Artificial hearts have been around since the 1960s, with the first successful implant being in 1969.

The first artificial heart recipient stayed alive for about 60 hours.

There are two types of artificial implantable heart— one designed to serve as a temporary replacement while a donor heart is being looked for, and one such as the Abiocor, designed to be a permanent replacement.

An example of the first type is the Jarvik-7.

About the size of a pack of cigarettes, it has two pumps designed to simulate the left and right ventricles.

With this system, an external power system energizes and regulates the pump through a system of compressed air hoses that enter the heart through the chest.

This is obviously prone to infection, and one of the main reasons the Jarvik-7 is a temporary solution.

The first use of the Jarvik-7 was in 1982, the patient was kept alive for 112 days.

The Abiocor implantable replacement heart is the next generation in heart implants.

Roughly the size of an actual heart, the Abiocor’s only external attachment is its batteries.

The unit can function on its own for about half an hour, allowing the patient to shower as normal.

The AbioCor consists of an internal thoracic unit, an internal rechargeable battery, an internal miniaturized electronics package and an external battery pack.

Power is supplied from the external batteries via a TET (transcutaneous energy transmission) system, this supplies power from an external coil to an internal one through the skin without actually puncturing it.

The Abiocor has the potential to benefit 100,000 people per year.