

Most of us will have taken medicine in some form; suffering through injections at the doctors, swallowing spoonfuls of sticky cough syrup or taking tablets of various shapes, sizes and colours.



When the body gets injured or damaged, cells release chemicals called prostaglandins, which cause you to feel pain. An enzyme called cyclooxygenase (COX-2) helps cells make these chemicals. Painkillers bind to the COX-2 enzyme and block it; stopping it producing prostaglandins and relieving pain and swelling.

We always need new medicines. Scientists can find them by chance; when someone noticed they had a desired effect. Others are designed by scientists to do a particular job (eg. to block the COX-2 enzyme). Often, drug discovery involves a mixture of the two – by finding a medicine by chance and changing it in the laboratory to improve how it works.

But **how** do medicines work and how do scientists discover them?

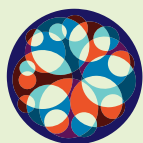
Find out more:

How do painkillers work? <http://bit.ly/ZQTT5N>

Learn how paracetamol works <http://bit.ly/1sctUS1>

Learn how aspirin works <http://bit.ly/1qgocrs>

How does COX2 carry out its job? <http://bit.ly/100Ppg9>



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