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B. PHARMACY

8th SEMESTER

SOCIAL AND PREVENTIVE PHARMACY

BP802ET

UNIT - 1

Concept of Health & Disease | Social & Health Education
Sociology and Health | Hygiene and Health

UNIT 1 — TOPICS COVERED

1. Concept of Health and Disease

Definition, concepts and evaluation of public health • Prevention and control of disease • Social causes of diseases • Social problems of the sick

2. Social and Health Education

Food in relation to nutrition and health • Balanced diet • Nutritional deficiencies • Vitamin deficiencies • Malnutrition and its prevention

3. Sociology and Health

Socio-cultural factors related to health and disease • Impact of urbanization on health and disease • Poverty and health

4. Hygiene and Health

Personal hygiene and health care • Avoidable habits

UNIT 1

CONCEPT OF HEALTH AND DISEASE

1.1 Definition of Health

📌 WHO Definition of Health (1948)

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

This famous definition by the World Health Organization (WHO) is considered a landmark, because it shifted the meaning of health from a narrow, disease-centred view to a broad, positive concept. Later, in 1986, the WHO further added a spiritual dimension and the ability to lead a "socially and economically productive life."

▸ Operational / Newer Definition

Health is a condition or quality of the human organism that expresses adequate functioning under given genetic and environmental conditions.

▸ Dimensions of Health

Health is a multi-dimensional concept. The major dimensions are:

- **Physical dimension** — Proper functioning of all body organs and systems; absence of disease, normal weight, vital signs and stamina.
- **Mental dimension** — A state of balance between an individual and the surrounding world; freedom from anxiety, depression and stress.
- **Social dimension** — Ability to maintain harmonious relationships, perform social roles and adapt to social environment.
- **Spiritual dimension** — Sense of purpose in life, ethical values, peace of mind and faith.
- **Emotional dimension** — Capacity to recognize, express and manage one's emotions appropriately.
- **Vocational dimension** — Job satisfaction and productive work life.
- **Other dimensions** — Philosophical, cultural, socio-economic, environmental, educational, nutritional, curative and preventive.

Concepts of Health

Over time, the understanding of health has evolved through the following major concepts:

Concept	Description
Biomedical Concept	Health is the absence of disease. The body is treated as a machine; disease is a malfunction. Limitation: ignores social, mental and environmental factors.
Ecological Concept	Health is a dynamic equilibrium between man and his environment. Disease is a maladjustment of the human organism to environment.
Psychosocial Concept	Health is influenced not only by biological factors but also by social, psychological, cultural, economic and political factors.
Holistic Concept	Synthesis of all above concepts. Recognizes the strength of social, economic, political, environmental influences on health. Health is a multi-dimensional process involving the well-being of the whole person in the context of the environment.

Evolution and Evaluation of Public Health

> 📌 **Definition – Public Health (Winslow, 1920)**
> "Public health is the science and art of preventing disease, prolonging life and promoting health and efficiency through organized community efforts."

Public health focuses on the health of the community as a whole rather than individual patients. It is a multidisciplinary field combining medicine, epidemiology, biostatistics, sanitation, nutrition, sociology and management.

▸ Aims of Public Health

- Promotion of health
- Prevention of disease
- Prolongation of life
- Improvement of physical, mental and social efficiency of the community

▸ Phases / Evolution of Public Health

Phase	Period	Key Features
Disease Control Phase	1880 – 1920	Focus on environmental sanitation, disinfection, vaccination, control of epidemics like cholera, plague and small pox.

Phase	Period	Key Features
Health Promotional Phase	1920 – 1960	Maternal & child health services, school health, mental health and occupational health programmes were started.
Social Engineering Phase	1960 – 1980	Recognition of social factors of health; programmes to combat chronic non-communicable diseases (CVD, cancer, diabetes).
Health for All Phase	1981 – 2000 AD	Alma-Ata Declaration (1978) — Primary Health Care approach; "Health for All by the year 2000" adopted by WHO.
Modern / SDG Phase	2000 onwards	Millennium Development Goals (MDGs) and now Sustainable Development Goals (SDGs); Universal Health Coverage; National Health Mission in India.

▸ Evaluation of Public Health

Evaluation means measuring how effective public health programmes are in achieving their goals. It is done using the following indicators:

Indicator	Examples
Mortality Indicators	Crude death rate, Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR), Under-5 mortality, Life expectancy at birth.
Morbidity Indicators	Incidence and prevalence of disease, hospital admissions, sickness absenteeism.
Disability Indicators	Disability Adjusted Life Years (DALY), Quality Adjusted Life Years (QALY), HALE.
Nutritional Indicators	Anthropometric measurements (height, weight, BMI), prevalence of low birth weight, anaemia and goitre.
Health-Care Delivery Indicators	Doctor-population ratio, nurse-population ratio, hospital-bed ratio, immunization coverage.
Socio-economic Indicators	Per capita GNP, literacy rate, family size, housing conditions, employment.
Environmental Indicators	Quality of air & water, sanitation coverage, noise & radiation pollution levels.
Quality of Life Indicators	Physical Quality of Life Index (PQLI), Human Development Index (HDI).

Concept of Disease

📌 Definition of Disease

Disease is a condition of the body or some part of it in which the functions are disturbed or deranged. (Webster) — In simple terms, disease is the opposite of health.

▸ Disease Classification

- **Communicable / Infectious diseases** — caused by pathogens (e.g., tuberculosis, malaria, COVID-19).
- **Non-communicable diseases** — diabetes, hypertension, cardiovascular diseases, cancer.
- **Acute diseases** — sudden onset, short duration (e.g., common cold, food poisoning).
- **Chronic diseases** — long lasting (e.g., asthma, arthritis).

▸ Theories of Disease Causation

- **Germ Theory of disease** — one organism causes one disease (Louis Pasteur, Robert Koch).
- **Epidemiological Triad** — interaction of Agent, Host and Environment.
- **Multifactorial Causation** — diseases (especially chronic) are caused by multiple factors — biological, social, behavioural, environmental.
- **Web of Causation** — a network of interrelated risk factors (suitable for modern lifestyle diseases like CHD).

▸ Natural History of Disease

Every disease passes through a natural sequence of events when no treatment is given. The two main phases are:

Phase	Description
Pre-pathogenesis Phase	Disease has not yet developed but factors favouring its occurrence are present (interaction of agent, host and environment).
Pathogenesis Phase	Begins when the agent enters the host. Includes early pathogenesis → discernible early lesions → advanced disease → outcome (recovery, disability or death).

Prevention and Control of Disease

📌 Definition – Prevention

Actions aimed at eradicating, eliminating or minimizing the impact of disease and disability. The concept of prevention is best applied at the population level.

Disease prevention is broadly classified into four levels (Leavell & Clark):

Level	Stage of Disease	Activities / Examples
Primordial Prevention	Before risk factors appear	Health promotion, healthy lifestyle education in childhood; preventing tobacco initiation, encouraging physical activity from school age.
Primary Prevention	Pre-pathogenesis (before disease)	Health education, immunization (BCG, polio, MMR), good nutrition, sanitation, environmental modifications.
Secondary Prevention	Early pathogenesis (early disease)	Early diagnosis and prompt treatment; screening for cancer, BP and diabetes; mass screening camps.
Tertiary Prevention	Late pathogenesis (advanced disease)	Disability limitation and rehabilitation — physiotherapy, prosthesis, vocational training of disabled.

▸ Modes of Disease Control

- **Disease Control** — reducing disease incidence, prevalence and morbidity to a locally acceptable level (e.g., diarrhoeal diseases).
- **Disease Elimination** — reduction of disease to zero in a defined geographical area (e.g., neonatal tetanus elimination).
- **Disease Eradication** — complete worldwide removal of disease (e.g., smallpox eradicated in 1980).
- **Monitoring & Surveillance** — continuous observation of disease patterns and risk factors.

Quick Recall — Levels of Prevention

- Primordial → Stop risk factors from arising.
- Primary → Stop disease from occurring (immunization, education).
- Secondary → Stop disease from progressing (early diagnosis).
- Tertiary → Stop complications and restore function (rehabilitation).

Social Causes of Diseases

Apart from biological agents, many social conditions act as the "root causes" of disease. These are also called the social determinants of health.

Social Cause	Effect on Health / Examples
Poverty	Under-nutrition, low immunity → tuberculosis, anaemia, infant deaths.
Illiteracy	Poor health awareness, late health-seeking, superstitions, harmful practices.
Unemployment	Mental stress, depression, alcoholism, family violence.
Overcrowding & Poor Housing	Spread of TB, respiratory infections, scabies, mental stress.
Unsafe Water & Sanitation	Diarrhoea, cholera, typhoid, hepatitis A, worm infestations.
Customs & Beliefs	Early marriage, food taboos in pregnancy, gender bias in nutrition.
Industrialization & Urbanization	Air & noise pollution, slum formation, lifestyle diseases, road accidents.
Addiction & Lifestyle	Smoking → lung cancer; alcoholism → liver cirrhosis; obesity → diabetes.

Social Problems of the Sick

When a person becomes sick — particularly with a chronic, disabling or stigmatised illness — he/she faces many social problems besides the disease itself:

- **Loss of earnings** and financial burden of treatment, leading to poverty.
- **Disturbed family life** — children's education suffers, family roles change.
- **Social isolation and stigma** (leprosy, HIV/AIDS, tuberculosis, mental illness).
- **Discrimination at workplace** and difficulty in finding new jobs.
- **Psychological problems** — anxiety, fear of death, depression and feeling of dependence.
- **Marital and sexual problems** in chronic illnesses.
- **Loss of social status,** broken peer relationships and reduced participation in social events.
- **Dependence on others** for activities of daily living, especially in disabled and elderly patients.

Pharmacist's Role

A community pharmacist can reduce these social problems through: counselling, ensuring drug compliance, providing affordable generic drugs, preventing stigma through health education and supporting patients in obtaining government health benefits.

SOCIAL AND HEALTH EDUCATION

Health Education – Concept

Definition (WHO)

Health education is a process directed towards helping people achieve health by their own actions and efforts, by providing them with the information and skills they need to make informed decisions about their own health.

Aims and Objectives

- Inform people about health and the factors that influence it.
- Motivate them to adopt healthy lifestyles.
- Help them make better decisions about their health.
- Promote proper use of health services.

Approaches / Methods of Health Education

- **Individual approach** — counselling, home visits.
- **Group approach** — lectures, role play, demonstrations, group discussions.
- **Mass approach** — posters, TV/radio, newspapers, social media, exhibitions.

Food in Relation to Nutrition and Health

Food is any substance, solid or liquid, which when swallowed, digested and assimilated by the body, keeps it well. Nutrition is the science of food and its relation to health.

Functions of Food

- **Energy giving foods:** carbohydrates and fats (cereals, sugar, oil, ghee).
- **Body building foods:** proteins (milk, eggs, pulses, meat, fish).
- **Protective and regulatory foods:** vitamins and minerals (vegetables, fruits).

Classification of Nutrients

Class	Examples	Major Function
Macronutrients	Carbohydrates, Proteins, Fats	Provide energy and structural material; required in large amounts.
Micronutrients	Vitamins, Minerals	Required in small amounts; regulate metabolism, prevent deficiency.
Water & Fibre	Drinking water, vegetables, fruits	Maintain hydration, regulate body temperature, aid digestion.

Balanced Diet

📌 Definition – Balanced Diet (ICMR)

A balanced diet is one which contains a variety of foods in such quantities and proportions that the need for energy, proteins, vitamins, minerals, fats, carbohydrates and other nutrients is adequately met, with a small provision for extra nutrients to withstand short duration of leanness.

▸ Principles of a Balanced Diet

1. Adequate calories from carbohydrates, fats and proteins as per age, sex, occupation and physiological state.
2. Sufficient proteins of high biological value (at least 1/3 from animal sources where possible).
3. Adequate vitamins and minerals from fruits and vegetables.
4. Plenty of water and dietary fibre.
5. Variety in food selection — no single food contains all nutrients.

▸ ICMR Recommended Dietary Allowance — Adult Male (Sedentary)

Nutrient	Approx. Requirement / day	Major Sources
Energy	2110 – 2400 Kcal	Cereals, sugar, fats, oil
Protein	0.8–1 g/kg body weight (~54–60 g)	Pulses, milk, egg, fish, meat, soya
Fat (visible)	20 – 30 g	Oils, ghee, butter, nuts
Calcium	600 – 1000 mg	Milk, ragi, leafy vegetables
Iron	17 – 21 mg	Green leafy vegetables, jaggery, liver

Nutrient	Approx. Requirement / day	Major Sources
Vitamin A	600 µg retinol equivalent	Carrot, mango, papaya, milk, fish liver oil
Vitamin C	40 mg	Amla, citrus fruits, guava, tomato

▸ Five Food Groups (ICMR)

- **Group I — Cereals, grains and products:** rice, wheat, maize, ragi (energy).
- **Group II — Pulses and legumes:** dal, beans, soya (protein).
- **Group III — Milk and meat products:** milk, curd, eggs, fish, chicken (protein and fat).
- **Group IV — Fruits and vegetables:** leafy vegetables, citrus fruits (vitamins, minerals, fibre).
- **Group V — Fats and sugars:** ghee, oil, butter, sugar, jaggery (energy).

🍽 My Plate for the Day (ICMR 2020)

- ½ plate → Vegetables and Fruits.
- ¼ plate → Cereals and millets.
- ¼ plate → Pulses, eggs, fish or meat.
- Add a glass of milk/curd, a small handful of nuts and 5 spoons of cooking oil per day.

Nutritional Deficiencies

A nutritional deficiency develops when intake of a particular nutrient is less than the body's requirement for a long period of time. Common deficiencies in India:

Nutrient	Deficiency Disease	Main Features
Protein-Energy	Kwashiorkor / Marasmus	Growth retardation, oedema, wasting, hair changes in children.
Iron	Iron Deficiency Anaemia	Pallor, weakness, breathlessness, low Hb%.
Iodine	Goitre, cretinism	Swelling of thyroid, mental retardation in children.
Calcium	Rickets / Osteoporosis	Bone deformity in children, fragile bones in elderly.
Fluoride (excess)	Fluorosis	Mottled teeth, skeletal fluorosis.

Nutrient	Deficiency Disease	Main Features
Zinc	Growth retardation, delayed wound healing	Hair loss, skin lesions, impaired immunity.

Vitamin Deficiencies

Vitamins are organic compounds required in small amounts for normal body function. Their deficiency causes specific clinical disorders.

▸ Fat-Soluble Vitamins

Vitamin	Deficiency Disease	Symptoms	Sources
Vitamin A (Retinol)	Night blindness, Xerophthalmia, Bitot's spots, Keratomalacia	Difficulty in seeing in dim light, dry conjunctiva, corneal ulceration.	Carrot, papaya, mango, leafy vegetables, milk, egg yolk, fish liver oil.
Vitamin D (Calciferol)	Rickets (children), Osteomalacia (adults)	Bow legs, knock knees, soft bones, bone pain.	Sunlight, fish, egg yolk, fortified milk.
Vitamin E (Tocopherol)	Haemolytic anaemia, neurological problems	Muscle weakness, RBC fragility (mainly in premature infants).	Vegetable oils, nuts, whole grains, leafy vegetables.
Vitamin K	Bleeding disorders, haemorrhagic disease of newborn	Easy bruising, prolonged bleeding time.	Green leafy vegetables, cabbage, liver; gut bacteria.

▸ Water-Soluble Vitamins

Vitamin	Deficiency Disease	Symptoms	Sources
B1 (Thiamine)	Beri-beri, Wernicke's encephalopathy	Polyneuritis, oedema, heart failure (wet beri-beri), confusion.	Whole grains, pulses, nuts, pork.
B2 (Riboflavin)	Ariboflavinosis	Cheilosis, angular stomatitis, glossitis.	Milk, eggs, leafy vegetables.
B3 (Niacin)	Pellagra (3 D's)	Dermatitis, Diarrhoea, Dementia (and Death if untreated).	Liver, fish, eggs, peanuts, pulses.
B6 (Pyridoxine)	Peripheral neuritis, anaemia	Convulsions in infants, dermatitis, depression.	Cereals, legumes, meat, fish.

Vitamin	Deficiency Disease	Symptoms	Sources
B9 (Folic acid)	Megaloblastic anaemia, neural-tube defects	Weakness, glossitis, neural tube defects in fetus.	Green leafy vegetables, liver, pulses.
B12 (Cyanocobalamin)	Pernicious anaemia	Megaloblastic anaemia + peripheral neuropathy.	Animal foods only — meat, milk, egg, fish.
Vitamin C (Ascorbic acid)	Scurvy	Bleeding gums, swollen joints, easy bruising, poor wound healing.	Amla, citrus fruits, guava, tomato.

Easy Mnemonic — Pellagra
Niacin (Vitamin B3) deficiency = 3 D's → Dermatitis, Diarrhoea, Dementia (and 4th D = Death if untreated).

Malnutrition and Its Prevention

Definition – Malnutrition (WHO)
"Pathological state resulting from a relative or absolute deficiency or excess of one or more essential nutrients."

Forms of Malnutrition

Form	Description
Under-nutrition	Inadequate intake of food → wasting, stunting, underweight (e.g., PEM).
Over-nutrition	Excess intake of food/calories → obesity and lifestyle diseases (DM, hypertension, CHD).
Imbalance	Disproportionate intake of nutrients (e.g., excess fat with low protein).
Specific Deficiency	Lack of an individual nutrient (iron deficiency anaemia, iodine deficiency goitre).

Protein-Energy Malnutrition (PEM) — Two Severe Forms

Feature	Kwashiorkor	Marasmus
Cause	Severe protein deficiency (calories often adequate).	Severe deficiency of both protein and calories.

Feature	Kwashiorkor	Marasmus
Age affected	1 – 3 years.	Below 1 year.
Oedema	Present (puffy face, swollen limbs).	Absent — child looks shrunken.
Body Weight	60 – 80% of normal (oedema may mask weight loss).	Less than 60% of normal.
Hair / Skin	Hair colour change (flag sign), skin lesions.	Wrinkled, loose "old man's face".
Mood	Apathetic, miserable.	Alert but irritable.

▸ Prevention of Malnutrition

6. Promotion of breastfeeding for first 6 months and proper weaning.
7. Nutrition education to mothers about balanced diet and food hygiene.
8. Food fortification — iodised salt, vitamin A in oil, iron in flour.
9. Supplementary feeding through ICDS, mid-day meal scheme.
10. Immunization and deworming to reduce nutrient losses.
11. Periodic growth monitoring of children using growth charts.
12. Improvement of socio-economic status, female literacy and family planning.
13. National programmes — National Nutritional Anaemia Prophylaxis Programme, NIDDCP, POSHAN Abhiyaan.

IN Important National Programmes

• ICDS — Integrated Child Development Services Scheme.
• MDM — Mid-Day Meal Scheme in schools.
• NNAPP — National Nutritional Anaemia Prophylaxis Programme.
• NIDDCP — National Iodine Deficiency Disorders Control Programme.
• POSHAN Abhiyaan — improving nutritional outcomes for children, adolescents, pregnant and lactating women.

SOCIOLOGY AND HEALTH

Sociology is the science that studies human society, social relationships and social institutions. Medical sociology specifically deals with the social aspects of health and illness — how social factors affect disease pattern, health behaviour and use of health services.

Socio-Cultural Factors Related to Health and Disease

These are the social and cultural conditions which influence health, behaviour and disease patterns of a community.

Factor	Impact / Examples
Age & Sex	Children — infections; elderly — chronic diseases. Females — anaemia and reproductive disorders; males — addictions and accidents.
Education	Educated people seek health care earlier, follow medical advice better, have lower IMR.
Occupation	Workers in mines/factories develop occupational diseases — silicosis, asbestosis, lead poisoning. Sedentary jobs → obesity, back pain.
Income & Economic Status	Poor → under-nutrition and infections; rich → over-nutrition, lifestyle diseases.
Religion & Customs	Food restrictions in pregnancy, fasting practices, opposition to vaccination/family planning in some communities.
Family Type & Size	Joint families — better support and child care; large family size — under-nutrition, poor education.
Marriage & Reproduction	Early marriage → high MMR/IMR. Consanguineous marriage → genetic disorders.
Beliefs & Superstitions	Treating illness with magic/charms; attributing disease to evil spirits; delays medical care.
Habits & Lifestyle	Smoking, alcohol, drug abuse, lack of exercise, junk food → NCDs.
Housing & Sanitation	Overcrowding, poor ventilation and bad sanitation increase TB, respiratory infections, diarrhoea.

Impact of Urbanization on Health and Disease

> **📌 Definition – Urbanization**
>
> Urbanization is the gradual shift of population from rural to urban areas, leading to growth of cities and towns and a change in the way people live and earn.

▸ Positive Effects of Urbanization on Health

- **Better access** to hospitals, specialists and modern medicines.
- **Higher literacy** and health awareness.
- **Better water supply, sanitation, electricity** and waste disposal facilities (in well-planned cities).
- **Better transport** and communication for emergency care.
- **Improved employment** and income opportunities.

▸ Negative Effects of Urbanization on Health

Problem	Health Consequences
Slum formation & overcrowding	TB, diarrhoea, scabies, respiratory infections, mental stress.
Air pollution (vehicles, industries)	Asthma, COPD, lung cancer, eye irritation.
Noise pollution	Hearing loss, hypertension, irritability, sleep disturbance.
Water pollution & poor sanitation	Cholera, typhoid, hepatitis, diarrhoea.
Sedentary lifestyle & junk food	Obesity, diabetes, hypertension, cardiovascular disease.
Stress and competition	Anxiety, depression, peptic ulcer, suicide.
Substance abuse	Smoking, alcoholism, drug addiction (more in urban youth).
Road traffic accidents	Death, disability, loss of productivity.
Breakdown of family system	Loneliness in elderly, child neglect, divorce.
Sexually transmitted infections	HIV, syphilis, gonorrhoea — increased in urban migrants.

Poverty and Health

📌 Definition – Poverty

Poverty is the inability to attain a minimum standard of living and includes lack of income, education, healthcare, sanitation and basic resources. Poverty and ill-health share a vicious circle — poverty leads to disease, and disease deepens poverty.

▸ How Poverty Causes Ill Health

- **Poor nutrition** → malnutrition, low immunity, growth failure.

- **Inadequate housing** → overcrowding, TB, respiratory diseases.
- **Unsafe water and sanitation** → diarrhoea, worm infestation.
- **Illiteracy** → poor health awareness, harmful practices.
- **Inability to afford** medical care, drugs and balanced food.
- **Hazardous occupations** → injuries, occupational diseases.
- **Higher exposure to risk factors** such as alcohol and tobacco.
- **High maternal & infant mortality,** low life expectancy.

How Disease Causes Poverty

- Loss of working days and income.
- Out-of-pocket health expenditure pushes families into debt.
- Disability reduces earning capacity.
- Children miss school due to illness or to care for sick relatives.

Vicious Cycle of Poverty and Disease

POVERTY → Poor Nutrition + Poor Housing + Illiteracy → DISEASE → Loss of Income + Medical Expenses → MORE POVERTY → ⮌

Measures to Break the Cycle

14. Poverty alleviation programmes — MGNREGA, PMAY (housing), PMUY (LPG).
15. Universal Health Coverage — Ayushman Bharat, PMJAY.
16. Free immunization, ICDS, Mid-Day Meal Scheme.
17. Free / subsidised generic medicines (Jan Aushadhi Kendras).
18. Female literacy and women empowerment.
19. Family planning and reproductive health services.
20. Primary health care infrastructure in rural areas — Sub-centres, PHCs, CHCs, Health & Wellness Centres.

HYGIENE AND HEALTH

Hygiene is the science and practice of maintaining health by preventing disease through cleanliness. The word comes from "Hygieia", the Greek goddess of health. Hygiene is the cheapest and most effective method of preventing communicable diseases.

Personal Hygiene and Health Care

📌 Definition – Personal Hygiene

Personal hygiene is the practice of keeping oneself and one's surroundings clean and healthy in order to prevent illness and the spread of disease. It includes care of the body, food, clothing and surroundings.

▸ Components of Personal Hygiene

Area	Recommended Practices
Skin & Bath	Daily bath with clean water and soap; thorough drying to prevent fungal infections; use of clean towels.
Hair Care	Wash hair 2–3 times a week; comb daily; avoid sharing combs/towels (lice, fungal infection).
Oral Hygiene	Brush twice daily with fluoride toothpaste, rinse after every meal, floss; visit dentist every 6 months.
Hand Hygiene	Wash hands with soap and water for at least 20 seconds — before meals, after toilet, after coughing/sneezing, after handling animals.
Nails	Cut short and clean; avoid biting nails (worm infestation).
Eyes	Wash with clean water; never share towels or kohl; avoid rubbing; adequate light while reading.
Ears	Clean only outer ear; avoid sharp objects; consult ENT for discharge or pain.
Nose & Respiratory	Cover mouth/nose while sneezing/coughing (use elbow or tissue); avoid spitting in public.
Feet	Wash and dry feet daily, especially between toes; wear clean cotton socks and proper footwear.
Genital Hygiene	Daily wash; clean undergarments; menstrual hygiene with sanitary pads, changed every 4–6 hours.
Clothing	Cotton, well-fitting, washed regularly; weather-appropriate.
Sleep	7–8 hours of sleep daily in a clean, ventilated room.

Area	Recommended Practices
Exercise	At least 30 minutes of moderate physical activity daily, 5 days a week.
Food Hygiene	Wash fruits and vegetables, drink boiled/filtered water, avoid stale food and street food in unhygienic places.

□ WHO – 5 Moments for Hand Hygiene (Healthcare workers & Pharmacy)

- Before touching a patient.
- Before clean / aseptic procedure.
- After body fluid exposure risk.
- After touching a patient.
- After touching patient surroundings.

Avoidable (Bad) Habits

Certain personal habits damage health and should be avoided. They are major causes of preventable diseases and premature death.

Habit	Health Effects	How to Avoid
Smoking / Tobacco	Lung cancer, oral cancer, COPD, CHD, peripheral vascular disease, low birth weight in babies of smoking mothers.	Health education, COTPA Act, nicotine replacement therapy, helplines (1800-11-2356), de-addiction clinics.
Alcoholism	Liver cirrhosis, gastritis, hypertension, accidents, family violence, poverty.	Awareness campaigns, AA groups, counselling, prohibition policies.
Drug Abuse	Addiction, HIV/Hepatitis B,C from sharing needles, mental illness, crime.	Strict NDPS Act enforcement, de-addiction centres, peer support.
Unhealthy Diet	Excess salt → hypertension; excess sugar → diabetes; junk food → obesity.	Balanced diet, reading food labels, FSSAI "Eat Right" campaigns.
Sedentary Lifestyle	Obesity, type-2 diabetes, low back pain, depression.	Daily walking, yoga, cycling, taking stairs.
Tobacco chewing / Gutkha	Oral submucous fibrosis, oral cancer, dental decay.	Awareness, taxation, ban on gutkha, oral cancer screening.
Self-medication	Drug resistance, adverse reactions, masking of disease.	Take medicines only on prescription; pharmacist counselling.

Habit	Health Effects	How to Avoid
Excessive Screen Time	Eye strain, sleep disturbance, obesity, social isolation.	Limit recreational screen to 2 hours/day; 20-20-20 eye rule.
Open defecation, spitting, littering	Spreads diarrhoea, typhoid, hepatitis A, worm infections, TB.	Use of toilets (Swachh Bharat Abhiyaan), waste segregation.
Late night sleep / Inadequate sleep	Reduced concentration, weight gain, hypertension, mood disorders.	Sleep hygiene — fixed bedtime, no screens 1 hr before sleep.

⊘ Pharmacist's Public Message

"Avoid tobacco in any form, limit alcohol, eat balanced food, exercise daily and take medicines only on prescription." — Following these simple rules can prevent up to 80% of premature heart disease, stroke and type-2 diabetes (WHO).

Probable Exam Questions

Long Answer Questions (10 marks)

1. Define health. Explain different concepts and dimensions of health.
2. Define public health. Discuss its evolution and methods of evaluation.
3. What is balanced diet? Discuss its components and importance.
4. Define malnutrition. Compare Kwashiorkor and Marasmus and discuss prevention of PEM.
5. Discuss the impact of urbanization on health and disease.
6. Explain the relationship between poverty and health.
7. Write a note on personal hygiene and avoidable habits.

Short Answer Questions (5 marks)

1. Levels of prevention of disease.
2. Social causes of diseases.
3. Social problems of the sick.
4. Vitamin A deficiency disorders.
5. Vitamin C deficiency – scurvy.
6. Effects of smoking on health.
7. Methods of health education.
8. Indicators of health.

Very Short Answer (2 marks)

1. Define health (WHO).
2. What is balanced diet?
3. Name any four micronutrients.
4. Define hygiene.
5. Mention any two avoidable habits.
6. Full form of DALY and IMR.
7. Define eradication of disease with an example.