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Aspirin is today widely used to lessen mild pain and fever, reduce inflammation and prevent heart attacks and strokes. Over 100 billion aspirin tablets are swallowed each year, and it is the most successful non-prescription medicine of all time. However, much remains to be learned about the mechanisms by which aspirin helps the body.

### **A Sunny Aspirin Fact:**

When summer arrives and you settle back into your wickerwork chair, listening to the sound of the cricket ball against the bat, enjoying the fragrant aroma of the delicate meadowsweet blooms, pause for a moment. Did you know that the willow of your chair and cricket bat, and the meadowsweet (*Spiraea ulmaria*) contain salicylic acid, a key component of aspirin?

The aspirin story has been unfolding for millennia, and there are still chapters to write. The earliest records date back to the second millennium BC, in a collection of medicinal recipes where an infusion of myrtle leaves (another salicylate-rich plant) is described for easing the pain of rheumatism. Hippocrates, in approximately 400 BC, prescribed willow bark tea for the pain of childbirth.

### **How Does Aspirin Work?**

Since the 1970s, scientists have suggested that aspirin works by blocking production of hormones called prostaglandins which are involved in pain and inflammation. This does not seem the whole story, however, as the doses of aspirin used to treat chronic inflammatory diseases are much higher than those need to inhibit prostaglandin synthesis. In this area, the aspirin story is still in the opening chapters despite centuries of research.

### **Aspirin against Heart attacks and Strokes**

More progress has been made in understanding how aspirin can help protect against heart [attacks and strokes](#) [6]. It is known that aspirin prevents platelets sticking together in clots at sites of damage in an artery, so the blood supply to the heart or brain is not occluded. For this reason, aspirin is frequently prescribed to patients with damaged arteries who have had a heart attack or stroke. Current clinical trials are investigating whether to extend

the prescribing of aspirin to patients who have not had a heart attack or stroke, but who may have some arterial damage [due to diabetes](#). [7]

## Aspirin the wonder drug that comes with a warning

Since 1988, scientists have also been considering whether aspirin can reduce the [risk of cancers](#) [8], especially in the bowel, stomach and oesophagus, and there is preliminary evidence that aspirin [delays the onset of Alzheimer's](#) [9]. Even if aspirin does prove to be a wonder-drug as the story unfolds, it would not be wise for everyone to take a daily dose. Some people are aspirin-resistant; some so sensitive that breathing difficulties ensue; children are advised against aspirin use due to a possible association with Reye's syndrome, a rare but sometimes fatal condition. The most common side effect of aspirin is unwanted bleeding in the stomach and even the brain.

Scientists clearly do not yet know all there is to know about aspirin, but one thing is clear. Unlike the cocaine toothache drops and arsenic face creams of the Victorian apothecary, aspirin has stood the test of time and is likely to remain an essential medicine.



**Source URL:** <http://www.helencowan.co.uk/everything-you-need-know-about-aspirin>

### Links

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