net during food preparation.	If hair is not tied back and/or protected it is likely to fall into the food. In addition, people have the tendency to touch their hair more when it is not tied back and/or protected.
Watches or jewellery should not be used during food preparation.	Watches and jewellery can be a source of filth and pathogenic bacteria and, can also fall into the food.
During food preparation, you should avoid touching the face, hair, and you should not smoke, eat or chew gum.	Hands can be conveyers of pathogenic bacteria, through the skin, hair, nose or mouth to the food.
Food handlers cannot suffer from any disease/symptoms that may cause food safety problems (for example: diarrhoea; vomiting)	Food handlers can be holders of pathogenic microorganisms which can be transmitted to food or work surfaces they contact with.
A <b>kit</b> with a lab coat, cap and shoe protectors should be made available <b>to visitors.</b>	Any person can hold bacteria in their clothing.

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