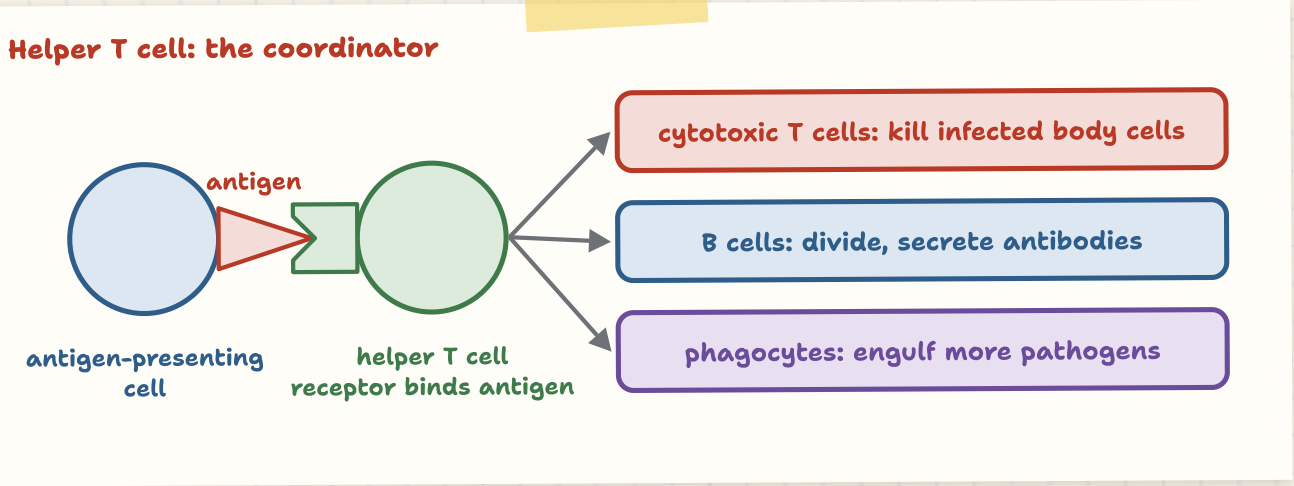
T Lymphocytes: The Cellular Immune Response

A phagocyte presents antigens; a helper T cell with the complementary receptor binds, then stimulates cytotoxic T cells, B cells and phagocytes.



Key terms

antigen-presenting cell	a cell (often a phagocyte) that engulfs a pathogen and displays its antigens on its surface.
helper T cell	a T lymphocyte with a receptor complementary to the antigen; it stimulates other immune cells.
cytotoxic T cell	a T cell that kills infected body cells.
receptor	a protein on a cell surface with a shape complementary to one antigen.
clonal selection	only the T cell whose receptor fits the antigen is selected, then divides.
cellular response	the response in which T cells act directly on infected cells, helping other cells too.

I can...

- ☐ Response of T lymphocytes to a foreign antigen
- ☐ Role of antigen-presenting cells
- ☐ Role of helper T cells in stimulating cytotoxic T cells, B cells and phagocytes

EXAM TRAP

Helper T cells do not kill pathogens and do not make antibodies. They bind to the antigen on the presenting cell via a receptor, then stimulate cytotoxic T cells, B cells and phagocytes.

5 marks: what earns them

1. A phagocyte / antigen-presenting cell engulfs the pathogen and presents its antigens on its cell surface (membrane)
   Not: antigens are destroyed; antigens presented inside the cell
2. A helper T cell with a complementary receptor binds to the antigen
   Not: T cell binds to the pathogen, with no receptor or antigen
3. The helper T cell stimulates cytotoxic T cells, which kill infected cells
   Not: helper T cells kill the pathogen; cytotoxic T cells make antibodies
4. The helper T cell stimulates B cells to divide / secrete antibodies
   Not: T cells make antibodies
5. The helper T cell stimulates phagocytes to engulf more pathogens (phagocytosis)
   Not: T cells engulf pathogens

Remember

Present the antigen on the surface.
Helper T binds with its receptor.
Then stimulate: kill, antibodies, engulf.

Independent revision resource, not endorsed by AQA. Practice question is original.
© 2026 Medservatory, a project of ADMR Solutions Ltd. Free to print and share for personal study.