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Are you about to have bypass surgery? Or perhaps you're worried about someone who is. Helen Cowan talks us through the procedure to put your mind at ease.

The hungry heart

The heart has to take its own supply of oxygenated blood before letting it pass to every other organ in the body. It does this via the coronary arteries: these divert some of the bright red oxygenated blood from the aorta, almost as soon as it has left the heart in a heartbeat.

When a coronary artery is blocked, blood supply to the heart is reduced and your heart will be running out of fuel. You are likely to feel a pain in the chest; heart attack, heart failure and abnormal heart rhythms can also result.

Dealing with the blockage

If a blood clot is to blame, clot busting drugs may clear the way; if it's a fatty lump, doctors can laser it away, squash it or blast it to pieces, sometimes leaving a small metal tube (a stent) in place to keep the vessel open.

When the blockage won't clear, bypass surgery might be needed, in which a blood vessel from another part of the body (usually the chest, arm or leg) is sewn onto the coronary artery, above and below the blocked area, creating a detour. Doctors can perform up to four bypasses during a single operation, depending on the number of blockages. That's why we speak of single, double, triple or quadruple bypasses.

Be still, my beating heart

It's easier to sew onto a heart when it's not beating, so drugs are usually used to stop the heartbeat before a bypass operation. This also reduces the fuel requirements of the heart, making it less likely to starve of oxygen during the procedure (your body temperature will also be lowered to further reduce energy requirements).

The famous heart bypass machine then takes over the role of your heart and lungs: an incredibly sophisticated form of life support that was first used in 1953 to repair a hole in the heart of an 18 year old woman. Taking blood from your body it adds oxygen and drugs, controls the temperature and filters the blood before transfusing it back into your aorta.

Bypass surgery can also be performed on the beating heart, and cancels the need for the heart bypass machine. Wild game hunters complain about the difficulty of hitting a moving target; beating-heart surgery is awesome in comparison.

“Conveyor belt-like efficiency”

This is how Nigel Cross, Chief Perfusionist at Great Ormond Street Hospital, describes the cardiac operating theatre. Bypass operations are now commonplace (approximately 20,000 per year in England), and surprisingly safe (for example, your risk of stroke is generally less than 2%), with most patients going home after 5 or 6 days.

The potential for bleeding or organ damage will always exist in such major surgery and the psychological scars may run even deeper: anxiety, depression and fear can remain long after the operation. Cardiac rehabilitation nurses can help, but the best reassurance is to hear from [a survivor](#) [5].



Source URL: <https://helencowan.co.uk/all-you-need-know-about-heart-bypass-surgery>

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