

## Check your understanding



**1** What would happen if you had an impaired immune system, e.g. you had HIV or another autoimmune disease?

*Answer* You'll have trouble fighting many microbes, and your immune system may attack the ones which otherwise support your body's systems. Therefore, you will get more ill, more often, and will struggle to recover.

**2** According to our study which mechanism best explains the ability of older T cells to live longer in the body outside of the thymus?

*Answer* Adaptation (their fitness increases as they age).

**3** Why do newly developed T cells decline in number after puberty?

*Answer* T cells mature in the thymus and after puberty the thymus slowly wastes away, leading to the decline of new T cells development.

**4** Do T cells attack specific pathogens or do they attack anything and everything that looks suspicious and foreign to the body? What about B cells?

*Answer* Every T and B cell is specific to a certain part of a certain pathogen and it targets that part.