

Aspirin



INTRODUCTION

Aspirin is a non-steroidal anti-inflammatory drug (*NSAIDs*) that is widely used to decrease pain and reduce swelling. More recently, aspirin has been used for its benefits in the treatment and prevention of cardiovascular disease (CVD).

Cardiovascular disease includes conditions such as heart attack, stroke, and peripheral artery disease or narrowing of arteries (poor circulation) in the legs; these conditions cause more than 900,000 deaths each year in the United States alone.

Many large trials have shown that aspirin has benefits for the following groups:

- Virtually all people who already have cardiovascular disease
- Men and women who have no signs or symptoms of cardiovascular disease but have an increased risk of a first heart attack (eg, due to diabetes or another medical problem)

However, the benefits of aspirin must be weighed against its possible side effects. People with a higher risk of heart attack have a greater potential for benefit. Thus, it is important to discuss the overall risk of CVD with a healthcare provider to determine if aspirin could be of benefit.

ACTIONS OF ASPIRIN

Aspirin inhibits the clumping of platelets (even in low doses), has pain killing effects (in medium doses), and has anti-inflammatory effects (in high doses).

BENEFITS OF ASPIRIN

Prevention of Stroke and Heart Attack

Research shows that in healthy people, aspirin can prevent heart attacks and strokes. However, the benefit must be weighed against the harm of aspirin on the stomach and bowel, where it can cause ulcers. Three expert groups recommend low-dose, 81 mg aspirin for healthy men and women when the benefits outweigh the risks; this includes people with a 10-year risk of having a coronary event of at least 6 to 10 percent. Your risk is _____ percent.

Treating a Heart Attack

Aspirin can be life-saving for people who are actively having a heart attack. We recommend that unless you are warned otherwise, most people suffering chest pain that may be a heart attack should immediately take 325 mg of aspirin. This may help blood get back to the heart muscle.

Prevention of ANOTHER Stroke or Heart Attack

Aspirin is beneficial for people who have had a previous heart attack, angina, a previous transient ischemic attack (TIA or mini-stroke), a previous ischemic stroke, and those who have undergone coronary bypass graft surgery (CABG) or angioplasty. Aspirin can help prevent another heart attack or stroke.



SIDE EFFECTS OF ASPIRIN

The most common side effects of aspirin are stomach upset (nausea, vomiting, heartburn, epigastric or stomach discomfort, or ulcers) and it can increase bleeding.

Stomach upset — In one large clinical trial, approximately 4 percent of all people who took 300 mg of aspirin daily for 5 years noted stomach upset. Signs and symptoms of ulcer were far less common; the risk of ulcers (particularly bleeding ulcers) is increased in the following settings:

- Increasing age, particularly >60 years
- Higher doses of aspirin
- Long duration of aspirin use
- A past history of gastrointestinal complications from aspirin or other NSAIDs (such as ibuprofen or naprosyn)
- A past history of ulcers (See "Patient information: Peptic ulcer disease")
- Current use of steroids (eg, prednisone), anticoagulants (such as warfarin), or other NSAIDs

To help prevent stomach upset, aspirin should be taken with food. People with a history of ulcers or stomach upset while taking aspirin or other NSAIDs should talk with a healthcare provider before starting; several recommendations can be made, depending upon the particular circumstances:

- The dose may be reduced
- An enteric-coated (EC) or buffered formulation may be recommended
- A prescription medication may be given to reduce stomach acid
- Testing for a microorganism called *H. pylori*, which can cause ulcers, may be done

Bleeding — Individuals who take aspirin regularly may notice that they bleed for slightly longer than normal after a cut or a nose-bleed. This type of bleeding usually causes no significant problems. Of bigger concern is when bleeding occurs in other areas, such as the gastrointestinal tract (bleeding ulcer), or, very rarely, in the brain (hemorrhagic stroke). For these reasons, the benefits of aspirin must be weighed against the risks.

Because the effects of aspirin on bleeding increases the rate of bleeding in the brain, it is recommended to stop taking aspirin if your blood pressure is higher than 150/90.

Because the effects of aspirin on bleeding last for about a week, it is important to notify a healthcare provider or dentist about aspirin use before any surgical procedures. Usually, providers recommend stopping aspirin for 7 to 10 days before elective surgery. Not every surgery requires you to stop aspirin, so ask your healthcare provider.

Interaction with ibuprofen (Motrin) — Taking aspirin and another NSAID (such as ibuprofen) at the same time can increase the likelihood of stomach upset. In many cases, however, ibuprofen and aspirin are prescribed together. If you are taking aspirin and ibuprofen together, get immediate-release aspirin, chew it, swallow the chewed aspirin, and wait 30 minutes before taking the ibuprofen, and 8 hours after the last ibuprofen dose.