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Communicable disease and Epidemiology.

Level. 300.

Assignment.

Write details Note on Susceptible.

A **susceptible host** is a person or living organism who **lacks sufficient immunity or resistance**, making them **vulnerable to infection** when exposed to a pathogen (bacteria, viruses, parasites, or fungi).

It is one of the major components of the **chain of infection**.

Factors That Make a Host Susceptible

1. Age

- **Infants and children** – immune system not fully developed
- **Elderly people** – reduced immunity due to aging

2. Immune Status

- Weak immune system due to:
 - HIV/AIDS
 - Cancer and chemotherapy
 - Chronic illnesses
 - Immunosuppressive drugs (steroids, transplant drugs)

3. Nutritional Status

- **Malnutrition** reduces body defense mechanisms.
- Deficiency in vitamins and proteins weakens immunity.

4. Genetic Factors

- Some people are genetically prone to certain infections (e.g., sickle cell patients and some infections).

5. Underlying Diseases/Chronic Conditions

- Diabetes
- Heart diseases
- Kidney diseases
- Liver diseases

These conditions reduce the body's ability to fight infection.

6. Break in Skin or Mucous Membrane

- Wounds, burns, cuts, surgical incisions
- Provides an entry point for pathogens.

7. Stress and Fatigue

- Physical or emotional stress lowers immune response.

8. Environmental and Social Factors

- Overcrowding
- Poor sanitation
- Poverty
- Limited access to healthcare

9. Lifestyle Factors

- Smoking
 - Alcohol
 - Drug abuse
 - Poor hygiene habits
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Examples of Susceptible Hosts

- A malnourished child exposed to measles
- An elderly person exposed to influenza
- A diabetic patient with a small wound
- A pregnant woman exposed to malaria
- A person on chemotherapy exposed to infections

How to Reduce Host Susceptibility (Preventive Measures)

- Vaccination
- Good nutrition
- Adequate rest and stress management
- Good personal hygiene
- Proper wound care
- Treatment of chronic diseases
- Avoiding smoking and alcohol
- Use of protective equipment (PPE) when needed.