



**Mechanical hearts have been around for many years, but recent improvements in technology mean they are more affordable.**

GRAPHIC: SHUTTERSTOCK

# Mechanical hearts add to SA's beat

## Improving technology makes devices more accessible for Africans

**Manyane Manyane**

**M**ECHANICAL heart implants are likely to replace donor heart transplants in the next 10 to 15 years, according to a cardiac and transplant surgeon at Netcare, Willie Koen.

This artificial cardiac heart device was made to replace biological hearts and is used to bridge the time until a heart transplant, or permanently replace biological hearts in cases where transplantation is impossible.

The device is valued at R1.7 million. The total costs of heart transplantation is between R2.2m and R2.3m, including operations, depending on the age of the patient.

Heart transplantations have

been around for more than 45 years. And Koen said mechanical heart technology evolved at the same time as heart transplantation in the early 1960s.

"In South Africa we kept up with the latest developments in mechanical implantation and were involved with the device research at the University of Cape Town in the 1990s. The first clinical implants were done at Netcare Christiaan Barnard Memorial Hospital using the Berlin Heart in 2000," Koen said.

He said the device was large and patients had to remain in hospital after implantation. It was upgraded to the latest third-generation levitation disc HVAD (a heart ventricular assist device) in 2012.

In June a mechanical heart saved the life of a child for the first

time in South Africa and Africa.

Koen said the new devices made it possible to treat heart failure patients around the continent.

"They are opening up a vast range of exciting new treatment possibilities. Unlike donor hearts, the mechanical devices are readily available. Patients do not have to wait on the transplant waiting list for a matching donor heart," he said.

### **Economic potential**

Koen said he was hoping these devices would become affordable as they started to trend globally.

"This will make it more accessible to patients around South Africa and the rest of the African continent," he said.

Medical Tourism SA said this

new technology could play a big role in growing the South African economy.

Faith Cartwright, a director at Medical Tourism, said this was a good opportunity for South Africa as patients around Africa would come for treatment.

"This can help the South African economy as some of the African patients are paying in dollars," she said.

But Cartwright warned the mechanical heart operations would likely only be affordable to patients who were on medical aids.

"People will need to apply for medical aid. Other countries pay for people who are not on medical aid, but it depends on their age and market place," Cartwright said.

They would not be available to a person over 65 years of age.