



Nutrition

FLIP CHART

TOTAL HEALTH

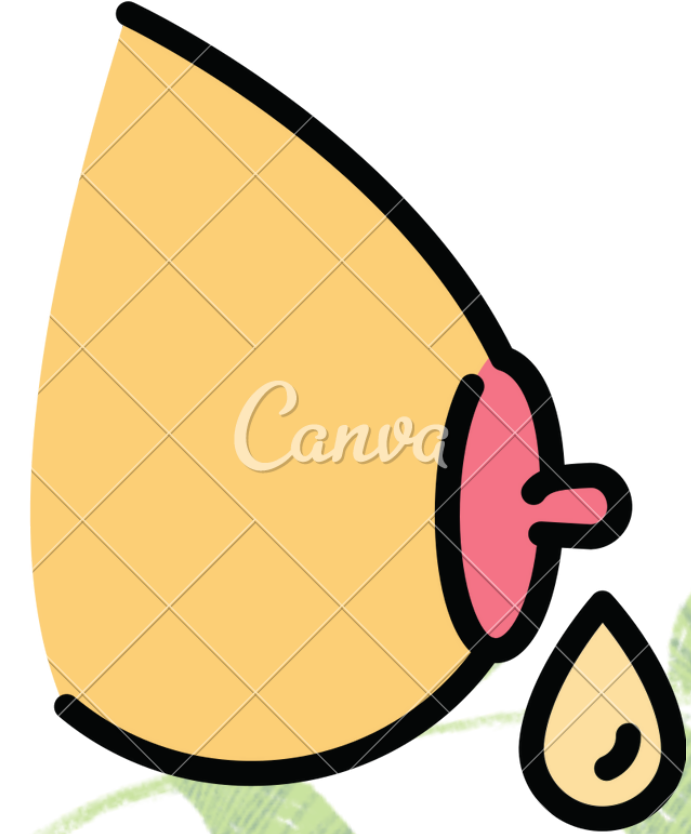
- SINCHICUY



Produced by:

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2022



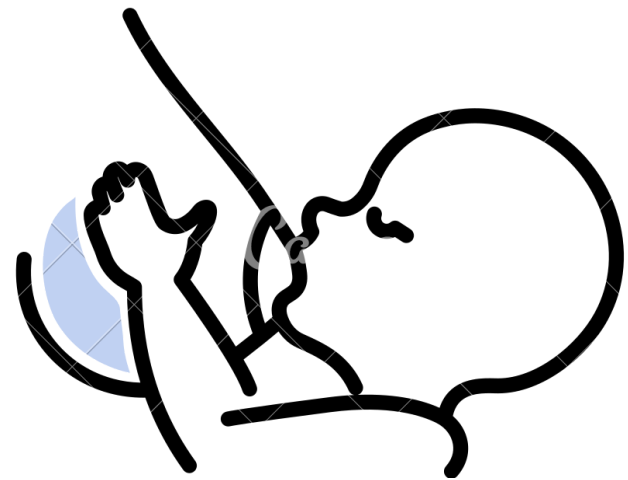
Breastfeeding





WHAT IS BREASTFEEDING?

It is a natural act and the ideal way to feed and provide the nutrients that children need from birth, to ensure healthy growth and development.



It is the best food you can offer your child. You should give it immediately after birth and exclusively for the first 6 months of life.

WHAT IS BREAST MILK?

**REMEMBER
THAT:**

The first breast milk is called colostrum, which prevents your child from many diseases.



BENEFITS OF BREASTFEEDING



It is easily digestible and free.

Contributes to the formation of tissues and cell membranes.



Protect the mother's health.



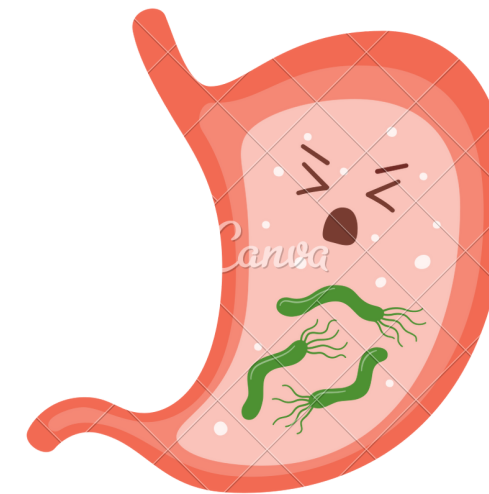
It reduces the risk of breast cancer in women and prevents allergies in children.



It provides the necessary nutrients and bioactive components that ensure the optimal growth and development of the child.



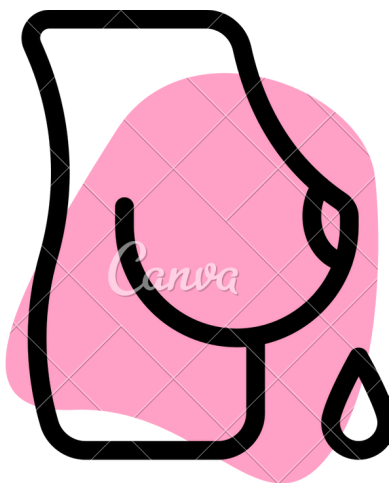
Protects the baby against infections



Promotes emotional bonding and emotional development.



**NUTRITIONAL PROPERTIES OF
BREASTFEEDING**



**Milk production
will be adequate
as long as the
child sucks
frequently.**

Properties	
Water	Contribute the amount your child needs
Proteins	Easily digestible, it contributes to the formation, growth and development of the baby.
Fats	Great source of essential fatty acids (DHA, EPA, ARA) for the development of your child's central nervous system and visual acuity.
Provides the necessary energy for your baby	
Vitamins and minerals	It contains calcium, phosphorus, magnesium, copper, zinc and vitamins such as A, D, E, K, B complex and vitamin C.



BREASTFEEDING TECHNIQUE

**Follow these 4 simple steps and
feed your baby with love**

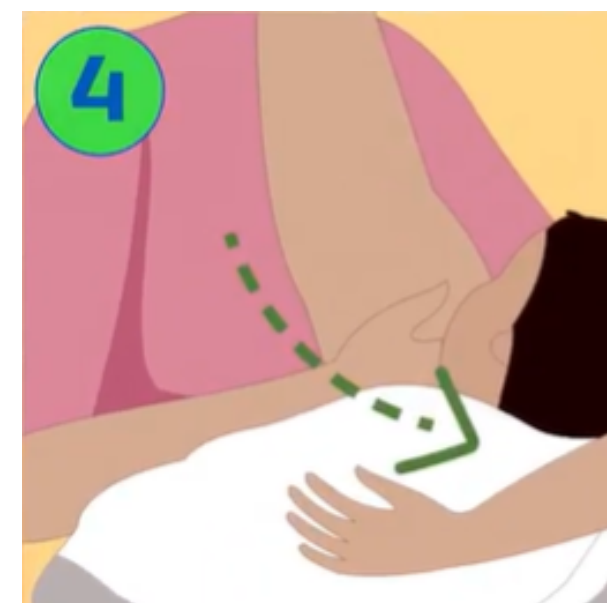


Place 4 fingers under the breast and the thumb above, behind the areola. With your nipple, touch the baby's lower lip until he opens his mouth wide.



Bring the baby's head closer to your chest, so that the mouth covers the areola. The nose and chin should be in contact with the chest.

The nipple must remain inside the mouth, so that the boy or girl can suck.

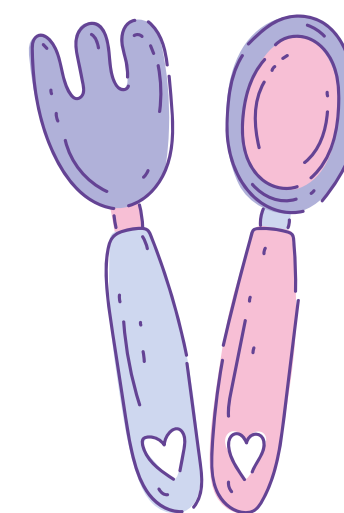


Do not remove your baby from your breast until he or she has finished breastfeeding.





Supplementary feeding



WHAT IS COMPLEMENTARY FOOD?

It is the process that begins when breast milk alone is no longer sufficient to meet the nutritional needs of the infant, and therefore other foods and liquids are needed in addition to breast milk.



The transition from exclusively breastfeeding to complementary feeding generally covers the period from 6 to 18 to 24 months of age, and is a phase of great vulnerability, when malnutrition begins for many children, and one of the most contributes to the high prevalence of malnutrition in children under 5 years of age around the world.

WHY START AT 6 MONTHS?



Aspects that facilitate feeding from 6 months:

- It is the age at which your digestive system is mature enough to digest a variety of foods (Your intestine begins to act as a “barrier” to avoid possible infections.
- There is a sufficient amount of enzymes that facilitate digestion and absorption).
- They can make chewing movements up and down.
- They can control their tongue better.
- They like to put objects in their mouth.
- They are interested in new flavors.



RISKS OF EARLY INTRODUCTION

Short term:

- ❖ Possibility of choking.
- ❖ Increase in acute gastroenteritis and upper respiratory tract infections.
- ❖ Interference with the bioavailability of iron and zinc in breast milk.
- ❖ Replacing milk intake with other less nutritious foods.

Long-term:




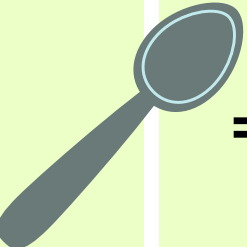
- ❖ Greater risk of obesity.
- ❖ Increased risk of atopic eczema.
- ❖ Increased risk of type 1 diabetes mellitus.
- ❖ Higher rate of early weaning, with the added risks that this entails.

RISKS OF LATE INTRODUCTION

- ❖ Nutritional deficiencies, especially iron and zinc.
- ❖ Increased risk of food allergies and intolerances.
- ❖ Worse acceptance of new textures and flavors.
- ❖ Greater possibility of alteration of oral motor skills.

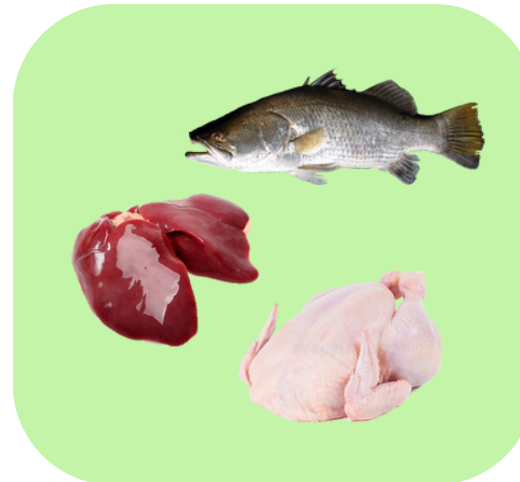


WHAT SHOULD COMPLEMENTARY FEEDING LOOK LIKE?

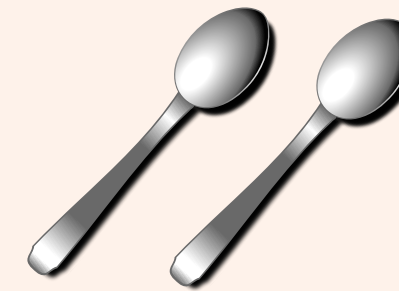
Age	Times per day	Consistency	Amount	
6 months	2 meals per day. Mid morning, Mid day.	Porridges, purees	2 to 3 tablespoons	 = 1/4 cup
7-8 months	3 meals per day. Mid-morning, Mid-day, Mid-afternoon	Crushed food	3 to 5 tablespoons	 = 1/2 cup
9-11 months	4 meals per day. Early, Mid-morning, Mid-day, Mid-afternoon	Minced food	5 to 7 tablespoons	 = 1 cup
12-24 months	5 meals per day. Early, Mid-morning, Mid-day, Mid-afternoon, Night	From the family pot	7 to 10 tablespoons	 = 1 1/2 cup

6-8 MESES

Foods of
animal
origin



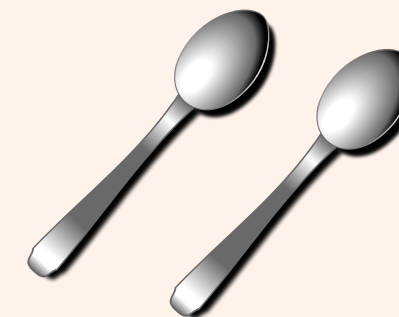
Liver,
spleen, fish,
chicken.



Cereals
and tubers



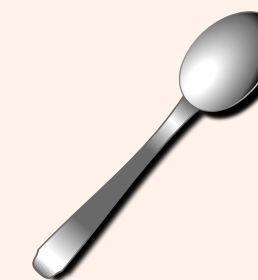
Cassava,
pituca, potato,
noodles,
semolina.



Vegetables



Pumpkin,
carrot,
spinach, etc.

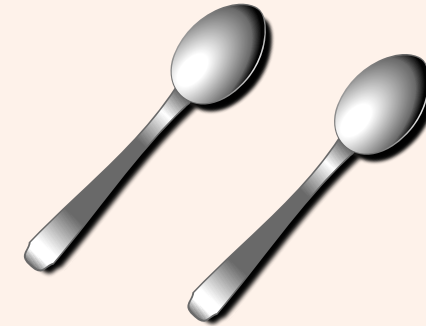


9-11
MESES

Foods of
animal
origin



Liver, spleen,
beef, fish,
chicken.

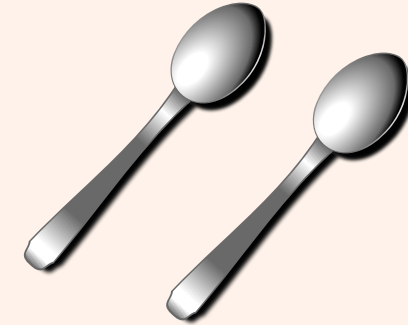


Fats

Cereals and
tubers



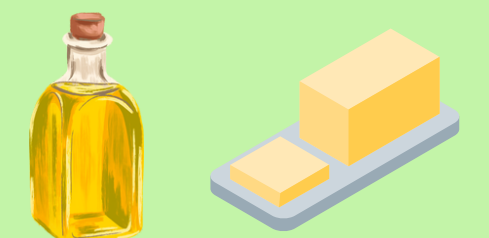
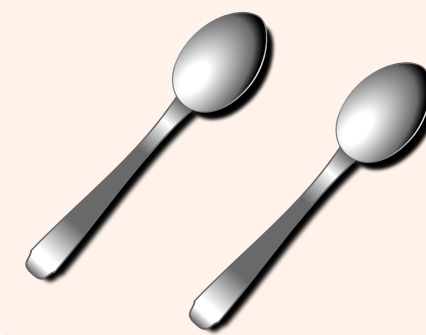
Cassava, sweet
potato, potato,
noodles,
semolina.



Stews



Beans,
lentils,
shelled
palars.



Oil or butter
in the main
meal.

Vegetables



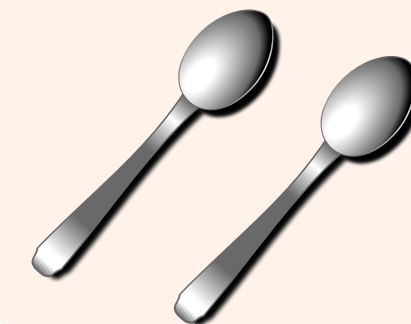
Pumpkin,
carrot,
spinach, etc.



Fruit



Banana,
papaya,
peach, etc.

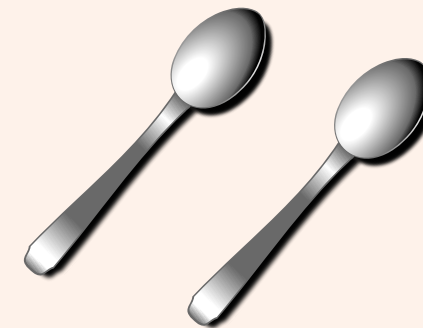


12-24 MESES

Foods of
animal
origin



Liver, spleen,
beef, fish,
chicken.

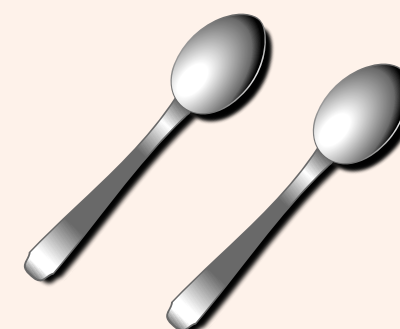


Fats

Cereals and
tubers



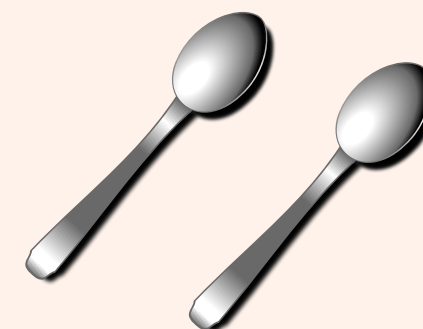
Cassava, sweet
potato, potato,
noodles,
semolina.



Stews



Beans,
lentils,
palaras.



Oil or butter
in the main
meal.



Vegetables



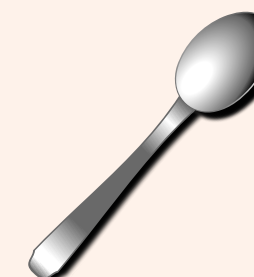
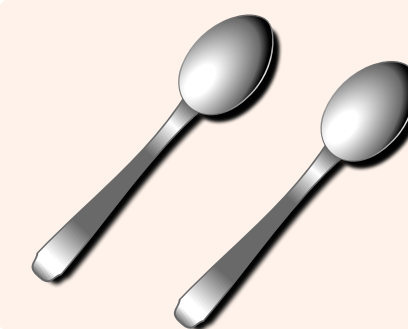
Pumpkin,
carrot,
spinach, etc.



Fruit

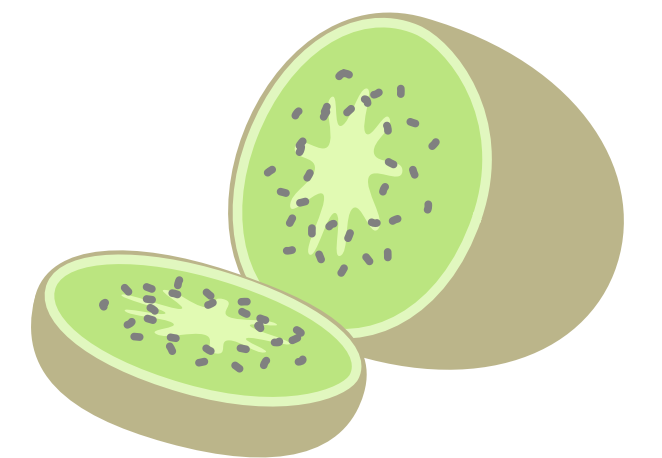
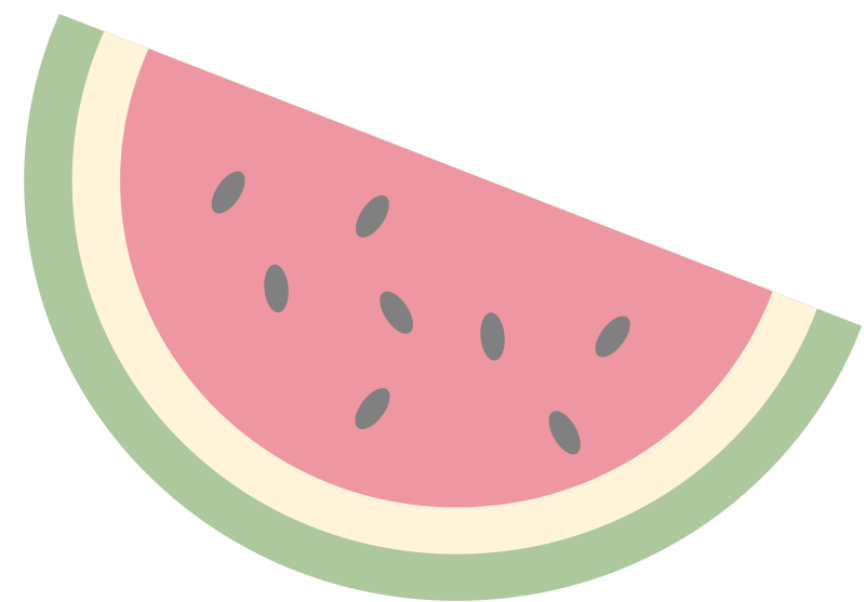


Banana,
papaya,
peach, etc.





HEALTHY NUTRITION

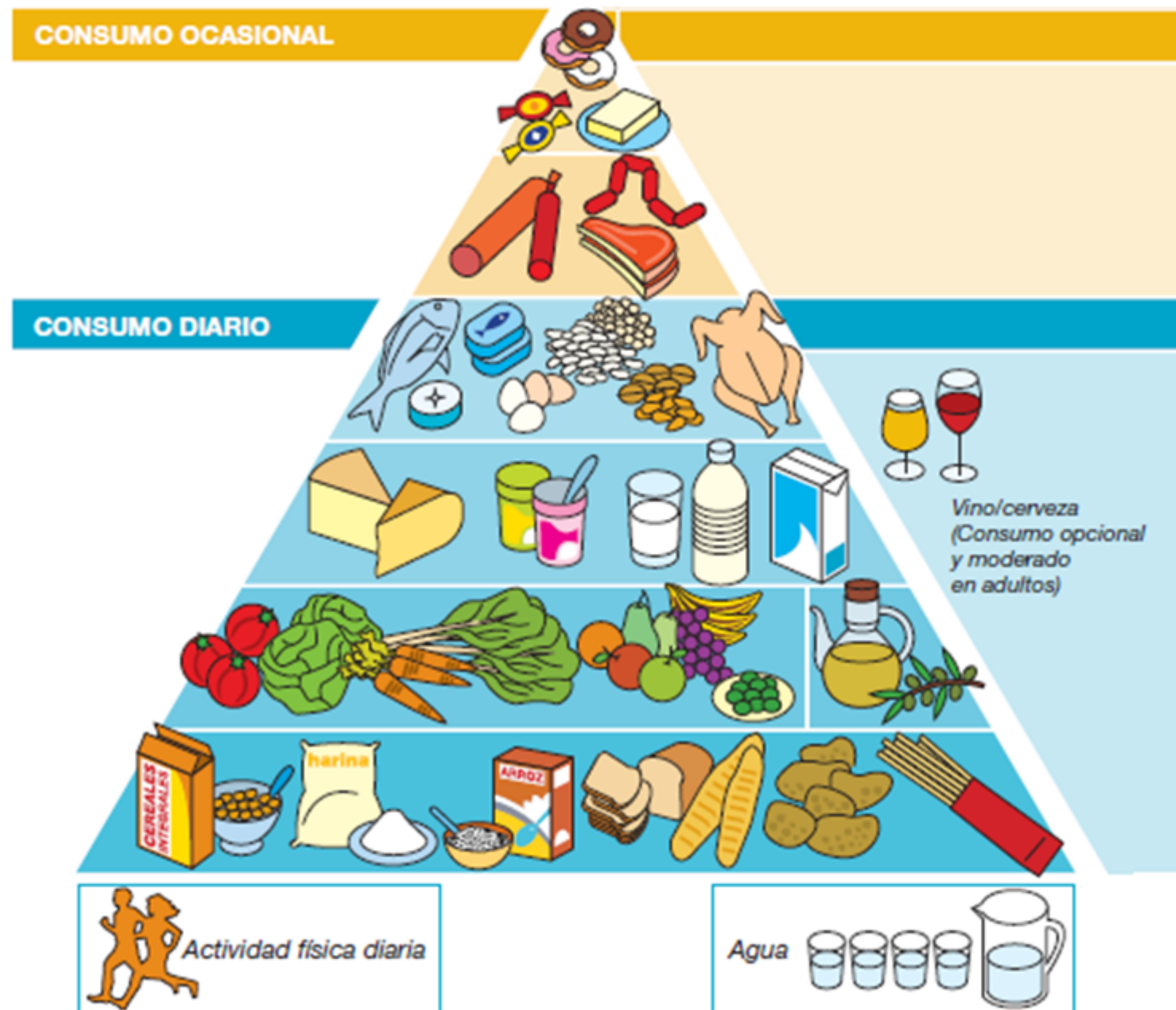


WHAT IS HEALTHY EATING?

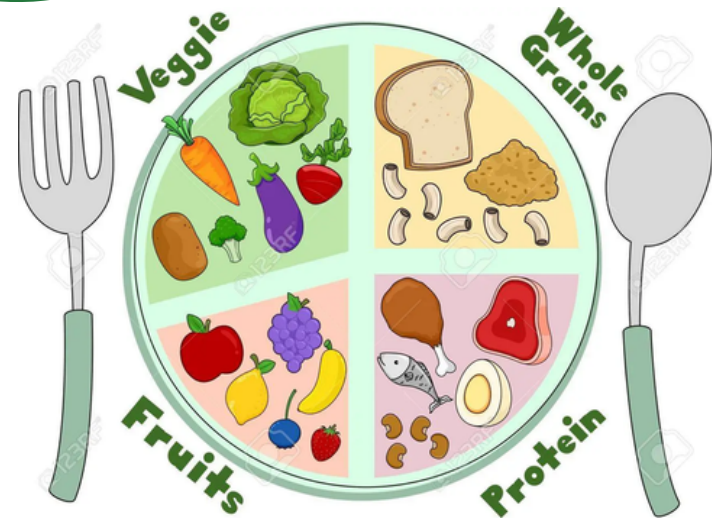


It is one that provides each individual with all the food necessary to meet their nutritional needs.

The best way to achieve an adequate nutritional status is to incorporate a wide variety of mainly fresh, seasonal and local foods into our daily and weekly diet.



HOW TO HAVE A HEALTHY DIET?



Incorporate foods from all groups daily

Consume legumes, preferably whole grains



Set your feeding schedules



Consume 5 servings of fruits and vegetables daily in a variety of types and colors



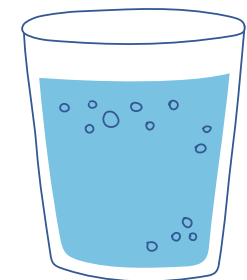
Get physical activity



Moderate meat consumption fats, red and processed, pastries, pastries, sugars, as well as products and drinks with added sugars.



Drink 8 glasses of water

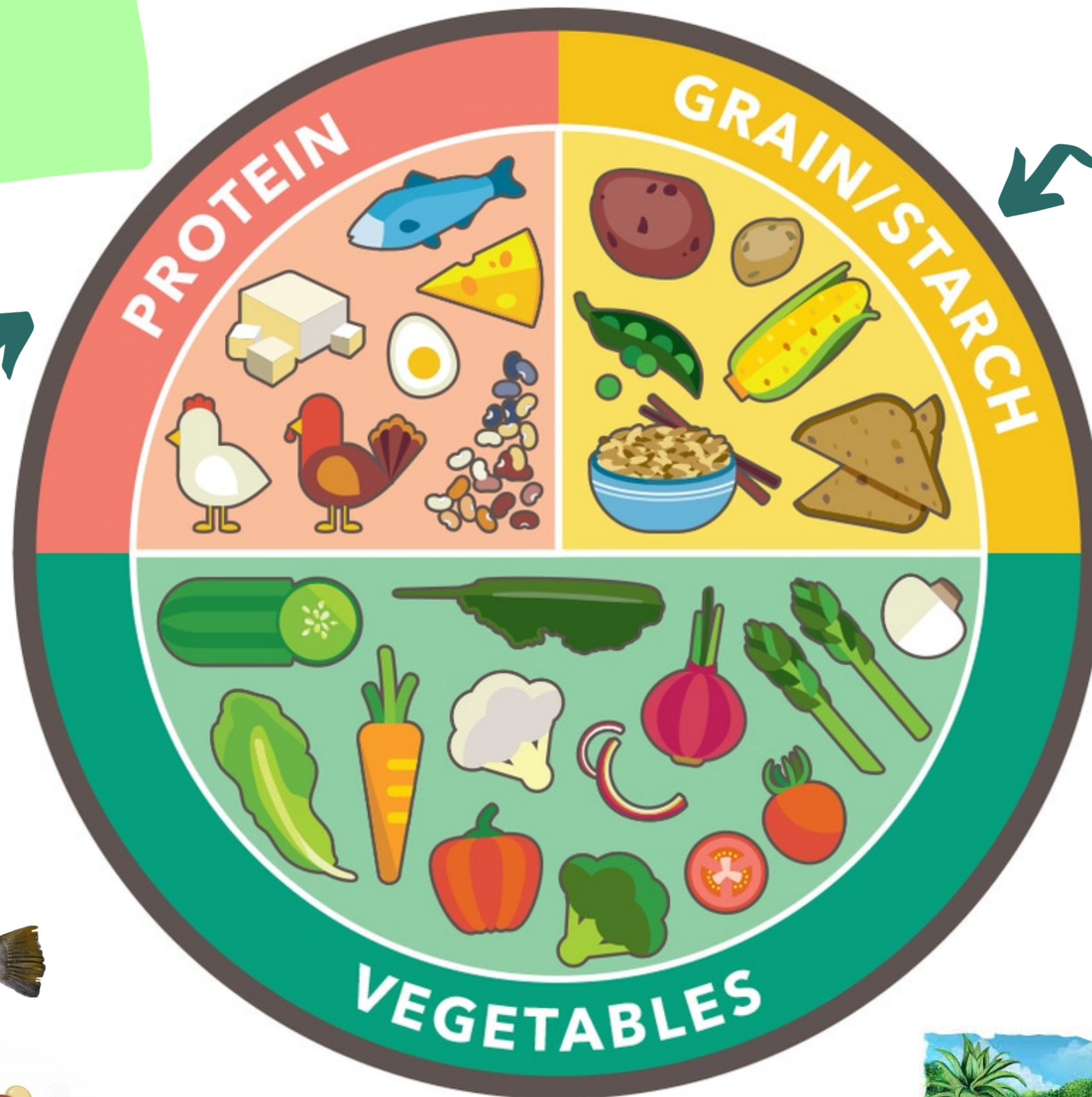


HEALTHY DISH

25%

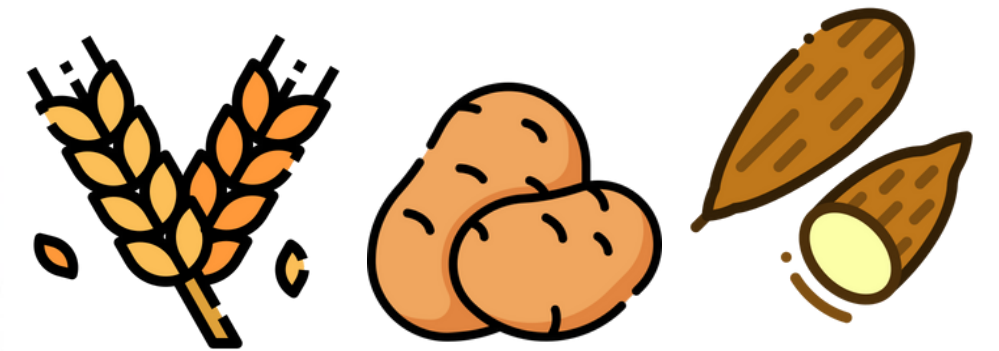
Proteins:

Meat, fish,
eggs/legumes
(vegetable protection)



25%

Carbohydrates:
Whole grains and
tubers

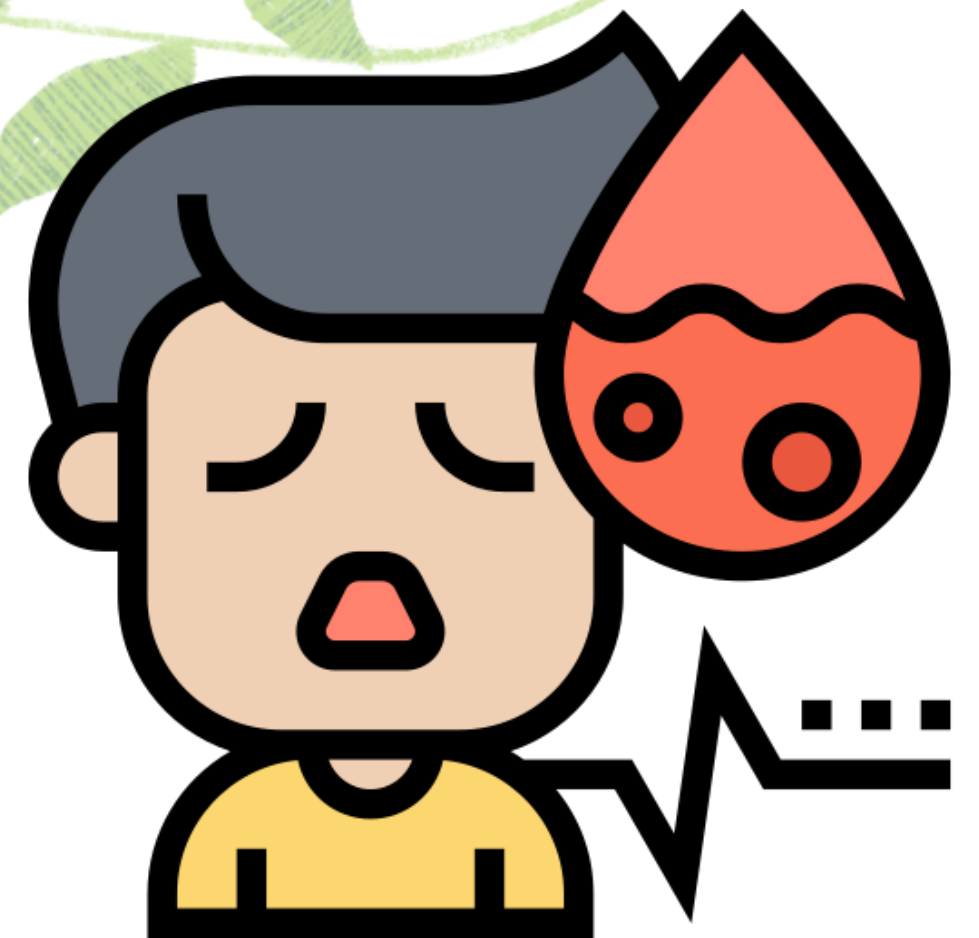


50%

Vegetables:
Fruits and vegetables
of various colors



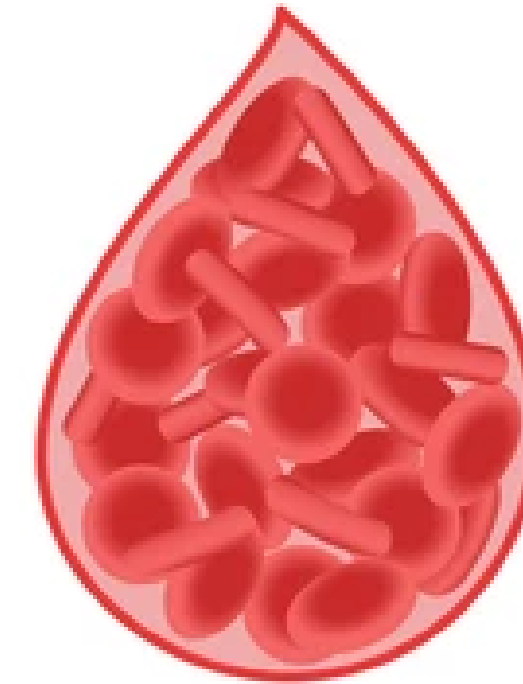
ANEMIA



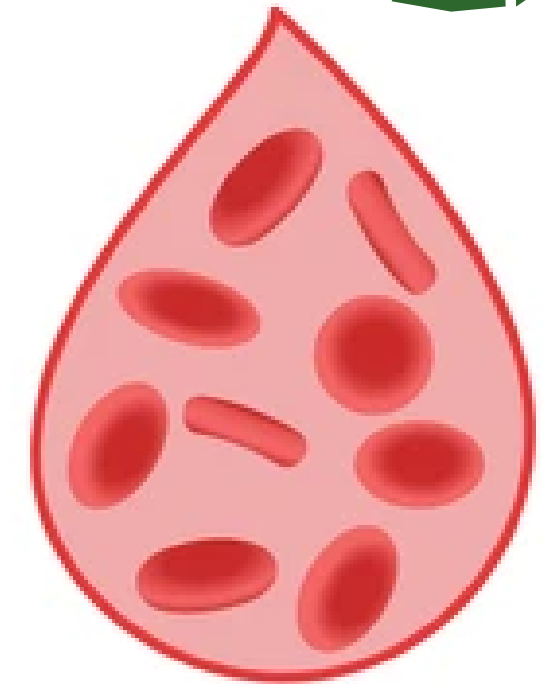
WHAT IS ANEMIA?



A disorder in which the number of erythrocytes (and, consequently, the oxygen-carrying capacity of the blood) is insufficient to meet the body's needs. Iron deficiency is the most common cause of anemia, but other deficiencies can cause it.



NORMAL



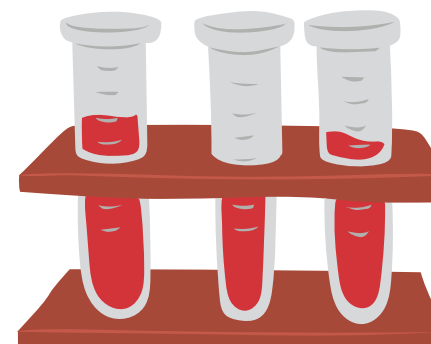
ANEMIA

IRON DEFICIENCY ANEMIA

Caused by iron deficiency



BIOCHEMICAL VALUES:



Criterion	Men	Women
Hemoglobin	12 a 18 g/dl	12 a 16 g/dl
Hematocrit	42 a 47%	37 a 47%

SIGNS AND SYMPTOMS



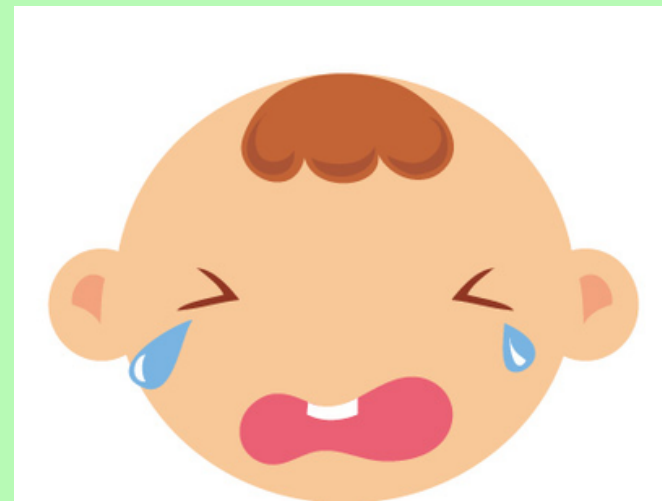
**Fatigue -
Weakness**



**Poor academic
performance**



**Pale or
yellowish
skin**

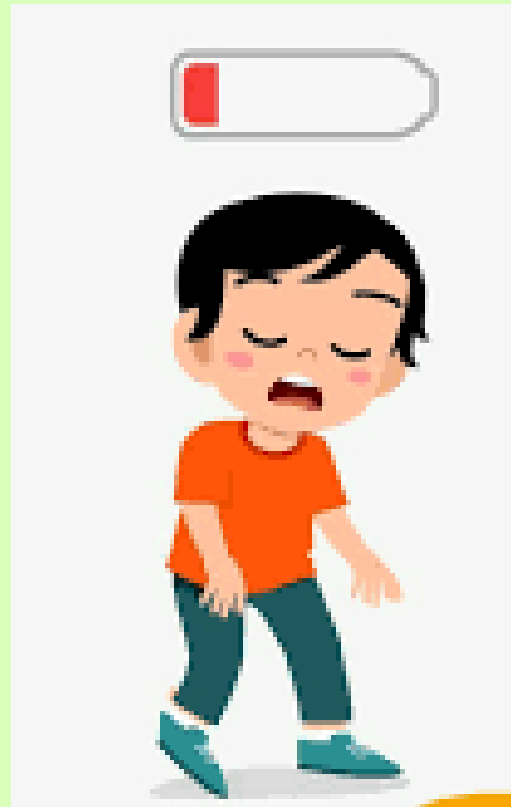


Irritability



**Loss of
appetite**

COMPLICATIONS



Decreased physical performance



Heart failure



Alterations of the immune system.



Affects quality of life

HOW TO CONTROL ANEMIA?



Get physical activity



Eat foods that are sources of iron



Set your feeding schedules



Eat foods rich in vitamin C



Drink 8 glasses of water



Maintain a healthy diet

FOOD SOURCE IRON

**Animal source: Iron content in 2
tablespoons (30 g)**



Beef blood
18.4 g



Ram's blood
17.8 g



Chicken blood
8.9 g



Beef spleen
8.6 g



Chicken's liver
2.6 g



Beef lung
2 g



Beef kidney
2 g



Cow liver
1.6 g



Chickpea
6.26 g



Oat
4.20 g



Bean
3.69 g



Lentil
3.33 g



Spinach
3.57 g



Beet
3.30 g

IMPROVE IRON ABSORPTION



Tangerine



Orange



Passion fruit



Pineapple



Lemon



Salad



Camú Camú

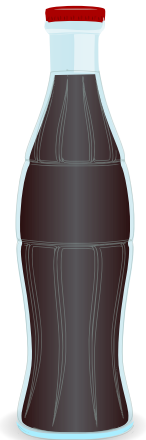


Kiwi

RESTRICT INHIBITORS



Polyphenols (Tea, coffee)



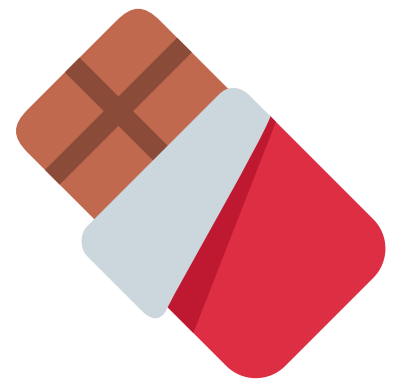
Soda



Phytates (whole grains and legumes)



Calcium



Chocolates

DON'T CONSUME THEM WITH FOOD

SUPPLEMENTATION

MICRONUTRIENT SUPPLEMENTATION

Vitamin A

Zinc



Folic acid

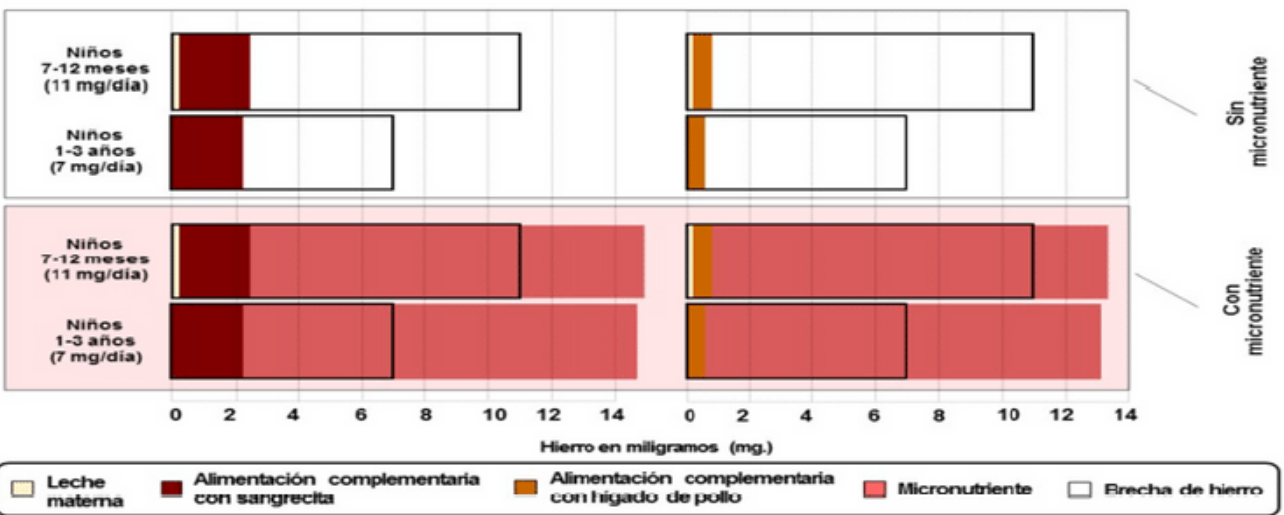
Vitamin C

Iron

Contributes to the prevention and recovery of iron deficiency anemia in boys and girls.

IMPORTANCE

El micronutriente llega a cubrir la brecha de requerimiento de hierro en un niño



FUNCTION IN ANEMIA

Vitamin A

Vitamin A deficiency impairs iron utilization as it contributes to its availability.

Vitamin C

Increases iron absorption from the entire meal

Zinc

Helps in the metabolism of vitamin A.

Iron

Helps in the production of red blood cells, thus preventing anemia.

Folic acid

It helps the formation of red blood cells, thus contributing to the prevention of anemia.

WHO ARE THEY FOR?

For boys and girls from 04 to 35 months



DOES IT HAVE SIDE EFFECTS?

Micronutrients can cause dark stools or loose stools. These discomforts are mild and disappear in two weeks.



CONSUMPTION TIME

The girl or boy has to consume one sachet every day for 12 months in a row. If micronutrient supplementation was not started at 4 months, it can be done in the following months until the child is three years old.



PREPARATION MODE

The way micronutrients are prepared is very important, since whether the child accepts the food given depends on this.



FERROUS SULFATE SUPPLEMENTATION

There are various presentations for the therapeutic and preventive management of anemia.

PRESENTACION	PRODUCTO	CONTENIDO DE HIERRO ELEMENTAL
GOTAS	Sulfato Ferroso	1 gota = 1,25 mg Hierro elemental
	Complejo Polimaltosado Férrico	1 gota = 2,5 mg Hierro elemental
JARABE	Sulfato Ferroso	1 ml = 3 mg de Hierro elemental.
	Complejo Polimaltosado Férrico	1 ml= 10 mg de Hierro elemental.
TABLETAS	Sulfato Ferroso	60 mg de Hierro elemental
	Polimaltosado	100 mg de Hierro elemental
POLVO	Micronutrientes	Hierro (12,5 mg Hierro elemental) Zinc (5 mg) Ácido fólico (160 ug) Vitamina A (300 ug Retinol Equivalente) Vitamina C (30 mg)

- The supplement is given only once a day. In adverse effects
- Divide the doses up to 2 doses.
- It must be done for six months.
- Consumption away from meals, preferably 1 to 2 hours later.
- In case of constipation, it will pass with adequate consumption of fruits, water, vegetables.
- Anemia is ruled out from 4 months of age

PREVENTIVE SUPPLEMENTATION

- Preventive supplementation will begin with drops at 4 months of age (ferrous sulfate or ferric polymaltose complex in drops).
- Preventive supplementation will be administered at a dose of 2 mg/kg/day until six months are reached.
- Then, preventive supplementation will continue by delivering drops or syrup according to their weight from 6 months of age to one year of age.
- The child who did not receive iron supplementation at 6 months can start it at any age, within the range of 6 months to 3 years.
- If the consumption of the supplement is suspended, the scheme must be continued until the 6 months are completed. Avoid prolonged withdrawal times; In case of suspension of more than one month, the scheme is restarted.

CONDICIÓN DEL NIÑO	EDAD DE ADMINISTRACIÓN	DOSIS ¹ (Via oral)	PRODUCTO A UTILIZAR	DURACIÓN
Niños con bajo peso al nacer y/o prematuros	Desde los 30 días hasta los 6 meses	2 mg/kg/día	Gotas Sulfato Ferroso o Gotas Complejo Polimaltosado Férrico	Suplementación diaria hasta los 6 meses cumplidos
	Desde los 6 meses de edad	1 sobre diario	Micronutrientes: Sobre de 1 gramo en polvo	Hasta que complete el consumo de 360 sobres
Niños nacidos a término, con adecuado peso al nacer	Desde los 4 meses de edad hasta los 6 meses	2 mg/kg/día	Gotas Sulfato Ferroso o Gotas Complejo Polimaltosado Férrico	Suplementación diaria hasta los 6 meses cumplidos
	Desde los 6 meses de edad	1 sobre diario	Micronutrientes*: Sobre de 1 gramo en polvo	Hasta que complete el consumo de 360 sobres

* Si el EESS no cuenta con Micronutrientes podrá seguir usando las gotas o jarabe según el peso corporal

TREATMENT IN CHILDREN UNDER 6 MONTHS OF AGE WITH LOW WEIGHT

CONDICIÓN	EDAD DE ADMINISTRACIÓN	DOSIS ² (Vía oral)	PRODUCTO	DURACIÓN	CONTROL DE HEMOGLOBINA
Niño prematuro y/o con bajo peso al nacer	Desde 30 días de edad	4 mg/Kg/día	Gotas de Sulfato Ferroso o Gotas de Complejo Polimaltosado Férrico	Durante 6 meses continuos.	A los 3 meses y 6 meses de iniciado el tratamiento

TREATMENT IN CHILDREN UNDER 6 MONTHS OF AGE WITH GOOD WEIGHT

CONDICIÓN	EDAD DE ADMINISTRACIÓN	DOSIS ³ (Vía oral)	PRODUCTO	DURACIÓN	CONTROL DE HEMOGLOBINA
Niño a término y con adecuado peso al nacer	Cuando se diagnostique anemia (a los 4 meses o en el control)	3 mg/Kg/día Máxima dosis 40 mg/día	Gotas de Sulfato Ferroso o Gotas de Complejo Polimaltosado Férrico	Durante 6 meses continuos.	Al mes, a los 3 meses y 6 meses de iniciado el tratamiento.

TREATMENT IN CHILDREN FROM 6 MONTHS TO 11 YEARS WITH MILD OR MODERATE ANEMIA

EDAD DE ADMINISTRACIÓN	DOSIS ⁴ (Vía oral)	PRODUCTO	DURACIÓN	CONTROL DE HEMOGLOBINA
Niños de 6 a 35 meses de edad	3 mg/Kg/día Máxima dosis: 70 mg/día (2)	Jarabe de Sulfato Ferroso o Jarabe de Complejo Polimaltosado Férrico o Gotas de Sulfato Ferroso o Gotas de Complejo Polimaltosado Férrico	Durante 6 meses continuos	Al mes, a los 3 meses y 6 meses de iniciado el tratamiento
Niños de 3 a 5 años de edad	3 mg/Kg/día Máxima dosis: 90 mg/día (3)	Jarabe de Sulfato Ferroso o Jarabe de Complejo Polimaltosado Férrico		
Niños de 5 a 11 años	3 mg/Kg/día Máxima dosis: 120 mg/día (4)	Jarabe de Sulfato Ferroso o Jarabe de Complejo Polimaltosado Férrico o 1 tableta de Sulfato ferroso o 1 tableta de Polimaltosado		

TREATMENT IN ADOLESCENTS AGED 12 TO 17 YEARS WITH MILD AND MODERATE ANEMIA

EDAD DE ADMINISTRACIÓN	DOSIS	PRODUCTO	DURACIÓN	CONTROL DE HEMOGLOBINA
Adolescentes (Hombres y Mujeres) de 12 a 17 años	2 tabletas diarias (120 mg de hierro elemental)	2 tabletas de Sulfato Ferroso	Durante 6 meses continuos	Al mes, a los 3 meses y a los 6 meses de iniciado el tratamiento.

PREVENTIVE SUPPLEMENTATION WITH IRON AND FOLIC ACID IN PREGNANT AND POSTPARTUM WOMEN

INICIO ADMINISTRACIÓN	DOSIS	PRODUCTO	DURACIÓN
Gestantes a partir de la semana 14 de gestación	60 mg de hierro elemental + 400 ug. de Ácido Fólico	Tableta de Sulfato Ferroso + Ácido Fólico o Tableta de Hierro Polimaltosado + Ácido Fólico	1 tableta al día hasta los 30 días post parto
Gestantes que inician atención prenatal después de la semana 32	120 mg de hierro elemental + 800 ug. de Ácido Fólico		2 tabletas al día hasta los 30 días post parto.
Puérperas	60 mg de hierro elemental + 400 ug. de Ácido Fólico		1 tableta al día hasta los 30 días post parto

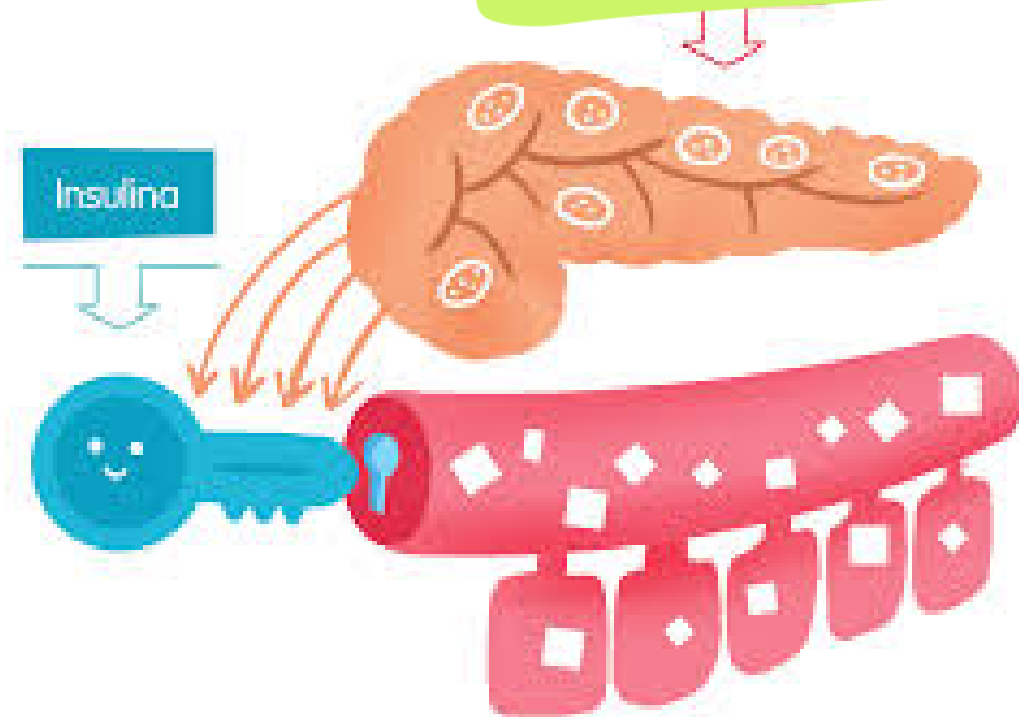
TREATMENT OF ANEMIA WITH IRON AND FOLIC ACID IN PREGNANT AND POSTPARTUM WOMEN

CONDICION DE ANEMIA	DOSIS	PRODUCTO	DURACION	CONTROL DE HEMOGLOBINA
Anemia Leve	120 mg de hierro elemental + 800 µg de Ácido Fólico Diario (2 tabletas diarias)	Sulfato Ferroso + Ácido Fólico o Hierro Polimaltosado + Ácido Fólico	Durante 6 meses	Cada 4 semanas hasta que la hemoglobina alcance valores de 11 g/dl o más (valores ajustados a los 1000 msnm).
Anemia Moderada		Hierro Polimaltosado + Ácido Fólico		
Anemia Severa	Tratar inmediatamente como caso de anemia y referir a un establecimiento de mayor complejidad que brinde atención especializada (hematología y/o ginecología)			



MELLITUS DIABETES

WHAT IS THE DIABETES?



It is a group of diseases characterized by elevated blood glucose concentrations resulting from a defect in insulin secretion, insulin action, or both.

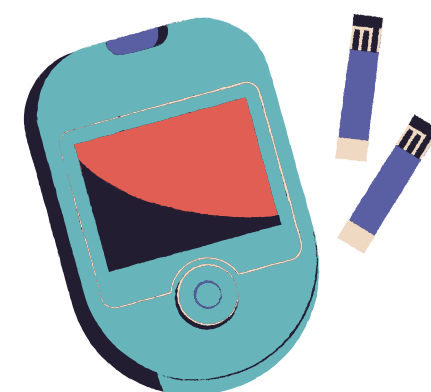
GUYS

DIABETES GUY 1:

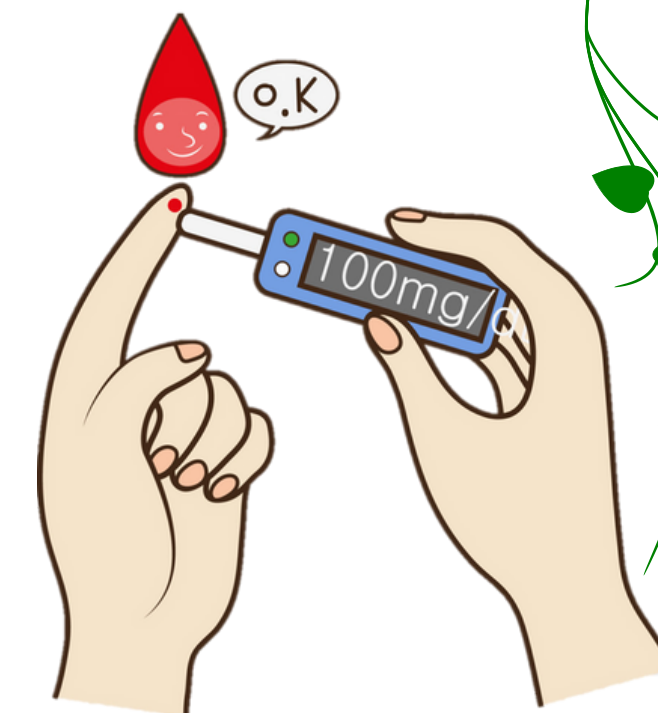
Chronic condition in which the pancreas produces little or no insulin.

DIABETES GUY 2:

Insulin resistance and beta cell dysfunction (insulin deficiency)



BIOCHEMICAL VALUES

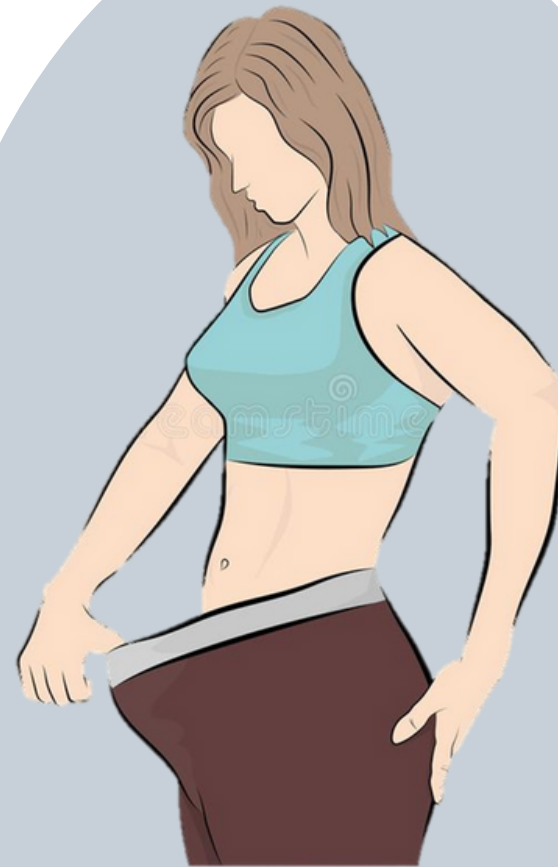


Criterion	Normal range
Fasting plasma glucose	70 a 100 mg/dl
Glucosa a 2 h	< 140 gg/dl
Glycosylated hemoglobin (A1C)	4 a 5.6%

SIGNS AND SYMPTOMS



**Polydipsia
(very thirsty)**



Weightloss

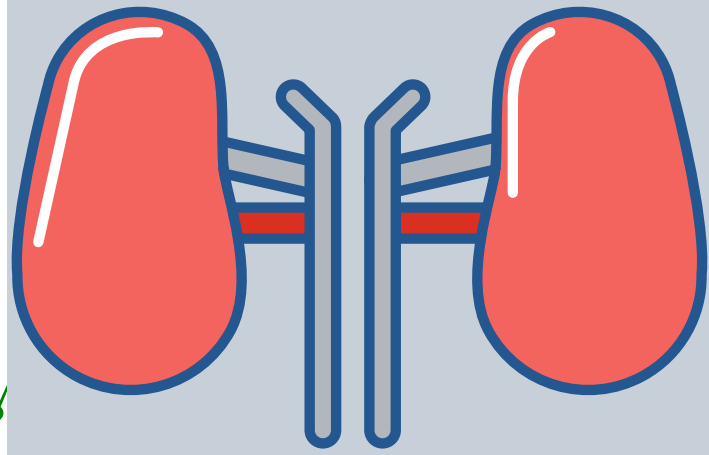


**Polyphagia (Very
hungry)**

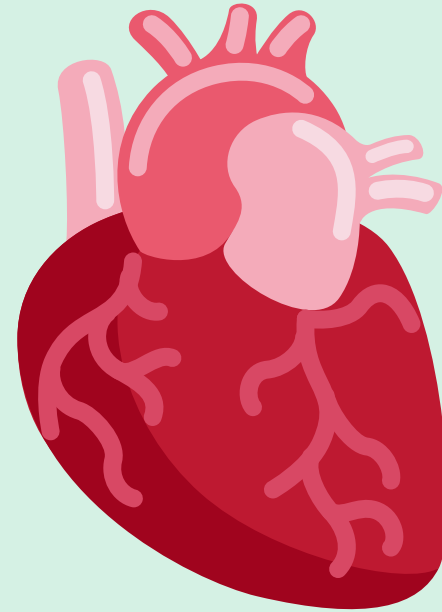


**Polyuria
(Urinating a lot)**

COMPLICATIONS



**Nephropathy or
kidney damage**



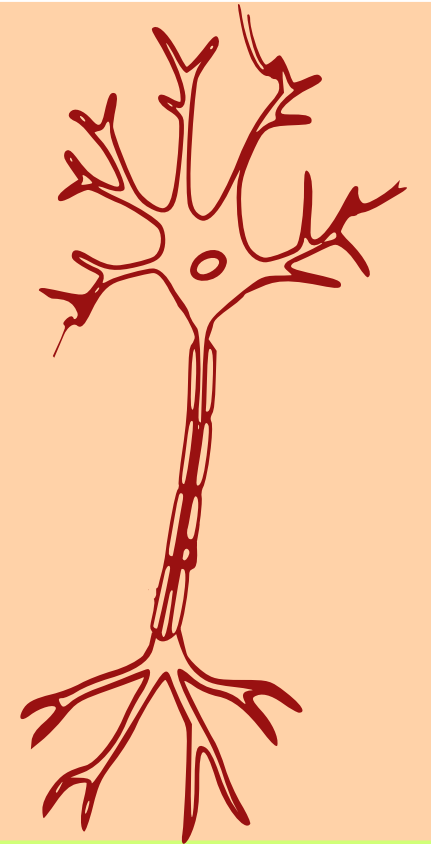
**Vesicular
and cardiac**



**Diabetic
foot**



**Diabetic
retinopathies or
damage to the
retina of the eye**

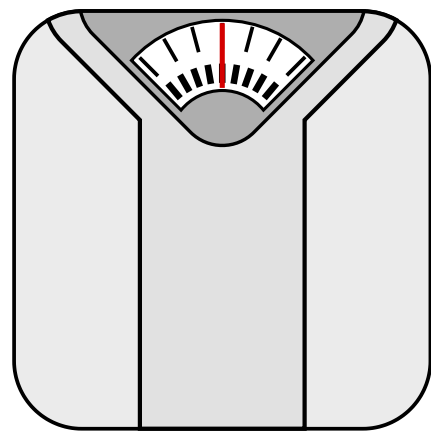


**Diabetic
neuropathy or
nerve damage**

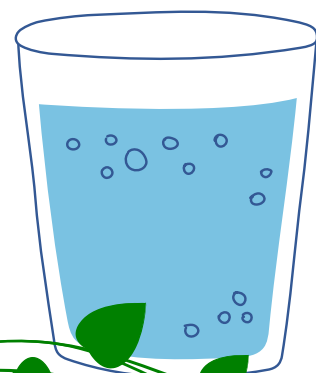
HOW TO CONTROL DIABETES MELLITUS?



Get physical activity



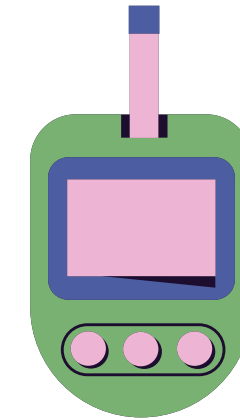
Control your weight



Drink 8 glasses of water



Go to the nutritionist



Check your blood glucose frequently



Set your feeding schedules



Eat low-carb vegetables and fruits

ACCIONES NO PERMITIDOS



**Don't eat fried foods
or fats**



Don't drink alcohol

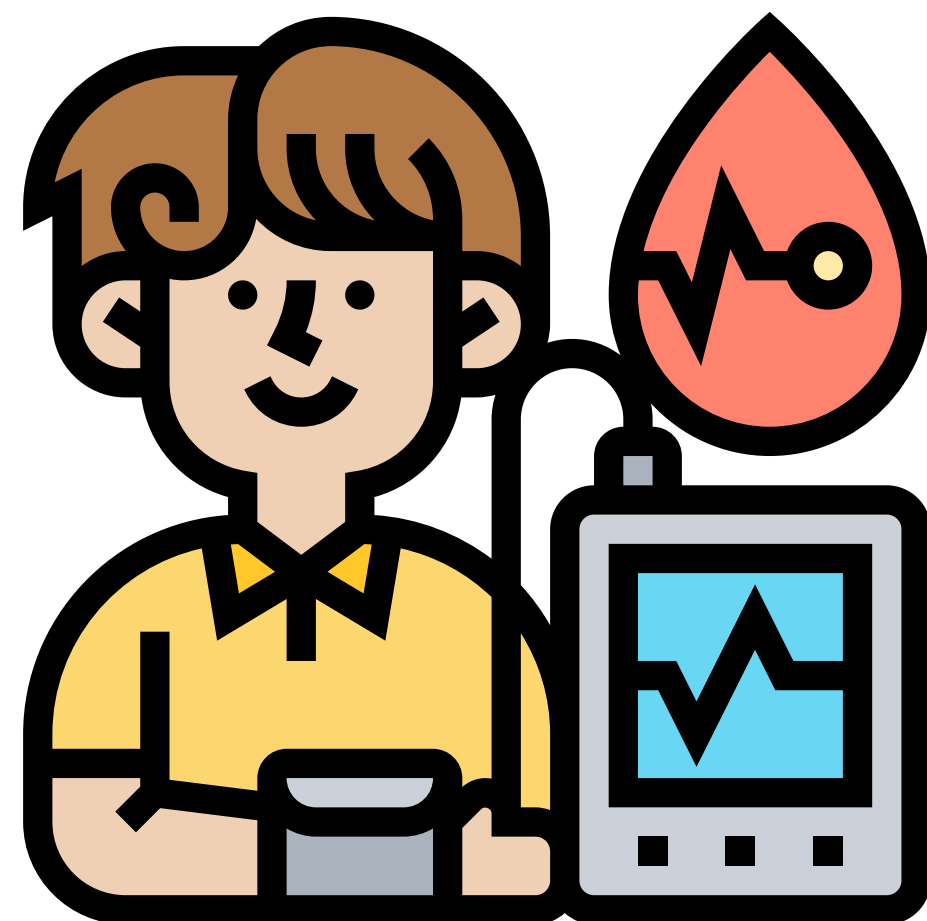


**Avoid consuming
sugar and sugary
products**



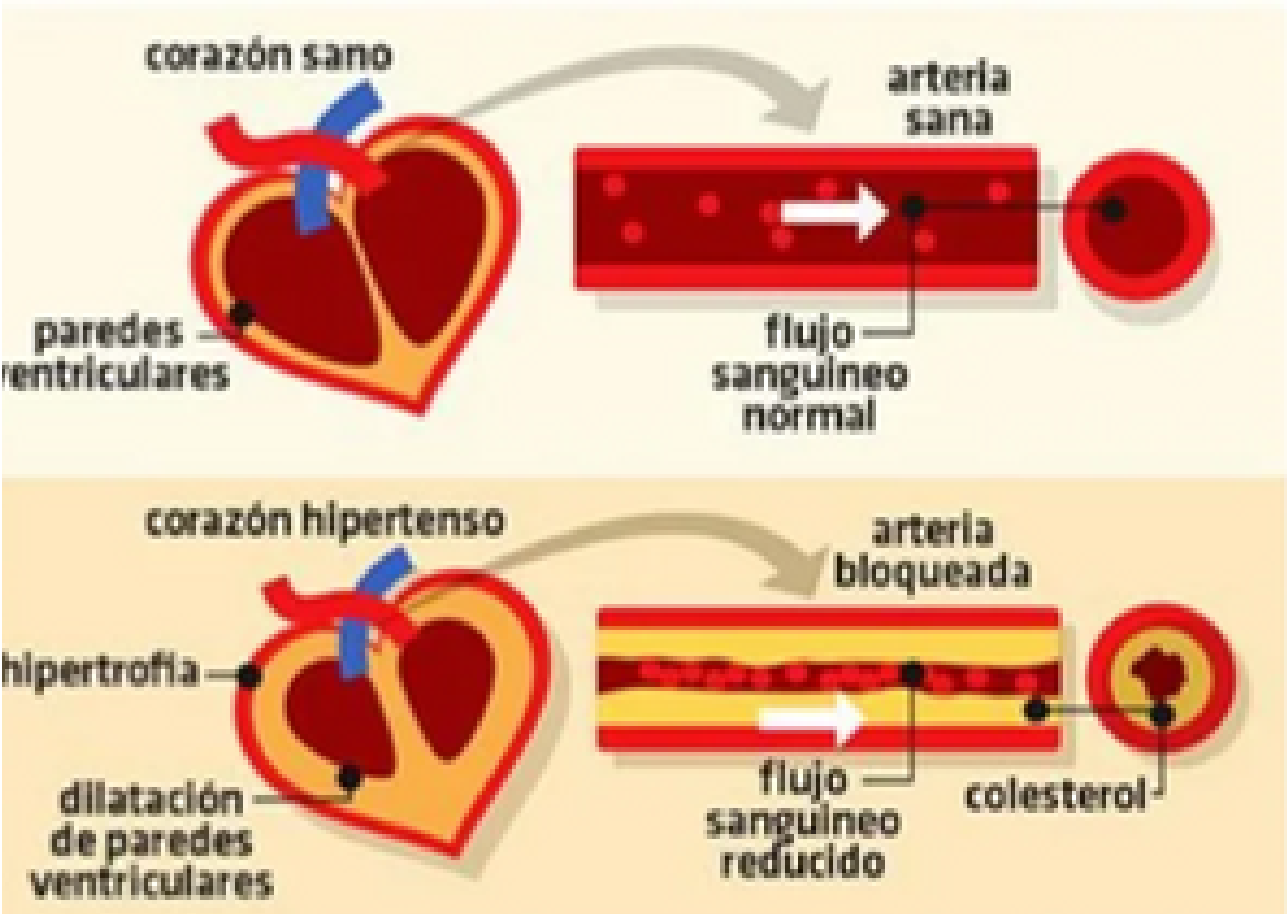
Don't smoke

ARTERIAL HYPERTENSION



WHAT IS
HYPERTENSION?

It is the persistent increase in blood pressure, the force exerted per unit area on the walls of the arteries.



BLOOD PRESSURE



Category	SBP	DBP
Optimum level	<120 mmHg	<80 mmHg
Normal	120 a 129 mmHg	80 a 84 mmHg
Prehypertensive	130 a 139 mmHg	85 a 89 mmHg
Prehypertensive	130 a 139 mmHg	>=90 mmHg



SYSTOLIC BLOOD PRESSURE (SBP):
It is the force exerted on the walls of blood vessels as the heart contracts and propels blood through its chambers.

DIASTOLIC BLOOD PRESSURE (DBP):
It measures the force as the heart relaxes between contractions.



SIGNS AND SYMPTOMS

Headache



Confusion



**Nausea or
vomiting**



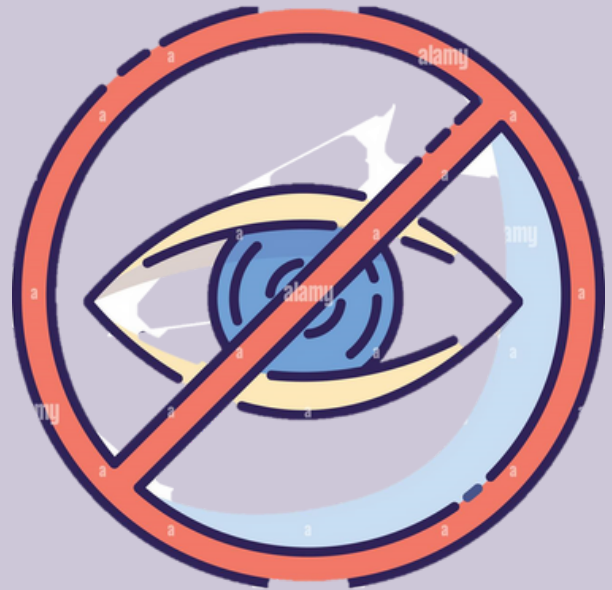
**Ringing or noise
in the ear**



**Fatigue or
tiredness**



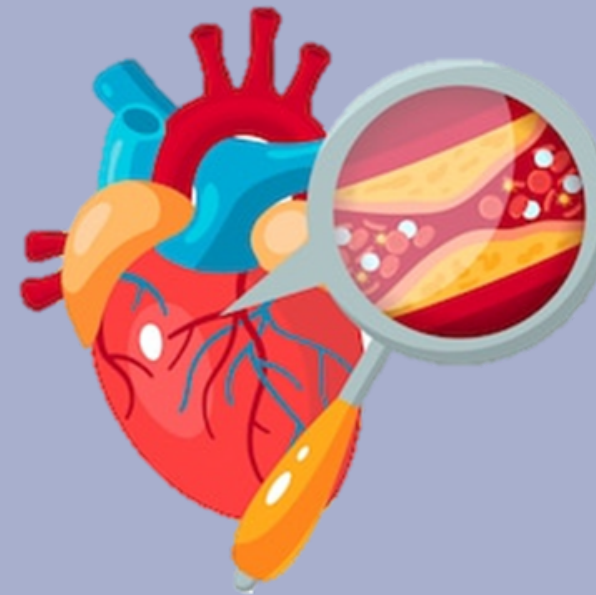
COMPLICATIONS



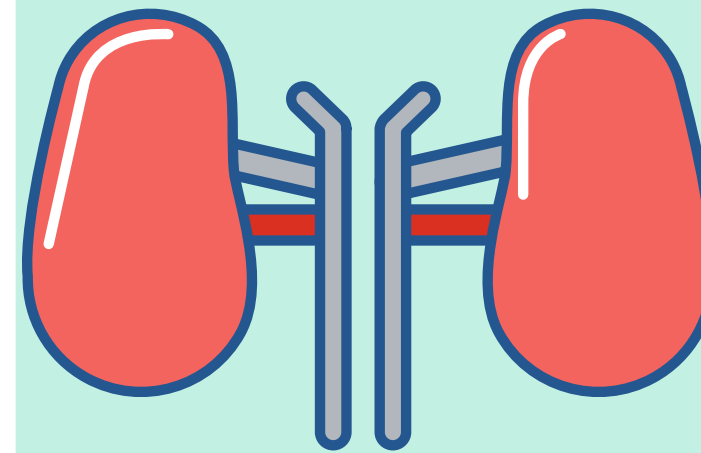
Vision loss



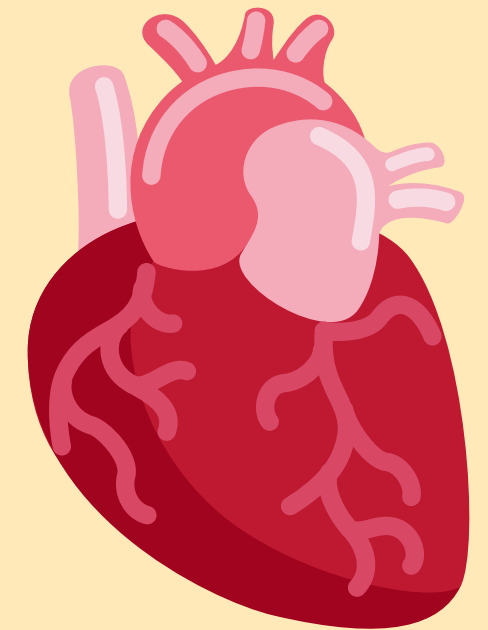
Stroke



Atherosclerosis



**Renal
insufficiency**



**Myocardial
infarction**

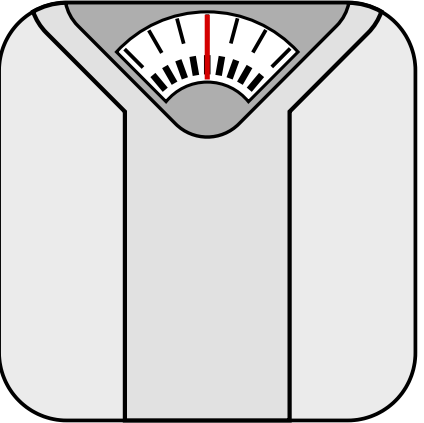
HOW TO CONTROL ARTERIAL HYPERTENSION?



Get physical activity



Perform blood pressure checks



Control your weight




Set your feeding schedules



Go to the nutritionist



Drink 8 glasses of water



Maintain a healthy diet, consume between 5 fruits and vegetables

ACTIONS NOT ALLOWED



**Don't eat fried foods
or fats**



Don't drink alcoholl



**Don't add salt to
foods**



Don't smoke



Good Handling Practices



WHAT IS FOOD HYGIENE?

It is the set of practices before, during and after food preparation that help us prevent diseases



What is cross contamination?

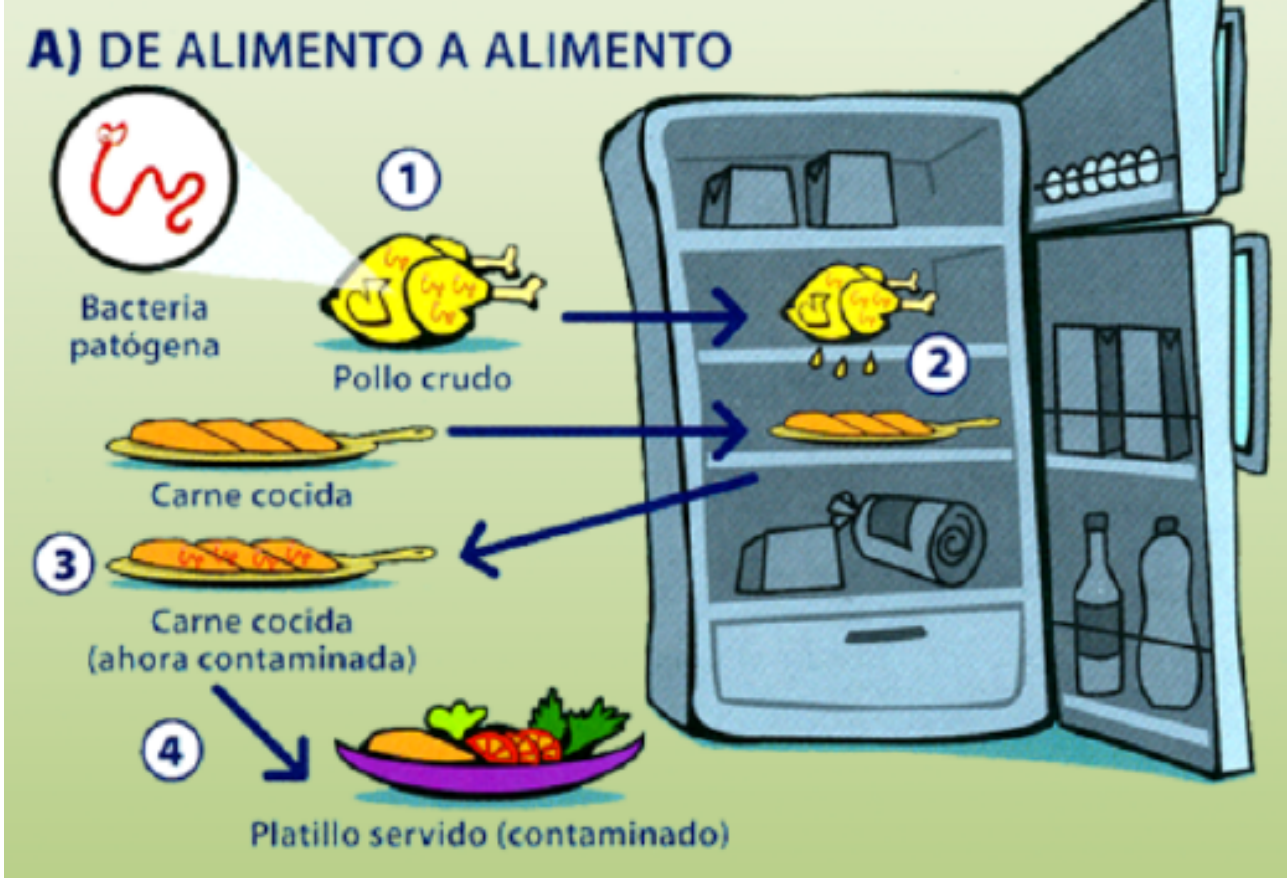
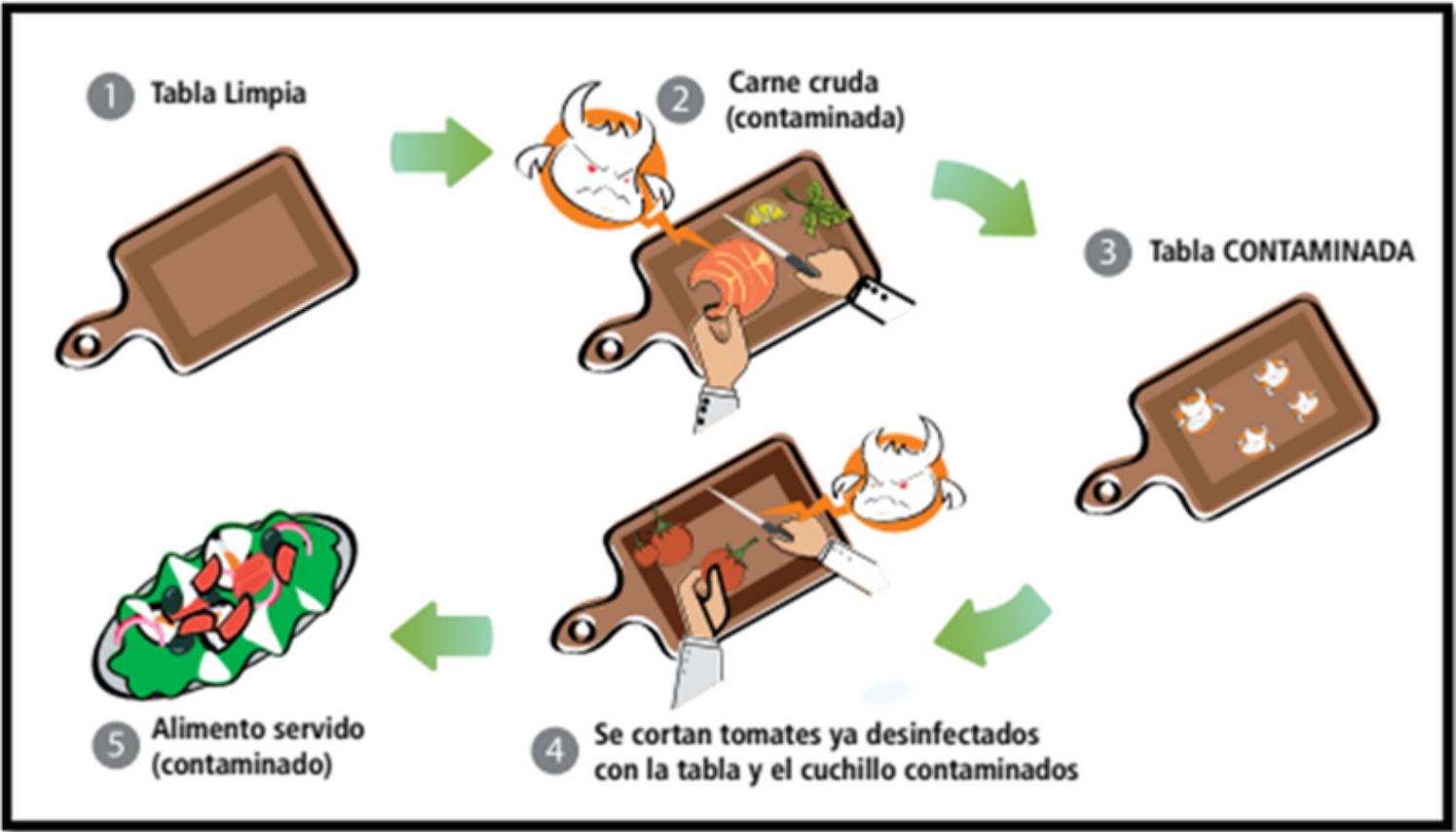
It is the transfer of a danger present in one food to another that was safe, using as a vehicle surfaces or utensils that have been in contact with both foods without the proper cleaning and disinfection required.

What are the symptoms of foodborne illnesses?

The symptomatology of a disease varies by incorporating different variables



Types of cross feeding



INDIRECT

Alimento

Superficie

Alimento

DIRECT

Alimento

Alimento

What are ETAS?

Foodborne diseases (ETA) are those diseases of an infectious or toxic nature.

Caused by:

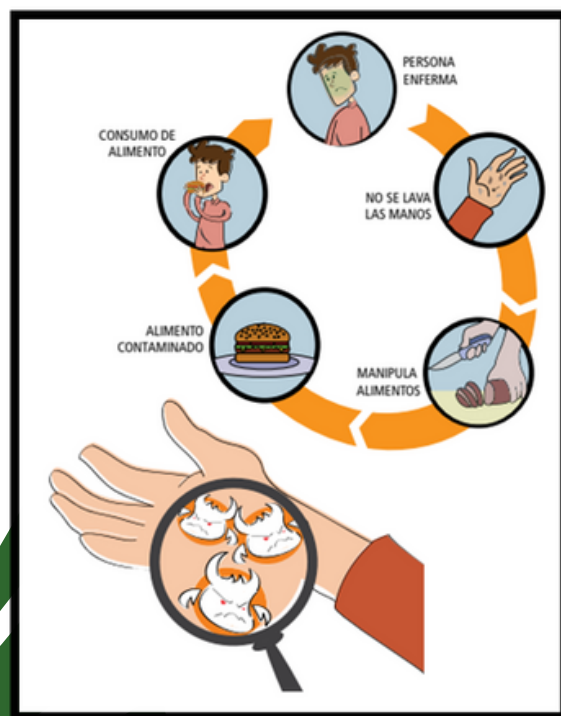
- Biological agent
- Chemical agent
- Physical agent

PREVENT MICROGANISM FROM INFECTING YOU BY COMPLYING WITH THE 5 KEYS TO FOOD HYGIENE:

CLUE N°1

KEEP CLEAN

- Wash your hands before preparing food and frequently during preparation.
- Wash your hands after using the bathroom.
- Wash surfaces and equipment used in food preparation.
- Protect food and kitchen areas from insects, pets and other animals.



CLUE N°2

SEPARATE RAW FOODS FROM COOKED

Always separate raw foods from cooked foods
and ready-to-eat foods.



USE DIFFERENT EQUIPMENT AND UTENSILS.
LIKE KNIVES AND CHOPING BOARDS FOR
HANDLING MEAT, CHICKEN, FISH AND OTHER
RAW FOODS.

CLUE N°3

COOK COMPLETELY

Cook foods thoroughly, especially meat, poultry, eggs, and fish.



CLUE N°5

USE AGUA Y MATERIAS PRIMAS SEGURAS

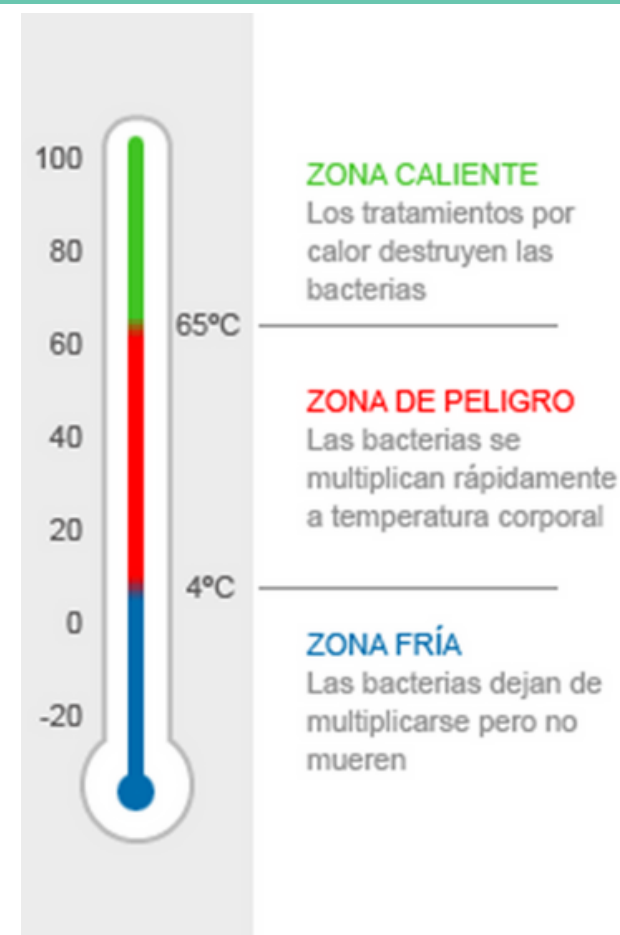
Untreated water from rivers and canals is not safe, therefore it is necessary:



CLUE N°4

KEEP FOOD AT SAFE TEMPERATURES

- Protect food and kitchen areas from insects, pets and other animals.
- Prepare foods in small quantities to reduce leftovers.



- Heat the water until it boils. Then add 3 to 5 drops of chlorine to 1 liter of water or physically eliminate the pathogens with an appropriate filter.
- Covering tanks and other receptacles or with mesh prevents the reproduction of dengue vector mosquitoes.



WASH FRUITS AND VEGETABLES, ESPECIALLY IF THEY ARE EATEN RAW.