

# Tuberculosis

## Student Worksheet

# 5

The following answers are based on pages 38 and 39:

1. Give one reason why healthy people do not usually contract tuberculosis (TB):

**The bacteria are destroyed by the macrophage defender cells in the lungs of healthy people.**

2. Give two symptoms of TB:

**(i) Fever.**

**(ii) Violent coughing.**

**Others: loss of weight, tiredness.**

3. What changes in living conditions led to the first successful fight against TB?

**Less overcrowding, improved hygiene and better diets.**

4. What is the name of the vaccine used against TB?

**The BCG vaccine.**

5. Why has the vaccine failed to wipe out the disease?

**The vaccine has not been popular in some countries, particularly America.**

6. Name the three drugs that were used to help cure victims of TB:

**(i) Streptomycin.**

**(ii) Aspirin (an altered form).**

**(iii) Isoniazid.**

7. Describe how one of these drugs was first developed:

**(i) Streptomycin was extracted from bacteria in heavily manured soil.**

**(ii) A Swedish chemist made a chemical adaptation to the common drug, aspirin.**

**(iii) Isoniazid was manufactured by the German chemical industry.**

8. Give one reason why these drugs were not totally useful:

**The TB bacteria developed resistance to each of the drugs.**

9. Vaccination of young people has helped to reduce the number of cases of TB in Europe. Give two other steps that have been taken to eradicate the disease:

- (i) Milk is now pasteurized to prevent infection from cows.**
- (ii) Mass X-ray screening of whole populations has been carried out to detect undiscovered infections so that they may be treated.**

10. Why are there still so many cases of TB in other countries?

**The TB bacterium is still prevalent in poorer countries which suffer from bad hygiene, poor diets and over-crowding. In addition, the BCG vaccine is not readily available in these areas. In regions where AIDS is common (e.g. New York), the incidence of TB is also on the increase, since HIV infection seems to activate the disease.**