

# FOOD SAFETY AND PRINCIPLES IN ENSURING HEALTHY DIET

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# Hammanskraal News

OUR COMMUNITY NEWSPAPER - ONS GEMEENSKAPSKOERANT - DITABA TSA RONA

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26 FEBRUARY 2015

## FOOD POISONING AT NEW EERSTERUS SECONDARY SCHOOL

ANGIE RAMAHANEDZA

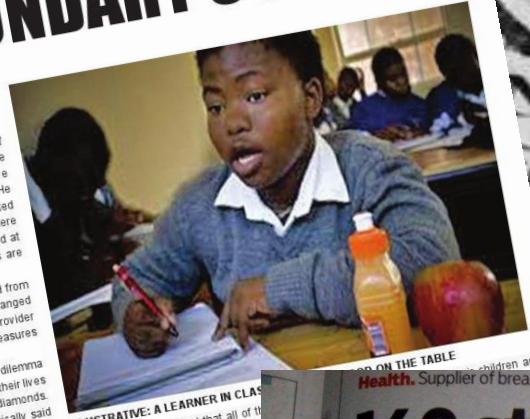
**It is suspected that the pupils ate soup which caused them to have the stomach cramps**

About 65 pupils of New Eersterus Secondary were hospitalized last week Wednesday, 18 February after they have complained about stomach cramps. It has been said that the pupils complained about the matter after they had eaten food provided to them at school.

because the hospital did not find any sign of poisoning on them. "It is suspected that the pupils ate soup which caused them to have the stomach cramps", said Mr. Mogale. He further said the matter is being investigated by the department of health and that there are some tests that are being conducted at a laboratory while other investigations are conducted and kept in progress.

Hammanskraal News reliably learned from the councilor that the school has changed the caterer and the school nutrition provider has been suspended for safety measures among the pupils.

Parents were scared about the dilemma thinking that their children will lose their lives which seems to be so shining like diamonds. One of them Mary Koka telephonically said she was at work when she heard about the incident and she rushed at school.



ILLUSTRATIVE: A LEARNER IN CLASS  
Health. Supplier of bread set to face action after investigation is complete

## 140 students sent home in food poisoning scare

Education official says learners ate expired bread for breakfast on Monday morning.

By Mercy Kahenda  
mkahenda@standardmedia.co.ke

At least 140 students who suffered food poisoning after eating expired bread are undergoing treatment in Baringo.

County Director of Education Willie Machocho on Tuesday said learners from Kituro High School in Baringo Central started complaining of headache and stomach upset after having breakfast on Monday morning.

The students then informed the school management about the incident and were rushed at Kituro Dispensary for treatment.

were suffering from food poisoning.

"Ten students complained of stomachache and headache on Monday morning after consuming bread for breakfast."

"They were rushed to the nearest dispensary for treatment and were discharged," said Mr Machocho.

He also said another group of 130 students had reported cases of stomach upset and headache and were rushed to the dispensary for treatment, but their condition did not improve.

Machocho noted that because of the ongoing countrywide nurses' strike that had paralysed operations in most public hospitals, students were released to go home and seek better treatment.

This was after consultation with the institution's board of governors and parents who advised the school to allow stu-

### Turn of events

- Some 10 students complain of headache and stomach upset after eating expired bread
- They inform school management about situation and are rushed to dispensary
- Tests conducted at the facility and government laboratories indicate food poisoning
- Another group of 130 students reports stomach upset and headache
- They are taken to



dispensary but condition does not improve

"The facility was not able to handle the high number of learners and some required further examination and treatment. That is why the management decided to release them," said Machocho.

He dismissed rumours doing

The school, he said, had clean drinking water and public health officers inspect food supplied to the institution.

But he accused the school of allowing the contractor to supply expired bread.

He said action will be taken

Every year, we come across food poisoning news in the media!!!





# The burden of foodborne diseases is substantial

Every year foodborne diseases cause:

almost  
**in 10**  
people to fall ill

**33 million**  
healthy life years lost

Foodborne diseases can be deadly, especially in children <5

  
**420 000**  
deaths



Children account for  
**1/3**  
of deaths from  
foodborne diseases

**FOODBORNE DISEASES ARE PREVENTABLE.  
EVERYONE HAS A ROLE TO PLAY.**

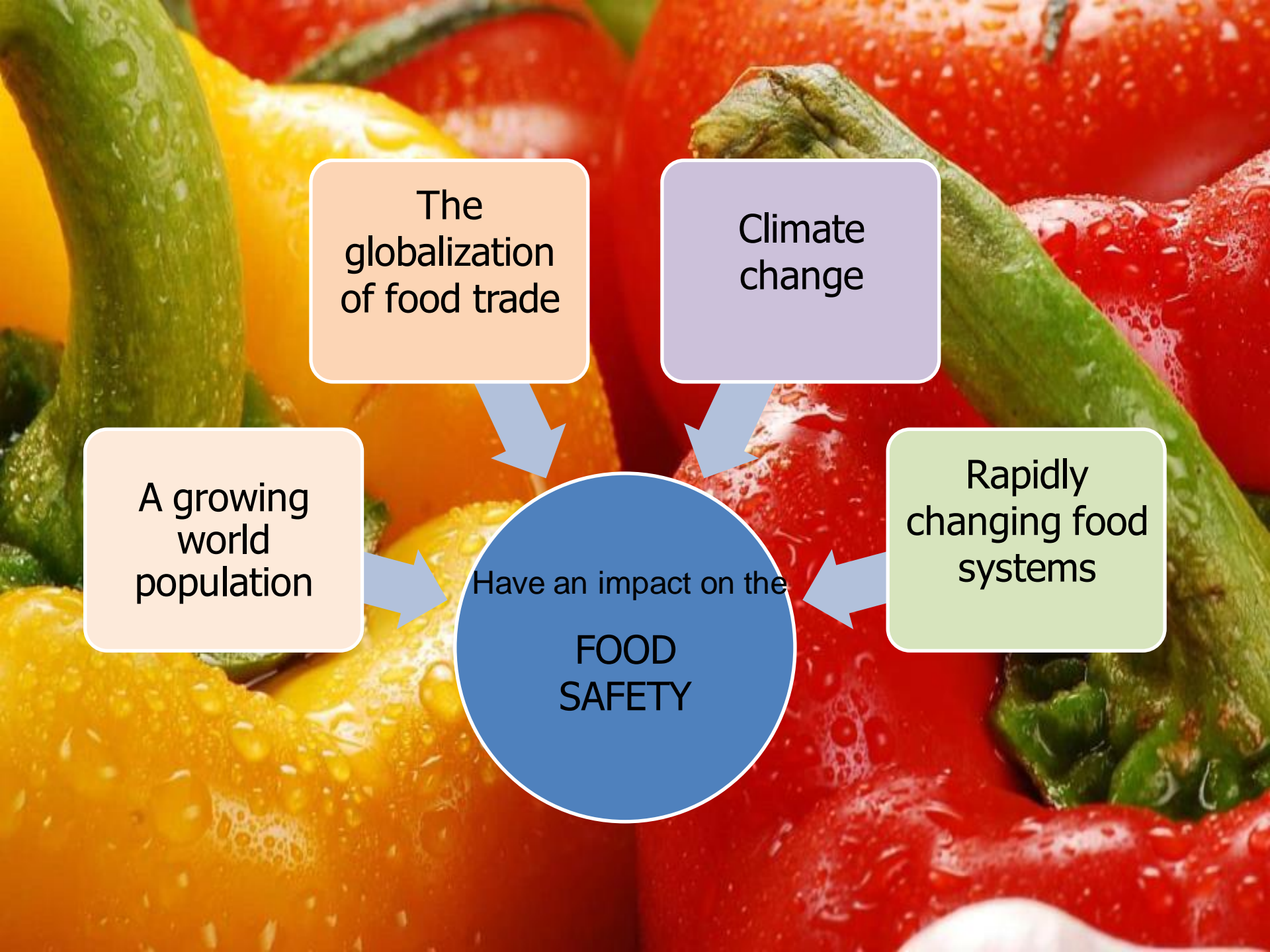
For more information: [www.who.int/foodsafety](http://www.who.int/foodsafety)

**#SafeFood**

Source: WHO Estimates of the Global Burden of Foodborne Diseases, 2015.



**World Health  
Organization**



The globalization of food trade

Climate change

A growing world population

Rapidly changing food systems

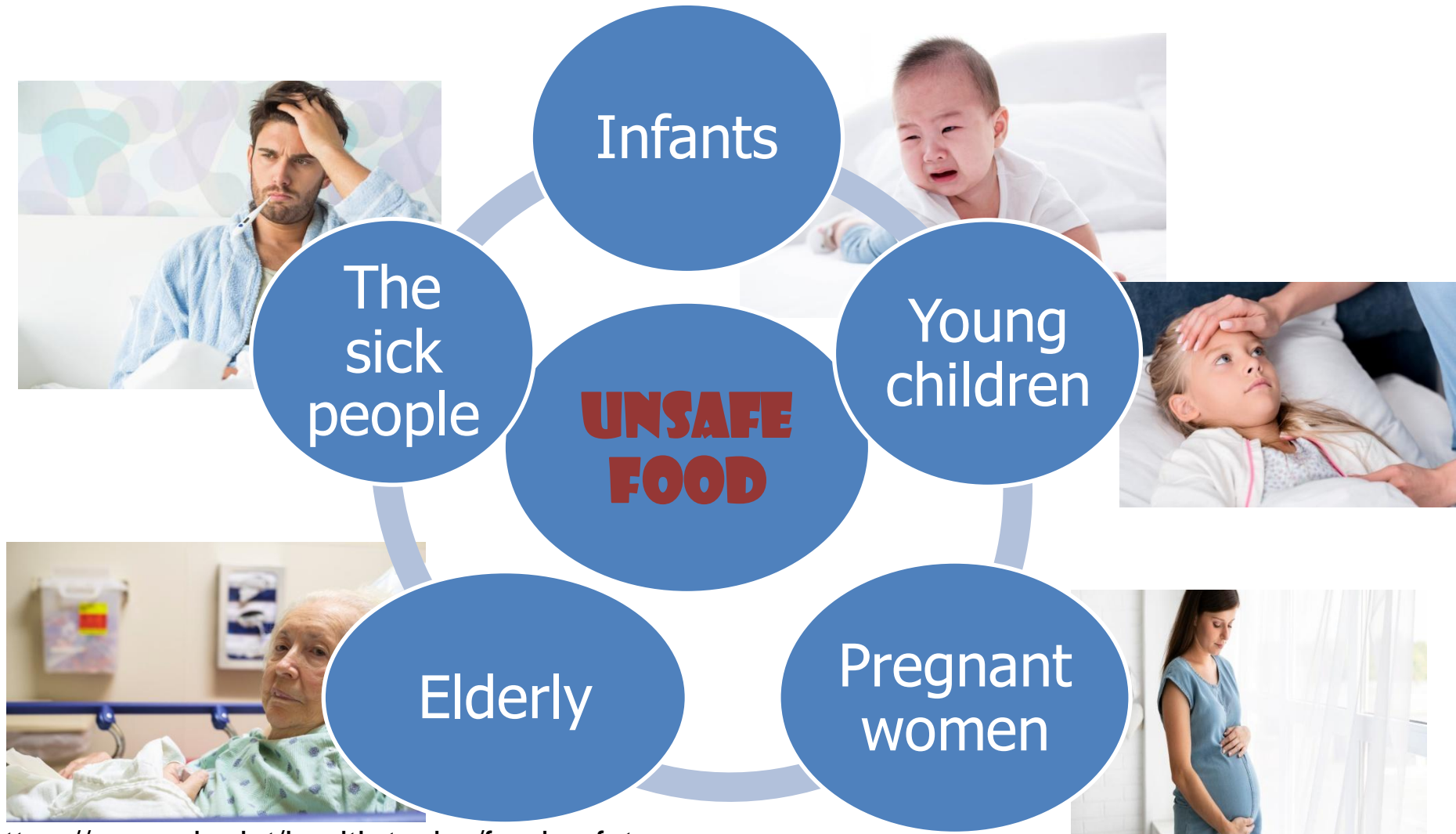
Have an impact on the  
**FOOD SAFETY**

**UNSAFE FOOD** containing harmful bacteria, viruses, parasites, or chemical substances can cause more than 200 different diseases—ranging from diarrhea to cancers.

## MICROORGANISMS



# **UNSAFE FOOD** creates a vicious cycle of disease and malnutrition



# SAFE FOOD

Has not lost its nutritional value



**CLEAN AND UNSPOILED FOOD**

Physical hazards

Chemical hazards

Biological hazards

# 1-PHYSICAL HAZARDS



Cigarettes / Matchstick



Stones



Stems



Seeds



Hairs



Buttons



Jute / Strings



Nails



Bolds



Bolds



Nails



Bone fragments



Feathers

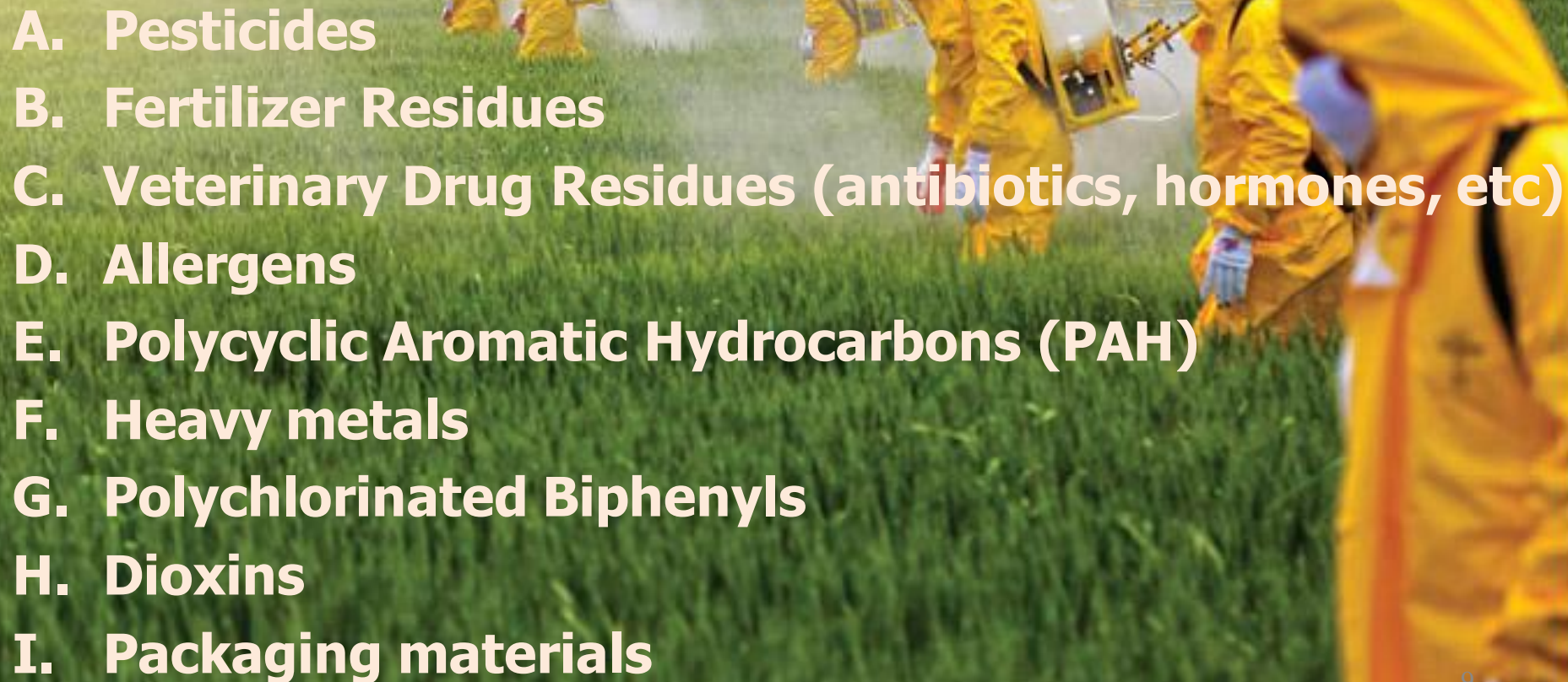


Jewellery

Visible  
Physical  
Hazards in  
Food



# 2-CHEMICAL HAZARDS

- 
- A line of agricultural workers in yellow protective suits is spraying a field with pesticides. The workers are wearing full-body suits, hoods, and gloves, and are carrying large white tanks on their backs. They are walking in a line, and a mist of pesticide is being sprayed from their nozzles. The field is green and appears to be a crop field. In the background, there are trees and a utility pole.
- A. Pesticides**
  - B. Fertilizer Residues**
  - C. Veterinary Drug Residues (antibiotics, hormones, etc)**
  - D. Allergens**
  - E. Polycyclic Aromatic Hydrocarbons (PAH)**
  - F. Heavy metals**
  - G. Polychlorinated Biphenyls**
  - H. Dioxins**
  - I. Packaging materials**

# 3-BIOLOGICAL HAZARDS

- 
- 1. Bacteria**
  - 2. Viruses**
  - 3. Molds**
  - 4. Parasites**
  - 5. Natural toxins**
  - 6. Algae**
  - 7. Prions**

# How do we ensure food safety?



Food  
hygiene



Personel  
hygiene



Equipment  
hygiene





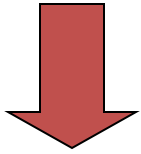
## **FOOD HYGIENE:**

**All conditions and measures that are required during**

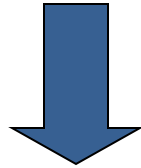
- production,**
- processing,**
- storage,**
- distribution and**
- preparation of food**

**to ensure that it is safe, wholesome, and fit for human consumption.**

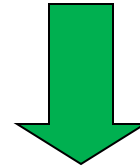
# FOOD HYGIENE



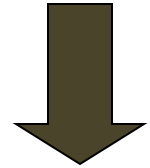
PURCHAISING



STORAGE



PREPARING/  
COOKING



SERVICE

A perspective view from inside a shopping cart in a grocery store aisle. The cart is empty and has a green handle. The shelves on both sides are filled with various products, mostly in plastic packaging, and are slightly out of focus. The floor is light-colored. The text is centered in a light green box.

**FOOD PURCHASING  
AND  
FOOD SAFETY  
PRINCIPLES**



1. A shopping list should be prepared.



2. Market price research should be done.



3. Healthy foods should be chosen.

# HOW DO WE CHOOSE HEALTHY FOOD?



- \*Natural and fresh foods should be chosen.
- \*Freshly squeezed fruit juices, milk, and lemonade should be preferred instead of ready-made fruit juices and carbonated-sugar drinks.
- \*Instead of raw milk, pasteurized or long-life milk (UHT) should be purchased.





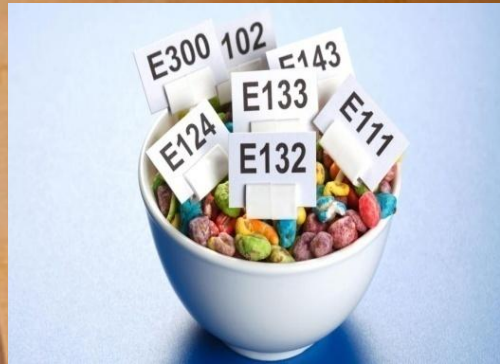
- \*Unpurified and enriched grain products should be preferred. Example: Whole wheat bread instead of white bread.
- \*Cheese made from raw milk, not in brine and unripe should not be purchased.
- \*Perishable and frozen foods should be bought at the end of the shopping.

# Foods low in fat, sugar, and salt should be preferred.



*myloview*





Food additives should be added to the foods in the allowed quantities by WHO/FAO.

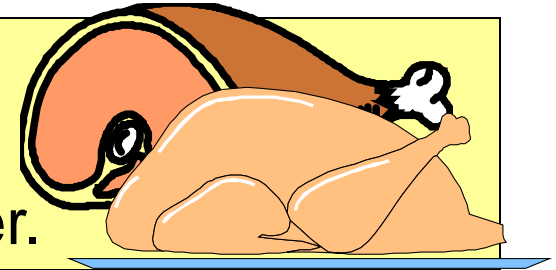
Additives can cause allergic reactions like skin flushing, swelling

**Foods containing food additives should not be fed to young children.**

# SOME FOOD CONTROL CRITERIAS...

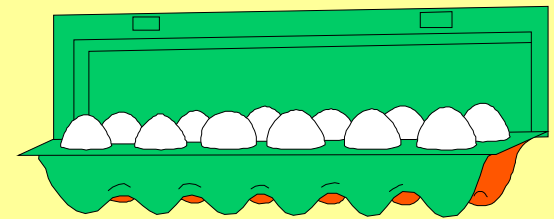
## 1.MEATS

Freshness, fat content, colour of meat, buying from reliable grocery store or butcher.



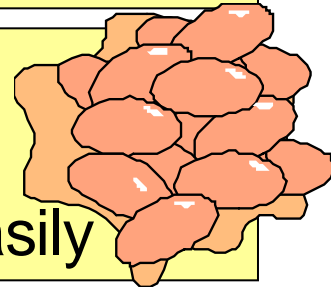
## 2.EGGS

Cleanliness of the eggshell, no cracks, freshness, and size of the egg.



## 3.LEGUMES

Not having mold, insects, and any other foreign materials, being the product of that year, cooking easily



## 4.FRUITS & VEGETABLES

Freshness, size, free of mud, dust, soil, weeds, not being rotten, and bruised, not having bad taste, and not having bad flavor



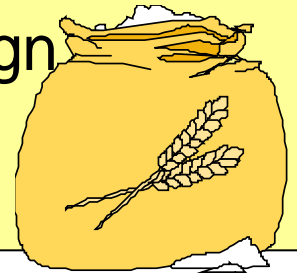
## 5.DAIRY

Freshness, not having sourness, well-fermented, appropriate packaged, free of foreign matters



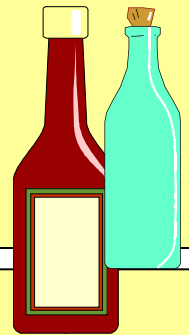
## 6.CEREALS

Being a new crop, whether there is mold and foreign matters or not and other criteria specific to related cereal/grain



## 7.OILS

Not having bad flavor, not having bad smell, having appropriate color



## 8.JAMS

Fruit ratio, consistency, candy state, natural taste, flavor

## 9.CANNED FOODS

Tightly sealed, not having any leaks, not being rusted, swollen, and extremely dented







Gıda ve Kontrol Genel Müdürlüğü > Menus



Directorate General



Activities



Projects

The principle of "Farm to Fork Food Safety" is applied systematically in Türkiye.

#### DEPARTMENTS

Department of Plant Health and Quarantine

Department of Animal Health and Quarantine

Department of Food Establishments and Codex

Department of Veterinary Medical Products and Public Health

Department of Food Control and Laboratories

Department of Border Inspection for Plants and Plant Products

Department of Border Inspection for Animals and Animal Products

Department of Plant Protection Products

Feed Department

Risk Assessment Department

Department of Administrative Affairs and Coordination

- Packaged and labeled foods with mandatory label information specified in the Turkish Food Codex should be preferred.



Turkish Food Codex-Food Labeling and Consumers Information Regulation-January 26<sup>th</sup>, 2017.

Revised Guidance on Food Labeling and Consumer Information Regulation- May 8<sup>th</sup>, 2020.



- This Regulation has been prepared within the framework of harmonization with the EU legislation, taking into account the Regulation (EU-No 1169/2011) of the European Parliament and of the Council of October 25<sup>th</sup> 2011.

► **B** REGULATION (EU) No 1169/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL



of 25 October 2011

on the provision of food information to consumers, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004

(Text with EEA relevance)

(OJ L 304, 22.11.2011, p. 18)

# Information that must be stated on the label according to the Turkish Food Codex

1. Expiry date  for meat and dairy products that are perishable and need to be consumed in a short time,  
best before date  for other products
2. Special storage condition and/or usage condition
3. Indication of food components and allergens in the ingredient list. For example: It contains soy
4. Quantity (net weight)
5. Price

# Information that must be stated on the label according to the Turkish Food Codex

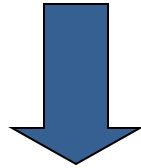
6. Information about the manufacturer/ importer company (name, address, etc.)

7. Manufacture or import permission

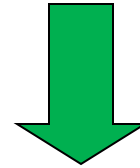
8. Nutritional labeling

(Mandatory for foods having a nutrition and health claim and for foods for special nutritional purposes such as infant formulas, sports nutrition, etc.)

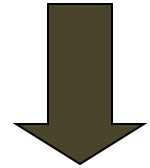
# FOOD HYGIENE



STORAGE



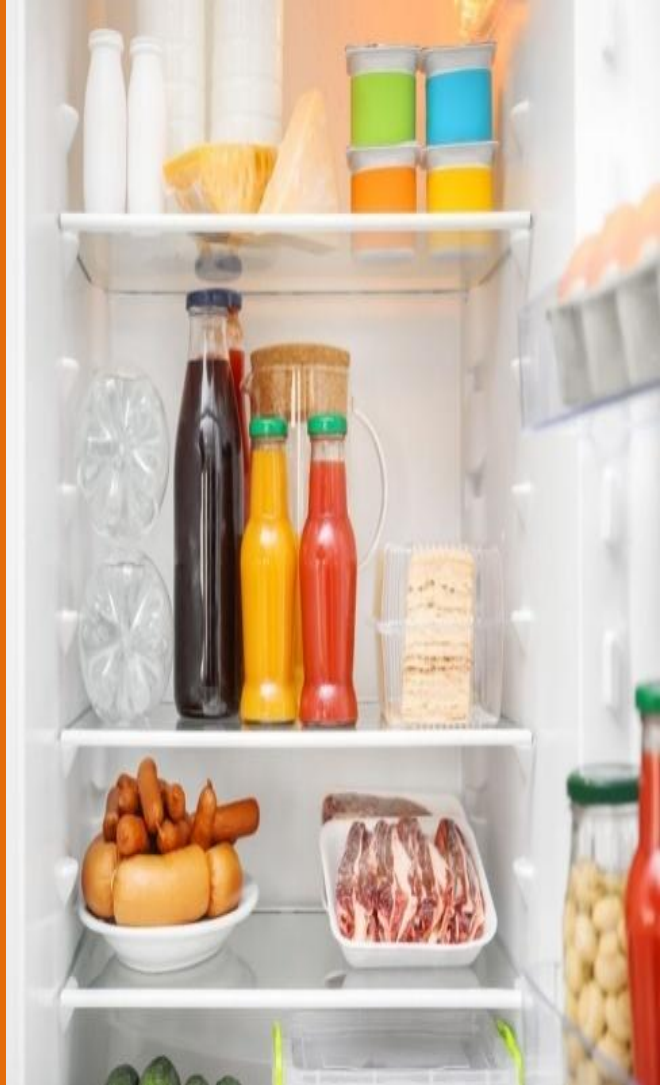
PREPARING/  
COOKING



SERVICE

# FOOD STORAGE AND FOOD SAFETY PRINCIPLES

- Foods should be stored in a cold storage, dry storage, and deep freezer.
- Tops of pots and pans of food such as meat, minced meat, and chopped meat must be covered.
- Raw foods should be kept separate from cooked foods to avoid cross-contamination.
- Cleaning agents, and pesticides should be stored away from food.



- Pasteurized / UHT milk should be stored in the refrigerator after opening the package and consumed within 1-2 days.
- Meals with meat should not be kept in the refrigerator for more than 1-2 days, and meatless meals should not be kept for more than 3-4 days.
- Frozen foods should not be refrozen.
- Applying FIFO (First in, First Out)



# FOOD STORAGE DEGREES AND DURATION

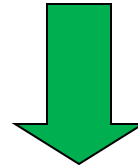
FOOD	DEGREE (°C)	DURATION
Meat	0-2	3-5 days
Minced meat	0-2	1-2 days
Fish	(-1)-0	1-2 days
Egg	4-7	1 week
Cooked foods	0-2	1 day
Pasteurized milk	3-4	1 day
Fruits	4-7	2 days for strawberry – 2 weeks for apple
Vegetables (onion, potatoes)	15-20	1-2 week
Other vegetables	4-7	5 days (for green vegetables) – 2 weeks
Frozen foods	-18	3-6 months

## NON-PERISHABLE FOODS TO BE STORED IN DRY STORAGE (10-15 C)

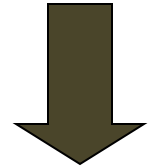
- Cereals and cereal products (rice, flour, pasta, bulgur wheat, crackers, etc.)
- Legumes
- Dried fruits and nuts
- Onion, potatoes, garlic
- Sugar, vinegar, spices, pickle
- Unopened tomato paste and canned foods
- UHT milk, UHT fruit juice
- Oil



# FOOD HYGIENE



PREPARING/  
COOKING



SERVICE

# FOOD PREPARING/COOKING AND FOOD SAFETY PRINCIPLES

- Vegetables, fruits, dried fruits, cleaned chicken, fish, meat, and eggs should be washed thoroughly with plenty of water before used.
- If any pest and microorganism contamination is suspected, fresh vegetables should be kept in salty or chlorinated water for 20 minutes.
- Raw and cooked foods should be prepared in separate places or on counters.



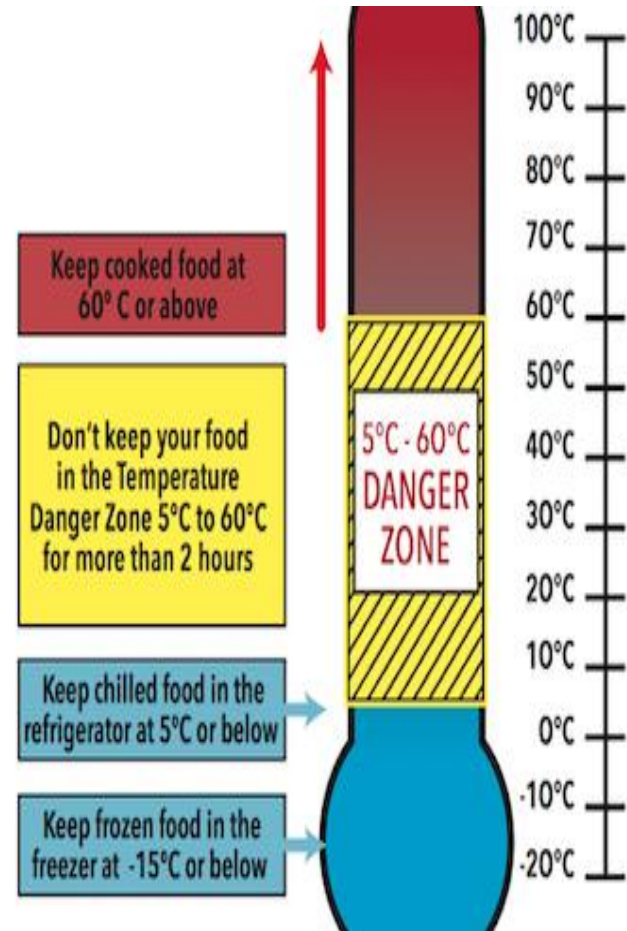
Eggs should be washed before use or broken into a separate container and checked for damage.

Suspicious foods that can cause disease, especially moldy ones, should not be eaten.



All salad ingredients and mixtures that take a long time to prepare and contain potentially risky foods should be kept at 5 °C or below.

The growth temperature of microorganisms is 5-60 °C. Therefore, the food should not be kept in this temperature range for more than 2 hours.



# 4 SIMPLE STEPS TO FOOD SAFETY



## Clean

Wash hands, utensils and surfaces often. Germs can spread and survive in many places.



## Separate

Raw meat, poultry, seafood, and eggs can spread germs to ready-to-eat foods, so keep them separate.



## Cook

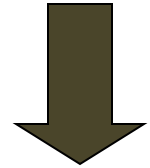
Cook to the right temperature. Ensure that foods are cooked safely by always using a food thermometer.



## Chill

Refrigerate promptly. Bacteria that cause food poisoning multiply quickest between 5 C- 60 C

# FOOD HYGIENE



SERVICE

# FOOD SERVICE AND FOOD SAFETY PRINCIPLES

- Make sure that the tools (plates, forks, spoons, etc.) you use for service are clean.
- Do not use scratched, cracked, or broken tools.
- Hold the bottom or sides of the plates and glasses without touching the rims.
- Do not overfill food containers to prevent food from coming into contact with hands.



-Do not use clothes to cover the food to be served.

-Do not keep your meals for more than 2 hours at 5-60°C.

-Never use the food that has fallen on the floor or the vehicle used in the service while preparing a meal.

-Never cough&talk loudly over food.





# How do we ensure food safety?



Food  
hygiene



Personel  
hygiene



Equipment  
hygiene



One of the most important sources that contaminate food with microorganisms is the people who prepare the food.



For this reason, people who prepare meals should pay great attention to personal hygiene.



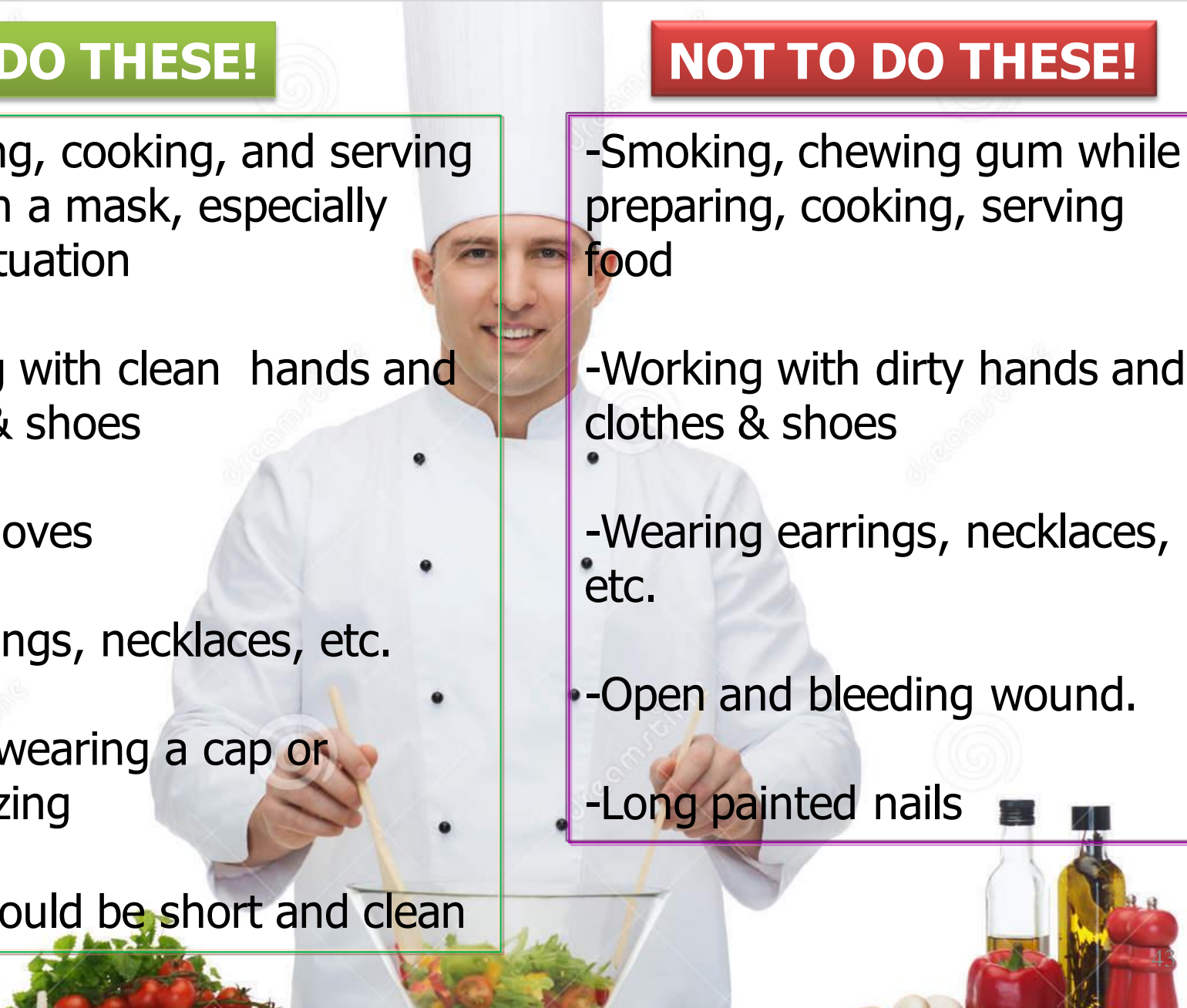
# SOME RULES TO PROVIDE PERSONNEL HYGIENE

## DO THESE!

- Preparing, cooking, and serving food with a mask, especially illness situation
- Working with clean hands and clothes & shoes
- Using gloves
- No earrings, necklaces, etc.
- Always wearing a cap or capsneezing
- Nails should be short and clean

## NOT TO DO THESE!

- Smoking, chewing gum while preparing, cooking, serving food
- Working with dirty hands and clothes & shoes
- Wearing earrings, necklaces, etc.
- Open and bleeding wound.
- Long painted nails



**Hand cleaning**  
is one of the key points in ensuring  
personal hygiene.



Hands should be washed  
frequently and properly.

# Hand washing tips



# How do we ensure food safety?



Food  
hygiene



Personel  
hygiene



Equipment  
hygiene



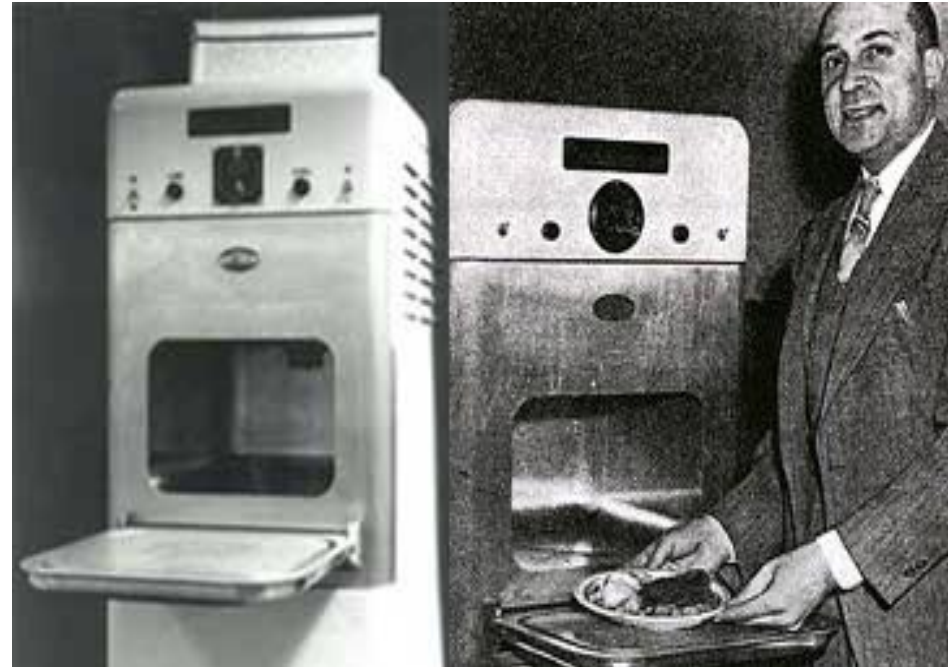
- Cleanliness and hygiene of all tools and equipment that using for storing, preparing, cooking, and serving food are very important to provide safe food.



# Thanks to technology for ensuring food safety!



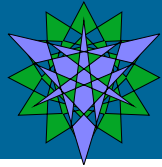
The first dishwasher, 1850.



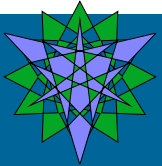
The first microwave oven, 1945.



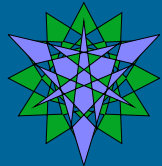
## SOME RULES TO PROVIDE EQUIPMENT HYGIENE..



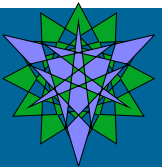
Containers should not come into contact with high temperatures.



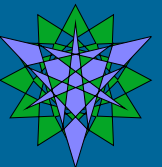
Metal or plastic containers should not be used to keep food.



During the washing process, the container should not be rubbed with a wire. After the food residues are softened with water, they should be cleaned with a dish sponge.



The detergent used for dishwashing should be rinsed thoroughly.



The washed dishes should be left to dry in the natural airflow.

# June 7th, World Food Safety Day!

It will draw attention and mobilize action to prevent, detect and manage foodborne risks and improve human health.



**Safer food, better health!**

**World Food Safety Day 2022**  
theme highlights the role that safe,  
nutritional food plays in ensuring  
human health



A close-up photograph of a bouquet of flowers. The bouquet features several large, vibrant purple flowers with yellow-green centers, interspersed with numerous smaller, delicate pink flowers. A light brown, rectangular paper tag is attached to the bouquet with a yellow ribbon. The tag has a circular hole on the left side and the words "Thank you!" written in a black, cursive font. The background is filled with more flowers and green foliage, creating a lush and colorful scene.

Thank  
you!