

This is the **Higher Separate** version — includes all Higher Tier content (marked ★) and all Separate Science content.

Diseases can be communicable (spread by pathogens) or non-communicable (cannot be passed between people). Cancer is a non-communicable disease.

- Communicable disease: caused by a pathogen that can spread from person to person (e.g. measles, TB).
 - Non-communicable disease: cannot be transmitted between people (e.g. coronary heart disease, cancer, diabetes).
 - Risk factors for non-communicable diseases: smoking, poor diet, lack of exercise, obesity, age, family history.
 - Cancer: uncontrolled cell division caused by mutations in genes that control the cell cycle.
 - Benign tumour: localised, does not spread, usually not immediately dangerous.
 - Malignant tumour: invasive, can metastasise — spread via blood or lymph to form secondary tumours.
 - Cancer risk factors: UV radiation (skin cancer), smoking (lung cancer), some viruses (e.g. HPV → cervical cancer), obesity, asbestos.
 - Lifestyle choices can reduce cancer risk: avoiding smoking, limiting UV exposure, healthy diet, regular exercise.
- ★ **HT Correlation vs causation:** risk factors increase likelihood of disease but do not guarantee it.

Key Terms

Non-communicable disease	Disease that cannot be spread between people — caused by lifestyle, genetic or environmental factors
Tumour	An abnormal mass of cells resulting from uncontrolled cell division
Metastasis	The spread of cancer cells from the primary tumour to other parts of the body
Risk factor	A variable that correlates with an increased probability of developing a disease

■ **Exam Tip:** When answering questions about cancer, always distinguish between **BENIGN** (stays put, less dangerous) and **MALIGNANT** (spreads, more dangerous). Also know specific risk factors: smoking = lung cancer; UV = skin cancer.