

Limitations of the human respiratory defence system.

Our respiratory system has some defence mechanisms to protect to some extent.

Nasal hairs

- ✓ Help capture larger particles

Cilia

- ✓ Hair cells lining the airways which move mucus upwards to keep airways clear

Cough reflex

- ✓ Helps speed up the clearing of our airways

Sneeze reflex

- ✓ Helps keep our nasal passages clear

Mucus

- ✓ Thick, sticky fluid coating our airways which helps capture smaller particles

Defence cells

- ✓ Help clear up particles reaching the lungs

But these defences have limitations...

Limitations of our body's natural defences

1. **Large quantities** – Can swamp our defences
2. **Sensitising particles** – Can trigger allergic reactions e.g. Asthma
3. **Toxic, poisonous or infectious particles** – Can damage our lungs as well as other parts of the body
4. **Very small particles** – Can bypass most of our defences to reach the lungs
5. **The body can not filter out harmful gases and vapours**