

It was Hadassah that—
even before Israel
became a state—
established a health care
infrastructure and
a standard of excellence

Hadassah gave Israel
its first:

- modern health facility
- university hospital
- bone marrow clinic
- comprehensive cancer center
- embryonic stem cell research center
- liver unit
- organ transplant unit
- skin bank
- trauma unit
- da Vinci robot surgical system
- and only OPTIMA CT660 revolutionary Computerized Tomography
- and only hospital-based Cyclotron System in Israel (Hadassah's second cyclotron, the first acquired 13 years before)

SURGERY

- Performed operations, for the first time in Israel, using a surgical robot.
- Developed an advanced laparoscopic method to extract a person's gall bladder through one small incision.

TRANSCENDING BOUNDARIES

- Established a comprehensive Center for Cystic Fibrosis in Gaza and trained its Palestinian health care team.
- Arranged for an Israeli airforce helicopter to transport an injured Palestinian patient from the West Bank to the Hadassah Medical Organization for treatment.
- Established the world's only registry for Arab bone marrow donors.

TRANSPLANTATION

- Transplanted a kidney into a patient who has Familial Dysautonomia, achieving a positive outcome—for the first time in the world.
- Developed a novel strategy to derive and control the differentiation of large quantities of human embryonic stem cells bringing hope to reverse many diseases such as Parkinson's disease, diabetes, and age-related macular degeneration.



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**HADASSAH
MEDICAL
ORGANIZATION**

**MAKING
AN IMPACT**



HADASSAH
INTERNATIONAL

Breakthroughs

AUTOIMMUNE DISEASES

- Developed a technique that clears blood clots in blood vessels of the lower leg which dramatically reduces the risk to diabetics of losing a limb.
- Discovered a new treatment for lupus—a device called the Lupusorb Column, which removes antibodies from the bloodstream.

CANCER

- Proved that donor lymphocytes will destroy cancer cells.
- First in the Middle East to provide innovative, hormone-delivered radiotherapy for eradicating neuroendocrine tumors.
- Hadassah surgeons learn groundbreaking surgical technique to remove cancerous tumors from the gastrointestinal tract by “peeling” the lesion from the gastrointestinal wall through an endoscope

CARDIAC DISEASES

- Diagnosed Atrioventricular Block (AVB) in a fetus and treated the baby prenatally with a special steroid that protected its heart from a life-threatening, life-lasting heart problem.
- Discovered a new approach to repair injured hearts by growing heart cells in culture from a segment of the heart’s left atrium, often removed during open-heart surgery.
- First in Israel to lower blood pressure with a 40-minute outpatient procedure, using an innovative, minimally invasive catheterization tool.

CELL REGENERATION

- Discovered, in experimentation with mice, that the mechanism of cell regeneration that is switched on during pregnancy may be triggered for cell regeneration in older patients.

GENETIC DISEASES

- Created a Center for Cystic Fibrosis that is a world leader in research and multi-disciplinary holistic treatment for those suffering from this lethal genetic disease.

- Opened one of two Familial Dysautonomia Centers in the world to help patients with this incurable genetic disease.
- Identified genes involved in life-threatening metabolic disorders.
- Discovered a genetic mutation that causes children of Ashkenazi Jewish descent to be born with Joubert Syndrome, a serious neurological genetic disease.

HIV/AIDS

- Developed an innovative treatment for men with the HIV virus that enables them to father healthy children. The first healthy baby was born to HIV-positive father at Hadassah’s AIDS Fertility Clinic.

LIVER DISEASES

- Demonstrated that a quick, noninvasive, breath test, using the chemical, methacetin, can accurately predict survival in patients with viral hepatitis, enabling physicians to list high-risk patients earlier for liver transplantation.
- Discovered that enriching colostrum, the milk produced by cows, immediately after calving with insulin antibodies proved a successful treatment for fatty liver disease in mice.

NEUROLOGICAL DISEASES

- Introduced to Israel the technique of deep brain stimulation to treat dystonia, a neurological movement disorder, and relieve patients of painful muscle contractions and repetitive movements.
- Demonstrated for the first time that nerve cells created from human embryonic stem cells can improve the functioning of a laboratory rat with Parkinson’s Disease.
- Eliminated the physical manifestations of Parkinson’s Disease by implanting electrodes in a patient’s brain.

- Pioneered a Virtual Reality System called “VirHab” which helps stroke victims to recover movement of their limbs, relieves migraine and tension headaches, and fights chronic pain.
- First to pioneer treatment for brain aneurysm by building artificial artery inside the aneurysm.

NURSING

- Established Israel’s first Nursing Research Center to generate hospital-wide clinical research studies.

OPHTHALMOLOGY

- Developed a new laser lens that can completely cure glaucoma.
- Halted deterioration of the retina in animal models using human embryonic stem cells, bringing new hope for treatment of age-related macular degeneration.

ORTHOPEDICS

- Repaired fractured bones by harnessing adult stem cells and platelets from a patient’s blood and bone marrow and injecting them at the fracture site.
- Performed the world’s first computer-assisted, minimally invasive hip replacement.

PEDIATRIC CARDIOLOGY

- Invented the fetal kinetocardiogram which enabled doctors to diagnose cardiac arrhythmias in a fetus.

MATERNITY AND OBSTETRICS

- Saved a Cypriot mother and her twin fetuses—one growing outside of the womb, marking only the second time in known medical history that babies in this condition were delivered successfully.
- Delivered twins, for the first time in Israel (and only the fifth time worldwide) to a mother who has a heart implant.

SEXUAL ABUSE

- Opened first center in Jerusalem to treat victims of sexual abuse.