AAMC
Tomorrow's Doctors, Tomorrow's Cures®

America's Teaching Hospitals – Discovering Tomorrow's Cures

In addition to serving as the training ground for the nation's new physicians and other health professionals, teaching hospitals are key centers of research where medical knowledge continuously evolves and new cures are found. From new approaches in prevention and diagnosis to successful treatments and cures, the critical medical breakthroughs pioneered at teaching hospitals and allied medical schools have dramatically improved Americans' health.

Medical Firsts Pioneered at AAMC-Member Teaching Hospitals and Medical Schools

Date	Event
1960	First intensive care unit for newborns
1966	First successful pancreas transplant
1967	First successful liver transplant
1968	First successful bone marrow transplant
1968	First adult human heart transplant in the U.S.
1969	Development of an influenza vaccine, the first genetically engineered vaccine
1970s	First telephone-based cancer help line
1972	First hospital-based comprehensive screening program for sickle cell anemia
1972	First implantable, rechargeable pacemaker for cardiac disorders
1973	First use of a laser to remove growths from the larynx
1974	First production of recombinant DNA, the seminal step in the creation of the biotechnology industry and the rejuvenation of the field of biology
1974	Development of positron emission tomography (PET), an advance in imaging technology
1975	First microcomputer-controlled implantable medical delivery system
1975	Identification and naming of Lyme disease
1976	First total shoulder replacement
1977	First human images with a magnetic resonance imager (MRI)
1977	Development of angioplasty
1978	First performance of radial keratotomy to correct myopia
1978	Development of an insulin infusion pump for diabetics
1979	First toll-free hotline for epilepsy information
1979	First use of the immunosuppressant drug cyclosporin-now standard therapy for organ-transplant patients
1980s	Development of coronary angioplasty
1980	First acute spinal cord injury intensive care unit
1981	First successful surgery on a fetus in utero
1981	Establishment of the first Pediatric Trauma Center
1981	First successful human combined heart/lung transplant
1981	Development of the first artificial skin made from living human cells
1981	Descriptions and reports of the nation's first cases of AIDS
1981	Development of balloon angioplasty

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1983 First autologous bone marrow transplant for acute myeloid leukemia
1984 First successful pediatric heart transplant
1985 First Fetal Cardiovascular Center
1986 First hospital to initiate a lung transplantation program
1986 First use of lithotripsy to break up common duct gallstones
1988 First successful double-lung transplant
1989 First living-donor liver transplant, and in 1993, the first liver transplant from an unrelated living donor
1989 Identification of human umbilical cord blood as a suitable source for stem cell transplantation

1993 First human gene therapy trial for cystic fibrosis
1993 First gene-therapy procedure on a newborn infant, correcting an inherited disorder of the immune system
1994 First use of functional MRI to provide rapid diagnosis of most strokes
1994 First gamete intrafallopian transfer for treatment of female infertility
1994 First human retinal cell transplant
1995 First implantable, artificial inner ear for treatment of deafness
1995 First deep brain stimulator implantation for the treatment of Parkinson's disease
1996 Development of computer-assisted stereotactic neurosurgery
1997 First use of gene therapy in cardiac disease in humans
1997 First stem cell transplant for active lupus
1997 First retinal transplant
1997 First transplant of human fetal tissue in patient with spinal cord injury
1998 First laryngeal transplant
1999 First hand transplant

2000 First transplant of four organs from a single donor
2000 First bioengineered cornea transplant to prevent vision loss
2001 First self-powered implantable artificial heart
2001 Discovery of stem cells within the pancreas that can generate insulin-secreting beta cells and potentially lead to a cure to diabetes
2002 Development of a Rapamycin-coated stent, a breakthrough in treatment of heart disease and angioplasty
2003 First successful larynx reconstruction using tissue from the same patient
2004 First to show that lung cancer risks from smoking are twice as high in women as they are in men
2004 Discovery of genes that increase risk of developing rheumatoid arthritis and other autoimmune diseases
2004 First to identify that the use of two common heart tests together more accurately predicts the risk of death from heart disease
2005 First to develop a rapid test for a common, highly contagious virus that can lead to life-threatening illness in children
2005 Discovery that the Staphylococcus aureus bacteria is the most common cause of endocarditis in much of the world, and leads to the most common form of healthcare-acquired infections
2005 Identification of a major gene that increases the risk of developing age-related macular degeneration
2005 Discovery that adult heart disease begins in childhood, demonstrating the need for early prevention
2005 Discovery of the link between weight and risk of developing Alzheimer's disease
2006 First to discover that women's vascular disease is unique, further illustrating how heart disease affects men and women differently
2007 Discovery of genetic markers that increase the risk of multiple myeloma, a deadly cancer of the blood
2008 First to develop a device that can tell if a colon polyp is cancerous before removing it
2008 Discovery that a simple blood test for calcium levels can predict the risk of fatal prostate cancers