

LESSON PLAN: HEALTHY EATING AND NUTRITION

Objective	<p>Main Goal</p> <p>To foster food and nutritional security to guide and promote Colombian families in adopting lifestyles and healthy eating practices that contribute to preventing malnutrition and the development of diseases associated with food.</p> <p>Subsidiary Goals</p> <ul style="list-style-type: none"> • To define what a healthy diet consists of and its characteristics. • To establish the importance of a healthy diet for human health and the consequences of not having it. • To develop an activity where the student puts into practice the knowledge acquired.
Knowledge previous required	<p>In this teaching module, no previous knowledge of the subject is needed since it is intended to create awareness in the student about the importance of healthy eating.</p>
Performance indicators	<ul style="list-style-type: none"> • Knowledge: The student understands good food and nutrition practices. • Doing: The student questions themselves about the topics taught and questions their classmates, teachers, family and community members to learn more. • Being: The student identifies what are food safety and nutrition and their good practices. • Learning to learn: Students discuss the lesson in small groups and carry out the proposed activities.
Issues Anticipated and Solutions	<ul style="list-style-type: none"> • Students express disinterest: To guarantee student participation, the material will be prepared in a way that its teaching is interactive and encourages participation. The module should not be very long. Otherwise, divide the class into two sessions. Indicate from the beginning what activities will be developed to attract the students' attention and increase their interest. • Reluctance to participate: This can be addressed by dividing students into smaller groups for discussions and asking students what they would like to learn. • Lack of attention: The time of the master session could be reduced, and the issues addressed while the activity is being carried out.

<p>Materials</p>	<ul style="list-style-type: none"> • Detailed Thematic Content for Teachers (Background) • Topic Content Slides • Activity instructions • Recipe materials (depending on the number of students) <ul style="list-style-type: none"> ○ Oven ○ Mill ○ Knife ○ Plastic or glass bowls ○ Kitchen towels ○ Hermetic glass containers • Ingredients for the recipe (according to the number of students) <ul style="list-style-type: none"> ○ Chickpeas ○ Red beans ○ Dry corn ○ Lentils ○ Dry wheat ○ Soybean grains ○ Green banana ○ Natural peanut ○ Honey
<p>Background</p>	<p>According to the World Health Organization (2020), each year worldwide, 600 million people get sick after consuming contaminated food, and 420,000 die. In economic terms, the costs are high in low- and middle-income countries, reaching US\$110 billion in productivity and medical expenses. Food safety, nutrition, and food security are entirely related, as "unsafe food generates a vicious circle of disease and malnutrition, especially affecting infants, young children, the elderly, and the sick" (World Organization of Health, 2020). Then, this module aims to teach children between the 6th and 8th grade of secondary school the main aspects related to healthy eating and the prevention of diseases due to the consumption of contaminated food, mainly following the guide <i>Education in food and nutrition for basic education</i> of the Food and Agriculture Organization of the United Nations (Olivares, Zacarías, and Andrade, 2003). To reinforce this knowledge, an activity will be carried out where the children can prepare a rich and nutritious recipe. Likewise, it is expected that the impact of this class transcends families to reinforce food security in the regions.</p>

1. Detailed Thematic Content

1.1. Healthy Nutrition

A healthy diet provides essential nutrients (proteins, carbohydrates, lipids, vitamins, minerals, and water) and the energy necessary to be healthy and prevent diseases such as obesity, hypertension, diabetes, anemia, osteoporosis, some cancers, and cardiovascular diseases.

1.1.1. Food Guides

- Consume different food daily to acquire the necessary nutrients and energy.
- Increase the consumption of fruits, vegetables, and legumes as they contain vitamins, minerals, and antioxidants that prevent cardiovascular diseases and cancer; and dietary fiber that lowers blood cholesterol, aids digestion, and slows the absorption of sugar.
- Preferably use vegetable oils such as sunflower, olive, and soybean, which provide essential fats for health. On the contrary, fats of animal origin, such as butter, mayonnaise, and lard, increase the risk of obesity and cardiovascular disease.
- Preferably eat fish as it contains healthy fats that help prevent cardiovascular disease and skinless turkey or chicken as they have less cholesterol and saturated fat than red meat, sausages, and viscera.
- Consume milk and its derivatives, such as yogurt, queso (cheese), and cheese, as they contain essential proteins and calcium to form and maintain healthy bones and teeth. Its ideal consumption during the first 25 years of life helps prevent osteoporosis.
- Reduce salt intake to prevent the risk of hypertension.
- Reduce sugar consumption to reduce the risk of obesity and dental caries.
- Accompany healthy eating with frequent physical activity such as walking 30 minutes daily, swimming, dancing, etc. Some benefits of physical activity are:
 - It enhances sleep quality.
 - It reduces stress.
 - Helps maintain weight, muscle strength, and joint elasticity.
 - Strengthens the heart and bones.
 - Improves respiratory capacity.

1.1.2. Food pyramid

The food pyramid is the classification of foods according to their nutritional contribution and the proportion in which they should be included in the daily diet. With this food grouping, people can choose different foods within each group. The foods in the lower levels have greater space in the pyramid, indicating greater consumption. On the contrary, the foods in the upper levels should be consumed less. Figure 1 is a food

pyramid based on the Healthy Eating Plate developed by the Harvard T.H. Chan School of Public Health (Figure 2). Table 1 represents the healthy eating plan for children between 6-10 and 11-18 years.



Figure 1. New food pyramid. Source: (Garibaldi, 2023).

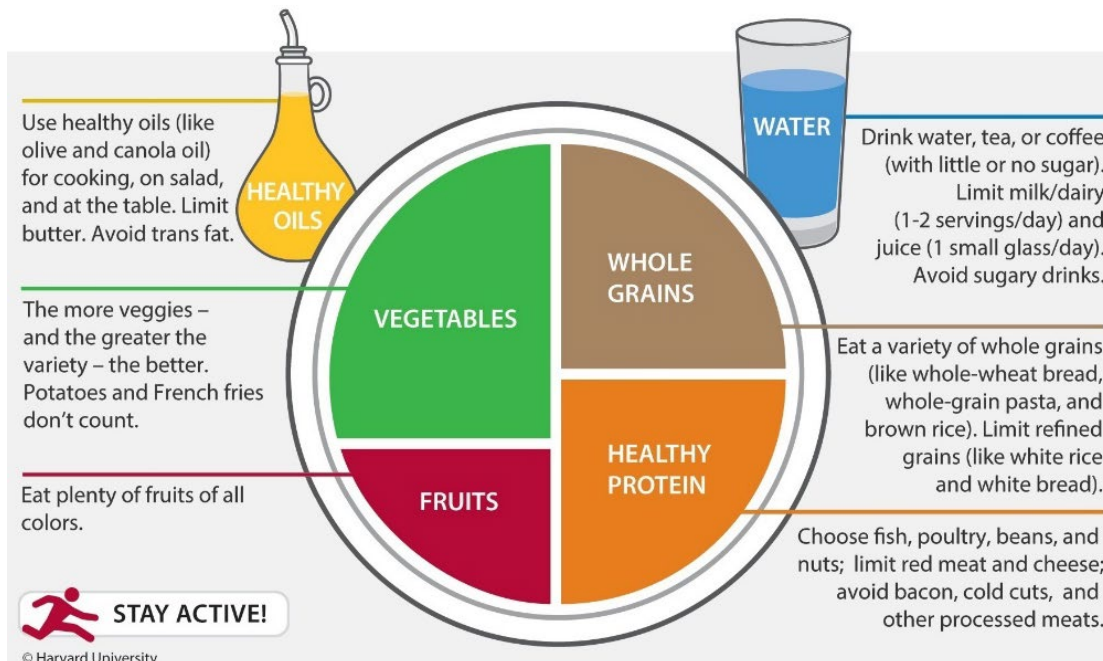








Figure 2. The plate for healthy eating. Source: (Harvard T.H. Chan School of Public Health, 2011).

Table 1. Healthy eating plan.

Food consumption	 Children from 6 to 10 years	 Teenagers from 11 to 18 years
Dairy (daily)		
Fish, turkey, or chicken	 2-3 times per week	 2-3 times per week
Other meats	 1 time per week	 1 time per week
Legumes	 2 times per week	 2 times per week
Eggs	 2-3 times per week	 2-3 times per week
Vegetables (daily)	 Raw or cooked	 Raw or cooked
Fruits (daily)		
Cereals, pasta or potatoes, cooked	4 to 5 times per week 	 
Bread 100 g (daily)	 to 	 to 
Oil and other fats (daily)	Little amount	Little amount
Sugar (daily)	Little amount	Little amount
Water (daily)	6 glasses (1.5 liters) 	8 glasses (2 liters) 
Approximate caloric intake	1800-2100 kcal	2500-2800 kcal

Source: (Olivares, Zacarías, and Andrade, 2003).

1.2. Nutritional Needs

Nutritional needs depend on age, sex, physical activity, and physiological state and refer to the amount of energy and nutrients necessary to maintain a healthy and functional body, which are:

1.2.1. Energy

Just as cars need fuel, our body needs energy to develop its vital functions. The unit of measure for energy is calories or kilocalories (kcal), and its amount depends on age, sex, physiological state, and physical activity (sedentary, light, moderate, or intense). The primary sources of energy are fats or lipids (9 kcal/g), carbohydrates (4 kcal/g), and proteins (4 kcal/g). THE GREATER PHYSICAL ACTIVITY, THE GREATER ENERGY EXPENDITURE, which is distributed as follows:

Table 2. Daily energy expenses.

Energy is spent on:	
Basal metabolism*	60%
Physical activity	30%
Digestion of food and absorption of nutrients	10%
Total energy expenditure during the day	100%

*Set of processes that constitute energy exchanges at rest (e.g., respiration, circulation, digestion, etc.). Source: (Olivares, Zacarias, and Andrade, 2003).

Table 3. Average daily energy needs of children 1-18 years.

Age (years)	Boys kcal/day	Girls kcal/day	Age (years)	Men kcal/day	Women kcal/day
1 – 2	1.200	1.140	10 – 11	2.140	1.910
2 – 3	1.410	1.310	11 – 12	2.240	1.980
3 – 4	1.560	1.440	12 – 13	2.310	2.050
4 – 5	1.690	1.540	13 – 14	2.440	2.120
5 – 6	1.810	1.630	14 – 15	2.590	2.160
6 – 7	1.900	1.700	15 – 16	2.700	2.140
7 – 8	1.990	1.770	16 – 17	2.800	2.130
8 – 9	2.070	1.830	17 – 18	2.870	2.140
9 – 10	2.150	1.880			

Source: (Olivares, Zacarias, and Andrade, 2003).

1.2.2. Proteins

After water, protein makes up the largest proportion of body tissues (such as muscle, skin, and bone) and is the basis for building the body's tissues during the growth period and repairing them throughout life. In addition, it helps create defenses against diseases, provides energy, and ensures the proper functioning of the body. Proteins can be found in animal-origin foods, such as meat, and vegetable-origin, such as legumes, seeds, bread, cereals, and pasta. Although the latter are of lower quality, they can replace meat, eggs, or milk when combined. In the case of proteins of animal origin, they should not exceed 50% as they are transformed into fat, making the kidneys work more. The daily protein requirements according to sex, age, and physiological state are:

Table 4. Recommended protein intake according to age, sex, and physiological state.

	Age	Recommended intake, g/kg/day
Children	4 – 6 months	2,5
	7 – 9 months	2,2
	10 – 12 months	2,0
	1 – 2 months	1,6
	2 – 3 years	1,55
	3 – 5 years	1,5
	5 – 12 years	1,35
Men	12 – 14 years	1,35
	14 – 16 years	1,3
	16 – 18 years	1,2
	18 and more years	1,0
Women	12 – 14 years	1,3
	14 – 16 years	1,2
	16 – 18 years	1,1
	18 and more years	1,0
Additional amount per day (g)		
	Pregnancy	8
	Breastfeeding during the first 6 months	23
	Breastfeeding after 6 months	16

Source: (Olivares, Zacarías, and Andrade, 2003).

1.2.3. Carbohydrates

They are essential nutrients for energy and include sugars, starches, and dietary fiber in foods such as bread, rice, noodles, oatmeal, beans, chickpeas, lentils, potatoes, and cassava. It is recommended to consume foods rich in fiber, such as cereals, pasta, and legumes, as they help digestion, lower cholesterol and blood sugar levels, and help prevent colon cancer.

1.2.4. Lipids

Fats or lipids are substances that are insoluble in water and soluble in organic solvents. They are a source of energy for the body (9 kcal/g) since they provide essential fatty acids for the growth and maintenance of body tissues, brain development, and vision; carry fat-soluble vitamins A, D, E, and K; and surround the organs of the body to protect them from blows and trauma. It is advisable to consume them in small quantities and prefer fats of vegetable origin, such as oils, avocado, olives, nuts, and almonds, as they contain unsaturated fats that help lower cholesterol and prevent cardiovascular diseases. On the contrary, fats of animal origin, such as mayonnaise, butter, and lard, contain saturated fatty acids that are risk factors for the cardiovascular system.

Essential fatty acids are essential unsaturated fats because they decrease the risk of allergies, inflammatory and cardiovascular diseases, and some cancers. These are omega 6 (linoleic acid), which is found mainly in corn, sesame, and sunflower oils, as well

as in nuts such as walnuts, almonds, and pistachios; and the omega 3 (alpha-linolenic acid) that is in soybean, canola and flaxseed oil; nuts and fish such as sardines, salmon and trout. The lack of consumption of these essential fatty acids stops growth, affects reproduction, and alters visual acuity, among others. Table 5 shows the content of calories, proteins, lipids, and carbohydrates of some commonly consumed foods (g/100 g or 100 ml of edible part of the food).

Table 5. Calories, protein, lipid, and carbohydrate content of some foods.

Food	Calories	Proteins	Fats or lipids	Carbohydrates
Whole milk (1/2 cup)	61	3,3	3,2	4,8
Flavored yogurt (1/2 cup)	91	4,4	2,7	14,8
Whole egg (2 units)	160	13,5	10	4
Chicken (1 medium leg)	130	22,3	3,8	1,7
Rice (2 cups cooked)	352	6,4	0,8	79,7
Noodles (2 cups cooked)	350	12,2	0,3	74,6
Celery (1 large plate)	18	0,7	0,2	3,4
Lettuce (1 large plate)	19	1,7	0,4	2,2
Tomato (1 small unit)	19	0,8	0,4	3,2
Plantain (1 small unit)	94	1,3	0,4	21,3
Soft drinks (1/2 glass)	42	0	0	10,4
Oil (6 tablespoons)	897	0	99,7	0
Mayonnaise (4 tablespoons)	725	1,9	78,2	3,3
Water ice cream (1 small unit)	81	0	0	20,2

Source: (Olivares, Zacarías, and Andrade, 2003).

1.2.5. Vitamins and Minerals

Called micronutrients, they are essential for good nutrition and proper body functioning. However, they are consumed in smaller amounts than proteins, fats, and carbohydrates. Vitamins are necessary to carry out processes such as converting food into energy, growing and repairing body tissues, and defending against some diseases. Table 6 shows the required daily intake of vitamins and minerals. Some minerals are part of body tissues, such as iron in the blood's hemoglobin, calcium, and fluoride in the bones and teeth.

- Vitamin A: Essential for normal growth, night vision, strengthening the immune system, and keeping body tissues (particularly the skin and eyes) healthy. It can be found in animal-origin foods, such as cow liver and eggs, and vegetable-origin, such as carrots, chard, spinach, and mango. TIP: Many dark green, yellow, and deep orange fruits and vegetables contain carotenes that the body converts to vitamin A.
- Vitamin C: Or ascorbic acid, serves to improve the absorption of the iron present in foods of plant origin, such as legumes and cereals, strengthen defense mechanisms against diseases, keep blood vessels in good condition, form collagen and prevent cardiovascular diseases, and cancer thanks to its antioxidant effects. It is found in foods such as citrus fruits (orange, lemon, passion fruit) and vegetables such as

cauliflower, spinach, and cabbage. TIP: consume raw food promptly, and if you need to cook any, do so in little water and in a short time since this vitamin is easily destroyed by heat and oxidizes in the air.

- Folic acid: Essential for cell reproduction, and forming red blood cells. It is found in oranges, mango, guava, banana, avocado, broccoli, cauliflower, corn, tomato, legumes, oats, whole grains, and liver. Especially women of childbearing age, before and during the first trimester of pregnancy, should consume sufficient amounts of folic acid to prevent severe congenital malformations of the central nervous system in the fetus.
- Calcium: Essential for building and maintaining healthy bones and teeth and for regulatory functions such as blood clotting and oxygen transport. Some food sources are milk, yogurt, cheese, and beans. Its absorption is improved by adequate amounts of vitamin D and phosphorus, also present in dairy products.
- Iron: Besides being one of the main components of red blood cells, it is essential for transporting oxygen to the cells and, therefore, the body's functioning. The lack of this mineral is the most frequent nutritional deficiency worldwide, which can cause anemia. The primary sources of iron are liver, organ meats, chicken, turkey, and fish. Although it is found in foods of vegetable origin such as legumes, whole grains, and chard, the body does not absorb it as easily as the iron contained in meats, but it can be improved with foods that contain vitamin C. *TIP: foods such as tea, coffee, and herbal infusions decrease the absorption of plant iron.*

Table 6. Recommended daily intake of vitamins and minerals.

Age group	Vitamin A (µg/d)*	Vitamin C (mg/d)	Folate (µg/d)	Calcium (mg/d)	Iron (mg/d)
Nursling					
0 – 6 months	400	40	65	210	0,27
7 – 12 months	500	50	80	270	11
Children (years)					
1 – 3	300	15	150	500	7
4 – 8	400	25	200	800	10
Men (years)					
9 – 13	600	45	300	1.300	8
14 – 18	900	75	400	1.300	11
19 – 30	900	90	400	1.000	8
31 – 50	900	90	400	1.000	8
51 – 70	900	90	400	1.200	8
> 70	900	90	400	1.200	8
Women (years)					
9 – 13	600	45	300	1.300	8
14 – 18	700	65	400	1.300	15
19 – 30	700	75	400	1.000	18
31 – 50	700	75	400	1.000	18
51 – 70	700	75	400	1.200	8
> 70	700	75	400	1.200	8
Pregnancy (years)					

Age group	Vitamin A (µg/d)*	Vitamin C (mg/d)	Folate (µg/d)	Calcium (mg/d)	Iron (mg/d)
≤ 18	750	80	600	1.300	27
19 – 30	770	85	600	1.000	27
31 – 50	770	85	600	1.000	27
Breastfeeding (years)					
≤ 18	1.200	115	500	1.300	10
19 – 30	1.300	120	500	1.000	9
31 – 50	1.300	120	500	1.000	9

*Micrograms daily, as retinol equivalents. Source: (Olivares, Zacarías, and Andrade, 2003).

1.2.6. Water

After oxygen, water is essential for life because it helps maintain body temperature (37°C), transport nutrients to cells, and remove waste from the body's use of nutrients. Except for sugar and oil, all foods contain varying amounts of water, with fruits, vegetables, and milk having the highest contents. Daily water requirements, apart from that contained in food, are 1.5 to 2.5 liters.

1.3. Nutrition and Health

1.3.1. Nutritional Status and its Evaluation

Nutritional status is the physical condition that a person presents as a result of the balance between their needs and intake of energy and nutrients. Its evaluation is made from anthropometric measurements (weight, height, or amount of fat in the body according to the age and sex of the individual) compared with a reference standard. The factors that affect nutritional status are those presented in Figure 3.

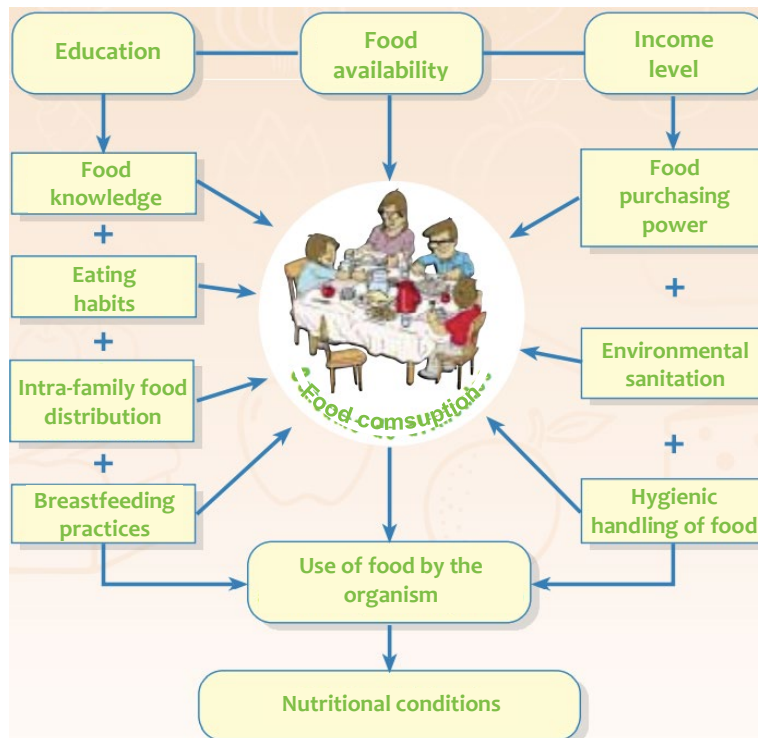


Figure 3. Factors affecting nutritional status. Source: (Olivares, Zacarias, and Andrade, 2003).

1.3.2. Food-related Diseases

- Due to an insufficient intake of energy or specific nutrients: malnutrition, nutritional anemia, osteoporosis, and endemic goiter (increase in the thyroid gland size mainly due to insufficient iodine).
- Due to excessive energy intake: obesity, diabetes, cardiovascular diseases, hypertension, and some cancers.

1.3.3. Eating Disorders

Anorexia nervosa (extreme thinness) and bulimia (marked fluctuations in weight) are eating behavior disorders that usually start at school and are caused by the combination of psychological and environmental factors, irrational fear of being overweight, contemporary fashions designed to thin people, advertising about diets, low self-esteem, and physical and psychological abuse.

- Consequences of anorexia nervosa: Excessive weight loss, malnutrition, anemia, osteoporosis, heart disease, extremely low body temperature, constipation, headache, irritability, hormonal changes (in women, it causes amenorrhea and sterility), risk of death due to illness or suicide.
- Consequences of bulimia: Stomach discomfort after excessive food intake, dehydration, and loss of minerals through vomiting, dental damage such as stains,

cavities, and loss of teeth due to the action of the acid contained in the vomit, muscle weakness, paralysis, and attack to the heart.

1.4. Healthy and Safe Food

1.4.1. Concept of Healthy, Safe, Contaminated, Altered, Adulterated Food

Healthy food provides the energy and nutrients that the body needs, while safe food is free from contamination by biological agents (bacteria, parasites, or viruses), chemicals (detergents, pesticides, medicines, heavy metals, etc.) as mercury) or physical (dust, earth) external. Likewise, an altered food is one that, for various reasons, has suffered a deterioration in its sensorial characteristics (taste, color, texture, etc.) and its composition/nutritional value. Finally, a food is adulterated when it has been modified by man altering its characteristics, usually providing a lower quality product (See Figure 4).

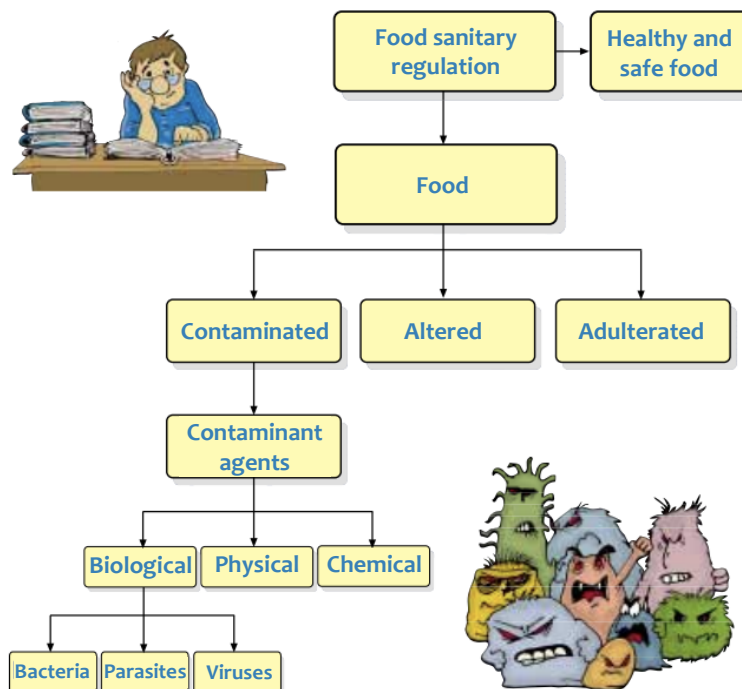


Figure 4. Healthy, safe, contaminated, altered, adulterated food. Source: (Olivares, Zacarías, and Andrade, 2003).

1.4.2. Microorganisms and their Characteristics

They are microscopic organisms transported through hands, nails, clothing, objects, and animals. For their multiplication, they need nutrients, humidity, and temperature (between 5°C and 60°C, being the most optimal between 25°C and 30°C). Microorganisms present in food can be:

- Spoilage microorganisms: Cause deterioration in the color, flavor, aroma, and texture of food, but without causing disease. Example: fungi such as yeast.
- Pathogenic microorganisms: Cause disease to the consumer without altering the food's appearance. Examples: bacteria, parasites, and viruses.

1.4.3. Foodborne Diseases and their Prevention

Research indicates that there are more than 250 foodborne illnesses, with the most common symptoms being nausea, vomiting, stomach cramps, and diarrhea. However, these can vary between different types of foodborne illnesses (CDC, 2019). Some of these diseases are presented in the following table.

Table 7. Diseases of bacterial origin.

Disease	Causal agent	Food involved
Typhoid fever	Salmonella typhi	Fruits and vegetables irrigated with sewage; food contaminated by a sick handler
paratyphoid fever	Salmonella paratyphi	Fruits and vegetables irrigated with sewage; food contaminated by a sick handler
Shigellosis	Shigella dysenteriae, S flexneri, S boydii, S sonnei	Fruit and vegetables irrigated with sewage Hands of the carrier handler
Stomach flu	Escherichia Coli patógena	Food or water contaminated with the bacteria
Cholera	Vibrio Cholerae	Raw fish and shellfish, food washed or prepared with contaminated water
Parasitic diseases		
Taeniasis	Taenia solium Taenia saginata	Pork and bovine meat contaminated with cysts (larvae)
Trichinosis	Trichinella spiralis	Pork meat contaminated with cysts (larvae) of T. spiralis
Ascariasis	Ascaris lumbricoides	Vegetables and fruits irrigated with sewage
Viral diseases		
Hepatitis A	Virus de la hepatitis A	Vegetables irrigated with sewage
Enteritis by rotavirus	Rotavirus	Water and food contaminated with feces

Source: (Olivares, Zacarías, and Andrade, 2003).

Good hygiene habits help prevent foodborne illnesses, such as:

- Personal hygiene includes bathing, washing hair, keeping nails short and clean, and correct hand washing.
- Food hygiene: Includes cleaning food when buying, preparing, storing, and consuming it.
- Environmental hygiene: Includes cleaning and disinfecting the kitchen, utensils, dining room, and food storage area. The following four measures help prevent food poisoning.



Figure 5. Measures to prevent food poisoning. Source: (CDC, 2022).

- Clean: Wash your hands and wipe down work surfaces before, during, and after preparing food.
- Separate: Raw meat, poultry, fish, shellfish, and eggs from ready-to-eat foods.
- Cook: Cook food to the proper internal temperature to kill off harmful bacteria.
- Chill: Keep the refrigerator below 4°C. Refrigerate leftovers within 2 hours of cooking (or within 1 hour if food has been exposed to temperatures above 90°F, such as in a car).

1.5. Family Food Security

Food security is the access of all people, at all times, to enough food that covers their nutritional needs and leads to a healthy life. At the household level, it refers to the family's ability to obtain sufficient, varied, and innocuous food (healthy and safe) to cover the nutritional needs of all its members at all times, either by producing or buying it. The conditioning factors of food security are availability, access, and use of food. The biggest obstacles to food security are poverty, lack of education, and social equity, as illustrated below.

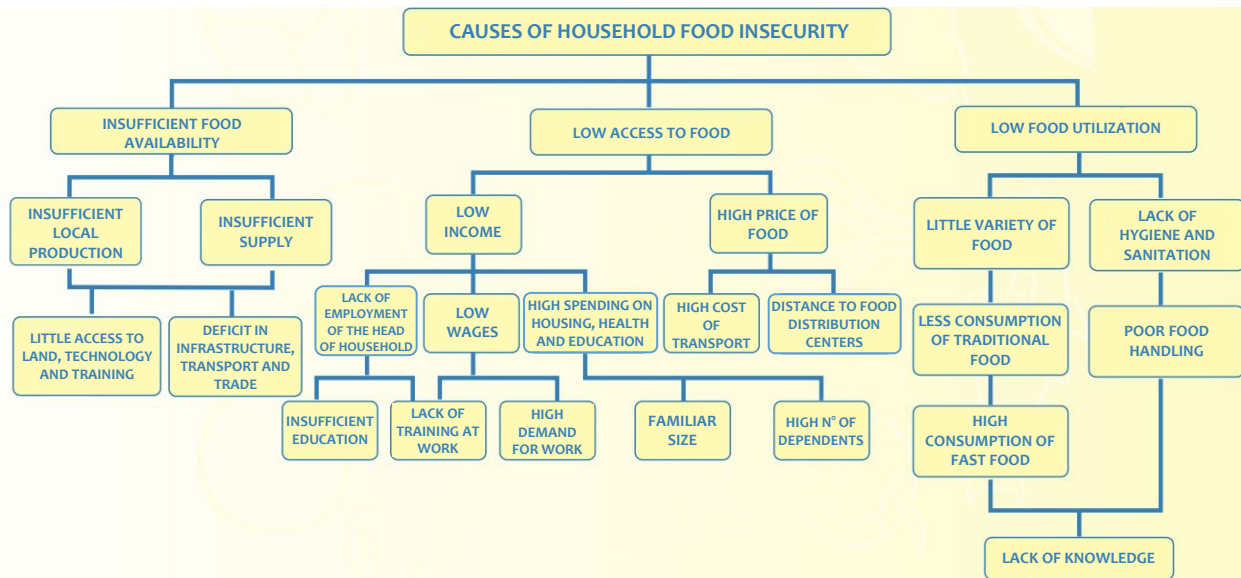


Figure 6. Conditioning factors of food security. Source: (Olivares, Zacarías, and Andrade, 2003).

2. References

- Centros para el Control y la Prevención de Enfermedades – CDC. (2019, August 18). *Seguridad de los alimentos*. [Web]. Retrieved February 6, 2023, from <https://www.cdc.gov/foodsafety/es/index.html>.
- Centers for Disease Control and Prevention – CDC. (2022, September 27). *Food Safety*. [Web]. Retrieved February 6, 2023, from <https://www.cdc.gov/foodsafety/index.html>.
- Garibaldi, I. (2023, January 31). *Por qué la pirámide alimentaria que conoces está desfasada y cómo debería ser la verdaderamente saludable*. Objetivo Bienestar. Retrieved February 6, 2023, from https://www.objetivobienestar.com/alimentacion-saludable/por-piramide-alimentaria-conoces-esta-desfasada-como-deberia-ser-verdaderamente-saludable_52468_102/1012754.html.
- Harvard T.H. Chan School of Public Health. (2011). *Healthy Eating Plate*. Retrieved February 6, 2023, from <https://www.hsph.harvard.edu/nutritionsource/healthy-eating-plate/>.
- Olivares, S., Zacarías, I. and Andrade, M. (2003). *Educación en Alimentación y Nutrición para la Enseñanza Básica*. Organización de las Naciones Unidas para la Agricultura y la Alimentación. Retrieved February 6, 2023, from <https://www.fao.org/3/am401s/am401s.pdf>.

3. Complementary References

- Instituto Colombiano de Bienestar Familiar & Universidad Nacional de Colombia. (2017, April). *Caracterización y composición nutricional de 18 preparaciones tradicionales en*

la población colombiana. Retrieved February 6, 2023, from https://www.icbf.gov.co/system/files/caracterizacion-composicion-18-preparaciones-tradicionales-icbf1_0.pdf.

Instituto Colombiano de Bienestar Familiar. (n.d.). *Estrategia de Información, Educación y Comunicación en Seguridad Alimentaria y Nutricional del ICBF*. [Web]. Retrieved February 6, 2023, from <https://www.icbf.gov.co/estrategia-de-informacion-educacion-y-comunicacion-en-seguridad-alimentaria-y-nutricional-del-icbf>.

Instituto Colombiano de Bienestar Familiar. (2018, November). *Tabla de Composición de Alimentos Colombianos (TCAC) 2018*. Retrieved February 6, 2023, from https://www.icbf.gov.co/system/files/tcac_web.pdf.

Instituto Colombiano de Bienestar Familiar & Organización de las Naciones Unidas para la Alimentación y la Agricultura. (2019, September). *Mi plato, un arcoiris divertido de sabores*. Retrieved February 6, 2023, from https://www.icbf.gov.co/system/files/cartilla_mi_plato_un_arcoiris_divertido_de_sabores.pdf.

Instituto Colombiano de Bienestar Familiar & Organización de las Naciones Unidas para la Alimentación y la Agricultura. (2020, September). *Guía para el facilitador GABAS para niños y niñas escolares (6 a 12 años)*. Retrieved February 6, 2023, from https://www.icbf.gov.co/sites/default/files/cartilla_manual_facilitador.pdf.

Organización Mundial de la Salud. (2020, April 30). *Inocuidad de los alimentos*. Retrieved February 6, 2023, from <https://www.who.int/es/news-room/fact-sheets/detail/food-safety>.