

— TRANSPLANT TIMELINE —

500 BC According to Chinese legend, doctor Pien Ch'iao performs a dual-heart transplant on warriors Gong Hu and Qi Ying

1742 Swiss Abraham Trembley successfully transplants tissue between hydras

1920 In France, Dr Serge Voronoff pioneers a technique of grafting monkey testicles onto humans. He performs an estimated 500 such procedures on the rich and foolish before he's pressured to stop by colleagues in the early 1930s

1944 Sir Peter Medawar first discovers the immune system is to blame for the failure of all previous organ transplant experiments

1955 Torontonion Dr Gordon Murray performs the first heart valve transplant; the heart valve keeps working for over 8 years

1963 Dr James Hardy attempts the first human lung transplant; the recipient dies the same night

1964 Dr Starzl next tries to transplant six baboon kidneys into humans. Most of the patients die soon after but one lives 98 days

1967 South African surgeon Dr Christian Barnard performs the first successful human heart transplant. The patient only lives another 18 days, but it is pneumonia that kills him — the heart was still working



1969 In the first successful temporary artificial heart implant, Dr Denton Cooley of Houston uses the 'Liotta Total Artificial Heart' to keep a patient alive until a donor heart becomes available three days later

1979 Dr David Sutherland performs the first living-donor partial pancreas transplant. (The first ever pancreas transplant was performed at the same University of Minnesota lab in 1966)

1982 Dr William DeVries implants the first permanent artificial heart (called the 'Jarvik-7') into Barney Clark of Salt Lake City. Mr Clark lives 112 days after the procedure

1984 A baboon heart is transplanted into 15-month-old 'baby Faye;' it works for 20 days

2003 After an intense 14-hour procedure, Dr Christian Kermer and Dr Franz Watzinger of Vienna's General Hospital successfully transplant a tongue into a patient. While taste isn't restored and the recipient can't move the tongue on his own, he is soon able to swallow liquid

200 AD Hua Tuo, another legendary Chinese physician, performs therapeutic organ transplants

1901-1903 Austrian Dr Karl Landsteiner discovers the ABO blood classifications

1936 Russian Dr Voronoy performs the first human kidney transplant; the recipient survives four days

1954 Dr Joseph E Murray performs the first successful kidney transplant in Boston, transplanting Ronald Herrick's kidney into his twin brother Richard. Richard marries his nurse and lives another eight years

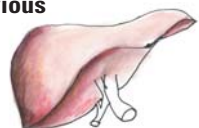


1958 Dr Jean Dausset discovers the antigen, HLA-A2, which will make it easier to work with organs of different blood types

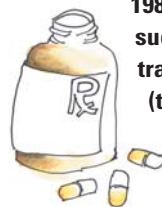
1963 Colorado-based Dr Thomas E Starzl attempts the first human liver transplant but the patient quickly rejects the new organ

1964 Dr James Hardy tries using a chimpanzee heart in a case where the patient's heart had failed and no human donor was available. It only works for 90 minutes

1967 Dr Starzl jumps previous hurdles and performs the first successful liver transplant



1977 The immunosuppressive drug cyclosporine is introduced by Dr Jean Borel. The discovery comes out of his studies of the fungus *Beauveria nivea*, native to Norwegian mud



1981 Stanford surgeon Dr Bruce Reitz successfully performs a heart-lung transplant using cyclosporine (then still in testing) as an anti-rejection drug

1983 Toronto General Hospital surgeon, Dr Joel Cooper, successfully transplants a lung in a 58-year-old man, who lives another six years

1986 Canada's Dr Joel Cooper strikes again, performing the breathtaking (or breath-giving) first-ever double-lung transplant. The patient dies of an unrelated illness 15 years later

