

# Continuing Development Leading In Healthcare



**Barzilai**  
University Medical Center  
the Sheila & Eric Samson  
Surgical Hospital  
*People First*



## THE BARZILAI UNIVERSITY MEDICAL CENTER

**We make a living by what we get, but we make a life by what we give.** Winston Churchill

## **THE BARZILAI UNIVERSITY MEDICAL CENTER**

Barzilai Medical Center was established in 1961 as the Ashkelon Health Unit with only 150 beds. Currently, the medical center contains 643 beds.

The medical center provides quality health services to the Ashkelon district and its surrounding. The district, which covers an area of 1,285 km, is the third largest in Israel and includes five cities, 11 local councils and 114 settlements.

Barzilai provides health services to approximately 550,000 inhabitants in the district.

The hospital is on call seven days a week throughout the year and is the only regular and emergency general hospital in our region.

Barzilai Medical Center is located in southern Israel close to the border with the Gaza Strip (approximately 12 km - 8 miles away). This proximity leads to a situation where whenever there is an escalation/confrontation and rockets and missiles are fired towards the hospital and all the cities and settlements in the region, the hospital that continues functioning and providing medical services to patients and casualties (including soldiers) is unprotected.

The medical center leads community healthcare and encourages research and education in the medical professions and has several national and international-level centers of medical excellence, such as a cardiology and electrophysiology institute, an oral maxillofacial Institute that performs specialized salivary gland surgery, a state-of-the-art MRI institute, an obstetrics center, and the leading orthopedic and surgery departments. The Barzilai Medical Center has completed the JCI test with honors and has been found worthy of receiving the mark of JCI international standard of quality and safety.

We were recognized as a University Hospital since 2014. Barzilai Medical Center employs about 3,500 staff members, including 450 physicians, 1,000 nurses and other health professionals.

### **Our Vision**

A public medical center that provides quality healthcare services to any person, based on a professional mission, respect and compassion for the patient and adherence to excellence, progress and innovation.

### **Brand Promise**

A center that cares for its human resources, leads health in the community and encourages research and education in the medical professions.

### **Brand Positioning**

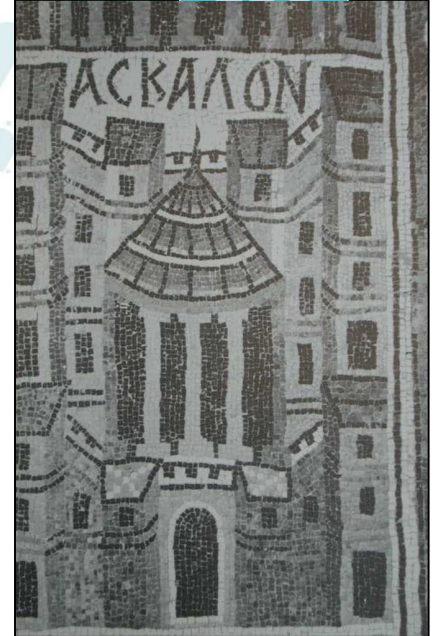
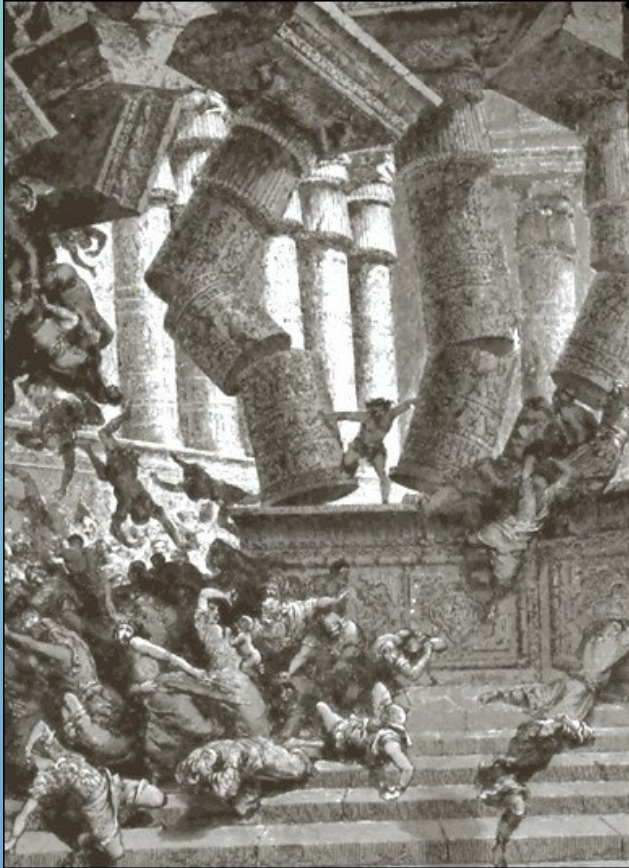
“People First” - Focusing on People, the personal approach and the excellent human capital at the Medical Center



*Thank You!*

# ASHKELON - THE CITY OF SAMSON AND DELILA

(The book of judges Chapter 14 Paragraph 17)



# Construction & Infrastructure



Women's Health Center



Ophthalmology Clinic



DAVINCI Robot



Nephrology /Dialysis Clinic



Maternity Ward



Multidisciplinary Department of Surgery



Protected prematurity and Urological Institute



Department of Urology unit (continuation)



Auditorium

# Eye clinic & Eye O.R



**Cost: \$ 2.8 million**  
**Full funding is required**

The Ophthalmology Clinic at Barzilai Medical Center serves as a tertiary medical center in the field of eye diseases and surgeries. It provides services to a population of over 500,000 people in the western region of the Northern Negev.

The Ophthalmology Clinic occupies a very limited area which makes it rather difficult to express the high professional capacity of the services provided.

The shortage of space causes great discomfort for patients who have difficulty waiting for examination and in addition suffer from a lack of privacy during examination due to the high density.

Construction of a spacious, well-equipped ophthalmology clinic building will allow to provide the best service to area residents.



# Multidisciplinary Department of Surgery



**Cost: \$ 6.2 million**  
**Full funding is required**

The Dialysis Clinic is equipped with the best modern facilities and equipment, which ensures the excellent quality of dialysis and treatment of patients requiring dialysis due to end-stage renal failure.

Also in the clinic, there are patients hospitalized with acute renal failure who require dialysis during their hospital stay.

The medical and nursing staff consists of skilled and dedicated personnel. Full medical care is provided by doctors specializing in kidney diseases, a team of certified dialysis nurses trained at the highest level, a qualified technical team, a social worker and a nutritionist specialized in this area.

At present, the building of the Dialysis Clinic is extremely outdated and not protected. We are currently working to renovate and protect the clinic in order to improve the environment for the benefit of patients and staff.





# Department of Urology and Urological Institute



**Cost: \$ 7.3 mln.  
Full financing needed**



The department of urological surgery treats problems in the female and male urinary system and the male reproductive system, such as: urinary disorders due to obstruction or infection, bleeding, tumors and stones in the urinary tract, urinary leakage, birth defects and sexual dysfunction. The surgeries are performed using advanced methods. We do minimally invasive, endoscopic and laparoscopic surgeries, laser surgeries and reconstructive surgeries in children. In the nearest future, we shall also perform surgeries using advanced robotics.

The hospitalization conditions in the urology department are very difficult and outdated. The rooms are oppressively overcrowded (the rooms were designed for one patient in the past; now they host three patients). As you know, the urology department deals most of the time with abdominal and genital surgeries, and the patients are almost completely exposed with various drains when the visitors come in and out. These conditions create constant discomfort and lack of privacy.

The beautiful facial expressions, the patience of the doctors and nurses, the professionalism and the great success enable the patients to continue living in difficult physical conditions, that are generations away from the year 2022.

The management of the center wishes to establish a urology department and a urology institute under one roof. The hosting conditions will be suitable for the 22nd century. Due to financial constraints, we are having difficulty promoting this, despite the detailed planning that has already been done and the preparation of a large space in the surgical building.

The urology department needs further technological progress and suitable conditions for patients and surgeons. The people of Ashkelon and all surrounding settlements deserve the right care, at the level and standard accepted in the Western world.

# Maternity Ward-Private Rooms



**Cost: \$ 7 million**  
**Full funding is required**



The Maternity Ward at the Barzilai Medical Center serves the maternity population in the southern Ashkelon area, Kiryat Gat, Sderot, Netivot, and the settlements and communities in and around the city of Ashkelon and its surroundings.

The staff of the department takes care of the mother and her newborn baby together, believing that the mother and the newborn are a single holistic unit.

Over the past few years, with the relocation of many young couples to our area, the occupancy of the ward has increased. Nowadays, the number of births in our delivery rooms stands at about 5,000 births a year.

There are 18 maternity rooms

of which 14 rooms contain 3 beds and 4 rooms contain 1-2 beds.

Each room has a bathroom as well as a diaper changing station for the benefit of the mothers, a total of 46 maternity beds + 46 newborn cribs.

Having this in mind, we are interested in establishing an additional maternity ward of approximately 5400 square feet, providing the appropriate conditions and atmosphere for mothers and family members. We see great importance in creating another maternity ward that will benefit the birthing women.

# Nephrology / Dialysis Clinic



**Cost: \$ 7.8 million**  
**Total balance to be raised**  
**\$ 2.8 million**



**As part of the dynamic development of the medical center,**

there is a need and great importance in establishing a multidisciplinary surgical department, which will include the units of blood vessels, chest, plastics, oral cavity and maxillofacial area.

**The management of the Medical Center** has placed a positive patient experience and uncompromising professionalism at the forefront of the multidisciplinary surgical department.

**Surgery, that is at the forefront of surgeons in Israel,** requires an emphasis on narrow specializations which allows treatment at the highest level, as well as excellence in teaching a new generation and leading academic activities.

**The center's management has set itself the goal of establishing a multidisciplinary department of surgery,** which will include multiple units under one roof.

# DAVINCI© ROBOT



**Cost: \$ 3.5 million**  
**Full funding is required**



In the recent years, a minimally invasive surgical approach has been developed with the help of a robot (DAVINCI) which helps minimize the shortcomings of laparoscopic surgery.

The robotic arms have a higher range of motion and level of accuracy than the human hand, thus allowing the surgeon to perform delicate surgeries, where it's difficult to reach with laparoscopic instruments. It provides unparalleled flexibility and precision during surgery.

The entrance to the abdominal cavity is through tiny incisions, through which are inserted surgery instruments, and they are controlled outside the abdominal cavity. Moreover, the 3D camera is inserted, which is held by the surgeon's assistant throughout the operation.

The minimally invasive robot surgical system (DAVINCI ©) brings many benefits to the health system such as:

Decreased level of pain after surgery Shorter Hospitalization

Short recovery, and faster return to daily routine

Less blood loss during surgery due to the level of accuracy provided by robotic arms, thus fewer blood transfusions during surgery.

Reducing the risk of wound infection.

Minimal risk of complications compared to traditional open surgery.

Allows an assistant surgeon to help in other processes during the surgery and thus shortening surgery times.



# Protected prematurity unit (continuation)



**Cost: \$ 14.5 mln**

**Total fundraising balance:  
\$ 2.3 mln**



At the Barzilai Medical Center, about 4950 newborns are born every year, of which about 800 newborns need special care in the department for special care of newborns and premature babies because of their condition or because they are premature.

The department for special care of newborns and premature infants is equipped with the most advanced incubators and ventilators and monitoring devices that help the staff monitor the condition of the newborn and premature infants and identify any changes that require immediate intervention or a change in treatment.

The team of doctors and nurses is extremely aware of the issue of newborn safety in the ward and outside and makes sure to instruct the parents on the safety of the newborns in the ward, at home and in the car.

The department for special care of newborns and premature infants has one of the lowest mortality rates in Israel among premature infants weighing less than 1500 grams. The issue was published in the report of the National Unit for Research on Women's and Children's Health at the Gartner Institute. Our reputation has been built over many years of providing professional and warm care, as we engrave safety and service on our flags. The center's management made a decision to build, renovate and protect the 3,200-square-meter prefab and set itself the goal of continuing to develop and improve the quality and scope of the treatment offered, as well as to provide innovative and up-to-date service to patients.

It is our hope and dream that the entire process will be carried out under one inclusive and caring roof as a state-of-the-art department, which will provide an adequate response to premature babies, their parents and the staff. We are currently building the protected premature unit, but we still lack a budget to continue finishing the construction of the ward and equipping it.



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# Equipment & Instrumentation



Ultrasound X-ray



Mobile C-arm imaging system



Retinal camera



Portable OCT system



Fetal monitors



Monitoring system



Eye microscope



Biplane x-ray imaging room

## Ultrasound & X-ray

A device is used for tests that allow for three-dimensional imaging and complex Doppler tests, including diagnostic and therapeutic operations.

By using sound waves at frequencies above the hearing threshold of the human ear, an ultrasound device creates images of the organs being examined differently than X-rays or computed tomography.

The ultrasound device has no ionizing radiation and the test is non-invasive. This device is intended to replace an old and faulty device in the X-ray institute.



**Cost: \$ 100,000**  
**Full funding is required**

## Mobile C-arm Imaging System

Intended for healing fractures (reduction) in the limbs under the mirror imaging in the emergency room (instead of “on the blind”) as well as for correction of fractures during operations.

A mobile C-arm imaging system that allows X-ray reflection of the arms and legs during surgery operations on the extremities and also restoration of a broken bone.

The device is used by orthopedic surgeons for 2 types of operations:

The device is used for limb surgery.

Suitable for use in a gypsum room of the emergency room in favor of returning a broken bone to its place under a mirror, before casting the injured extremity.

The advantage of the device is low to zero radiation. It is simple and immediate to use and does not require an X-ray technician.

The device shows the attending physician a picture of the patient's health for treatment.



**Cost: \$ 117,000**

**Full funding is required**

# Retinal Camera with Fluorescein Angiography for Premature Infants

A retinal camera with fluorescein angiography provides computerized images of the retina and thus helps in the diagnosis and treatment of complex retinal conditions in premature infants.

A premature infant is a newborn born prematurely. Such a baby suffers from immaturity of various body systems of a premature infant have not reached full maturity, and, among others, the visual system.

Since premature complications can affect the eyes, premature babies are examined leaving the hospital.

The purpose of the test is to reveal the complete absence of vascular growth, which can lead to the development of abnormal blood vessels that will pull the retina, bleed and threaten the vision of premature babies, up to blindness.

Premature eye disease requires treatment to prevent irreversible damage to vision.

Lack of diagnosis or treatment causes severe visual impairment.



**Cost: \$ 158,000**  
**Full funding is required**

# Portable OCT System with Fluorescein Angiography for Premature Infants

The purpose of the portable OCT system is to provide information about what is happening in the chambers of the eye, and more precisely about the structure of the retina, iris, optic nerve, vitreous and more, without taking any risk.

OCT testing is especially relevant for treatment of diseases such as retinal degeneration (AMD) and retinal diabetes. By properly decoding of an OCT test, other eye diseases like glaucoma, diabetic retinopathy, retinitis pigmentosa and more can be tracked.

One of the common uses of this test is to diagnose and monitor retinal edema.

The purpose of the portable system is to provide a solution for hospitalized and bedridden patients and to transfer the device to them, as well as to perform an OCT examination for retinal surgery or laser treatments of premature babies.



**Cost: \$ 108,000**  
**Full funding is required**



# Fetal Monitors for Delivery Rooms

Fetal monitoring has become an integral part of the medical procedure. Monitoring allows for continuous electronic recording of the heart rate of the fetus and birthing mother during labor and can significantly affect the course of labor.

The purpose of fetal heart rate monitoring during labor is to detect insufficient oxygen supply to the fetus or early stages of the metabolic compensation mechanism, which are immediately reflected in the Apgar score and fetal blood test.

Another purpose of monitoring is to lower the long-term manifestation of cerebral palsy.

The Maternity Ward at the Laniado Medical Center functions under heavy workload with very old and multi-fault monitors.



**Cost: \$ 176,000**  
**Full funding is required**

# Monitoring System for Intensive Care

The monitor allows monitoring of vital signs, ECG, blood pressure, arrhythmias and more in severe heart patients.

We're looking at innovation of an outdated monitoring system that sends data to a central station and a computerized patient file.

The monitors have an extra large display and the option to expand, if necessary, and connect "modules" to access additional parameters in accordance with the requirements of the attending physician.



**Cost: \$ 182,000**  
**Full funding is required**



# Eye microscope for surgery room

A microscope enabling to perform OCT images in real time during a surgery, so that tissues with a thickness of a few microns of both the retinal and corneal layers can be identified.

The device includes a digital system for stereoscopic vision that allows the surgeon to work through the microscope eyepieces or without the use of the microscope eyepieces.

These capabilities will allow in real time, during retinal surgeries, the identification of the normal tissue versus the pathological tissue so that an optimal surgery can be performed and also verify at the end of the surgery that the results of the surgery are indeed as expected.

In addition, the microscope enables entering the field of new treatments (such as gene treatments), that require the injection of drugs into the layers of the retina or under the layer of the retina. In terms of corneal surgeries, the microscope will enable an upgrade in the performance of lamellar corneal transplant surgeries while accurately identifying the different layers of the cornea and confirming the success of the surgery at the end.



**Cost: \$ 528,000**  
**VAT inclusive**

## Biplane x-ray imaging room

The monitor performs biplane imaging of the body organs, thus enabling a three-dimensional view of complex structures such as the brain, in order to perform precise procedures and structural diagnoses with a high level of accuracy and high resolution.

A biplane system enables simultaneous imaging of two planes, compared to a one-plane system in which two reflections with contrast material are required to receive the information obtained in a two-plane system.

The system is used for complex operations such as brain catheters, pediatric catheters and more.



**Cost: \$ 1.945 mln**  
**Full financing is required**

# Continuing Development

Leading in Healthcare

## Equipment and Instrumentation

Full financing required, \$ thousands	Name of the instrument
100	US X-Ray
117	Mobile CARM
158	Retinal camera with fluorescein for premature infants
108	Mobile OCT
176	A system of fetal monitors for the delivery room
182	A system of monitors for cardiac intensive care
528	Eye microscope
1,945	Bi-Plane x-ray imaging room

## Construction and infrastructure

Required sum, \$ mln.	Cost, \$ mln	The project name
2.8	2.8	Eye clinic & Eye O.R
3.5	3.5	Da Vinci
2.8	7.8	Nephrology/ dialysis
7	7	Maternity unit – private rooms
6.2	6.2	Multi-disciplinary surgery
7.3	7.3	Department of urology and urological institute
2.3	14.5	Protected premature unit (continuation)

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