

HEART TRANSPLANTS

In 1967 a human heart from one person was transplanted into the body of another. South African surgeon Christiaan Barnard performed the first such transplant; many surgeons adopted the procedure. Because most patients were dying soon after a transplant, however, the number of operations dropped from 100 in 1968 to 18 in 1970. The major problem was the body's natural tendency to reject tissues from another. In Palo Alto, California, the surgeon Norman Shumway persisted in working on this problem, and in the early 1980s he and his colleagues could report that more than half of all cardiac transplant recipients were living beyond one year. Pharmaceutical aids such as cyclosporine are helping to reduce the immune reaction. In 1984 the transplantation of a baboon heart into a female infant was also attempted, in a controversial California operation, but the heart was eventually rejected.

Artificial Hearts

Artificial hearts have been under development since the 1950s. In 1966 Dr. Michael De Bakey successfully implanted a booster pump for the first time as a temporary measure; at least one such pump continued to work for several years. In 1969 Dr. Denton Cooley implanted the first completely artificial heart in a human, again on a temporary basis. The first permanent artificial heart, designed by Dr. Robert Jarvik, was implanted in 1982 in a patient who lived for three months thereafter. A number of patients have received Jarvik and other artificial hearts since that time, but surviving recipients thus far have tended to suffer strokes and related problems.

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Transplants of hearts and bone marrow are done with some success, but they are only performed at medical centers that are able to handle such surgery.

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