

WITHOUT BARRIERS

A CONCEPTUAL AND PEDAGOGICAL GUIDE FOR
HYGIENE AND SANITATION MANAGEMENT



In collaboration with



SANITATION
FOR MILLIONS



german
cooperation

DEUTSCHE ZUSAMMENARBEIT

Implemented by



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HANDS! INTO THE WATER II



SANITATION
FOR MILLIONS



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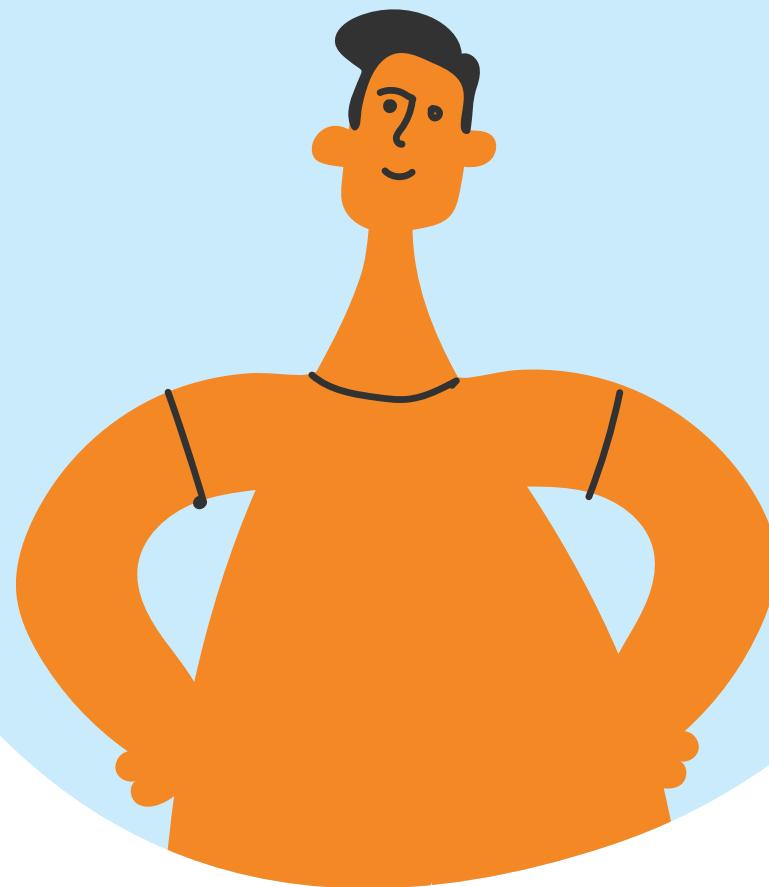
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Glossary

- **Sexual harassment:** unwanted and inappropriate sexual behavior directed at a person or their body. Such acts must be reported, as they are prohibited and violate human rights.
- **Drinking water:** water that is safe for human consumption, free from contaminants and microorganisms that could cause illness.
- **Greywater:** wastewater generated by domestic activities such as dishwashing, laundry, handwashing, personal hygiene, and showers.
- **Self-care:** the individual practice of maintaining health and well-being through healthy habits, including proper nutrition, hygiene, exercise, and mental health care.
- **Water conservation:** practices aimed at responsible water consumption, focusing on minimizing waste.

- **Care:** actions and attitudes taken to ensure the physical, emotional and social wellbeing of people and their environment.
- **Sexual and reproductive rights:** rights that ensure that all people can make informed and free decisions about their sexuality and reproduction.
- **Destigmatization:** processes and practices that seek to eliminate prejudices and stereotypes associated with individuals, groups or issues, promoting their understanding and acceptance.
- **Diarrheal diseases:** gastrointestinal disorders that affect the digestive system and cause frequent liquid stools. They can be caused by viruses, infections or bacteria.
- **Differential approach:** a perspective that recognizes and values the differences between people, such as gender, age, ethnicity and social context, to ensure that all state interventions and policies are equitable and respond to the specific needs of each group.
- **Gender stereotypes:** generalized beliefs about the characteristics and roles that men and women should fulfill; these beliefs perpetuate inequalities by limiting the free development of individuals. Thus, for example, in the management of menstrual hygiene, stereotypes can influence the availability of resources and the education that girls and women receive about their bodies, perpetuating taboos and misinformation.
- **Gender expression:** it is how a person communicates their gender identity through their appearance, behavior, clothing, and hairstyle, among others; this may or may not align with the social expectations of the sex assigned at birth and is independent of gender identity and sexual orientation.
- **Gender:** social, cultural, and historical constructs elaborated based on the biological differences between the sexes. It includes the ideas, beliefs, roles, and expectations that a society assigns to what women and men should be and do. It is a dynamic concept that varies across cultures and over time.
- **Hygiene:** set of practices and habits aimed at maintaining personal and environmental cleanliness to prevent diseases and promote health.
- **Menstrual hygiene:** the practice of maintaining proper cleanliness and management of menstruation, including the use of safe products and the availability of facilities for changing and disposal of these products.
- **Gender identity:** personal perception of each individual as male, female, a combination of both, or neither. This identity may coincide (cisgender people) or not (trans, non-binary people) with the gender assigned at birth. It is a fundamental part of a person's being and can influence how he or she relates to the world and how he or she is perceived by others.
- **Respiratory infections:** diseases that affect the respiratory tract, including the nose, throat and lungs, and are usually caused by viruses or bacteria. Common symptoms include cough, fever and shortness of breath.
- **Menstruation:** periodic bleeding experienced by people born with a uterus, as a consequence of ovulation and the shedding of endometrial tissue. Menstruation is a biopsychosocial human experience, which is affected by territorial aspects and political and economic interests.
- **New masculinities:** a concept that seeks to redefine masculinity by moving away from traditional stereotypes and promoting a more egalitarian and healthy approach to gender relations and the exercise of power.
- **Menstruating persons:** inclusive term that refers to any person who menstruates, regardless of gender identity.
- **Pre-adolescent:** transitional stage between childhood and adolescence, characterized by physical, emotional, and social changes.
- **Puberty:** the initial period of adolescence; a purely biological event in which the secondary characteristics of sexuality are expressed (pubic hair, breast bud, etc.) and which, in girls, concludes with the first menstruation.

- **Gender roles:** behaviors, activities, and attributes that a society considers appropriate for girls and women, men and boys; these roles are socially constructed and are based on norms that often reinforce inequalities and limit individual and collective development.
- **Sex:** it refers to the biological and physiological characteristics that distinguish males and females, such as reproductive organs and the number of chromosomes.
- **Sexuality:** central aspect of the human being, present throughout his or her life. It encompasses sex, identities, gender roles, sexual orientation, eroticism, pleasure, intimacy, and reproduction. It is felt and expressed through thoughts, fantasies, desires, beliefs, attitudes, values, behaviors, practices, roles, and relationships. Sexuality is influenced by the interaction of biological, psychological, social, economic, political, cultural, ethical, legal, historical, religious, and spiritual factors.
- **Sexual organs:** specialized structures in the body of living beings that allow reproduction, although, in the case of human beings, their function is not limited exclusively to this biological purpose. Sexual organs, both external and internal, male and female, do not determine a person's social role, and they go beyond the organs located in the genital area, as they can include the skin and the brain. In addition, they fulfill adaptive cultural functions, are fundamental in the dynamics of social interaction, and play a pivotal role in the psychological development of individuals.
- **Sexualization:** Act of perceiving and treating a person as a sexual object, focusing exclusively on his or her appearance and body.
- **Bias-based violence:** Violence against a person or group of people due to prejudice based on characteristics such as race, religion, sexual orientation, gender identity, or disability. This violence seeks to maintain power structures that perpetuate discrimination.

Acronyms

WASH: WA: Water, S: Sanitation, H: Hygiene. WASH refers to access to safe water and adequate sanitation and hygiene education.

PPE: Personal Protective Equipment: Includes goggles, gloves, masks, aprons, etc. These must be disposed of or thoroughly disinfected after each use to prevent cross-contamination.

EPA: U.S. Environmental Protection Agency.

IMDRF: International Medical Device Regulators Forum.

INVIMA: Colombian National Institute for Drug and Food Surveillance (Instituto Nacional de Vigilancia de Medicamentos y Alimentos).

WHO: World Health Organization.

MSPS: Ministry of Health and Social Protection of Colombia.

SAP: Superabsorbent polymers that take several hundred years to degrade. Some are used in the manufacture of menstrual hygiene devices to increase their absorbency and strength.

Introduction and context

Sanitation for Millions is a global initiative that seeks to improve access to safe sanitation and hygiene services, especially for women and girls in vulnerable communities around the world. The project integrates sanitation infrastructure rehabilitation, training in WASH (Water, Sanitation, and Hygiene) services, and the promotion of health and good hygiene practices including proper menstrual hygiene management.

This guide is developed as a knowledge transfer tool to strengthen the capacities of the health and education sectors, promoting cultural transformations towards healthy practices, hygiene habits, and safe sanitation. In addition, this guide seeks to encourage positive behavioral changes that promote gender equity.

This version represents an adaptation and expansion of the Guide for Menstrual Hygiene Management and is enriched with experiences and lessons learned from the program in Colombia during the year 2024. The contents have been contextualized to ensure inclusive and culturally relevant information.

In the guide, you will find the following icons created to facilitate its reading. These can be repeated or omitted according to the needs of the topic addressed.



Theoretical content, definition, and importance of a topic.



Protocols, guidelines, and practical recommendations.



Ideas and/or additional information that is related to the topics of health, safe sanitation, hygiene, and menstrual hygiene management.



Topic 1



Human Rights

Human rights are fundamental principles that recognize and protect the inherent dignity of every person. They apply universally and cannot be renounced, negotiated, or transferred. The full enjoyment of one right often depends on the respect and fulfillment of others, ensuring that all individuals can exercise them regardless of race, gender, origin, or any other condition. When human rights are violated, governments and other responsible entities must be held accountable and comply with international human rights instruments¹.

Among these rights, several are directly linked to safe sanitation, including the proper management of wastewater, adequate sanitation facilities, hygiene practices such as handwashing, and menstrual hygiene management:



Right to Health

This right ensures access to quality medical services for prevention, treatment, and essential medications. It includes maternal, child, and reproductive health care, as well as access to safe drinking water, sanitation, adequate nutrition, and healthy working conditions. Community participation in the creation and implementation of health policies and accountability from health authorities are crucial for ensuring this right².



The right to safe sanitation, on the other hand, guarantees access to secure facilities for waste disposal and wastewater treatment, preventing the spread of diseases.

Likewise, **the right to hygiene** ensures that all individuals have access to proper hygiene conditions for overall well-being and disease prevention.

Additionally, **the right to menstrual hygiene management** guarantees that menstruating individuals can manage their menstruation safely and appropriately. This is essential for physical health, gender equality, and full participation in education and the workforce³.



Identity

Gender is a social and cultural construct that defines roles, behaviors, and expectations assigned to individuals based on their biological sex. Unlike sex (biological characteristics), gender is learned and varies across cultures, time periods, and societies. It shapes how a society defines what is considered "masculine" or "feminine," influencing how people express themselves, behave, and are treated.

1. For more information on human rights and their characteristics, refer to What Are Human Rights? (United Nations International Children's Emergency Fund - UNICEF) at: <https://www.unicef.org/es/convenion-derechos-nino/que-son-derechos-humanos>.

2. For more information on the right to health, refer to The Right to Health: Key Aspects and Common Misconceptions (United Nations High Commissioner for Human Rights - OHCHR) at: <https://www.ohchr.org/es/health/right-health-key-aspects-and-common-misconceptions>.

3. For more information on these rights, consult the book The Human Rights to Water and Sanitation, published by Waterlex in 2017.



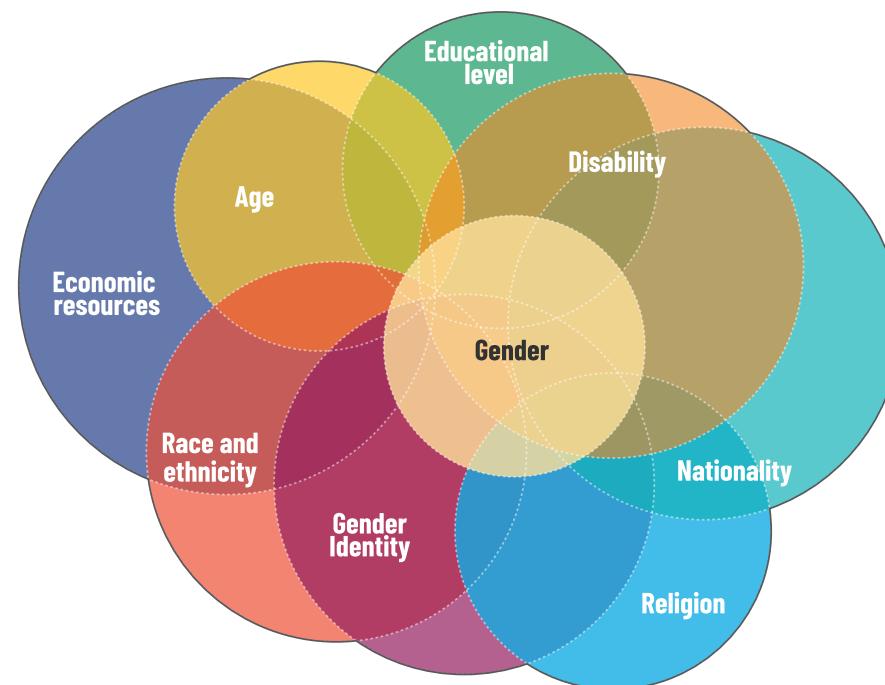
In the context of hygiene, safe sanitation, and menstrual hygiene management, gender plays a crucial role in how individuals perceive and manage their health and well-being. For example, gender norms can either limit or facilitate access to menstrual products, safe public restrooms, or relevant information. Therefore, it is essential to ensure that all individuals, regardless of their identity, have access to the necessary resources to manage their health in a safe and appropriate manner.



Intersectionality

Gender equity in sanitation ensures safe sanitary facilities for all individuals, considering specific needs such as menstrual hygiene management, privacy, and security. Moreover, it involves equal participation in decision-making regarding water and sanitation services within communities. This discussion on gender equity leads to the concept of intersectionality, introduced by Kimberlé Crenshaw in 1989, explaining how different forms of inequality (ethnicity, gender, class, etc.) do not operate independently but rather intersect and reinforce one another. For instance, **Image 1** illustrates how a person may face multiple forms of discrimination simultaneously, which, depending on the context, can hinder their full exercise of rights.

Image 1. Graphical approach to the concept of Intersectionality



Source: prepared by the author (2024).



Practical Example: A teenage girl in a rural community faces multiple challenges in accessing sanitation. She must walk long distances to find a safe restroom due to the lack of nearby facilities (location), struggles to manage her menstrual hygiene due to financial constraints in purchasing products (poverty), and experiences discrimination when using public restrooms in the city (ethnicity). These different forms of inequality combine, creating complex barriers that affect her health and well-being.



Topic 2



Hygiene

Hygiene encompasses practices and knowledge that prevent diseases and maintain health through personal and environmental cleanliness. In the context of sanitation, hygiene is essential as it complements sanitary infrastructure (bathrooms, water systems, and waste management) with behaviors such as handwashing, menstrual hygiene management, and the proper use of sanitation facilities.

Effective hygiene depends on access to clean water and safe sanitation facilities, creating a cycle that maximizes public health benefits. Its general principles include:

- **Handwashing:** One of the most effective practices for reducing the transmission of diarrheal diseases and respiratory infections such as influenza.
- **Food hygiene:** Proper food hygiene involves safe handling, preparation, and storage to prevent contamination and foodborne illnesses.
- **Water hygiene:** Access to safe drinking water is crucial for hygiene, as the use of untreated water can contaminate food and adversely affect health.



Hand Hygiene Protocol

There is no specific recommended frequency for handwashing per day but it is advised in specific situations: before and after handling garbage or waste, eating, changing a menstrual hygiene product, handling food and/or breastfeeding; after touching public surfaces (such as counters, door handles, and railings), handling money, keys, or animals; and finally, after using the restroom or changing diapers.

Image 2. *Handwashing Technique* illustrates the process recommended by the World Health Organization (WHO).



Hygiene Protocols in the Healthcare Context⁴

Hygiene in the healthcare sector is crucial for preventing infections associated with medical care, protecting both patients and healthcare personnel, and ensuring the quality of care. Proper implementation reduces hospital mortality, minimizes occupational risks, and ensures compliance with international health standards. This makes hygiene a fundamental pillar for the safety and effectiveness of healthcare services.

- **Hand hygiene:** health personnel should perform hand washing before and after contact with patients, before performing aseptic procedures, and after contact with body fluids or touching the patient's objects. In addition, the application of antiseptic gel several times a day is recommended. When hands are not very dirty, using alcohol-based hand sanitizers (ABHS) is preferred. Finally, the use of lotions or creams is recommended to maintain healthy skin and prevent dermatitis.
- **Use of personal protective equipment (PPE):** Personnel should select and use PPE (gloves, masks, goggles, gowns) according to the activity performed. PPE must be removed and disposed of properly after each use to prevent cross-contamination.
- **Cleaning and disinfection of the environment:** Surfaces in frequent contact with patients should be cleaned and disinfected regularly. Disinfectants registered by the United States Environmental Protection Agency (EPA), the International Medical Device Regulators Forum (IMDRF), the Instituto Nacional de Vigilancia de Medicamentos y Alimentos (INVIMA), and the legal provisions of the Colombian Ministry of Health and Social Protection (MSPS) that are effective against the most common pathogens in the healthcare environment should be used. Reusable medical equipment should be properly cleaned, disinfected, or sterilized between each use.
- **Hand washing technique:** before washing hands, personnel should have short, clean, and unvarnished fingernails; remove all jewelry and accessories from hands and, in case of wounds or cuts, protect the area to avoid contamination.

Protocolos de higiene en el contexto educativo⁵

4. For more information on the hygiene protocol for the healthcare setting, please refer to the book *Guidelines on Hand Hygiene in Healthcare* produced by the World Health Organization in 2009.

Image 2. Hand washing technique



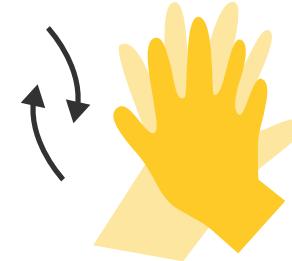
Wet your hands with clean water.



Apply enough soap.



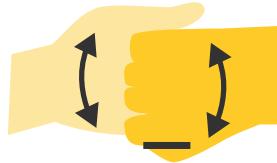
Rub your palms together on each side.



Rub the back of each hand.



Rub your hands together with your fingers spread apart.



Interlace your fingers and rub them together well.



Interlace your fingers and rub them together well.



Rub the thumb of one hand with the palm of the other hand.



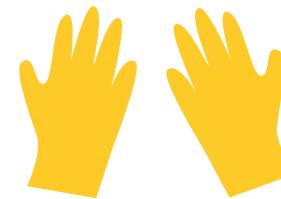
Rinse your hands.



Dry thoroughly.



Turn off the faucet too.



Your hands are safe.

Practical guidelines for hand washing:

1. Recommended duration: twenty seconds minimum. Studies show that this time allows 99% of bacteria and viruses to be eliminated.
2. Rubbing the inside of the fingers: 80% of germs accumulate between the fingers. Therefore, fingers should be intertwined and rubbed.
3. Do not forget thumbs: they contain a high bacterial load. To wash them properly, wrap each thumb with the opposite hand and rotate.
4. Include wrists: research indicates that they are frequently forgotten, but they carry pathogens. Therefore, they should be rubbed in circular motions.
5. Dry thoroughly: wet hands transfer up to a thousand times more bacteria. Use a clean towel or hair dryer.

Source: Reinterpretation of WHO and ODC (Centers for Disease Control).



Hygiene protocols in the educational context⁵.

A hygienic school environment reduces absenteeism, improves academic performance, and develops healthy habits that students will carry throughout their lives.

- **Personal Hygiene**

Personal cleanliness is essential to prevent infectious diseases and strengthen the immune system, in addition to improving our social interactions and self-esteem. WHO studies confirm that proper hygiene can prevent up to 80% of communicable diseases, contributing to individual and collective health.

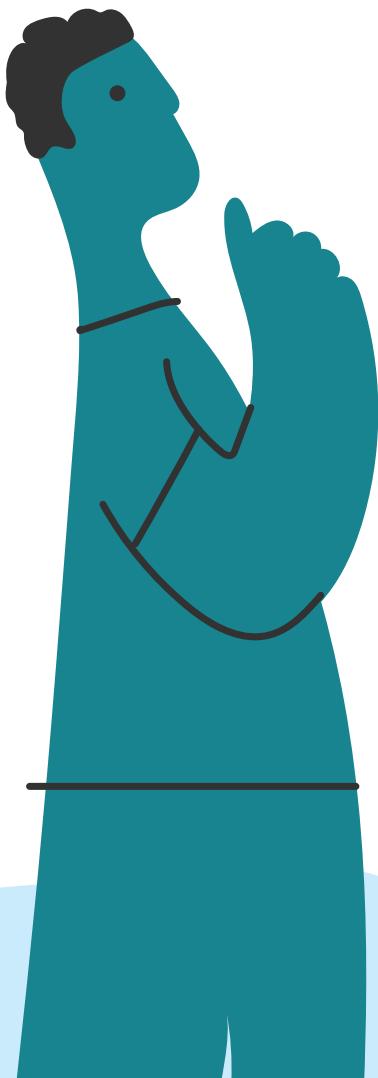
- Hand washing: access to soap, potable water, and adequate drying (paper towels or air dryers) is indispensable; therefore, the community should be continuously educated about handwashing techniques using, for example, visible handwashing signage.
- Respiratory etiquette: training and signage on the importance of covering coughs and sneezes with a tissue or elbow. The use of masks should also be recommended in case of respiratory symptoms that may spread disease.
- Avoid sharing utensils: a community sensitized on the importance of avoiding sharing items, such as school supplies or food utensils, prevents the transmission of diseases.

- **Regular cleaning of educational spaces**

Regular cleaning of educational spaces is critical because it has a direct impact on the health of students and staff, thus reducing absenteeism due to infectious diseases. A clean environment improves academic performance, increases concentration, and promotes hygienic habits. Clean spaces help prevent the spread of viruses and bacteria in high-traffic areas such as restrooms, cafeterias, and classrooms; this is especially important in environments where children share the same space.

- High contact surfaces: daily cleaning and disinfection of surfaces handled by the educational community prevents the adherence of viruses and bacteria.
- Floors and common areas: it is essential to clean classroom and hallway floors daily with neutral cleaning products and microfiber mops. Cafeteria and lunchroom tables and floors should be cleaned after each use and before the next group of students arrives.

5. For more information on the hygiene protocol for educational contexts you can consult the document "The cleaning and disinfection protocols for schools produced by Air and Water Sciences" (Environmental Consultants) from 2016.





- **Proper disinfection**

Disinfection is a process that should be performed in high-risk locations such as restrooms, child-care areas, and food preparation areas. Guidelines for disinfection include:

- Use of registered disinfectants: using EPA-registered disinfectants that are effective against pathogens is a must; these can be chlorine, hydrogen peroxide, quaternary ammonium, and alcohol, among others.
- Product handling and storage: custodial staff should be trained on the proper use and storage of disinfectant products.
- Disinfection after school hours: Disinfection should be performed after students have left the building to minimize exposure to chemicals.

- **Menstrual Hygiene Management**

The provision of free menstrual products in educational institutions and the availability of adequate sanitary facilities are critical because they ensure that menstruating individuals can manage their hygiene properly, reducing school absenteeism and dropout. Access to private toilets, water, soap, and waste containers allows for safe menstrual hygiene management, promoting equality and student well-being.



Hygiene protocols in the urban context⁶.

Hygiene in urban contexts is critical to public health and the sustainable functioning of cities. Urban environments concentrate large populations in small spaces, making proper waste management, sanitation, and cleanliness of public spaces crucial to prevent disease, reduce pollution, and maintain quality of life. Proper hygienic practices in urban areas also contribute to environmental sustainability and the socioeconomic well-being of communities.

6. For more information on hygiene etiquette in the urban context, please see *Why is water, sanitation and hygiene important?* (All hands and hearts) on the following website: <https://www.allhandsandhearts.org/es/blog/community/wash/>.

- **Water management and safe sanitation**

- Access to safe drinking water: access to safe drinking water means having safe water for human consumption, free of contaminants and in sufficient quantity. It is a fundamental right because it prevents diseases transmitted by contaminated water, enables proper hygiene practices, and is essential for life, health, and socioeconomic development. Without access to safe drinking water, it is impossible to maintain effective sanitation and adequate hygiene to protect public health. It includes the installation of public fountains and the implementation of water treatment systems to prevent environmental contamination.
- Water conservation: measures such as the installation of rainwater harvesting systems and the promotion of efficient water use practices are especially important because they reduce pressure on water sources, save costs, ensure availability during shortages, and promote environmental sustainability.

- **Safe sanitation systems**

- Fecal waste management: In cities, it is crucial that the sanitation system includes access to toilets and the safe management (containment, collection, transport, and treatment) of fecal sludge. Proper management ensures that wastewater and excreta are treated properly before disposal, preventing disease and ensuring the sustainability of sanitation systems in communities with no sewages.
- Infrastructure development: sanitation infrastructure must respond to territorial expansion to ensure all waste is managed safely and sustainably.

- **Cleaning and disinfection of public spaces**

- Regular maintenance: the authorities, with the support of citizens, should establish regular cleaning and disinfection routines for public spaces.

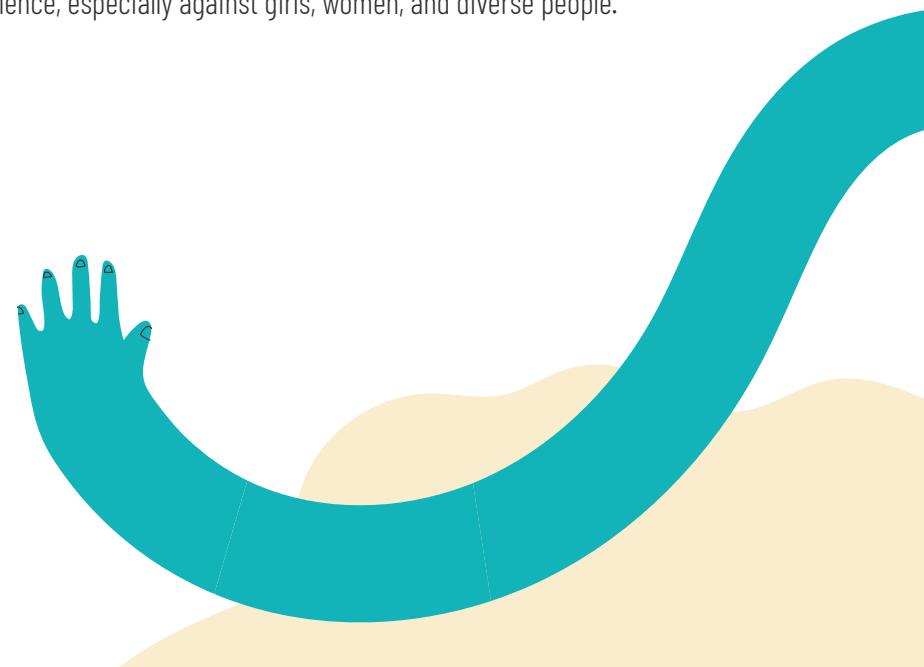
- Waste management: an efficient system of solid and liquid waste collection and management to prevent disease, protect the environment, and improve the quality of life. This process is crucial for effective sanitation as it prevents contamination of water sources and the spread of disease in the community. This includes waste separation and recycling.

- **Disease prevention**

- Education and awareness-raising are fundamental because they promote healthy practices that prevent disease, improve public health, and optimize the use of sanitation infrastructure. Through these campaigns, people learn habits such as hand washing, proper menstrual management, and correct use of sanitary facilities, creating healthier and more resilient communities.
- Infection prevention and control: prevent vector-borne diseases (rats, mosquitoes, cockroaches), protect sanitation infrastructure from damage, and ensure the effectiveness of sanitation systems. Integrated pest management contributes to public health and improves the quality of life in urban environments.

- **Social inclusion initiatives**

- Equitable access: ensuring that all social groups have access to hygiene and sanitation services is a basic inclusion initiative. This includes, first, the construction of accessible and safe public toilets for women, people with disabilities, and other vulnerable groups and, second, the design and maintenance of safe, well-lit, and accessible urban sanitation facilities to prevent gender-based violence, especially against girls, women, and diverse people.





Hygiene protocol in the rural context⁷

Hygiene management in rural areas must be adapted to the specific characteristics and needs of the territory, where sanitation infrastructure may be limited and access to **drinking water** is not always guaranteed.

- **Access to drinking water**

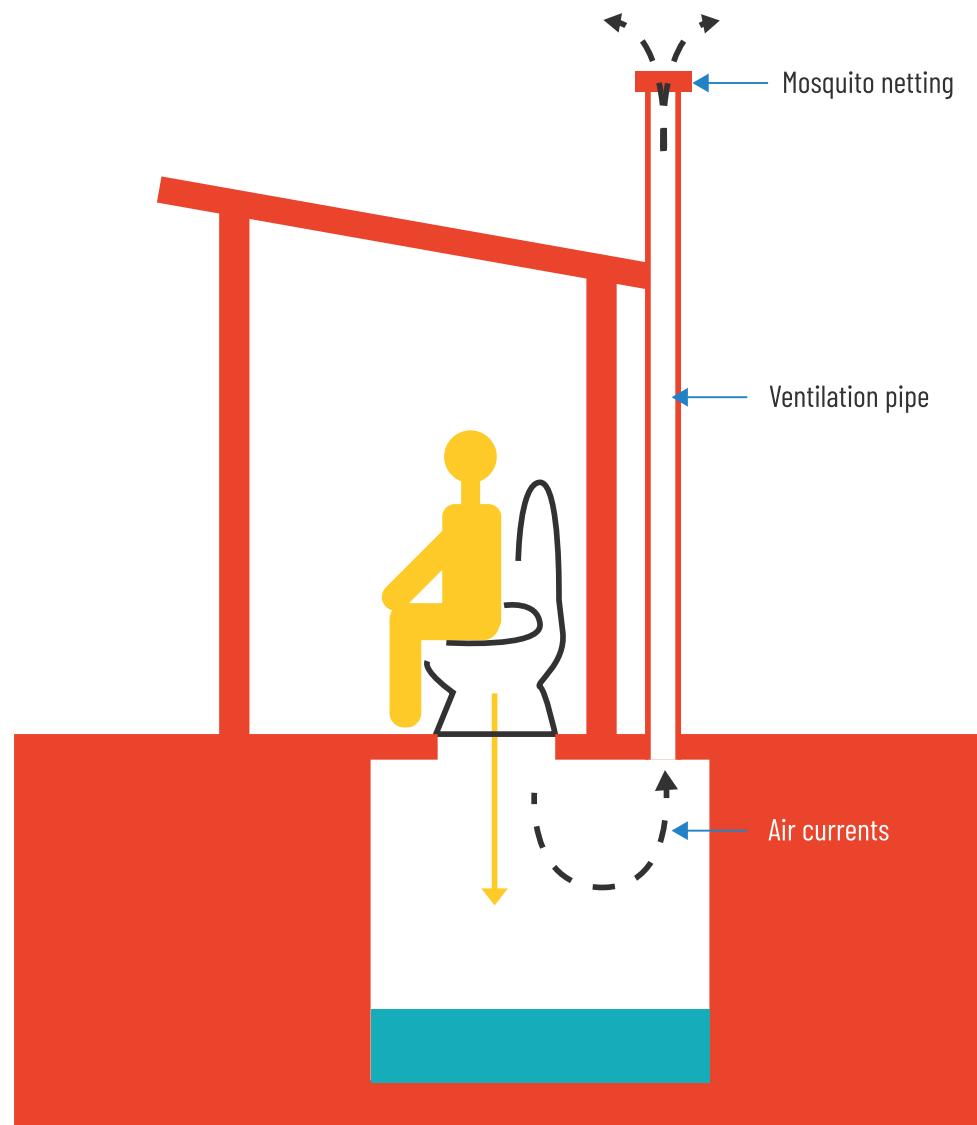
- **Supply infrastructure:** in rural areas, it is vital because it ensures continuous access to clean water and sanitation in areas without connection to main networks. It also makes it possible to store water during times of scarcity, manage waste in the absence of sewerage, and maintain reserves for emergencies, contributing to the resilience of rural communities. It includes the implementation of water collection and storage systems, such as wells, cisterns, and rainwater harvesting systems, ensuring that the water collected is safe for daily use.
- **Water conservation:** efficient water-use practices, such as the reuse of gray water for irrigation, especially in areas with limited water resources.

- **Safe Sanitation**

- **Safe sanitation** is the access to facilities and services that ensure proper management of excreta and wastewater throughout the sanitation chain, from collection to treatment and disposal. It includes decent toilets, effective treatment systems, and hygienic practices that prevent environmental contamination and protect public health.
- **Construction of improved latrines:** Improved latrines are sanitary facilities designed to safely separate excreta from human contact, with key elements such as a washable slab, tight-fitting lid, ventilation, protective walls, and basic treatment system, see **Image 3**. Proper design, including safe distance from water sources and access for maintenance, prevents the spread of pathogens and significantly improves people's quality of life, especially in rural and peri-urban areas.
- **Waste management:** Community waste management systems are organized structures that include collection points, established routes, treatment equipment, processing plants, and trained waste management personnel. Their importance lies in the fact that they provide a comprehensive and sustainable solution, preventing environmental pollution, reducing disease, and strengthening community responsibility, especially in areas without access to municipal systems. Through the active participation of the community, these systems guarantee a continuous and efficient service from the collection to the safe final disposal of solid waste and fecal sludge.

7. For more information on hygiene protocol in the rural context, you can consult the book *Guidance on programming for rural sanitation* produced by the Plan Foundation, UNICEF and WaterAid in 2019.

Image 3. Section of an improved latrine



Source: Reinterpretation of Tilley et al. (2014).

- **Community participation**

Local empowerment and training: Local empowerment and training are essential because they build the capacity of communities to manage their own sanitation systems. By participating in planning and management, community members develop technical skills, ownership, and commitment to long-term maintenance, ensuring that sanitation and hygiene improvements are sustained beyond the initial project cycle.

Topic 3



Puberty

Puberty is a biological event in which girls and boys go through physical changes that begin with the secretion of sex hormones (linked to biological sex) and the development of secondary sexual characteristics (sexual maturation). Psychological, sexual, social, and cultural changes may also be evident.



When does puberty begin?

Puberty generally occurs between the ages of 8 and 14 and usually begins earlier in girls (between 8 and 13) than in boys (between 9 and 14). This process is usually completed within 5 to 7 years with regular ovulation or the production of mature sperm.

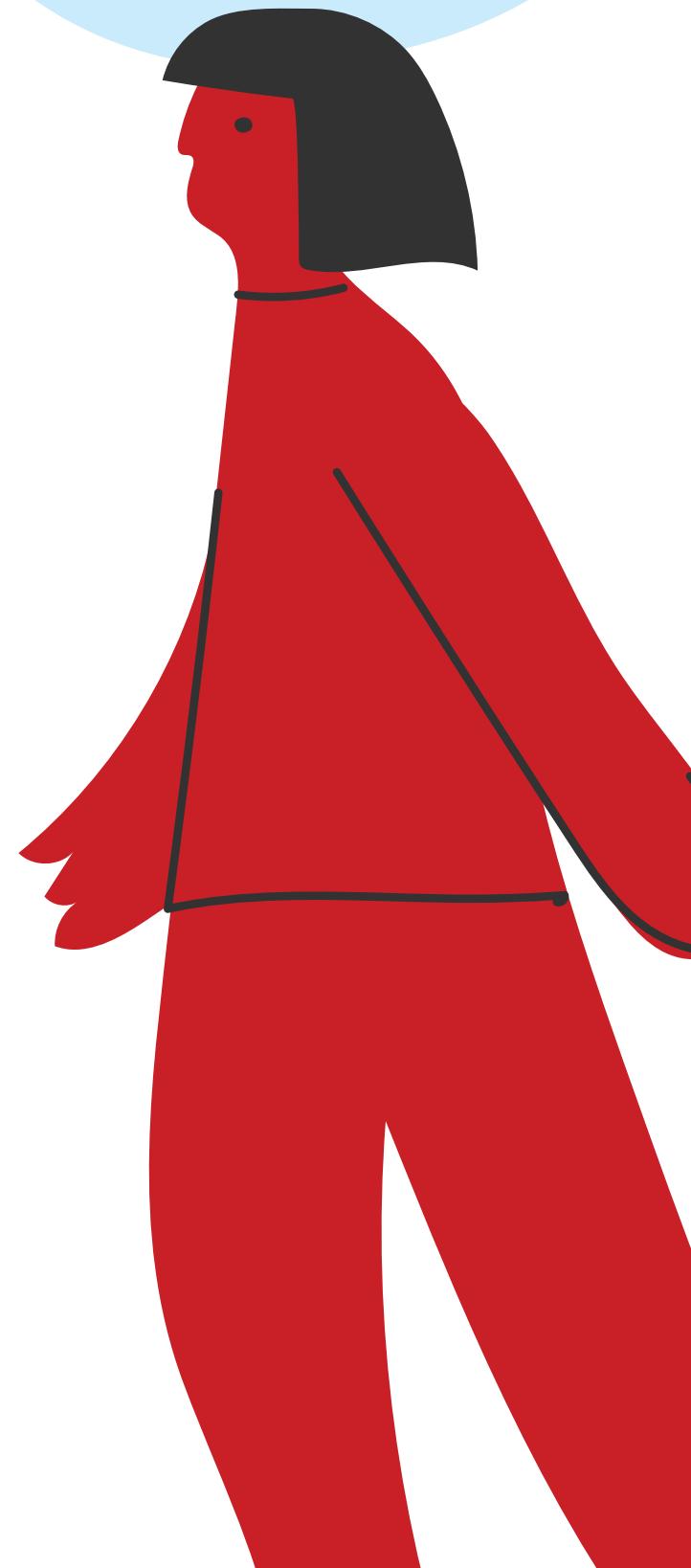
Changes during puberty

Boys and girls often wonder what is happening to their bodies and whether the changes they observe in themselves are normal. For girls, this stage is often confusing due to the lack of information and the consequences of gender stereotypes they begin to experience, which can lead to sexualization and sexual harassment.

Physical changes begin with the release of hormones from the hypothalamus-pituitary axis in the brain that activate the functioning of the testicles and ovaries, which in turn secrete sex hormones.

In the case of girls, the ovaries begin to produce estrogen, a hormone that promotes the development of secondary sexual characteristics, ovarian maturation, bone growth, and brain and cardiovascular health. Some signs that this is occurring in a girl's body are:

- From the age of 6, skin fat may increase and body odor in the armpits, vulva, and feet may intensify (adrenarche).
- Between 8 and 13 years of age, thelarche begins, that is, the mammary bud appears and begins to develop.
- Pubarche (appearance of pubic hair) may begin as early as 8 years of age and at the same time as thelarche, before or after it.



- After puberty and before menarche (or first menstruation) the rate of body growth increases and this is called pubertal growth spurt.
- After 2 or 3 years after the appearance of the mammary bud, and between 10 and 16 years of age, there is a whitish or transparent vaginal discharge, scarce to moderate, which is not accompanied by symptoms of infection such as foul odor, vaginal or vulvar pain or burning or scratching sensation.
- Then comes the first menstruation (menarche) and, from that time until the end of puberty, irregular and anovulatory menstrual cycles (ovulation may or may not occur) may occur for up to 2 years, which does not indicate any disease, but rather that the maturation process is taking place.

While these biological changes are occurring, many girls also notice psychological and emotional changes, such as decreased self-esteem, increased feelings of shame, and increased sensitivity.

Now, in the case of boys, the testicles begin to produce testosterone that can produce physical changes, such as muscle gain and weight gain, the appearance of axillary and facial hair, voice changes, increased skin fat, and acne.

Other changes that may occur in adolescent boys are increased sweating and body odor, growth of the penis, testicles, and scrotum, and the appearance of nocturnal pollution (dreams with erotic content resulting in stimulation of the male sexual organs: penile erection and ejaculation).

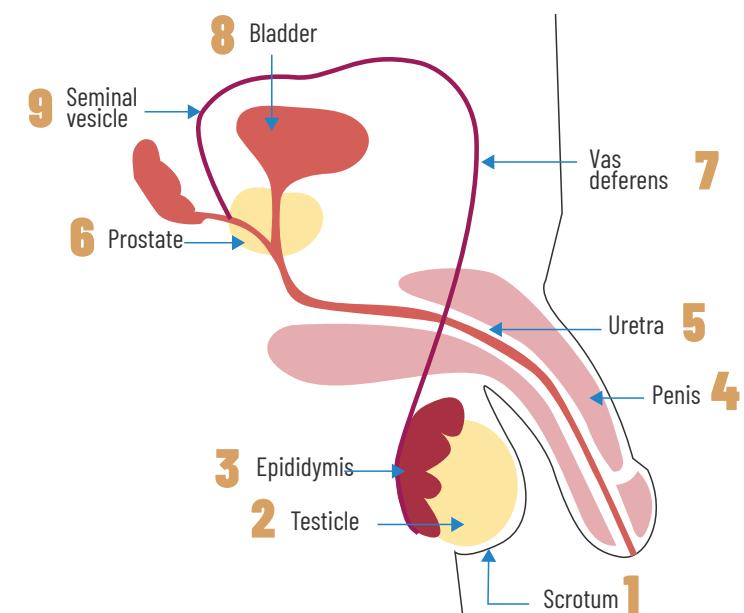
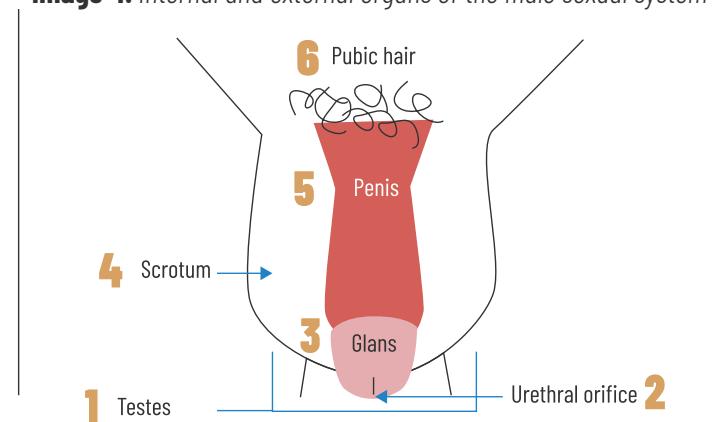
Internal and external male sexual organs

As illustrated in **Figure 4**, the male sexual organs have several parts that characterize them:

- **Scrotum:** a bag of skin that contains and protects the testicles. Its function is to regulate the temperature of the testicles to allow the production of spermatozoa.

- **Penis:** it is the male sexual organ, and its main function is the elimination of urine. In addition, during sexual intercourse, it is the place that transports the sperm where the spermatozoa are.
- **Testes:** the male sex glands where sperm and the hormone testosterone are produced.
- **Urethra:** the tube between the bladder and the outside of the body through which urine exits and sperm is evacuated during ejaculation.
- **Bladder:** an organ that stores urine, produced in the kidneys, before it is eliminated through the urethra.

Image 4. Internal and external organs of the male sexual system



Source: prepared by the author (2024).

Myths and misconceptions about puberty

There are some false myths and misconceptions about puberty that it is crucial to address and analyze in order to prevent situations of discrimination and/or rights violations. Some of these are presented in **Table 1**.

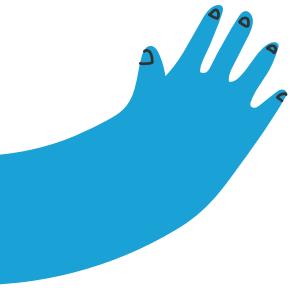
Table 1. *Myths and reality about puberty*

Myths	Reality
Puberty should begin before age 10.	Bodies are different and have different rhythms and timing. Therefore, puberty does not begin at the same time in all people.
All preteens are complicated and emotionally unstable.	Many of the conflicts of adolescents have nothing to do with hormonal changes but with the difficulty of building their own identity in a society that limits unconventional expressions.
I will stop growing when I get my period.	Menstruating people will continue growing until they are approximately 18 or 19 years old. A person's height depends on genetics, not on menstruation.
The arrival of menstruation indicates that the girl has become a woman.	The arrival of menstruation only indicates that girls are growing up healthy and beginning a transition to adolescence and youth.



Guidelines for promoting self-care during puberty for girls and boys

- Reinforce a positive appreciation for the changes in boys' and girls' bodies during puberty. These changes indicate that their bodies are developing in a healthy way.
- Facilitate access to information about puberty and invite them to clearly ask people they trust if they have any doubts or fears.
- Strengthen skills and generate hygiene and body self-care routines such as: showering, hand washing, regular change of clothes (especially underwear), among others.



Guidelines for trainers and caregivers of children going through puberty

- Be empathetic with the emotions of boys and girls, and remember that many of the “difficult” behaviors in adolescence may be due to family and/or social situations.
- Create spaces for reflection about myths and taboos about menstruation and sexual harassment to which girls may be exposed during puberty.
- Understand that this is a time of progressive body changes that demands new grooming habits that require time to become routine.
- Be gentle with the girl who soils; learning to manage menstruation properly takes time.



Guidelines for families of girls and boys going through puberty

- Identify menstrual myths, taboos, and stigmas present in families and promote reflection on how to transform them.
- Create safe spaces to talk about their own experiences with puberty.
- Encourage reflection on the fact that girls need time to learn how to manage menstruation. In order for them to learn the necessary habits, explain the correct use of menstrual products and the grooming guidelines that the body needs.
- Avoid phrases such as: “You are already a woman”, “You stopped being a girl”, “I don’t want to see you pregnant”, “Menstruation is a disease”, or “You already started the ordeal”. Instead, create a more constructive conversation with phrases such as “You are growing up healthy”, “you can count on me in this new experience of your life”, “Don’t be scared, I am with you”, “Menstruation is health and a sign of growth”.



Topic 4



Menstruation



According to researcher Carolina Ramirez (2022), menstruation can be defined as:

“Periodic bleeding experienced by people born with a uterus, as a derivation of ovulation and the consequent shedding of endometrial tissue as a sign of vitality and renewal of the ovulatory cycle. Menstruation is configured as a biopsychosocial human experience crossed by territorial aspects and political and economic interests.”

The first menstruation is known as menarche and usually occurs between 9 and 13 years of age. The menstrual phase is generally preceded by some symptoms or signs such as acne, tender breasts, swelling, and a feeling of tiredness.

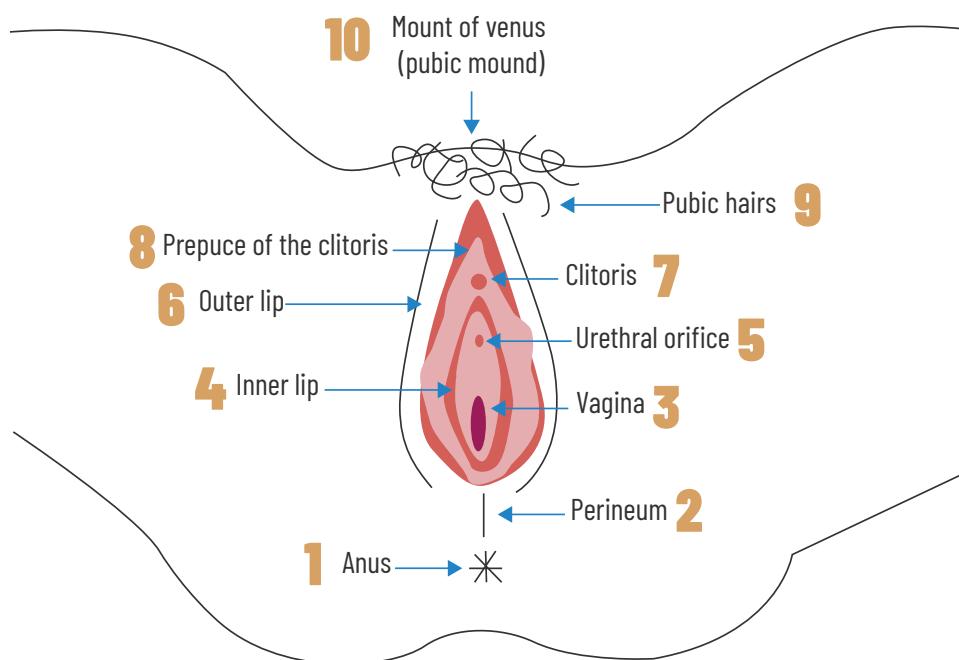


Internal and external female sexual organs

In menstrual education, the term “sexual organ” is used instead of “reproductive system” because the way the body is enunciated contains keys to identify social mandates, including motherhood as the only option (hegemonic motherhood). Thus, to understand menstruation, it is important to recognize the internal and external anatomy of the female sexual system, which is explained below.

External anatomy:

Image 5. External anatomy of the female sexual system



Source: prepared by the author (2024).

The vulva is the external part of the sexual organ, the genital part, and is often confused with the vagina. As can be seen in **Image 5**, it is made up of:

- **Mount of Venus (or mons pubis):** prominence formed by large fatty tissue, skin, and hair covering the pubic bone.
- **Inner and outer labia:** folds of protective skin located on each side of the vulva that cover and protect the genital orifices.
- **Urethral orifice:** the urethra is the tube through which urine leaves the bladder. Its orifice is located above the vaginal opening and below the clitoris.
- **Vagina or vaginal canal:** this is an elastic, muscular tube that connects the vaginal introitus (the entrance to the vagina located in the vulva between the urethra and the anus) with the cervix. The vaginal canal is the passageway for menstrual blood and cervical fluids and is also the birth canal.

- **Clitoris:** it can reach a size of between 8 and 13 cm in length and up to 6 cm in width (internally). As can be seen in Figure 6, the glans, or head of the clitoris, is 3 to 4 mm wide and 4 to 5 mm long (in the resting state), while in erection it can reach 1 to 1.5 cm in length. It is composed of bulbs (spongy bodies), roots (corpora cavernosa), and the glans (what we see externally). It is an organ with more than 15,000 nerve endings that has only one function: to generate pleasure in the body.

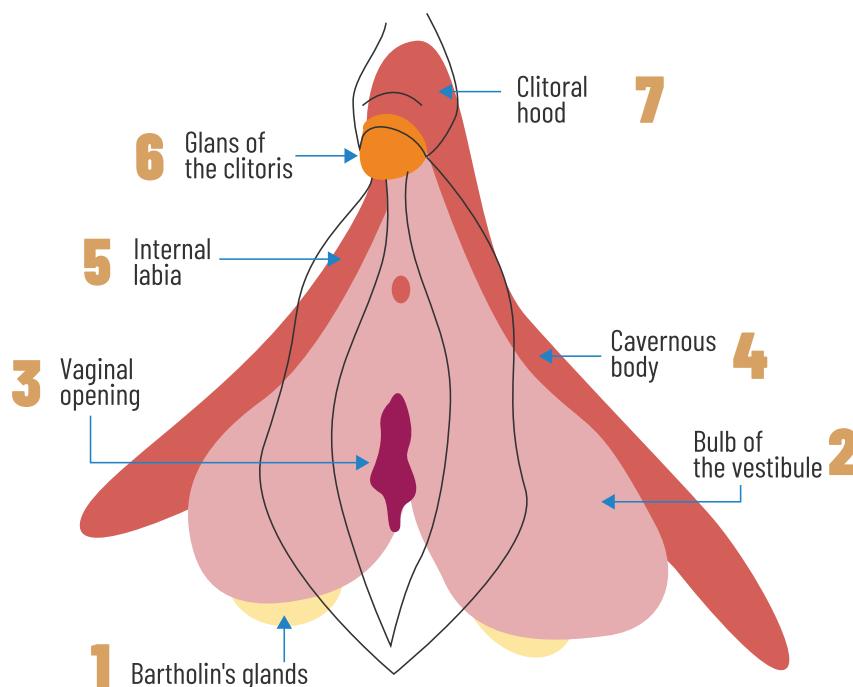
Important facts about the vulva:

It is normal for all vulvas to be different. Some differences may be: more pronounced or smaller labia, more hairiness, and size of the clitoris, among others.

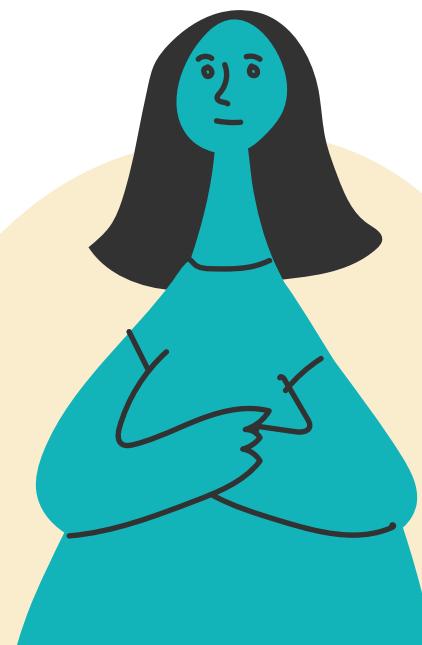
The vulva requires special care such as:

- Washing with potable water without using any type of soap.
- In the bathroom, gently run a finger between the folds of the vaginal lips to remove excess fluid and fat.
- After relieving yourself in the toilet, take the toilet paper and wipe from front to back.
- Use cotton underwear, preferably.
- When the vulva is properly washed, it does not smell bad. It has a particular smell that makes it unique and that is its natural smell, it does not need perfumes or any additional product.

Image 6. Anatomy of the clitoris

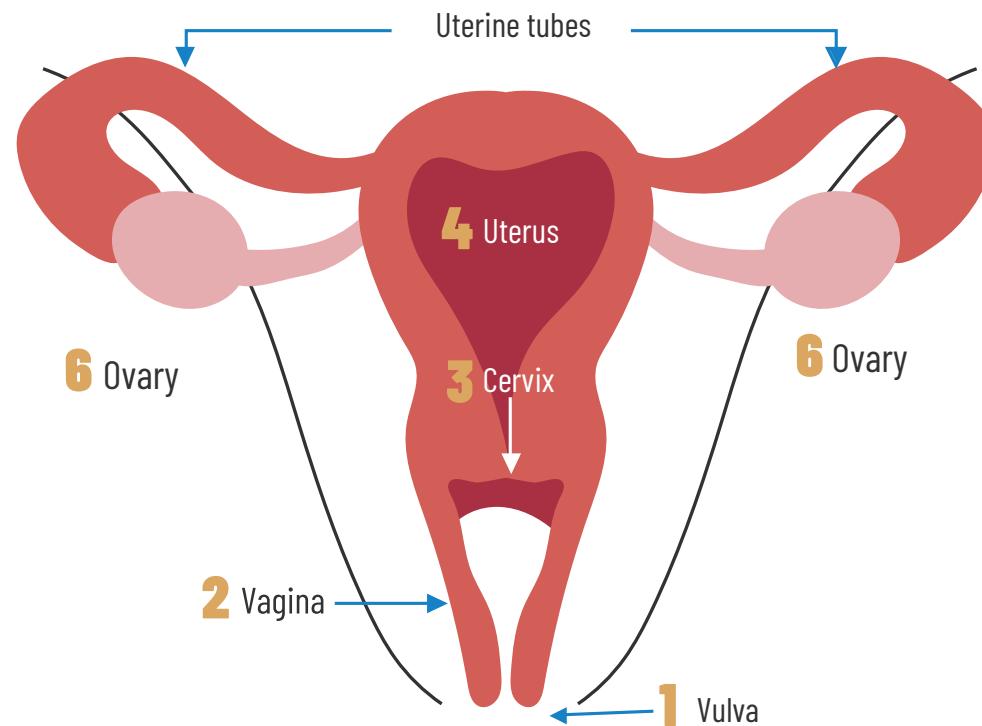


Source: prepared by the author (2024).



Internal anatomy:

Image 7. Internal anatomy of the female sexual system



Source: prepared by the author (2024).

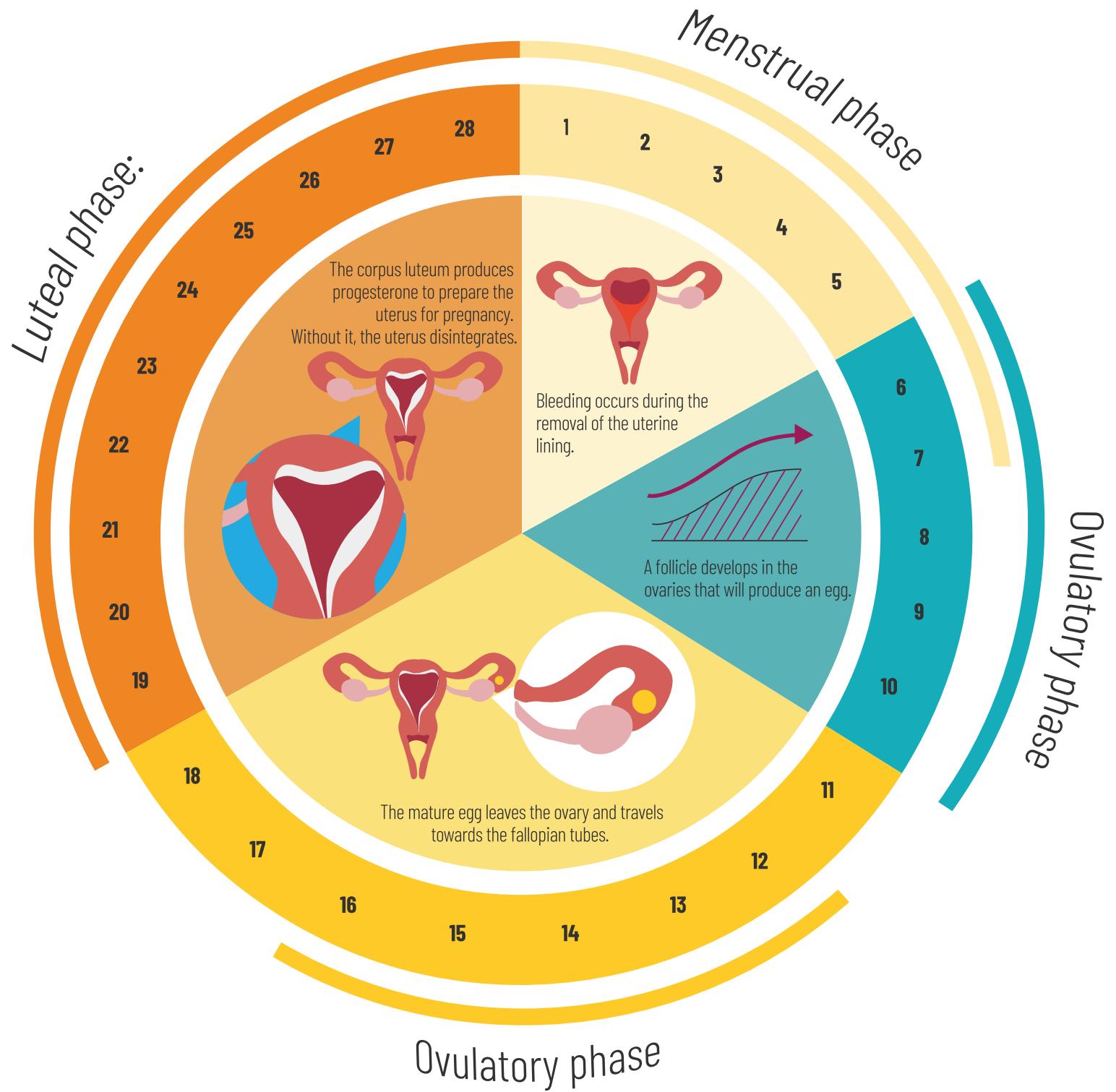
- **The uterus:** is a hollow organ made up of muscle and glandular tissue. It is shaped like an inverted pear and can have different sizes depending on the person's stage of life. As can be seen in Image 7, it is covered by the endometrium and is made up of the following:
- **Uterine tubes:** two thin tubes that connect the ovaries to the uterus.
- **Ovaries:** two glandular organs or gonads that are located adjacent to the uterine tubes and contain hundreds of oocytes that will mature into ova, the female sex cells. The ovaries also secrete estrogen and progesterone at different times during the menstrual cycle.
- **Endometrium:** tissue that lines the inner wall of the uterus and periodically sheds and passes through the vaginal canal in the form of menstrual blood.
- **Cervix:** the lower part of the uterus that connects to the vaginal canal.



Menstrual cycle

It is a period that ranges from 21 to 35 days and is composed of four phases: menstrual, pre-ovulatory, ovulatory, and luteal phase, as illustrated in **image 8**.

Image 8. Menstrual cycle



Source: prepared by the author (2024).



The different phases of the menstrual cycle are due to the action of sex hormones (estrogens and progesterone) that drive sexual development, the maturation of the ovaries, the expulsion of eggs, and the preparation of the uterine wall in case of gestation or detachment for the cycle to renew.

- **Menstrual phase**

- The menstrual cycle begins with the first day of bleeding with a red or brown discharge and is characterized by a decrease in sex hormones that causes the endometrium to shed. It normally lasts between 3 and 7 days.
- During this phase, it is normal to experience breast tenderness and pain, cramping, lower back pain, fatigue, some swelling, and contractions in the uterus.
- Alarm symptoms that may require medical attention: severe and disabling menstrual pain, severe headache, vomiting, and/or fainting.
- Discharge characteristics: red or brown.

- **Preovulatory phase**

- This is the time when the body releases estrogens, hormones that allow the ovaries to prepare an egg for release and cause the walls of the uterus to thicken and form a soft lining of blood and tissue.
- During this phase, which usually lasts between 7 and 21 days, it is common to feel more energetic and concentrate more easily.
- Characteristics of the discharge: white, opaque, and viscous.

- **Ovulatory phase**

- This is the most important phase of the cycle. It strengthens bone density, heart health, metabolism, and sleep quality. At this time, menstruating individuals are more likely to become pregnant if they have unprotected sex. There is a crucial difference between biological reproductive capacity and the maturity required for childbearing. Although a menstruating person under the age of 18 may be able to conceive, her physical, emotional, and psychological development is not yet complete to assume the responsibilities of motherhood. According to WHO, adolescent pregnancies carry greater health risks for both mother and baby and can negatively impact a young woman's educational and socioeconomic development. During this phase, it is common to experience feelings of well-being and increased sexual desire and body temperature due to increased estrogen in the body. Some people may feel a twinge in the lower abdomen or have light bleeding, known as ovulatory bleeding.
- The egg in this phase has a life span of only 24 hours, but the sperm can live up to 5 days inside the uterus. Therefore, menstruating persons can become pregnant if they have sexual intercourse prior to ovulation and without protection.
- Characteristics of the discharge: clear, shiny, egg-white texture.

- **Luteal phase**

- Estrogen and progesterone levels decrease and prepare the body for the shedding of the endometrium, which marks the beginning of a new menstruation. This phase lasts approximately 10 to 16 days, and at the end, some menstruating individuals may experience fatigue, acne, and cravings for certain foods.
- Characteristics of the discharge: there is usually no vaginal discharge.



Tracking the menstrual cycle

The menstrual cycle is anything but a period. While some cycles may last the same number of days, others may be shorter or longer due to stress or illness that influences their length. Therefore, proper monitoring is advisable by recording the first day of bleeding and all symptoms experienced in each phase (flow characteristics, mood, pelvic, head or breast pain, acne, energy level, among others).

Some suggestions for monitoring the cycle are: mark on a calendar the days of bleeding; note if the flow is abundant with 3 stars (***), moderate 2 stars (**), and light 1 star (*); and, with a different color, write if the pain is intense with 3 stars (***), if moderate 2 stars (**), and if light 1 star (*). An example of this control and follow-up system is shown in **Image 9**.

Image 9. Example of a menstrual calendar



Source: prepared by the author.





Symptoms before and during menstruation

Table 2 lists the main premenstrual and menstrual symptoms. These symptoms are normal, but it is important, as in every stage of life, to have routine medical check-ups to prevent health alterations.

Table 2. *Symptoms during menstruation*

Premenstrual symptoms	Síntomas menstruales
Depression and anxiety	Abdominal bloating
Fatigue	Abdominal and/or back pain
Nausea and vomiting	Diarrhea
Breast tenderness, tingling, and pain	Headaches
Acne	Meralgia
Food cravings, especially sweets	Food cravings
Constipation	Irritability
Changes in sleep patterns	Vomiting



Myths about menstruation

There are some false myths and misconceptions about menstruation that can have an impact on the violation of rights, daily self-care practices, and the response from the environment of girls and adolescents during their development. **Table 3** shows some of these myths and misconceptions and their respective corrections.

Table 3. *Myths about menstruation*

Myth	Correction
It is possible to get pregnant if you have sex during menstruation.	It depends. If the last days of the menstrual phase overlap with a short follicular phase and thus an early ovulatory phase, it is possible that the sperm (which are viable for up to 5 days) are still alive at the time of ovulation. Therefore, it is important to use condoms to avoid unwanted pregnancy and sexually transmitted diseases.
You are ready for marriage the moment you get your first period.	No, girls are not ready for marriage, nor are they ready for adult dating. Girls are still girls and should study, grow up, and enjoy their adolescence. In adulthood, they will be able to decide whether or not to marry.

Myth

Rectification

Menstruation is a curse.

Menstruation is normal and a sign of healthy growth.

Menstruation is a disease.

Menstruation is a normal and healthy process experienced by people born with a uterus and not a disease.

Menstruation is dirty and impure.

Neither unclean nor impure, menstrual blood is composed of wonderful components such as stem cells and plasma. On the days of menstruation, as well as every day, the body should be washed well, and pads or other menstrual products should be changed regularly.

Girls are impure during menstruation.

Neither menstrual blood is impure nor menstruating girls. Nothing in the body is impure. Menstruation is the shedding of the endometrial lining of the uterus that thickens with each ovulation.

Menstruating people should not bathe or exercise during menstruation.

During menstruation, menstruating people can go about their daily activities unless they feel tired or have cramps that may limit their activities. In addition, during the days of menstruation, it is very important to bathe every day, change the pad (or other menstrual product) regularly, and wash hands with soap before and after doing so.

Eating certain foods, such as liver, beans, chicken, eggs, or tea, increases blood flow.

The influence of food during the different phases of the menstrual cycle is related to the nutritional requirements of each person. Although there is no generality about the consequences of consuming specific foods, it is important to maintain an adequate intake of proteins, minerals, nuts, and unsaturated fats, as well as constant hydration to prevent conditions such as anemia.

If you carry a newborn during menstruation, the newborn may become ill.

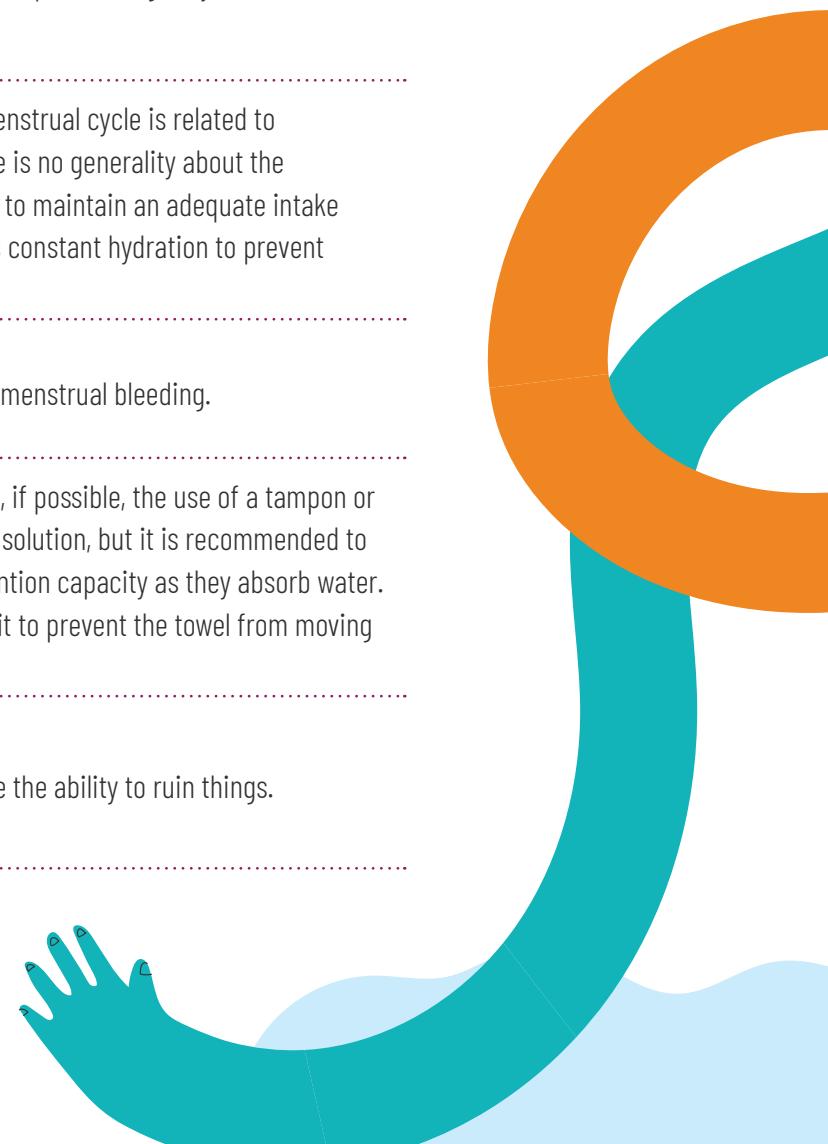
No baby gets sick by being carried by a girl or woman with menstrual bleeding.

During their menstrual period, menstruating persons should not swim in swimming pools or the sea.

Menstruation does not prevent any aquatic activity. For her, if possible, the use of a tampon or menstrual cup is recommended. Sanitary towels are also a solution, but it is recommended to change them constantly because they lose their blood retention capacity as they absorb water. Likewise, it is suggested to use a short over the bathing suit to prevent the towel from moving when losing its adhesive.

Touching plants or climbing a tree when menstruating causes them to wither or rot.

These are false popular beliefs. Menstruation does not have the ability to ruin things.



Topic 5



Menstrual hygiene management



How to manage menstruation?

Menstruation is often a taboo that causes many women and girls to suffer from symptoms and shortcomings or to remain anxious out of embarrassment. Therefore, the following table lists possible challenges and solutions that can help menstruating people feel more comfortable. Table 4. Menstrual Management Challenges and Solutions

Table 4. Menstrual Management Challenges and Solutions

Challenges	Possible solutions
Headache, stomach pain, bloating, back pain, breast pain, joint pain.	<ul style="list-style-type: none"> Place a warm water bottle or towel on your lower abdomen and back to relieve cramps. It is normal to have less energy during menstruation. It is important to be patient with the situation, rest, and try to relax. Stretching and some low-impact exercise can reduce menstrual cramps, and swelling, and improve mental health. Drink plenty of water during menstruation to maintain hydration and avoid headaches and bloating. If pain or bleeding is too severe or prolonged, see your health-care provider.
Feeling of tiredness or general weakness of the body; abundant and prolonged discharge.	<ul style="list-style-type: none"> Maintain a balanced diet (eat plenty of fruits and vegetables and reduce consumption of sugar, salt, caffeine and alcohol) to improve overall health and energy level. Get enough rest.
Anemia	<ul style="list-style-type: none"> Take a warm bath. Eat plenty of fruits, vegetables, and foods rich in thiamine, riboflavin, and iron. Iron supplements may also be helpful.
Mood changes: irritability, sensitivity.	<ul style="list-style-type: none"> Low-intensity exercise can help lift mood and combat fatigue. Taking supplements, such as folic acid, vitamin B-6, calcium and magnesium can reduce cramps and mood swings. Sleep at least 8 hours a night and rest as needed
Blood filtering through clothing.	<ul style="list-style-type: none"> This is not a situation to be embarrassed about. In these cases, the sanitary napkin should be changed and, if you are wearing a jacket or coverall, it can be tied at the waist to cover the blood stains.



Other assistance needed:

- Access to change of clothes: need for change clothes, new pantyhose, drying clothes, and emergency uniforms for those attending school. This helps menstruating people prepare for menstruation and avoid staining their clothes.
- Access to soap and hand-washing facilities: necessary for proper cleaning before, during, and after the menstrual cycle.
- Access to psychosocial support: menstruation affects people differently and, in some cases, can have an emotional impact on their daily lives. Therefore, psychosocial support is important to accompany the process of those who may need it.
- Support networks are important for sharing information and experiences on menstrual hygiene management.
- Nutritional support and counseling: menstruation is associated with blood and water loss, so it is important to get advice, hydrate very well, and eat properly to replenish the body.
- Disabilities: special attention should be given to menstruating individuals with physical or cognitive disabilities as they may have more difficulties with menstrual hygiene management, such as complications with changing menstrual products or communicating pain.



Considerations for menstrual education for men

- Access to information: girls need to understand the biology of the menstrual cycle and have information before their first menstrual cycle to manage it appropriately and without fear.
 - Inclusion of family members: parents and other family members should be sensitized about menstruation and the need to support their daughters in purchasing menstrual hygiene management products. Considerations for menstrual education for men.
-
- It is important to understand that some boys, adolescents, and men practice menstrual bullying due to behaviors they have learned from machismo. This type of harassment uses expressions, graphic references, and verbal, symbolic, or physical harassment that can lead to, among other effects, voluntary school dropout.
 - The objective is not to sensitize them to “help” but to make them empathize and reflect on the social construction of masculinity and the imaginaries they have about menstruation.
 - It is crucial to reflect on and problematize the power that some people exercise over women's bodies.
 - Information should be provided on what menstrual blood is, its function, and its compounds.





Tips for healthy menstruation

- Follow a healthy and balanced diet. If possible, foods containing iron, vitamins, and magnesium should be included. Green tea can help reduce cramps.
- Exercising is good for mental health and can relieve cramping pain.
- Avoid drinking alcohol or smoking.
- Know how your body works and the regularity of your cycle to prepare the necessary menstrual products: menstrual cup, cloth, or disposable pads, among others.
- At least once a day during menstruation, the vulvar area should be washed with potable water, without soaps or perfumes that may increase the risk of infections.
- If reusable sanitary pads are used, they should be washed with water, mild soap, and no chlorine after each menstrual cycle. It is recommended that they be washed in a clean, dry polyethylene bag.
- If panty hoses are used, it is important to make sure they are clean and dry to avoid the proliferation of bacteria. When removed, they should be placed in a basin of water for approximately 15 minutes (a little salt can be added at this point to avoid staining) and then washed with mild soap and plenty of water.
- Reusable menstrual hygiene management material should not be shared as this may increase the risk of infection and disease.
- Drying reusable menstrual hygiene management material should be done outdoors, preferably in sunlight and never in dark, damp places.
- It is especially important to keep hands clean during menstrual hygiene management to prevent the transmission of germs.
- During the menstrual cycle, the most important thing is to do what is considered best for one's own well-being, and this can be rest, physical activity, and spending time with support networks, among others.



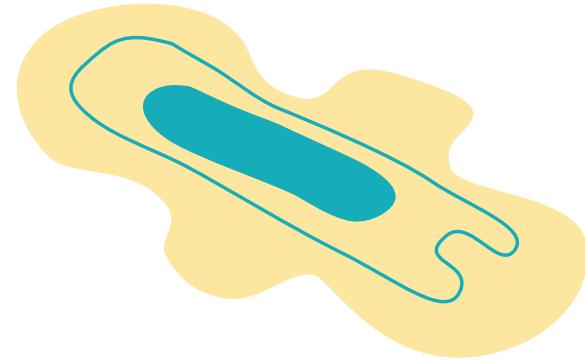
Menstrual hygiene management products

These are products that absorb and collect menstrual blood and, therefore, must be affordable and safe for all menstruating individuals. They can be disposable or reusable, and the choice of one or the other material will depend on the tastes and economic possibilities of each menstruating person.

Disposable Sanitary Pads

They absorb the flow and adhere to the underwear by means of an adhesive and “wings” that keep them in one place. They are discarded after a maximum of 8 hours, so they must be available throughout menstruation. They vary according to their size and absorption capacity.

- +** **Advantages:** practical, easy to use and obtain, and do not require access to soap and water.
- **Disadvantages:** they involve a constant expenditure of money, and they can irritate. When the towel material comes into contact with blood, it decomposes quickly and generates unpleasant odors. Some of its chemical components, such as aluminum, alcohol, artificial fragrances, dioxin, and methylene chloride, among others, can be harmful to health by altering hormonal processes or accumulating in the bloodstream. In addition, it is a source of contamination due to its low level of organic decomposition.

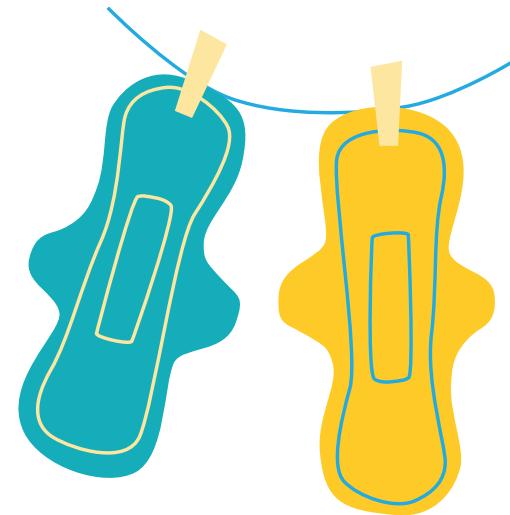


- **Reusable sanitary pads**

They absorb the flow and are placed in the underwear by adjusting the snaps that come in the wings. After use, after a maximum of 8 hours, they are washed and dried. It is recommended to reuse them for a maximum period of 1 year.

They are made of absorbent material, and some are lined with plastic to minimize leakage.

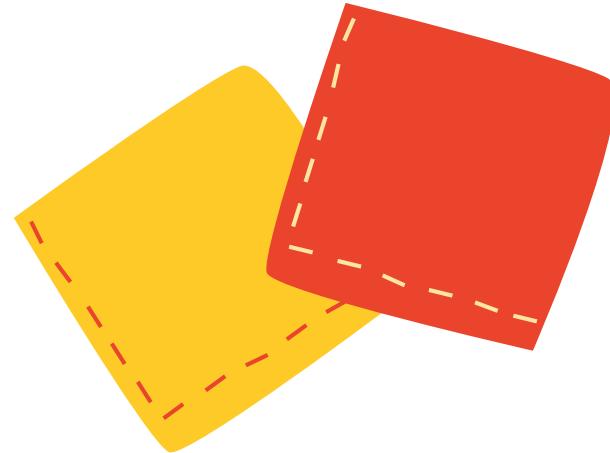
- +** **Advantages:** they are environmentally friendly, convenient, easy to use and obtain, can be made at home, and are inexpensive.
- **Disadvantages:** if the menstruating person is on the street or at school, they must store used pads in a plastic bag until they get home.



Clean pieces of fabric

Folded towel cloth, new or reused fabric scraps, or sewing several layers together for use in undergarments can be used. Pieces of cloth should be cleaned, washed, and hung out to air dry. They should not be shared and should be used for a maximum period of 1 year.

- +** **Advantages:** it is an economical, accessible, environmentally friendly, easy-to-use, and convenient method.
- **Disadvantages:** if the material is not properly washed and dried, there may be a greater risk of infection compared to other materials; if the menstruating person is on the street or at school, they should keep the used clothes in a plastic bag until they get home, and they should be changed more frequently since they do not have much absorption capacity.



Menstrual cup

- It is a non-absorbent bell-shaped device that collects menstrual flow, is inserted into the vaginal canal, and is held in place by the walls of the vagina. It is an environmentally and health-friendly product as it can be used for up to 10 years and is made of medical silicone suitable for vaginal use. It can collect approximately 15 ml of menstrual blood and remain inside the vaginal canal for up to 12 hours. After each menstrual cycle, it should be disinfected with hot boiled water for 10 minutes.

- +** **Advantages:** It is an economical method in the long term, as it can be reused for several years, but its individual cost is high. It is sustainable, comfortable, safe, and facilitates the performance of different activities during daily life. It is not recommended for use during sexual intercourse.
- **Disadvantages:** its use may seem complicated for some people since it requires some training and patience to put it in; it requires water, soap, and the possibility of boiling and storing the cup; the person must be especially careful in washing hands; and most public restrooms do not have the necessary conditions for changing the cup.



Absorbent panties

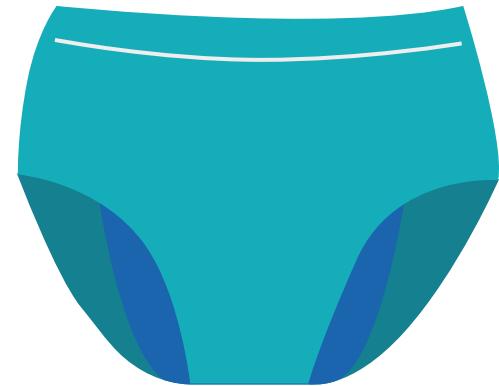
They are panties made of a special fabric that allows the absorption of bleeding. They are washable, reusable and comfortable. The inner part is made of breathable cotton fabric and the outer part is made of waterproof fabric that prevents leakage. They should be changed every 4 or 6 hours depending on the flow, can be worn for up to 12 hours, and have a useful life of up to 2 years.



Advantages: Environmentally friendly, comfortable, and easy to use.



Disadvantages: expensive, and if the menstruating person is on the street or at school, they must keep the used pantyhose in a plastic bag until they get home.



Tampons

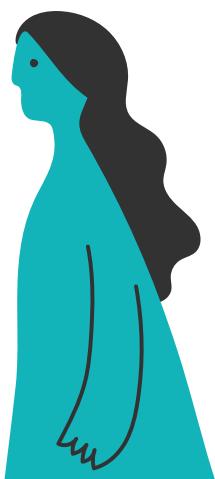
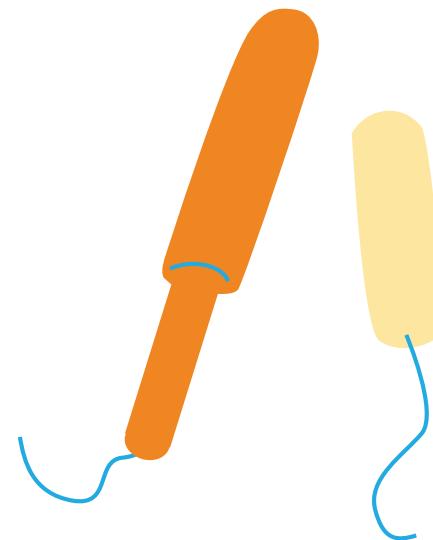
It is a small tube of absorbent material (cotton and/or rayon) with a cotton thread that remains outside the body and allows its removal. It can be inserted into the vagina to absorb menstrual flow as they expand with moisture and therefore prevent leakage. It can be used for up to 4 hours and then should be discarded.



Advantages: leak-proof, very comfortable for going to the pool.



Disadvantages: limited access, expensive, not easy to use, soap and water needed, risk of toxic shock syndrome. If put in wrong, it tends to discomfort and mistreat the vaginal walls; its use produces huge amounts of waste, so it is not environmentally friendly, and it may contain chemical components harmful to health.





Materials not recommended for menstrual hygiene management

- Pieces of cloth or dirty clothes: they can generate vaginal infections.
 - Papers (newspaper or any other) and foams: they tear easily and can easily enter the vaginal canal affecting health seriously.
-



Disposal of used products

Waste produced by menstrual hygiene management includes all used absorbent materials: cloths, disposable sanitary napkins (the menstrual product that generates the most waste), and tampons, among others. The classification of waste produced by menstrual hygiene management may vary according to the products and policies of each country, but in most cases, it is classified as municipal solid waste, not as medical waste or toxic substances, and is defined as sanitary waste.

Disposable menstrual products are made from a mixture of materials: polyethylene, cotton, rayon, polyester, cellulose, and superabsorbent polymers (SAP) that take several hundred years to degrade. In addition, most products are bleached and scented, so they contain chlorine and other chemicals that have a detrimental ecological impact if not disposed of safely.

Menstruating individuals face different constraints during menstruation according to their region, age, socioeconomic status, and access to waste disposal systems. In territories where waste management is effective and carried out through a public service, it is important to dispose of menstrual waste in the waste garbage can and not in the toilet, as it can clog pipes and drains. On the other hand, in places where safe sanitation is poor, it is common for menstrual products to be disposed of in the open air or by incineration and burial, habits that are often influenced by taboos surrounding menstruation and menstrual blood.



Gender roles related to health, hygiene, basic sanitation, and proper menstrual hygiene management.

Gender roles influence the distribution of responsibilities and resources for health, hygiene, safe sanitation, and menstrual hygiene management. Often, women and girls are responsible, for taking on tasks related to these issues, thus exposing themselves to greater health risks. In addition, gender norms can limit their access to education and resources needed for menstrual hygiene management, perpetuating cycles of poverty and exclusion. Understanding and challenging these roles is essential to promoting gender equity, thus improving the health and well-being of all people.

New masculinities are important in sanitation because they promote men's active participation in issues traditionally ignored or stigmatized. This approach fosters co-responsibility in family hygiene, respect for menstrual needs, and equity in access to sanitation services. Aware and committed men can be agents of change for more inclusive sanitation policies and can play a crucial role in transforming practices and policies related to health, hygiene, safe sanitation, and menstrual hygiene management.



- **Health:** men are responsible for their health (mental and physical), recognize the importance of self-care and preventive care, and actively participate in the care of their community.
- **Hygiene:** men are encouraged to share equally in responsibilities related to personal and household hygiene. Hygiene: men are encouraged to share equally in responsibilities related to personal and household hygiene.
- **Safe sanitation:** active participation of men and women equally in the planning, implementation, and maintenance of sanitation infrastructures is advocated.
- **Menstrual hygiene management:** new masculinities participate in destigmatizing menstruation by recognizing it as a natural process, and learning and sharing information about menstrual management with others. They can also support women and girls in their communities to ensure that they have the resources they need to manage their menstruation with dignity and without shame.

Topic 6



Adequate Sanitary Facilities



Adequate use of sanitary spaces is essential for the health and well-being of all people because they ensure privacy and protection from aggression while facilitating menstrual management and promoting attendance at school or work activities. These facilities must have appropriate lighting, functional locks, regular cleaning, and secure locations to prevent illness and ensure universal accessibility.

Key elements related to these sanitary spaces are explored below:

Safe Sanitation

Basic sanitation is limited to providing sanitary facilities to separate excreta from human contact. In contrast, safe sanitation encompasses the entire management chain: from collection to final disposal, including treatment systems, faecal sludge management, pollution prevention, regular maintenance, and trained personnel. This integrated management ensures effective protection of public health and the environment, while basic sanitation only covers minimum access needs.

Thus, for example, while basic sanitation might end with a septic tank, safe sanitation ensures that the sludge from that tank is removed, treated, and disposed of properly, closing the cycle safely for the community and the environment.

A comprehensive approach to safe sanitation includes:

- Hygiene education: promoting hygiene knowledge and practices is vital to maximize the benefits of safe sanitation.
- Community participation: involving the community at all stages ensures that solutions are appropriate and sustainable.
- Sustainability of interventions: the availability of financial resources, technical support, and ongoing training is essential for communities to maintain sanitation systems.



Importance of potable water

Potable water is an indispensable part of the safe sanitation cycle, enabling sanitation systems to function properly, from waste transport to wastewater treatment. Without a reliable supply of potable water, sanitation infrastructure cannot operate safely and sustainably.

Access to safe water is essential to keep personal hygiene, clean facilities, and ensure that waste is disposed of safely. In vulnerable situations where access to basic resources is limited, providing water is essential to prevent the spread of disease and ensure people's dignity.

Water conservation is crucial, and it includes water-saving practices such as leak repair and reuse. According to the standards established by the International Committee of the Red Cross (ICRC), the minimum amount of water needed for survival is 3 to 5 liters per person per day, and 10 to 15 liters to cover all basic needs and maintain good health.

Sanitary Infrastructure

The infrastructure of sanitary spaces requires a comprehensive design that ensures safety and functionality. Essential elements include basic facilities (toilets, sinks, showers) with resistant and easy-to-clean materials; security systems such as solid doors, locks, and good lighting; universal accessibility features such as ramps and handrails; menstrual management facilities with containers and water, and hygiene elements. This infrastructure should be adapted to the specific needs of the users, considering the cultural and contextual factors of each community.

- **Maintenance of sanitary facilities**

Regular maintenance of sanitary facilities is indispensable to ensure their continuous operation and prevent deterioration that could compromise the hygiene and health of users. In addition, the condition of pipes and drainage systems should also be monitored to avoid leaks or lack of water. Thus, the use of durable materials and the availability of spare parts are essential to ensure the proper functioning of the facilities.



Access to sanitary facilities

Access to sanitary facilities should ensure close and safe locations with well-lit pathways, ramps for accessibility, and clear signage. Availability includes appropriate opening hours, sufficient units, and regular maintenance by trained staff. Facilities should consider specific needs such as gender separation, accommodations for different age and disability groups, and be culturally appropriate.

In that vein, access to adequate sanitary facilities is crucial for people to manage their menstruation properly and safely; this implies the provision of private, clean facilities equipped with water, soap, and safe containers for the disposal of menstrual hygiene products. The absence of these conditions can lead to health problems, such as infections, and contribute to school and work absenteeism, perpetuating gender inequality.



Prevention of gender-based violence

Safe access to toilets is a crucial factor in preventing gender-based violence. In many communities, women and girls are at risk of harassment when using toilet facilities located in isolated or poorly lit areas. Therefore, authorities must ensure that facilities are designed and located to maximize safety with good lighting, visible locations, and secure locking mechanisms, and are accessible to all.

Preventing gender-based violence in healthcare facilities requires a comprehensive approach that encompasses multiple aspects. Security design and infrastructure must include strategic location, adequate lighting, and surveillance systems with secure locks. In addition, security protocols are essential and must consider evacuation routes and gender-trained personnel. It is crucial to identify risk factors such as vulnerable times and isolated areas in order to implement effective preventive measures.

Response and prevention: preventive measures include clear signage, panic buttons, and regular maintenance. The incident response must be immediate, with established protocols that include attention, registration, and follow-up. Community education and awareness-raising are essential to raise awareness and promote reporting in the event that any right is violated.



Tips for a safe school community: teachers should maintain clean and safe sanitary facilities, educate about hygiene, and establish clear emergency protocols. Parents have a fundamental role in teaching hygiene habits at home, normalizing conversations about menstrual management, and ensuring that their children have personal hygiene kits. For boys and girls, hand washing, maintaining cleanliness, respecting the privacy of others, and reporting any problems to trusted adults are essential.



Safety measures in emergency situations: it is important to know escape routes, keep locks secured, and avoid using facilities at times when they are not as busy. Effective communication between teachers, parents, and students is key to maintaining safe and functional sanitary spaces.



References

- Air and water science (AWS). (n.d). School Protocol for Cleaning and Disinfection. <https://www.giz.de/de/downloads/Sanitation%20for%20Millions%20Inclusive%20WASH%20Activities.pdf>
- All hands and hearts (2023). Why is Water, Sanitation and Hygiene (WASH) Important? <https://www.allhandsandhearts.org/es/blog/community/wash/>
- OHCHR (n.d). The right to health: key aspects and common misconceptions. <https://www.ohchr.org/en/health/right-health-key-aspects-and-common-misconceptions>
- Amnesty International. (n.d.). Understanding Identity: A Human Rights Perspective. <https://www.amnesty.org/en/>
- Association for the prevention of torture (APT). (n.d.). Sanitary Facilities and Personal Hygiene. <https://www.apr.ch/es/knowledge-hub/dfd/sanitary-facilities-and-personal-hygiene>
- Banco Interamericano de Desarrollo (BID). (n.d.). ¿Qué es interseccionalidad? <https://blogs.iadb.org/igualdad/es/que-es-interseccionalidad/>
- Bhatkal, T., Mehta, L. y Sumitra, R. (2024). Neglected second and third generation challenges of urban sanitation: A review of the marginality and exclusion dimensions of safely managed sanitation. Water Journal Article on Sanitation. <https://journals.plos.org/water/article?id=10.1371/journal.pwat.0000252>
- Centre for Affordable Water and Sanitation Technology (CAWST). (n.d.). Ventilated improved pit latrine fact sheet. <https://washresources.cawst.org/es/resources/766b07d1/ventilated-improved-pit-latrines-fact-sheet>
- Departamento General de Iftaa', Ministerio de Awqaf y Asuntos Islámicos, Ministerio de Agua e Irrigación Jordania y Sanitation for Millions. (2020). WASH en la Guía Islámica sobre Agua, Saneamiento e Higiene.
- Fundación Plan. (2021). Camino 1: Identifiquemos y desnaturalicemos las violencias basadas en género. <https://plan.org.co/liderandoporlapaz/wp-content/uploads/2022/02/Modulo-4.pdf>
- Fundación plan. (2021). Camino 1: Laboratorios creativos de hombres y masculinidades en el Pacífico colombiano. https://plan.org.co/liderandoporlapaz/wp-content/uploads/2022/02/Camino-1-Laboratorios-creativos_DEF.pdf
- Fundación Plan. (2021). Camino 2: Derechos sexuales y reproductivos para niñas, niños, adolescentes y personas adultas del Pacífico colombiano. https://plan.org.co/liderandoporlapaz/wp-content/uploads/2022/02/Camino-2-Derechos-sexuales-y-reproductivos_DEF.pdf



- Human Rights Watch. (n.d.). Identity and Discrimination. <https://www.hrw.org/>
- Human Rights Watch. (n.d.). Menstrual Hygiene Rights. <https://www.hrw.org/>
- International Medical Corps, Save the Children y UNICEF. (2015). Growing Healthy: Things that girls need to know. <https://resourcecentre.savethechildren.net/document/growing-healthy-things-girls-need-know/>
- Iroegbu, D. I., Adamu, V. E., Ekhaton, J., Ojike, A. N., Oyama, L. E., y Eze, C. C. (2018). Transformation towards sustainable and resilient WASH services. Faith-based approach to improve menstrual hygiene management (MHM): challenges and successes. 41st international conference WEDC. Document 2955. Egerton University, Nakuru, Kenya.
- JASS. Poder colectivo. (n.d.). La Interseccionalidad. Recuperado de: <https://justassociates.org/es/ideas-clave/la-interseccionalidad/>
- Ministry of Education and Sports. (2022). Understanding and Managing Menstruation - A Reader for Learners. <https://healtheducationresources.unesco.org/library/documents/understanding-and-managing-menstruation-reader-learners>
- Oberle, S. (2021). Der Zyklus-Code. Komplett-Media.
- OHCHR. (n.d.). Identity and Rights. https://www.ohchr.org/en/ohchr_homepage
- OHCHR. (n.d.). Menstrual Hygiene Management and Human Rights. https://www.ohchr.org/en/ohchr_homepage
- OHCHR. (n.d.). The right to health: key aspects and common misconceptions. <https://www.ohchr.org/es/health/right-health-key-aspects-and-common-misconceptions>
- WHO and Human Reproduction Programme (HRP). (2017) Sexual health and its linkages to reproductive health: an operational approach <https://www.who.int/publications/i/item/978924151288>
- Ramirez, C. (2022). Educación Menstrual Emancipadora, una vía para interpelar la misoginia expresada en el Tabú Menstrual. Fallidos Editores.

- Sanitation for Millions (2019). Approach towards Menstrual Waste Management. Sanitation for Millions Approach to Menstrual Health. <https://www.sanitationformillions.org/wp-content/uploads/2022/06/Sanitation-for-Millions-Approach-towards-Menstrual-Waster-Management.pdf>
- Sanitation for Millions and Ministry of Education and Sports Uganda. (n.d.). Popular Guideline Menstrual Hygiene Management (MHM).
- Sanitation for Millions. (2021). Menstrual Health and Menstrual Hygiene Management. A contribution of Sanitation for Millions to improved gender equality and safer hygiene. <https://www.giz.de/de/downloads/Sanitation%20for%20Millions%20Menstrual%20Health%20and%20Menstrual%20Hygiene%20Management.pdf>
- UNICEF. (2019a). Guidance on Menstrual Health and Hygiene. <https://www.unicef.org/media/91341/file/UNICEF-Guidance-menstrual-health-hygiene-2019.pdf>
- UNICEF. (2020). Guidance for Monitoring Menstrual Health and Hygiene. <https://www.unicef.org/documents/guidance-monitoring-menstrual-health-and-hygiene>
- UNICEF. (n.d.). What are human rights? <https://www.unicef.org/child-rights-convention/what-are-human-rights>
- WaterAid, Fundación Plan and UNICEF. (2019). Guidance on Programming for Rural Sanitation. <https://fsnnetwork.org/sites/default/files/guidance-on-programming-for-rural-sanitation.pdf>
- WaterAid. (n.d.). Menstrual hygiene matters: A resource for improving menstrual hygiene around the world. <https://www.wateraid.org/>
- WaterLex. (2017). Los Derechos Humanos al Agua y al Saneamiento. <http://humanright2water.org/fr/wp-content/uploads/2020/03/17-Los-Derechos-Humanos-Al-Agua-y-Al-Saneamiento.pdf>
- World Health Organization (WHO). (2009). Guidelines on Sanitation and Health. https://iris.who.int/bitstream/handle/10665/44102/9789241597906_eng.pdf?sequence=1



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