



# TECHNICAL ASSISTANCE TO BUILD FOOD SAFETY CAPACITY FOR THE FISHERIES SECTOR



# MODULE 1

## Hygiene and Sanitation in Fish Processing

*Training for TIBU Impex, Guyana*



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# Learning Outcomes

**At the end of this session, you should be able to:**

- Understand the importance of personal hygiene and health when handling fish.
- Learn the proper use of protective clothing and effective handwashing techniques.
- Distinguish between cleaning and disinfection.
- Understand safe use of cleaning chemicals.
- Have an appreciation for the importance of cleanliness of equipment and food contact surfaces, waste disposal management and control of food pests.



**Protective clothing**





# Properties of protective clothing

- ✓ Protects food from risk of contamination
- ✓ Easy to clean and keep clean
- ✓ No buttons
- ✓ No outside pockets
- ✓ Completely cover own clothing
- ✓ Head covering – to reduce risk of hair in food
- ✓ Not to be worn outside

**Why do you think you wear  
protective clothing at work?**



The human body contains many bacteria. Clean protective clothing protects food handling areas from bacteria on the skin and hair, as well as clothes worn outside.



# If using disposable gloves:

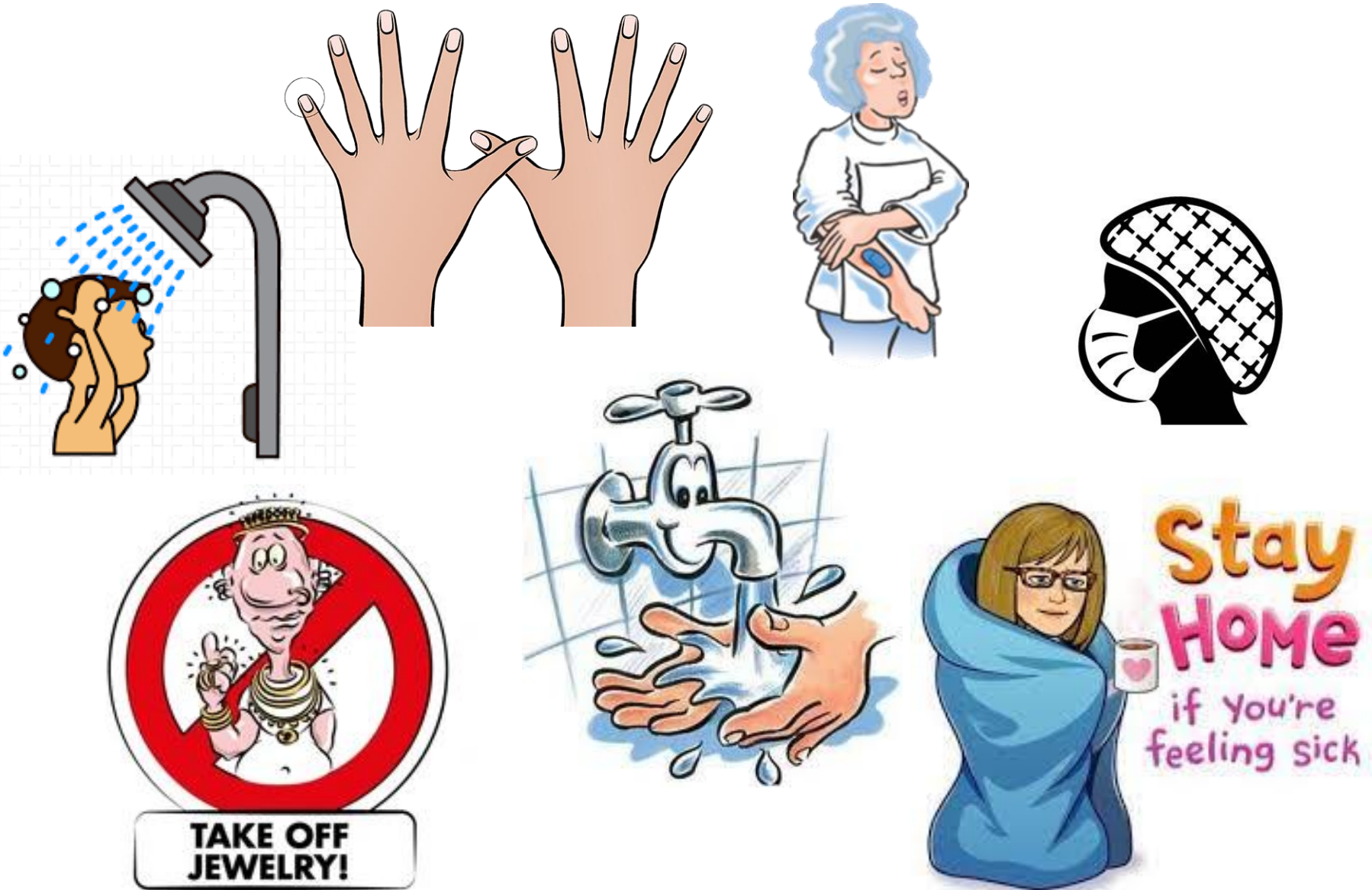
- Wash hands before and after use
- Replace immediately if damaged
- Replace regularly and always at breaks
- Use new gloves when entering processing area

**Gloves become contaminated just like hands and should not be used to replace handwashing.**




# Personal Hygiene

# Good personal hygiene includes:



**Help to prevent  
microbiological, chemical and physical  
hazards by ensuring you follow the  
rules for good personal hygiene at all times!**



A worker wearing a white short-sleeved shirt, a light blue surgical mask, and white gloves is handling fish on a stainless steel table. The worker is using a high-pressure water spray to clean the fish. A metal bowl containing fish is visible on the table. The background is a plain wall.

**Workers can  
contaminate the fish  
they are handling,  
if not handled  
properly.**

# Effective Handwashing

## 1 Wash



1 Wet the hands



2 Take an adequate amount of liquid soap



3 Rub hands to lather



4 Rub the back of each hand with the opposite palm



5 Rub palms with fingers interlaced



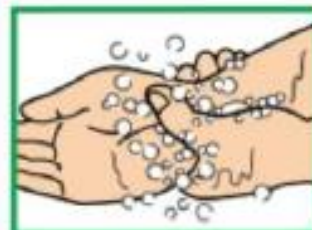
6 Rub each thumb clasped in the opposite palm



7 Rub fingertips in the opposite palm



8 If necessary, scrub the fingertips with a nail brush

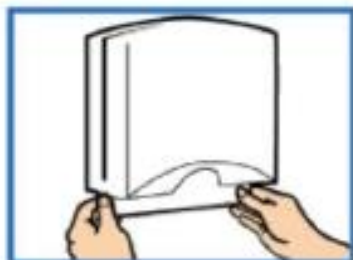


9 Scrub the wrists



10 Rinse well with running water

## 2 Dry

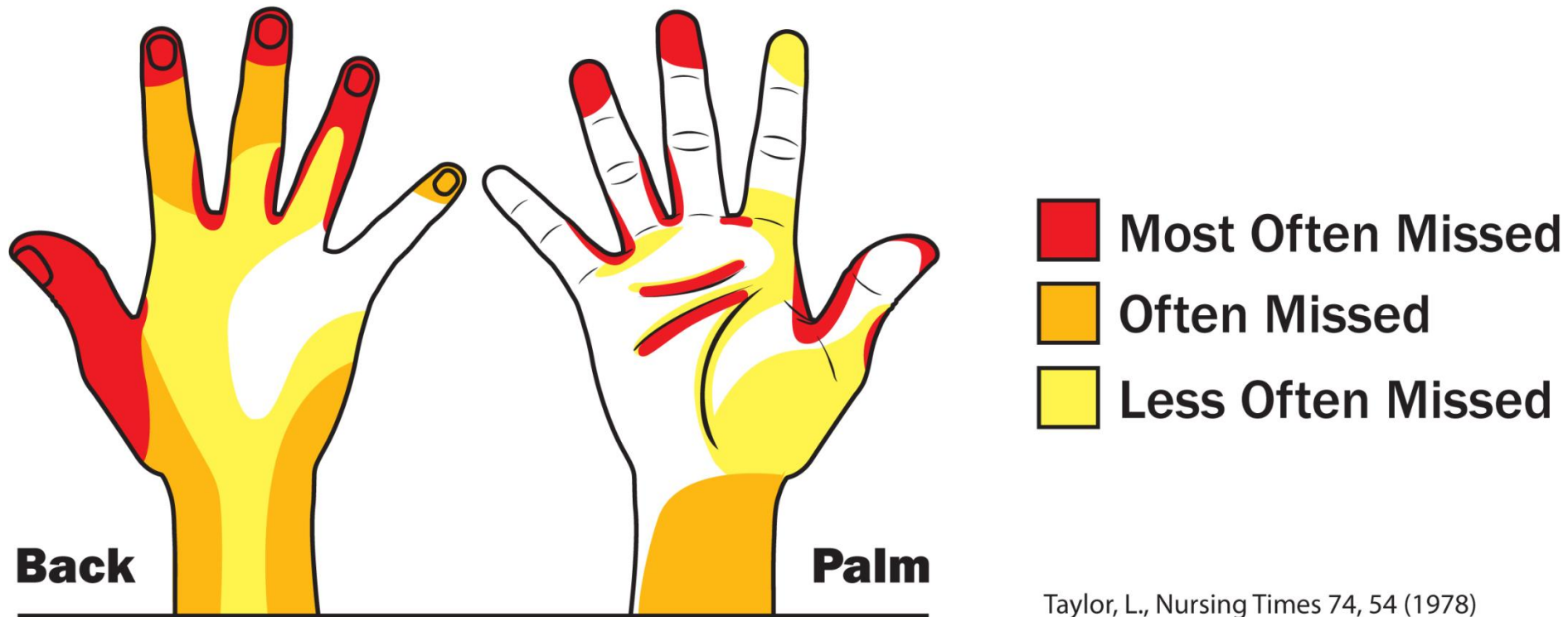


11 Take a paper towel



12 Dry hands thoroughly

# Areas most often missed with inadequate handwashing.



Fingernails, cuticles, creases and crevices of the fingers and hands are all areas where pathogens can hide.

# Always wash your hands after:

1. Entering or leaving the work area
2. Using the bathroom
3. Handling raw foods
4. Changing tasks between raw and ready-to-eat products
5. Touching your hair, face, or body
6. Sneezing, coughing or blowing your nose
7. Cleaning
8. Handling soiled equipment/utensils
9. Handling garbage or fish waste
10. Eating, drinking or smoking
11. Touching anything that may contaminate your hands



**Report immediately to your supervisor any symptoms of illness or infection that might be passed on through food or your working environment!**



# Which of the following illnesses or conditions must be reported to your supervisor?

✓ = Report

✗ = Do not report

Eaten suspect food



Septic cuts/boils



Backache



Discharge from eyes, nose or ears



Broken toe



Unwell whilst abroad



Sunburn when abroad



Moles



Skin infection



Black eye



Diarrhoea, vomiting or food poisoning



Serious cold/flu



Close family contact has diarrhoea, vomiting or food poisoning



***Food handlers with diarrhoea and vomiting should not return to work until they have been symptom-free for at least 48 hours.***

**Following illness, some persons may still carry harmful bacteria on and in their bodies.**

**Food handlers returning to work following food poisoning MUST therefore observe additional high standards of personal hygiene.**

**In particular, effective handwashing.**



# **Cleaning and Sanitation**

# Why is cleaning important?

- Reduces the risk of food poisoning
- Removes the food supply for bacteria
- Removes materials/food for pests
- Reduces the risk of food contamination
- Removes dirt and grease
- Allows disinfection
- Promotes a good company image
- Provides a safe and pleasant workplace



# Cleaning must be planned (schedules)

**What**

**Type/amount of chemical**

**Who**

**Time**

**When**

**Safety information**

**How**

**Record**



**Cleaning schedules are used to ensure that all areas are cleaned properly at the right time.**

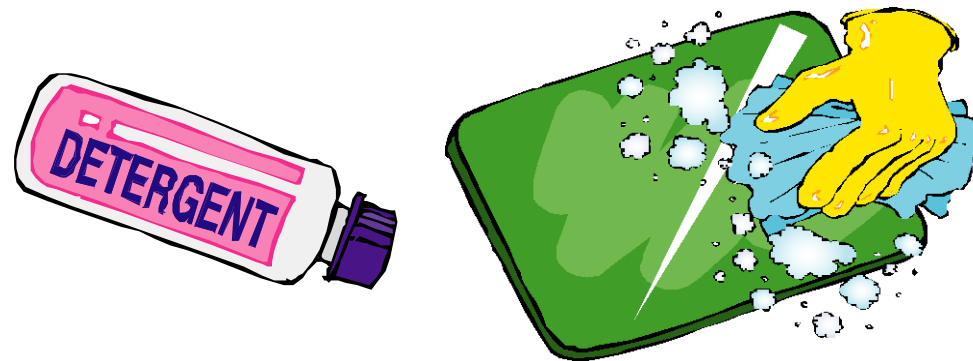


**Cleaning** and **disinfection** are  
two separate processes

Effective cleaning **MUST** occur before  
disinfection can take place as  
chemical agent may not work

# What is cleaning?

*The application of energy to a surface to remove dirt and/or grease.*



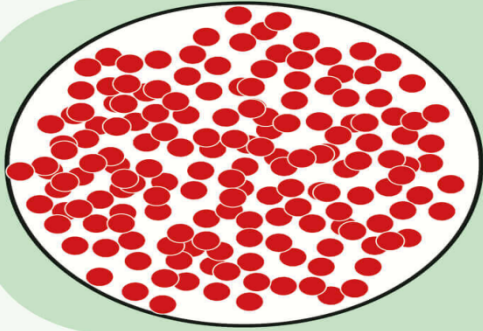
A **detergent** is used to clean. Detergents DO NOT kill bacteria and other microorganisms.

# What is disinfection?

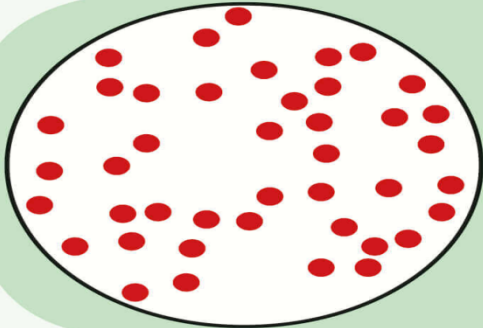


*A process that destroys microorganisms on surfaces, utensils and equipment*

# Cleaning / disinfection

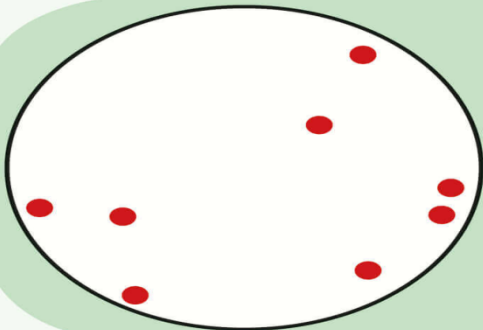


**Untreated surface**



**Cleaning**

- ▶ Visual cleanliness
- ▶ Germ reduction 10 – 90 %



**Disinfection**

- ▶ Germ reduction 99.999 %

# What should be disinfected?

## Food-contact surfaces:

- Food utensils/equipment
- Production surfaces
- Walls adjacent to production surfaces
- Sinks
- Refrigerators

## Hand-contact surfaces:

- Touch points such as handles on doors, drawers, refrigerators
- Taps/hand washbasins
- Nailbrushes



**Disinfection can be achieved by using chemicals, high temperatures or steam.**

# Stages of cleaning and disinfection

1 Manually remove visible fish waste



2 Clean with soap or detergent



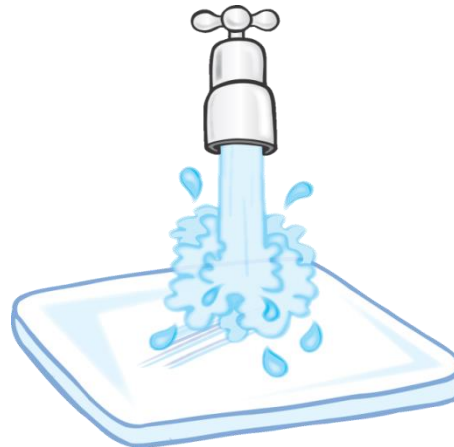
3 Rinse with clean water



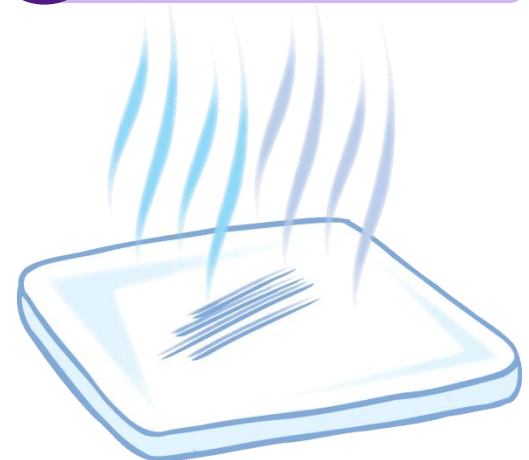
4 Disinfect



5 Final rinse



6 Leave to dry



# Key points to remember about disinfectants

For effective use follow the manufacturers' instructions provided on the label

Some disinfectants are toxic and need to be rinsed off. However, food-safe disinfectants are available.

Disinfectants need time to work. Contact times vary and may be seconds or minutes depending on the chemical being used and what is being disinfected.

**DO NOT MIX DISINFECTANTS**

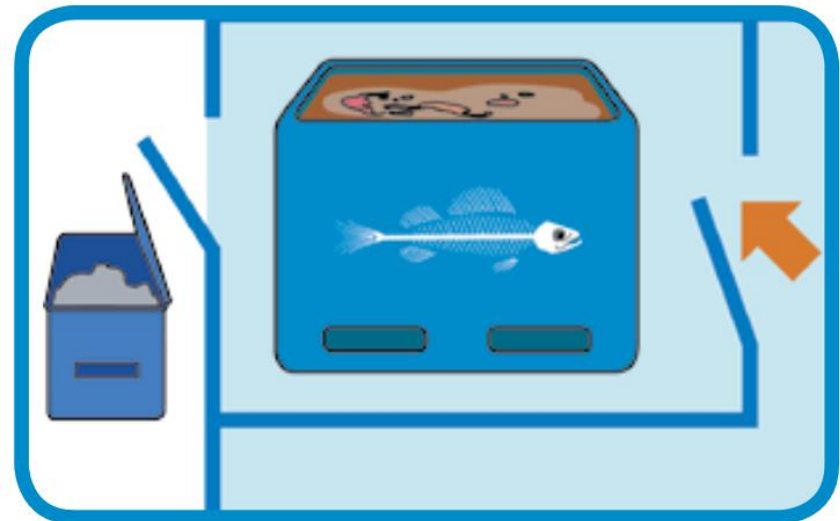
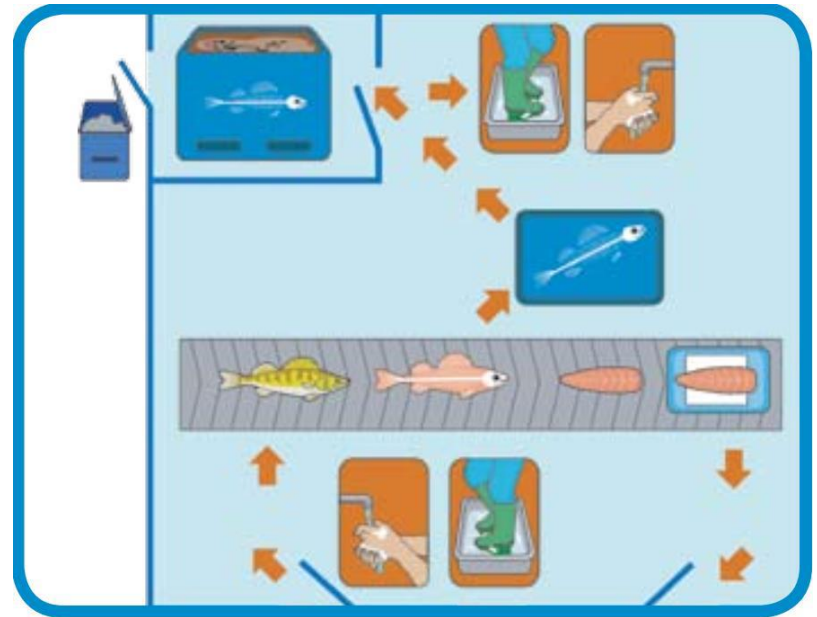
**Follow correct dilution procedures  
for cleaning chemicals**



# **Waste Disposal Management**

# Handling Fish Waste

- Waste should be stored in a separate area.
- You should be able to get into the waste storage area through a door on the inside and also a door on the outside.



# Storage and disposal of waste

Waste **MUST NOT** be allowed to build up in processing area

Waste must be disposed of in closable containers



# Why should waste be cleared and disposed of promptly?

- To reduce risk of contamination
- To prevent bacteria from multiplying
- To allow cleaning
- To stop bad smells
- To avoid attracting pests

# **Control of Food Pests**

# Food pests

***Pests carry and spread bacteria. They must be prevented from getting into any food storage or handling area, for example:***

- By checking deliveries
- Removing waste regularly
- Only opening doors when necessary
- Using bait stations

**What are some common food  
pests?**



- Rodents – mice, rats
- Insects – flies, wasps, cockroaches
- Birds
- Dogs
- Cats

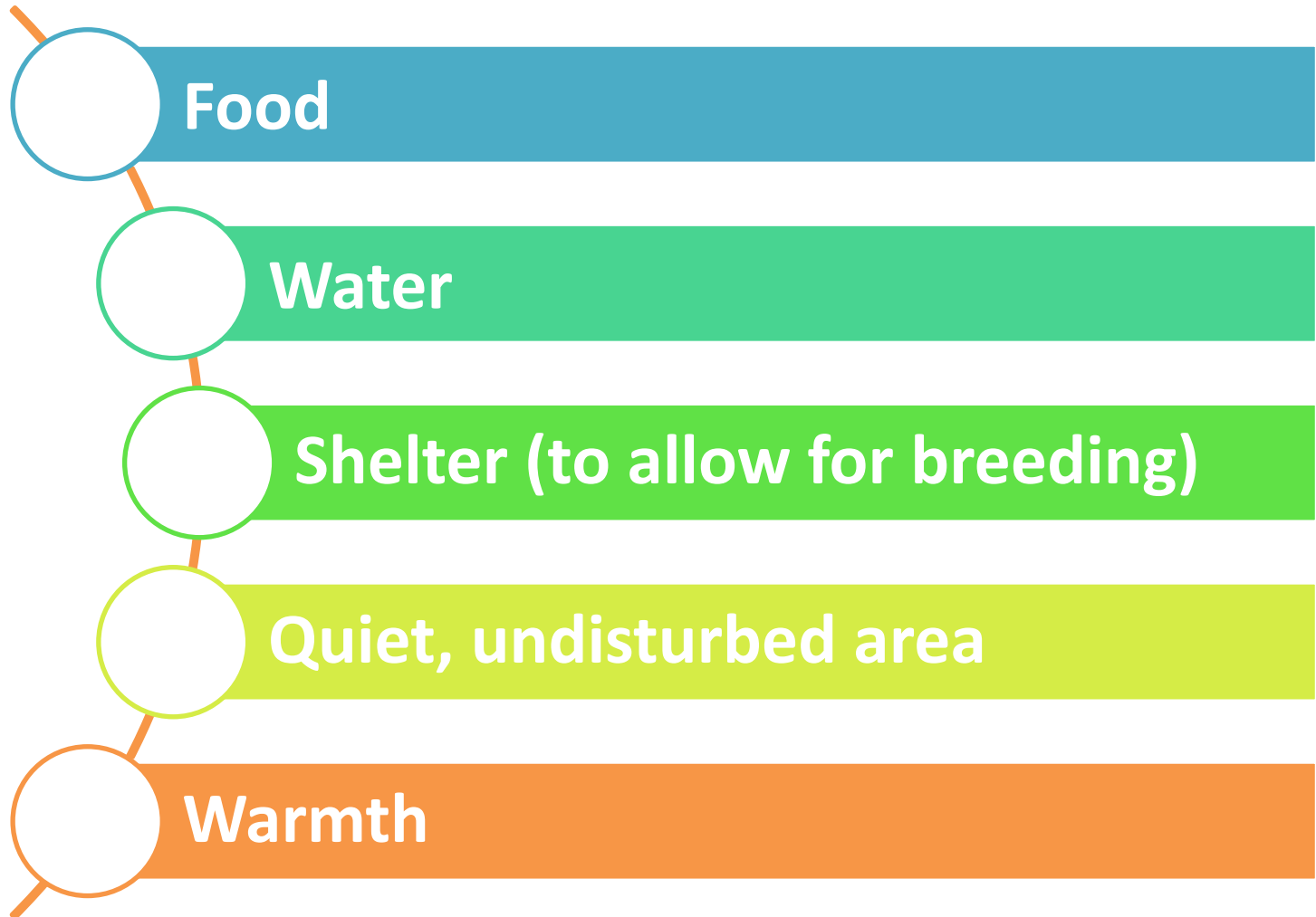


# Signs of food pests

- Droppings
- Holes in walls
- Gnaw marks
- Insect egg cases
- Insect skins
- Webs



# What do pests need to survive?



# Why is pest control important?

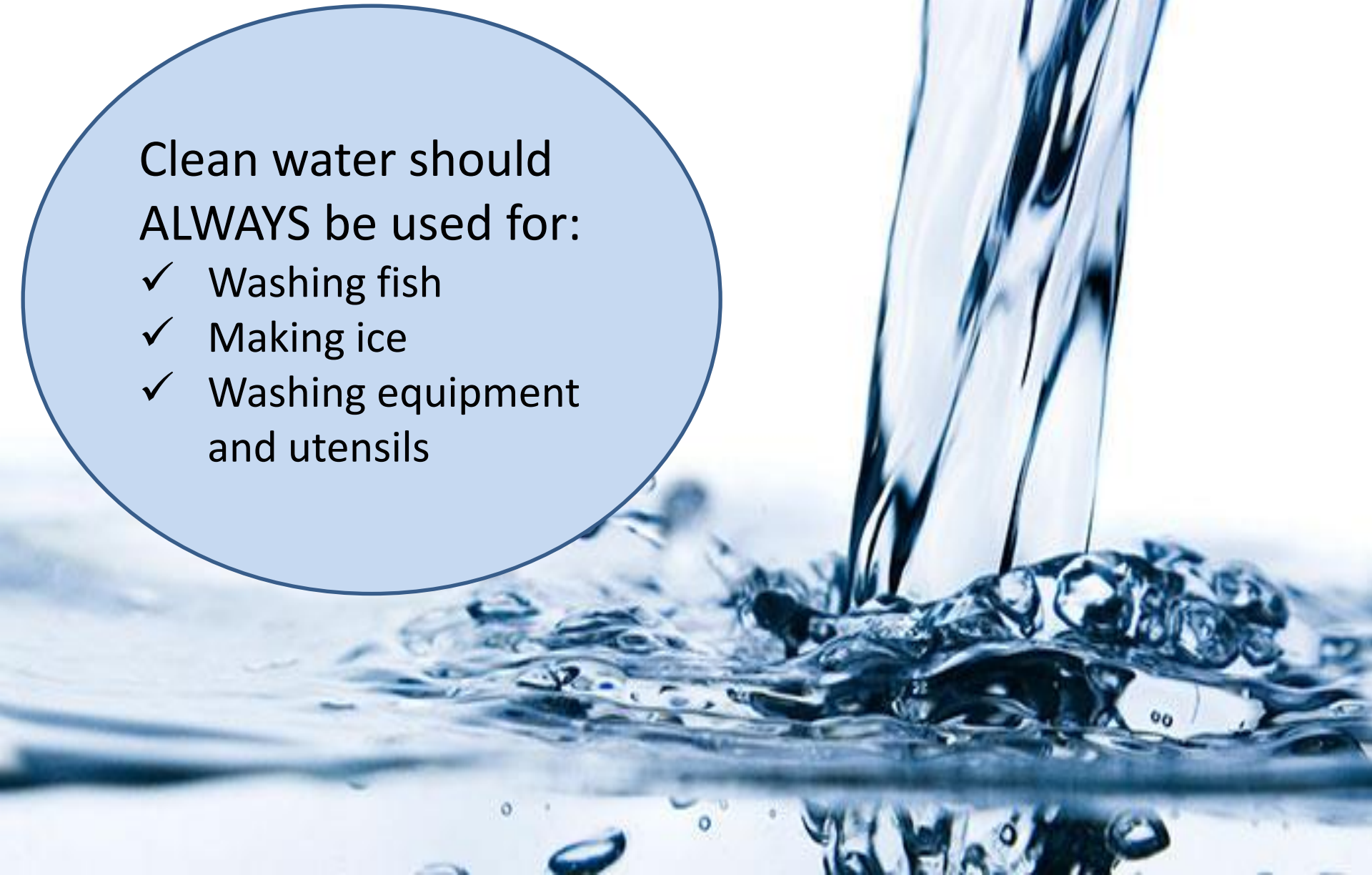
**Because they can cause:**

- Contamination
- Food poisoning
- Wastage
- Damage
- Complaints



**Always report any signs of pests to your supervisor immediately.**

**Water quality and safety**

A close-up photograph of water being poured from a height, creating a dynamic splash with many bubbles and droplets. The water is clear and blue, and the background is a soft, out-of-focus light blue.

Clean water should  
**ALWAYS** be used for:

- ✓ Washing fish
- ✓ Making ice
- ✓ Washing equipment  
and utensils

***Dirty water can contaminate fish***

# Questions?

