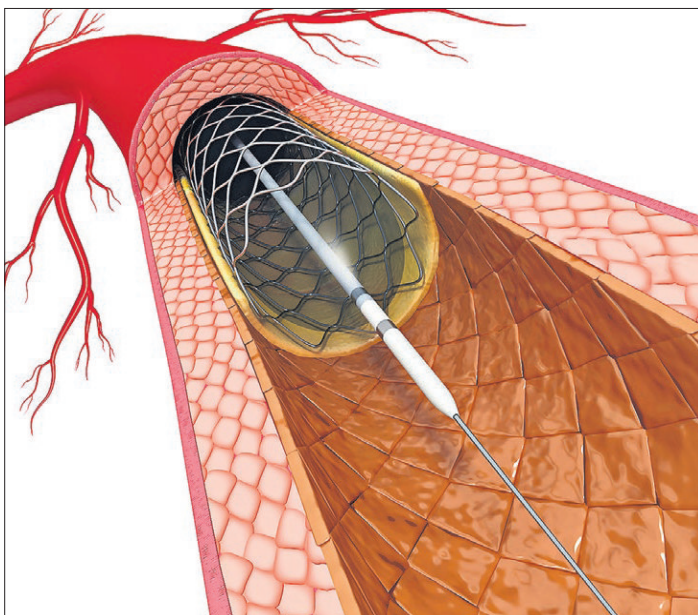


Getting to the heart of the matter

These small wonders go the extra mile to open up blocked arteries



Everyone's heard of these amazing, potentially life-saving little devices. But what exactly are stents, how are they inserted, and how have they changed over the years? Dr Brian Khoo, a cardiologist at Mount Alvernia Hospital's Ascension Heart Centre, tells us more.

What are stents and how are they inserted?

Stents are tiny coils, made of composite metal, that are inserted into blocked blood vessels where they expand and keep the vessels open. They can be used in any blood vessels in the body, but are most commonly used in heart arteries. Such stents, coated with medication to reduce the risk of the blockage recurring, are called a drug-eluting stent (DES).

Stents are inserted via a procedure called coronary angioplasty, performed on patients with severe heart artery blockages. It involves the insertion of a small balloon into the blocked artery. The balloon is carefully inflated to open up the artery, after which a drug-eluting stent is put in place and expanded. The balloon and catheter are then removed, while the stent is left in place.

Both an angiogram and angioplasty take one to two hours and are performed under local anaesthetic with mild sedation.

How are they effective?

Coronary angioplasty is the most effective technique to prevent restenosis, or the further re-narrowing of the heart arteries. In Singapore, the success rate of coronary angioplasty exceeds 95 per cent, which is comparable with international statistics. However, for certain cases, the success rate may be lower.

Stents have come a long way. Early coronary angioplasty procedures performed in the 70s were without stent deployment. Then came the first generation of stents — called bare metal stents — which were not coated with medication.

Since 2002, DES have become the gold standard in treating patients with heart artery blockages. We are now using the third generation of DES, and heart stent technologies have improved by leaps and bounds.

Are stents a long-term solution?

Until the next leap forward in stent technology, today's options are holding up well. If your doctor recommends coronary angioplasty with stent insertion, rest assured that your stent will probably last for the rest of your life. Combine it with a healthy diet, regular exercise and possibly medication.

Above: Stents can be used in any blood vessels in the body, but are most commonly used in heart arteries to keep blocked blood vessels open.

PHOTO: GETTY IMAGES



DR BRIAN KHOO
Cardiologist
Ascension Heart Centre
Medical Centre D
#07-60
Mount Alvernia Hospital