

1. Details of Module and its structure

| Module Detail | |
|-------------------|---|
| Subject Name | Food, Nutrition for Healthy Living |
| Course Name | Food, Nutrition for Healthy Living |
| Module Name/Title | Personal Hygiene |
| Module Id | FNHL_101017 |
| Pre-requisites | General knowledge about Personal Hygiene |
| Objectives | After going through this lesson, the learners will be able to understand the following : <ol style="list-style-type: none">1. Hygiene2. Personal Hygiene3. Body Image4. Psychological Aspect5. Health reasons6. Good Grooming Habits |
| Keywords | Concept, Wash, GHP |

2. Development Team

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1. Introduction

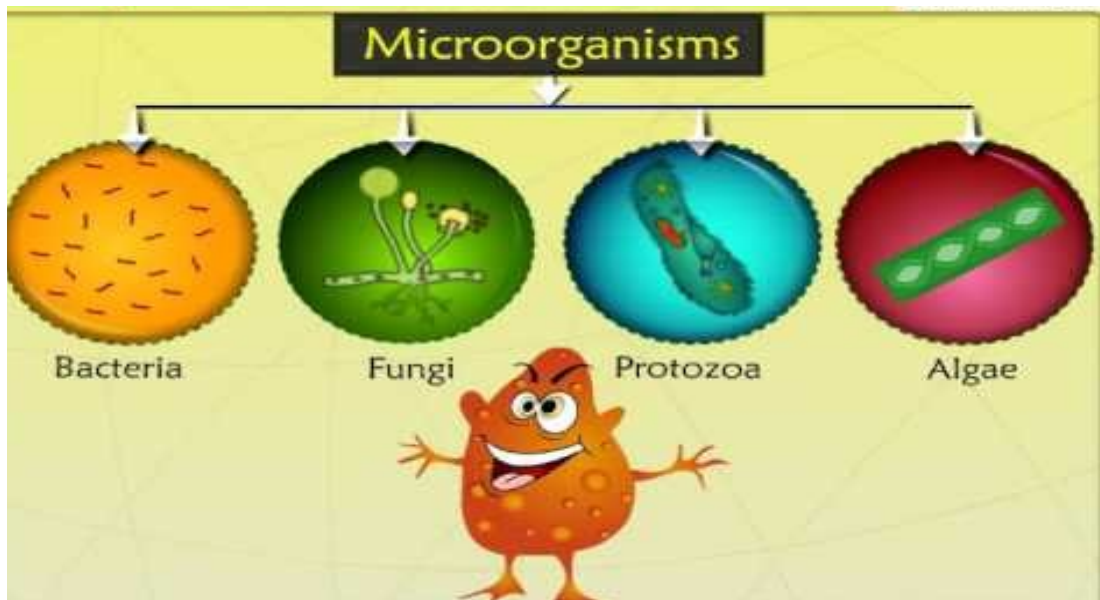
We all are blessed with a pair of eyes to appreciate mother earth and its beauty. But, it's not necessary that what we see is what only exists. We are surrounded an invisible world of organisms which we cannot see through our normal eyes. These tiny organisms are called micro-organisms. Instrument such as a microscope (Picture 1) is required to see these microorganisms.

Human body is host to both good and bad micro-organisms. Good micro-organisms improve health. It keeps the body strong and free from diseases. Like, the microbial flora in our gut, which can synthesize some vitamins. Whereas, bad micro-organisms makes an individual unhealthy and sick.

Micro-organisms are of many types. Bacteria, virus, algae, protozoa, fungi etc. are some type of microorganisms (Picture 2). Each type is very different from the other because of their structure, functions and how they act on an individual's body. They have different requirement for growth suitable measures have to be used for there control. For example, Neel was suffering from common cold. He went to the doctor for medicine. The doctor asked him to take warm water and avoid eating or drinking spicy food, cold drink, cold water or ice cream. The doctor did not give any



medicine. Do you know why? Let us look again why Neel was sick. He was suffering from a common cold. Common cold is caused by a virus which is a type of microorganisms. Therefore, in the example Neel was not given any antibiotics. Antibiotics act on bacteria not on viruses because viruses live on host cell environment. He was asked to avoid certain food and keep good personal hygiene so that he recovers fast.



Picture2- Types of microorganisms

To reduce the number of harmful microorganisms and minimising spread of disease one should stay hygienic. Though, it looks like a very simple concept as you follow it many times a day. But, correct practises of personal hygiene will help you achieve maximum benefits of good health. Let us look at it.

2. Hygiene

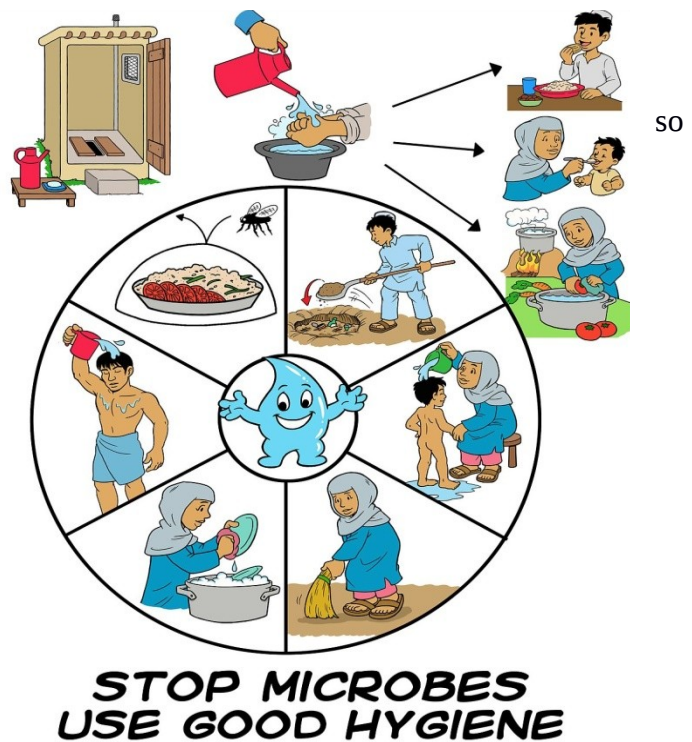
Hygiene is a set of practices performed to preserve health. According to the World Health Organization (WHO), "Hygiene refers to behavioural practices that help to maintain health and prevent the spread of diseases. Good hygiene promotes good health and well-being. Good hygiene can be achieved by improvement in water supply, sanitation as well as improving daily activities such as brushing, bathing along with nutrition. Practices such as hand washing, face washing, nails trimming, bathing with soap and water etc are practised for personal hygiene.

Generally, people use the word hygiene and cleanliness interchangeably. But, these two words are not synonymous to each other. Cleanliness is a step in which the main focus is to remove dirt, clear greasy surfaces, clean unwanted substances. The process is done using soap/detergent using clean

water. Whereas, hygiene is a precautionary step where practices such as cleaning is practised to avoid microorganisms and decrease incidence of illness in an individual.

3. Personal Hygiene

The concept of personal hygiene is very important for each individual. Personal hygiene can be described as a way of maintaining cleanliness and grooming oneself. It is important for personal, social and psychological reasons and should be a way of life. People who practise personal hygiene have a healthy body and mind. It increases work efficiency, develops self-image and reduce the chance of falling sick. Personal hygiene is a practice which is taught in early stages of life i.e. from the beginning of school years that it becomes a habit rather than compulsion. Many organisations such as World Health Organisation (WHO) and Centre for Affordable Water and Sanitation Technology (CAWST) are working towards finding new ways to practise hygiene. They are also spreading awareness and are adopting measures to educate people. CAWST have suggested measures to improve hygiene standards which can be incorporated in normal daily life (Picture 3).



Picture 3: Personal Hygiene Practice by Centre for affordable water and sanitation technology

Brushing teeth, bathing, sweeping, proper sanitation, hand washing etc are well illustrated in the picture. Hands should be thoroughly washed before and after cooking, eating or feeding the child. Clean water should be used while conducting these daily functions. This will reduce growth of microbes and will reduce illness.

Importance of personal hygiene

Personal hygiene concept appears to be easy to follow but maintaining personal hygiene for long time is very difficult. Most people are very conscious about their personal hygiene. One who

maintains personal hygiene is physically and mentally at peace and hence, the efficiency at work increases.

4. Body Image

Body image is a way through which one looks at oneself. Eg: when Rahul brushes his teeth and bathes regularly, wears neat and clean clothes, neatly comb his hair, he feels good about himself.

This increases his confidence, self-esteem and motivates him to meet people (Picture 4).



Picture 4: Representation of Body Image

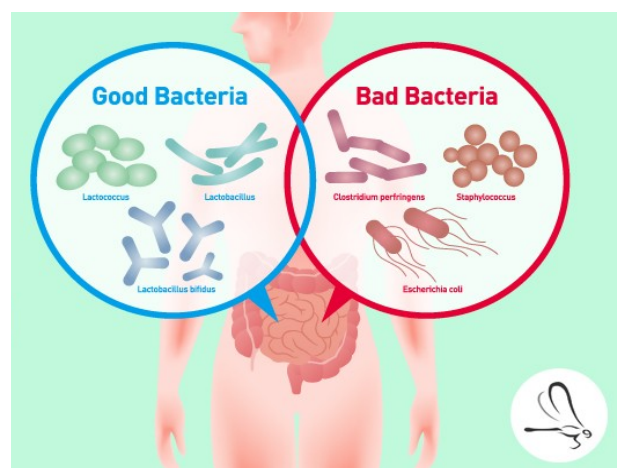
Media such as magazine, advertisement, TV, movies or internet greatly influences the mind-set through which one looks at oneself. Many celebrities are seen endorsing product ranging from toothpaste, soaps or other hygiene products. This is done to encourage people to adopt healthy hygienic practices and remain healthy.

5. Psychological Aspect

Good personal hygiene enhances ones self-esteem and confidence. Clean and neat people are more accepted in social situations. People, especially of the opposite gender are attracted to well-groomed presentable individual.

6. Health reasons

Human body is a host to many microorganisms. Good bacteria promote health. Whereas, bad bacteria increases the vulnerability to diseases. Poor hygiene practices promote poor health.



Picture 5 Human digestive tract system

Picture 5 shows human digestive tract as a host to both good and bad bacteria. Mostly, such bacteria are found in small intestine. This is the place from where most of the food nutrients are absorbed which further provide us energy. When small intestine is host to good bacteria, people are more energetic and are happy. Whereas, when it is a host to bad bacteria, people suffer from symptoms such as stomachache, discomfort and don't feel like working.

Everyone is surrounded by both good and bad microorganisms. Our personal hygiene and habits finally decides which microorganisms will grow and stay in the host's body. For eg: Radha fell in the playground while playing and got hurt on her knee from a rusted iron fence. The wound should be dressed under clean and sanitised conditions. She should also get a tetanus injection within 24-48hrs to avoid the risk of infection. But, if she does not dress the wound and keeps the wound unclean, bad microorganisms will grow and cause infection and more pain. She may also fall sick and catch other infections easily. Such situations can also lead to death.

Effects of Poor Personal Hygiene

- **Social embarrassment-** All of us like to interact, talk and mingle with people who are neat, clean, tidy and smell good. Such individuals have more opportunity to meet new people and get many opportunities in terms of career, relationship, friendship etc. People who do not practice good hygiene feel alienated, as others do not like to be in their company. Such people are neglected and feel unwanted.
- **Illness-** Bad personal hygienic practises can cause many digestive tract related problems. Common symptoms such as abdominal pain, discomfort, inability to work, vomiting, diarrhoea or bloody diarrhoea. Skin and respiratory tract infections spread through poor personal habits. Bathing daily prevents body order and keeps the body clean. Both male and female genital organs are highly susceptible to diseases which if left untreated can be serious.

7. Good Grooming Habits

Good personal hygiene requires taking care and cleaning of all the body parts regularly. Each body part is a host to different micro-organism.

7.1. Hair

Hair is one of the most beautiful bodily features. Clean, oil free hair looks very beautiful. When neatly combed and properly tied, one looks presentable (Picture 6). Such people are mostly accepted among peers and in social gatherings.

Washing of hair is another aspect of good personal hygiene. Before every wash, hair should be properly oiled. Oiling should be done twice a week. While oiling it is highly recommended to oil using fingertips, so that oil should reach to the hair roots. Also, while massaging, less hair strands

are damaged or broken. Hair should be properly washed using mild shampoo and clean water. It keeps hair fresh and healthy. It also reduces/removes dandruff, lice (Picture 7) and other infections.



Picture 6- Well combed hair v/s untidy



Picture 7- Head lice

7.2. Teeth and mouth

Teeth- A beautiful smile can brighten up someone's day but if teeth are dirty, food is sticking in between them, bad breathe etc will bring an entirely different result.

Points to be remember while brushing (Picture 8):

- Teeth should be brushed twice daily i.e. once before sleeping and once after waking up.
- Mouth should be rinsed after every meal to remove food particles lodged in the mouth.
- Normal bristle toothbrush is advisable for brushing teeth.
- Toothbrush should be used carefully and gently.
- Bristles should be moved clockwise as well as anti-clockwise to clean teeth.
- Toothbrush should not be moved too roughly and vigorously as it will damage teeth enamel (protective layer on each and every tooth).
- Toothbrush should be changed when bristles are damaged.
- Unhealthy gums are weak and not strong enough to hold tooth upright. Hence, loss of teeth is common in such cases. If you have any tooth or gums related problems such as inability to chew or bite, pain, swelling or bleeding of gums etc, you should immediately visit your nearest dentist.



Picture 8- Brushing tooth

7.2.1. Halitosis- Halitosis or bad breath can be result of improper brushing, inadequate water consumption, gum infection etc. Tongue is generally neglected while brushing teeth. Tongue cleaning plays a major role in avoiding bad breath. Tongue should be cleaned as follows:

- The simplest method is to use the bristle of the toothbrush after brushing teeth. Gently move the bristle on the tongue and then rinse it with clean water.
- Another method is to use tongue scraper (Picture 9). As shown in the picture, a tongue scraper is generally made up of soft plastic and is used gently on the tongue. It should be kept in mind that whenever tongue scraper is used, it should be thoroughly washed and then kept back.



Picture 9- Tongue Scrapper

To keep good oral hygiene, it is advisable to visit dentist every 6months for regular check-ups.

7.3. Hand washing

Hands are the most common source of transferring microbes and infectious pathogens (disease causing organisms) from our external environment to the human body system. Good hand hygiene is one of the most critical controls to reduce illness. It is very useful in preventing diarrhoeal diseases. Hand hygiene is basically any method that removes microorganisms present on our hand. The easiest, common and effective method to remove maximum micro-organisms from hands is effective washing of hands. The basic principle of hand washing is removal and not killing of microbes.

Hand washing should be done properly and in a systematic way (Picture 10).

- It involves vigorous and brief rubbing of all surfaces of hand (both front and back) using soap and water.
- Nails and area between the fingers should be given special attention. Small food particles, dirt, etc. easily stick on to such places. It is difficult to clean these places and require extra care to be removed.
- While washing hands, close attention should be paid on the amount of water and time used. The amount of soap applied on hands should evenly cover every inch of hand. Soapy hands should be washed under running water to remove dirt. Water tap should be immediately turned off to save water.

The amount of time spent in hand washing is important as it reduces the transmission of microorganisms from hand to food, water, people or object likes door knobs etc. Wet hands should be dried immediately and properly. Towels used for hand drying should be changed daily and hand driers should be used in public place.

Hands should be thoroughly washed after using the:

- Toilets
- Cleaning toilets, bathrooms or any cleaning operation
- Handling potentially contaminated or soiled objects
- Cleaning up or dressing wounds
- Before and after preparing food
- Before and after eating food
- After discarding garbage



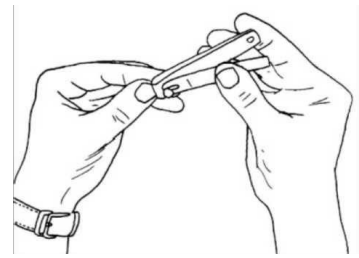
Picture 10- Removal of microbes through washing hand

Recently, Hand sanitizers are also available in the market. They claim to remove maximum microorganisms from hands. They are easy, convenient but they do not replace the use of hand washing with soap and water. Alcohol based sanitizer of commercial brands are not completely effective on hands which are visibly dirty. It is hence advisable to wash hands with soap and water. They reduce the level of microorganisms present to safe level.

7.4. Trim nails

Indian dishes are generally eaten using hands and fingers. The accumulation of food particles in nails is very common. Along with fingers, toe nails are highly prone to dirt accumulation. The food particles or dirt deposits needs to be cleaned everyday. Thus, both fingernails and toenails should be cut properly and shaped well to avoid accumulation of unwanted substances which can cause infected nail bed, which is a painful condition. Nails should be neatly cut using a nail cutter(Picture 11). Tools such as scissors, knife or peeling nail directly using other fingers should not be practised. It can cause irregular edges and sometimes if the peel is too deep, skin also tears apart causing blood to come out.

In general, women do like long nails. Long nails may look appealing visually, but they are great store houses of food particles, dirt and faecal matter. Washing of hands with long nails requires extra attention and more care. Inadequate washing will result into accumulation and deposition of these particles causing foul smell from hands. It will also act as a source to transfer disease causing microorganism while preparation and consumption of food, or filling water from water sources such as well, lakes or tap. Consumption of infective food or water may cause stomachache, discomfort, diarrhoea, uneasiness and fever etc. Thus, nails should be cut as soon as they appear to grow long to avoid any infections.



Picture 11- Cutting nails using nail cutter

7.5. Bathe regularly

Each and every individual takes bath every morning. Some individuals are in a habit of bathing twice a day. Why bathing is given so much importance? Why cannot an individual bathe whenever he/she want? Human body acquires harmful micro-organisms every day, while doing daily activities like handshaking or hugging people, touching surrounding objects such as doorknobs, walls, table, chair etc.

The body is constantly shedding skin which needs to be removed and cleaned. It is therefore very important to bathe everyday to avoid/reduce the risk of infectious diseases. Body should be washed and cleaned everyday with clean water and soap.



Picture 12- Bathing

While bathing, one should keep in mind

- Ample amount of soap should be used to cover all the body surfaces.
- Water should be used sufficiently to wash off the soap.
- Clean and dry towel should be used to dry body.
- Used towels should be immediately spread and hung on cloth drying wire in open air, and bright sunlight.
- Towels left wet and clumsy on the bed or chair will not be dried properly for the next day use as well as it will increase the growth of microorganisms left behind from the wiped shed skin.
- In certain situations, bathing may not be possible such as camping or when there is shortage of water. In such cases, use a wet towel or sponge to wipe all body surfaces.

7.5.1. External genital organs

Male and female external genital organs require extra care. These body parts are highly susceptible to growth of many harmful microorganisms, if left uncleaned. Both male and female external genital organs functions are excretion of body waste and helps in reproduction process.

External genital organs of both male and female are very different from each other and hence, the care required to keep it clean, dry and healthy is also different. The care to be provided should begin from the very beginning of life i.e. from birth of the child. As the child grows, there are many bodily changes such as increase in weight and height, walking and running abilities, changes in external genital organs etc. Hence, the need to take care of these organs gets complex and important. This helps to avoid itchiness, redness, pain, irritability etc.

Both male and female should remember the following-

- Wash gently and thoroughly with clean water and mild soap while bathing. Avoid using scented soaps and deodorants at those places. It is advisable to wipe one's external genitals with clean tissues after urinating.
- Wear cotton underwear. Boys should try to wear loosely fitted underwear or boxers. Change underwear daily. Do not repeat wearing the same underwear for many days.
- Hands should be washed well after using the toilets.
- Use of protections such as condoms should be made to avoid acquiring infectious diseases such as HIV-AIDS.

7.6. Adequate Sleep

A sound sleep is very important for human body. It is the time at which the body maintains and repairs most of the muscle wear and tear of the day. While sleeping, all the activities of the body come to rest and only main functions such as heart pumping, brain functioning etc are active. The body rejuvenates itself during sleep and energises the body for the next day. Individual should sleep on comfortable beds i.e. neither too hard nor too soft. A bed which can comfort the backbone and do not hurt when you lie on the bed is suitable for a good sleep. Thus, sleep of 8 hours is necessary for proper functioning of the body.

7.7 Rest and Recreation

Adequate rest and recreation is required for sound mind and body. Therefore each individual should do some form exercise daily. Recreation like. Playing games, walking, an engaging oneself in some community work.

8. Sanitation

According to WHO “Sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and faeces”. Personal hygiene and sanitation are mutual in nature. Many studies have been conducted which showed that water, sanitation and hygiene (WASH) affects all stages of life. The major effects are visible from birth itself. Healthy and safe environment restrict the growth of disease causing microorganisms. A new born baby is susceptible to acquire many diseases and infection. Use of water for cleaning the body or wiping genital areas after excretion should be clean, safe and free from dirt. Use of dirty water or dirty cloth for wiping can be fatal for new born.

Proper disposal of waste products such as urine and faecal matter is very important. Public restroom has been provided by the government so that people do not excrete in open areas. Improper disposal leads to decomposition of waste products causing foul smell, mosquito breeding, reduces the quality of water of lake, rivers, pond and pollutes the environment etc. In 2017, the government has also instructed all the restaurant, café and eatery outlets to allow the use of toilets for no cost.

Illness such as amoebic dysentery is very common when sanitation is poor. Individuals who suffer from amoebic dysentery will have abdominal pain, discomfort, diarrhoea or bloody diarrhoea.

9. Faulty Personal Habits

Faulty personal habits could be a source of contamination such as

- Picking the nose while handling food.
- Scratching the head or unclean body parts.
- Coughing or sneezing on to food.
- Cooking food without washing hands
- Using the same kitchen towel for drying hands, wiping kitchen surface and dishes.
- Blowing on milk for cream separation.
- Wiping perspiration with the kitchen towel.

We have together covered major aspects of personal hygiene. Isn't personal hygiene a very important aspect for our daily life? It makes us as well as our family healthy and avoid falling sick. Such small measures are very easy to incorporate in daily life.

What you have learnt?

- ❖ Micro-organisms are tiny organisms which cannot be seen through normal eyes. Microscope is an instrument which is required to see these organisms.

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- ❖ There are many types of micro-organisms such as bacteria, fungi, virus, protozoa etc
 - ❖ Cleanliness is removal of dirt, dust, oil/grease surfaces using soap/detergent using water. Whereas, hygiene is a precautionary step which involves steps such as cleaning to reduce the growth of microorganisms.
 - ❖ Personal hygiene includes performing daily activities such as combing hair, brushing teeth, bathing regularly, washing external genital organs, sleeping in time, proper sanitation, domestic food hygienic practises.
 - ❖ Teeth should be brushed twice a day, once in the morning and once before going to bed.
 - ❖ Every individual should take bath each and every day. Hair should be washed twice in a week.
 - ❖ Hands should be washed after using the toilet every time.
 - ❖ WASH stands for water, sanitation and hygiene.
 - ❖ Hands should be washed before and after cooking of food.
 - ❖ Faulty personal habits lead to contamination of food.