

CLASS 8

SCIENCE

NCERT SOLUTIONS

NCERT Solutions for Class 8 Science Chapter 3: Health: The Ultimate Treasure – Free PDF Download

Chapter 3 — Health: The Ultimate Treasure — covers what health really means (physical, mental and social well-being), communicable vs non-communicable diseases, how diseases spread, immunity and the primary/secondary immune response, vaccination, and why antibiotics only work against bacteria. This chapter has a...

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Chapter 3 — Health: The Ultimate Treasure — covers what health really means (physical, mental and social well-being), communicable vs non-communicable diseases, how diseases spread, immunity and the primary/secondary immune response, vaccination, and why antibiotics only work against bacteria. This chapter has a full end-of-chapter exercise ('Keep the Curiosity Alive', 11 questions) plus in-text questions and activities. Below are complete, verified answers, cross-checked across independent sources. These Class 8 Science Chapter 3 solutions are also useful as quick revision notes before exams.

NCERT Solutions for Class 8 Science Chapter 3: Health: The Ultimate Treasure

Exercise: Keep the Curiosity Alive

1. Group the diseases shown as communicable or non-communicable: Cold and Flu, Typhoid, Chickenpox, Diabetes, Asthma.

Communicable: Cold and Flu, Typhoid, Chickenpox. **Non-communicable:** Diabetes, Asthma.

2. Identify the non-communicable diseases: (i) Typhoid (ii) Asthma (iii) Diabetes (iv) Measles. (a) i,ii (b) ii,iii (c) i,iv (d) ii,iv

(b) ii and iii — Asthma and Diabetes are non-communicable; Typhoid and Measles both spread person-to-person.

3. Flu outbreak in school: (i) immediate school actions (ii) how to respond kindly to a sick benchmate (iii) how to protect yourself and others.

(i) Send symptomatic students home to rest, sanitise classrooms, promote handwashing/covering coughs, ensure ventilation, inform parents. (ii) Gently suggest they see the school nurse or rest at home, and offer to share notes — kindly, not dismissively. (iii) Wash hands frequently, avoid touching your face, maintain some distance, use a mask if needed, keep immunity up with rest and nutrition.

4. Travelling to a malaria-prevalent city: (i) precautions before/during/after (ii) explaining mosquito nets/repellents to a sibling (iii) risk of ignoring health advisories.

(i) Before: consult a doctor, pack repellents/nets/full-sleeved clothing. During: use nets/repellents nightly, avoid stagnant water areas. After: watch for fever/chills and get tested promptly. (ii) Mosquitoes transmit the malaria parasite through bites; nets/repellents act as a physical/chemical barrier. (iii) Risk of contracting malaria, severe illness, or carrying the infection home and spreading it further.

5. Uncle starts smoking to fit in: (i) what to say to make him stop (ii) response if offered a cigarette (iii) how schools can help prevent such habits.

(i) Express care and gently cite real health risks (lung disease, cancer, heart disease). (ii) Politely decline, and walk away if needed — true friends won't pressure you. (iii) Awareness campaigns, talks by doctors/counsellors, and alternative activities (sports, hobbies) to build resistance to peer pressure.

6. Saniya says 'Antibiotics can cure any infection.' What could Vinita ask to correct her?

Vinita could ask whether antibiotics work on viral infections like flu or measles, and whether Saniya has heard of antibiotic resistance — leading her to realise antibiotics only target bacteria, not viruses, and misuse causes resistance.

7. Dengue-cases-by-month data: make a bar graph and analyse. (i) 3 highest months (ii) lowest month (iii) environmental factors in peak months (iv) preventive steps.

(i) **July, August, September** (monsoon months) typically see the highest cases. (ii) **January** typically the lowest. (iii) Monsoon rains create stagnant water in containers and puddles — ideal Aedes mosquito breeding grounds. (iv) Clear/cover stored water, fogging/insecticide spraying, community clean-up drives,

public awareness campaigns before monsoon season.

8. As a school health-campaign lead, what key messages would reduce communicable and non-communicable diseases?

Communicable: handwashing, covering coughs/sneezes, safe drinking water, vaccination, staying home when sick. **Non-communicable:** balanced diet, daily exercise, adequate sleep, avoiding tobacco/alcohol, stress management.

9. Why shouldn't antibiotics be taken for a viral infection like a cold, cough or flu?

Antibiotics kill or inhibit only bacteria; colds, coughs and flu are caused by viruses, which antibiotics cannot affect. Unnecessary use also promotes antibiotic resistance, reducing effectiveness against future genuine bacterial infections.

10. Which of these can spread via water contaminated by an infected person's excreta?

Hepatitis A, Tuberculosis, Poliomyelitis, Cholera, Chickenpox.

Hepatitis A, Poliomyelitis and Cholera — all spread through the faecal-oral route via contaminated water. Tuberculosis spreads via airborne droplets; Chickenpox via direct/airborne contact — neither is water-borne.

11. Why is the immune response much stronger on a second exposure to the same pathogen?

The first exposure requires the immune system to slowly identify a novel pathogen and build specific antibodies, while also generating long-lived memory B- and T-cells. On re-exposure, these memory cells recognise the pathogen immediately and mount a fast, strong secondary response — the basis of both natural immunity after infection and vaccine-induced immunity.

Key In-Text Questions & Activities

Why do we rarely see smallpox or polio today, while diabetes and heart disease are more common?

Smallpox and polio are communicable diseases nearly eliminated through mass vaccination. Diabetes and heart disease are non-communicable, lifestyle-linked conditions whose prevalence has risen with sedentary habits, unhealthy diets, and longer life expectancy.

Could climate change lead to new types of diseases?

Yes — rising temperatures and erratic rainfall expand the range and breeding season of disease-carrying mosquitoes (malaria, dengue), while flooding can worsen the spread of water-borne diseases.

How do stress and emotions affect our health?

Chronic stress raises cortisol and other stress hormones, which suppress immune function and disrupt sleep, appetite and blood pressure, contributing over time to weakened immunity and conditions like hypertension.

Activity: comparing a clean playground with a dirty, waterlogged one — which would you rather play in, and why?

The clean, well-maintained one — a hygienic surrounding reduces exposure to pathogens and disease vectors like mosquitoes that thrive in dirty, waterlogged conditions.

Why This Chapter Matters

This chapter connects directly to Chapter 2's beneficial microorganisms by covering their harmful counterparts, and lays the foundation for understanding immunity, vaccination and public-health measures

used throughout life.

Class 8 Science Chapter 3 – Notes and Extra Questions

Along with these NCERT Solutions, students can also use the [Class 8 Science Chapter 3 Extra Questions](#) and [Class 8 Science Chapter 3 Revision Notes](#) for quick revision and extra practice.

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