



American Healthcare Professionals and Friends for Medicine in Israel

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Ziv Beckerman fights for hearts the size of a walnut.

Beckerman, 38, is an APF 2016-2017 Clinical Fellow in Congenital Heart Surgery at Texas Children's Hospital in Houston.

Congenital heart defects (CHDs) are the world's No.1 severe birth defect. Nearly one in every 100 babies is born with a cardiac malformation. In the United States about 42,000 babies are born a year with CHD.

Beckerman, a senior cardiac surgeon at Rambam Health Care Campus in Haifa, has chosen to further his education by training to operate on these babies and older children. "About 20-30 percent of those born with cardiac malformation will require an intervention to prevent death in the first year of life," he says. "I believe that everyone deserves a chance to live, even/especially a baby born with a cardiac defect. Many of them won't survive if not taken care of. And we need to do our best to save each and every baby."

About 15 to 20 percent of Beckerman's patients are newborns; about 30 to 40 percent are less than three years old and 85 to 90 percent are children less than 15 years old. Figures include returning patients (Quite frequently a child will need more than two or three operations during her lifetime.) and older children whose heart problems didn't necessitate intervention in the first years of life, he says.

Congenital heart surgery is the sub-specialty primarily involving procedures on those born with cardiac defects. Mostly it's children undergoing this surgery. But congenital heart surgeons also operate on adults born with heart defects and adults who had corrective heart surgery when they were children. They also perform surgery on anyone up

to age 18 with an acquired heart problem, according to Beckerman.

The Zefat (in the northern Galilee, about 30 miles from Haifa) native says it's hard to pinpoint why he decided to become a congenital heart surgeon. When he was in high school he was very interested in science, particularly the brain, and thought he'd become a neurosurgeon. In his last year of high school he even studied brain science as part of a special program at a nearby university.

But all that disappeared during his IDF service, only to mysteriously resurface in a different identity in his last six months on active duty. (He's still in the Reserves.) "I just knew I was going to study medicine and practice to become a congenital heart surgeon."

Beckerman attended medical school with a friend at the University of Debrecen in Hungary. In medical school he chose extra rotations and academic work in cardiology, surgery and congenital cardiac malformations. He then completed his internship and residency at Rambam and developed a plan for his specialty.

"During the residency for cardiac surgery in Israel you are obliged to spend only three months, a very short time, doing congenital heart surgery," Beckerman says. "But because I knew what I wanted to do and knew my plan, I was allowed to spend a year during my residency at Chaim Sheba Medical Center in Tel Aviv."

There he worked with Dr. David Mishaly, Sheba's head of the Department of Pediatric and Congenital Cardiothoracic Surgery. This program serves all of Israel as well as patients from Palestine and Eastern Europe.

Mishaly became a Beckerman's mentor. "He's had a great influence on me. He's a very impressive

person, surgeon and physician. He reinforced my goals and feelings.”

Sheba’s department chief comes to Rambam once a week to operate on babies with congenital heart defects. “We assist him and take part in the surgeries. The rest of the week we operate on adults with all kind of heart problems.”

When Beckerman returns he hopes to expand the program so that Rambam can offer surgery on babies and children far more often than once a week, without having to wait for Mishaly or any other surgeon.

Beckerman is physician/scientist with many published articles and research presentations abroad. He hopes to publish 15 to 20 articles from his Texas Children’s experience and already has three manuscripts in progress. About 10-15 percent of his time fellowship time is allocated to research.

Did you have to leave Israel for this kind of training?

“Yes.

“Such an institute as Texas Children’s doesn’t exist in Israel. At Rambam we see an average of two cases a week, 90 to 100 cases a year. At Chaim Sheba they have about 350 cases a year and at Schneider Children’s Medical Center in Peta Tikva, (outside of Tel Aviv) they have about 400-450 cases a year. The numbers are very small compared to Texas Children’s where we do more than twice that.

“At Texas Children’s we have the greater diversity and volume of patients as well as a state-of-the art facilities and top-of-the-line people and research. The most complex cardiac surgeries in the world come here. Surgeries that other places have deemed inoperable are referred to us – extremely high-risk surgeries.

“By staying in Israel I simply wouldn’t be able to develop fast enough and well enough.

“In the small disciplines people are well aware of this fact and the chiefs of departments help you and guide you to one-to two-year fellowships at good

places abroad.” Beckerman will spend two years at the Houston medical center.

Why Texas Children’s?

“The two best departments in the U.S. for this specialty are Texas Children’s and Boston Children’s Hospital. But Texas is doing the highest number of cases a year – over 1,000 cases a year on babies are being done by only five surgeons.

“There are five surgeons and three fellows. Your exposure and ability to develop skills are exceptional. I operate five days a week and do anywhere between one to five cases a day. “At Children’s Hospital in Boston there are more surgeons and fellows which can limit your possible exposure, so I chose Texas Children’s.”

What’s a common surgery you perform?

“Some of the most common defects are those of the septum, the wall that divides the heart into the right and left sides.”

Is it intense?

“Yes!

“I work an average of 16 hours a day, six days a week – that’s more than 90 hours a week. And I’m on call every third day – 24 hours straight. I spend eight hours a week in clinic and fit in research between surgeries and whenever else I can.

“My wife and boys are very unhappy about it, but they support me a lot.”

Speaking of family, the Beckermans come from Kibbutz Yasur, about 15 miles from Haifa. Besides Ziv, they are: wife Anett, 41, an economist; and sons Ron, 7 and Ben, 8. The family has linked up with the Houston Jewish community and enjoys the connection very much.

When Beckerman returns to Israel he will also return to teaching. He instructs Technion medical students and University of Haifa nursing students.

What does he hope take back with him from his Texas experience?

“I’m hoping to establish a formal congenital heart surgery department at Rambam. We want to build

it in a way that we can support cardiac needs in the north of Israel – 2.5 million people.

“There are only six congenital heart surgeons in Israel – one in Jerusalem and five in the Tel Aviv area. But none in the north part of the country.”

American Physicians Fellowship for Medicine in Israel

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