

## Diagnosis and treatment of heart problems and related conditions

**Angiography:** If coronary heart disease is suspected, a coronary angiogram is often performed to help with diagnosis. This helps to determine the seriousness and extent of coronary artery clogging, and to determine the likely benefit from treatments including angioplasty or bypass surgery. Having an angiogram involves taking a special X-ray of your coronary arteries to see where and how badly they are clogged. The angiogram also shows how well the heart is pumping. The procedure is described in detail in the Heart Foundation publication, *All about coronary angiography*.

**Angioplasty and stents:** Angioplasty is a technique that improves the blood flow to the heart without the need for heart surgery. It uses a special balloon to open a blocked artery at the point where it is narrow. After angioplasty is performed, an expandable metal tube (such as a coil or wire mesh) called a 'stent', is usually placed in the newly dilated artery where it is expanded and left in place. You can find out more about these procedures in the Heart Foundation's publication, *Coronary angioplasty and coronary stent implantation*.

**Bypass surgery:** This operation bypasses the narrowed areas in the coronary arteries to allow blood to get to the heart muscle. The bypass is constructed from either an artery from inside the chest (the internal mammary artery), from arteries in the forearm or from leg veins. You can find out more about bypass surgery in the Heart Foundation's publication, *Bypass - All about coronary artery bypass graft surgery*.

**Cardiac rehabilitation:** Most people can return to a normal lifestyle after having had a heart attack, heart surgery or other heart problems. The right cardiac rehabilitation program will help most heart patients reduce their risk of further coronary heart disease. These programs provide patients and their families with education, information, physical activity and support. The World Health Organisation and the National Heart Foundation of Australia recommend that all patients who have had a heart attack, heart surgery, coronary angioplasty or other heart or blood vessel disease, are routinely referred to an appropriate cardiac rehabilitation and prevention program.

**Defibrillator:** This is a machine that delivers a carefully regulated electrical current to the heart. It is used during a 'cardiac arrest' emergency when the heart suddenly stops beating effectively. When successful, it reverts the heartbeat back to normal. It is also sometimes used to treat other heart rhythm problems. You can find out more about implantable defibrillators in the Heart Foundation's information sheet, *Implantable cardiac defibrillators*.

**Electrocardiogram (ECG):** An ECG is a reading of the heart's electrical impulses taken from electrical leads placed on the chest and limbs. The reading can be printed on to a continuous strip of paper, or, as in acute care units, shown on a small television monitor.

**Echocardiography:** This is a painless test that uses ultrasound to give a picture of the inside of the heart.

**Heart transplants:** Heart transplants are a way of treating some people with serious heart problems, especially severe heart failure. A heart transplant usually involves the complete removal of the diseased heart, and replacement with one from a suitable donor. You can find out more about heart transplants in the Heart Foundation's information sheet, *Heart transplants and organ donation*.

**Medications:** There is now a wide range of medications available to treat angina, high blood pressure, high blood cholesterol, heart failure and other heart and blood vessel conditions. People with coronary heart disease have their blood cholesterol levels monitored and often take a prescribed cholesterol-lowering medication and a regular small dose of aspirin to

reduce the risk of further heart problems. These medications need to be taken regularly to be effective. Some drugs may not be suitable for all patients, and all have the potential to cause side effects. Side effects can usually be kept to a minimum by adjusting the types of drugs and doses.

Many medications used to manage heart disease are proven to be effective, and their benefits usually far outweigh the problems that can occur - many people do not experience any side effects. The most effective and best tolerated drug (or combination of drugs) for any individual is most likely to be established through the development of a good working partnership between each person and his or her doctor.

**Pacemakers:** An artificial pacemaker is a small electrical device used to stimulate the heart to beat. A pacemaker is sometimes recommended when the heart's natural -pacemaker, or other components of the heart's electrical system are affected by disease. An artificial pacemaker prevents the heartbeat from being too slow. Each year, thousands of Australians have these small devices placed in their body to help the heart beat normally. The pacemaker's batteries usually last for ten years or more before needing to be replaced. You can find out more about pacemakers in the Heart Foundation's information sheet, *Artificial heart pacemakers*.

**Stents:** See *Angioplasty and stents*.

**Thrombolysis:** Emergency drug treatment that can dissolve a blood clot which is causing a heart attack. If given early enough, thrombolysis can reduce damage to the heart muscle. Although widely used, it is not suitable for all people who have a heart attack.

**Ultrasound:** See Echocardiography

**Publications and further information are available by contacting Heartline, the Heart Foundation's national telephone information service, on 1300 36 27 87 (local call cost).**

**Information sheets mentioned above are available on this website.**

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