Aspirin

What is aspirin?
Aspirin is a medicine that can relieve pain and fever, and also help to fight coronary heart disease by preventing blood clots.

How does aspirin fight coronary heart disease?
Aspirin thins your blood, which helps to prevent blood clots in your arteries. When blood clots in the arteries that supply blood to your heart or brain, it can cause a blockage and lead to a heart attack or stroke.

Blood clots often happen if you have atherosclerosis. Atherosclerosis is when the inside of your arteries becomes clogged with fatty material called ‘atheroma’ or ‘plaque’. If an area of plaque cracks, blood cells and other parts of your blood stick to the crack. This may form a clot and cause a blockage.

If you take aspirin, it is less likely that blood clots will form in arteries affected by atherosclerosis.

Should everyone use aspirin to prevent heart attack and stroke?
No! Only your doctor can tell you if you should take aspirin.

Who should take aspirin?
If you have signs of heart and/or blood vessel disease, you are very likely to benefit from taking aspirin to help to prevent blood clots. Aspirin may help if you:
- are having a heart attack
- have had a heart attack in the past
- have angina (temporary chest pain associated with poor blood supply to your heart)
- have had an ischaemic stroke (a stroke caused by a blood clot blocking blood supply to your brain)
- have had a temporary ‘mini-stroke’ or TIA (transient ischaemic attack)
- have intermittent claudication (pain in the legs while doing physical activity) or other signs of peripheral arterial disease
- have had surgery, such as coronary bypass surgery, coronary angioplasty and stent implantation, or grafting or angioplasty in other (peripheral) arteries, for diseased arteries.

When used for the prevention of heart attack and stroke, aspirin is usually taken long-term and in low doses.
What about aspirin for people without known coronary heart disease?

Nobody should use aspirin to prevent a heart attack or stroke unless their doctor recommends they do so.

If you have not been diagnosed with coronary heart disease, but are at high risk of getting it, talk to your doctor about whether or not you should take aspirin.

Things called 'risk factors' increase your overall risk of getting coronary heart disease. The more risk factors you have, the higher your overall risk.

There are two types of risk factors: ones you can change ('modifiable') and ones you can't ('unmodifiable'). The ones you can change include:

- smoking – both active smoking and being exposed to other people's smoke
- high blood cholesterol
- high blood pressure
- diabetes
- being physically inactive
- being overweight
- depression or social isolation.

The ones that you can’t change include increasing age, being male, being an Aboriginal or Torres Strait Islander person and having a family history of early death from coronary heart disease.

The decision about whether or not you should take aspirin should be made on your individual situation, and only after you have talked to your doctor about the risks and benefits of taking it.

Should I talk to my doctor before taking aspirin for the long term?

Yes. It’s important that you talk to your doctor before you start taking aspirin. Your doctor will be able to work out the risks and benefits for you, and tell you what you should do.

Aspirin is generally very safe, but like all medicines it can have side effects. In a small percentage of people it can be dangerous.

If you are not likely to have a heart attack or stroke, the risk of having side effects may outweigh the potential benefit of aspirin.

There are also some people who may not be able to take aspirin at all, including people who:

- are allergic to it or have had problems with it before
- have a stomach or duodenal ulcer
- have bleeding from the gut
- have a general tendency to bleed more than others
- have high blood pressure that is not being adequately treated
- have a history of haemorrhagic stroke (stroke caused by bleeding in your brain)
- are taking other types of medicines.
If you can't take aspirin, your doctor may prescribe another anti-clotting medicine (such as clopidogrel) to reduce your risk of having a heart attack or stroke.

Is aspirin enough?

No. If you are taking aspirin to prevent a heart attack or stroke, you should also:

- be smoke free
- enjoy healthy eating
- be physically active
- control your blood pressure
- achieve and maintain a healthy body weight
- maintain your psychological and social health
- take any other medicines as prescribed.

If you are at high risk of having a heart attack or stroke, your doctor may prescribe other blood-thinning or anti-clotting medicines (such as clopidogrel or warfarin) as well as aspirin. They may do this if you:

- have had a heart attack or ischaemic stroke while taking aspirin
- have had a stent implanted in one of your arteries
- have had a heart attack and also have other heart problems, such as atrial fibrillation (an abnormal heart rhythm) or congestive heart failure.

What are the side effects?

Aspirin generally increases your tendency to bleed and/or bruise. Some people may experience heartburn, stomach pain, minor bleeding from the stomach and worsening of duodenal or stomach ulcers. In people with a history of bleeding, aspirin also slightly increases the risk of more serious bleeding from the gut and can, very rarely, contribute to a stroke caused by bleeding in the brain (haemorrhagic stroke). However, the risk of serious side effects is very low with the very low doses that are prescribed to prevent coronary heart disease and stroke.

If you have a history of coronary heart disease, bleeding, ischaemic stroke or blood vessel disease, the potential benefit of taking aspirin usually outweighs the risk of having a haemorrhagic stroke.

What doses are used?

The recommended daily dose to help to prevent a heart attack and stroke is 75–150 mg. Tablets of 100 mg of aspirin are commonly prescribed for this purpose (a standard aspirin tablet used for pain and fever relief contains 300–325 mg). Higher doses are no more effective in reducing risk of heart and stroke, but can increase the risk of side effects.

If doctors or ambulance staff think someone is having a heart attack, they may recommend a higher dose of one 300–325 mg tablet is taken straight away.
Does aspirin prevent deep vein thrombosis (DVT) in travellers?

There is not enough evidence to prove that taking aspirin will prevent DVT in travellers. However, if you take aspirin already, continue to do so as prescribed by your doctor.

If you are at high risk of DVT (for example, if you've had surgery recently, are immobile, are pregnant or have another condition), talk to your doctor before you do any long distance travel. Your doctor might recommend that you take medicine or use special compression stockings to reduce your risk of DVT.

To reduce the risk of developing DVT, international guidelines recommend that all travellers:
- maintain good hydration (drink plenty of water or juice and avoid excess consumption of coffee or alcohol)
- regularly exercise the muscles of their legs and where possible, take occasional walks.

Do I need to stop taking aspirin if I have surgery?

If you are taking aspirin (or another anti-clotting medicine, such as clopidogrel) and need to have surgery or a dental procedure, you may be asked to stop taking aspirin (or the anti-clotting medicine) for up to seven days beforehand.

Talk to your doctor or dentist if you are not sure.

Remember…

- Don't take aspirin to help to prevent a heart attack or stroke unless your doctor tells you to.
- Aspirin will not cure coronary heart disease.
- Follow a healthy lifestyle whether or not you take medicines.

Further information

For more information, call our Health Information Service on 1300 36 27 87 (for the cost of a local call) or email health@heartfoundation.org.au.