



Episode 33: Uncovering New Ways to Treat Kidney Disease in Children

Benyamin Cohen:

This is Hadassah On Call: New Frontiers in Medicine. I'm your host Benyamin Cohen. In each episode of this podcast, we'll get an inside look at what goes on behind the scenes at one of Israel's premier medical centers. We'll travel to Jerusalem to meet up with the doctors and nurses at Hadassah Medical Organization. From striving for peace through medicine to performing surgeries with robots, they're working on medical breakthroughs that are impacting people around the world. That's what Hadassah is all about, the power to heal our world together. From cornea transplants to developments in pediatric oncology, we'll learn about the latest cutting edge research coming out of Hadassah Hospital. All that, plus the inspiring stories of patients who have recovered from near death experiences. Our appointment starts now. This is Hadassah On Call.

Benyamin Cohen:

Hello. Today's guest is Dr. Oded Volovelsky. He's the head of the Pediatric Nephrology department at Hadassah Hospital and, in particular, he specializes in rare kidney diseases in children. He got both an MD and a PhD at Hebrew University and he also spent some time doing research at Cincinnati Children's Hospital Medical Center in Ohio. He's an incredibly interesting guy to talk to and we had a great conversation when we met up in Jerusalem. We talked about all sorts of fascinating topics, including why some children with rare kidney diseases do poorly in school and how he discovered a way to fix that situation. So I'm really excited for you to hear this episode. So without any further ado, here's Dr. Oded Volovelsky.

Benyamin Cohen:

Hello everyone and welcome to today's show. We are here at Hadassah Hospital-Ein Kerem, in Jerusalem and today we are joined by Dr. Oded Volovelsky. Welcome to the show.

Dr. Volovelsky:

Hi. Nice to be over here, thank you.

Benyamin Cohen:

Thank you so much for taking some time out of your busy day. We appreciate you being here to tell us about you and the work you do here. You are one of the few people I've interviewed in this series where I think I could tell, maybe you'll correct me if I'm wrong, but I think I could tell you are a native Israeli. I'm trying to guess by your accent.

Dr. Volovelsky:

Yeah. It's very easy. Yeah. You can know it in a second.

Benjamin Cohen:

Hummus.

Dr. Volovelsky:

Hummus, yeah. Although I lived a few years in the U.S., but I am completely native Israeli.

Benjamin Cohen:

Uh-huh (affirmative). Where were you born in Israel?

Dr. Volovelsky:

I was born in Netanya, which is a town next to Tel Aviv, next to the beach. And I came to Jerusalem when I was, after the military service when I was 21. I met my wife in the U.S. in Texas actually, where I volunteered over there in a Jewish summer camp. So this is why actually I find myself in Jerusalem because she is a native citizen of Jerusalem and we moved over here and the rest is history over here.

Benjamin Cohen:

What was she doing in Texas? Also at the summer camp?

Dr. Volovelsky:

Yeah. She was in the Israeli Scouts and I came from the Jewish Agency. And she already volunteered in all kinds of activity before, in the Jewish community over there. And I came from the Jewish Agency as I said, and we fell in love over there. It was a Reform Jewish summer camp over there. And this is how we connect ourselves to the life of the Jewish community in the U.S.

Benjamin Cohen:

And so you and your wife are both Israeli and you met in Texas.

Dr. Volovelsky:

Right.

Benjamin Cohen:

You had to go a long way to meet her.

Dr. Volovelsky:

Yeah. Love has it's very unique ways sometimes.

Benjamin Cohen:

How long have you been married?

Dr. Volovelsky:

Since 2004, so almost 15 years now.

Benjamin Cohen:

And do you have any children?

Dr. Volovelsky:

Yes, three children.

Benjamin Cohen:

Wow. So Texas, it's all because of Texas.

Dr. Volovelsky:

Yeah. Texas did it for us.

Benjamin Cohen:

Did you always know you wanted to be a doctor?

Dr. Volovelsky:

It's an interesting question. I actually always wanted to be a teacher. I always liked to educate and to teach students. And actually I found that university and medicine can be a very good way to educate and also to do good stuff for the world and for yourself. And actually better salaries as well than being a teacher, but actually every day over here, I am a teacher most of my day, educating the new generation of physicians.

Benjamin Cohen:

Right. Well my wife's a professor so I'm very much aware.

Dr. Volovelsky:

Yeah. I'm also involved in the university, in a lot of their activities.

Benjamin Cohen:

The Hebrew University?

Dr. Volovelsky:

The Hebrew University. I also have a research lab, we can talk about it.

Benjamin Cohen:

Yeah.

Dr. Volovelsky:

So I also have PhD students and as I said, I'm educating physicians and researchers for the future.

Benjamin Cohen:

So yeah, I want to hear all about that. But first let's discuss. So your specialty is nephrology, right?

Dr. Volovelsky:

Pediatric nephrology.

Benjamin Cohen:

Pediatric nephrology. That's a specialty of a specialty.

Dr. Volovelsky:

Yeah. We are about 20 professionals in Israel, even less.

Benjamin Cohen:

And nephrology is the study of the kidney?

Dr. Volovelsky:

Yeah, it's kidney disease, which is very different than the adult nephrology because usually we deal with congenital anomalies of the urinary system and all kind of rare genetic diseases that we have a lot of here in Israel.

Benjamin Cohen:

So the kidney is one of those body parts that everybody has heard about. Everybody knows, everybody thinks they know. They may even be able to point to the place on their body where the kidney is.

Dr. Volovelsky:

I'm not sure about it.

Benjamin Cohen:

What am I pointing to my spleen right now? I don't know where I'm pointing.

Dr. Volovelsky:

Yeah, more to the liver.

Benjamin Cohen:

But if you could just give us 101, like what is it? What does the kidney help with on a day-to-day basis?

Dr. Volovelsky:

Yeah. So kidney is actually kind of our washing machine. It's actually cleaning our blood from all day garbage that we eat every day, all the excessive fluid or excessive toxins that we have in the blood. So just filtering, the blood and make urine, what we pee every day, it takes out of our bodies. So it's a very,

very complicated organ because it's actually in charge of all the physiology of the body, all the blood pressure, all the concentration of all the molecules we have in our blood. So this is why I was attracted to nephrology because it's very elegant academic physiology and very diverse specialty.

Benyamin Cohen:

And maybe this is a stupid question; we all have two kidneys, right?

Dr. Volovelsky:

Yeah.

Benyamin Cohen:

Okay.

Dr. Volovelsky:

Yeah, you got it.

Benyamin Cohen:

I just passed my MCAT exam. And you can survive, because people donate a kidney, so you could survive with only one kidney.

Dr. Volovelsky:

Yeah. Actually this is what I do in my research. So we have two kidneys. So actually like God gave us two matches, right? Why do we need it, right? And the kidneys are composed of kind of tiny filters called nephrons. This is why my profession is called nephrology and we have too many nephrons as you said because I can donate a kidney. But actually we know today that this is not exactly the truth. We have a lot of redundancy, a lot of excessive filters because throughout life, the number goes down, becomes lower and lower. And because the body cannot generate new filters, what do you have at birth is-

Benyamin Cohen:

That's the maximum amount.

Dr. Volovelsky:

The maximum amount. So this is kind of a present we got and we lose it throughout life, through obesity, hypertension, all kinds of first world disease. So we need a lot of it. So we can donate a kidney, but we are more exposed to kidney disease if we have lower nephron number, and this is what I'm doing in my daily life.

Benyamin Cohen:

So there are things that people can do that would lower the productivity, so to speak, of their kidney, like someone who is an alcoholic, someone who drinks a lot of alcohol?

Dr. Volovelsky:

Yeah, alcohol is actually more important for the liver. But kidney, our enemy is dehydration.

Benyamin Cohen:

Dehydration, okay.

Dr. Volovelsky:

If you don't drink enough all the time and a lot of medications, especially Ibuprofen, that everyone takes, this really can reduce the number of nephrons you have in the kidney. But also its genetics and the pregnancy and all the other stuff. So this is what we do in the lab. We look for methods that we can increase the number of nephron at birth, because now every time for example, in the U.S., we have few millions of people on dialysis and the number of just becomes higher and higher.

Benyamin Cohen:

And dialysis is basically an external kidney, so to speak, that does the cleaning of the blood for you?

Dr. Volovelsky:

Yeah, it's very artificial external kidney because you do it only for two, three, four times a week for a few hours and it's actually filtering the blood instead of the kidney. But this is only in temporary measurement. You cannot stay on dialysis for a long, long time. You can stay for 10, 15 years. But for example, for my population, for kids, this is not enough. And also if you go to school and stuff, you cannot do dialysis three or four times a week in the morning time.

Benyamin Cohen:

Right, you can't travel, you can't do anything.

Dr. Volovelsky:

You cannot go to school. We can talk about it a lot, but this is what we try to do in Hadassah, for example, now when we open a pediatric dialysis unit to try to do it in the evening time, not like in the U.S. and the rest of Israel where dialysis is always in the morning time. So kids can go to school and have their blood cleaned in the evening. So this is a big problem that academic achievement is much lower in children with kidney disease. It's because of the dialysis.

Benyamin Cohen:

That's fascinating. But it seems like now that you've explained it, it seems like such an obvious thing. Why aren't other hospitals doing it?

Dr. Volovelsky:

Because it's much easier to work in the morning time. No one wants to work at nighttime. The ideal time to have any chemotherapy for example, is at nighttime when you go to sleep and still you can find all these institutions full of patients with cancer, get their chemotherapy in the morning time, right?

Benyamin Cohen:

Right.

Dr. Volovelsky:

Because this is what is more convenient for the system.

Benyamin Cohen:

Interesting. But it's not necessarily good for the patient.

Dr. Volovelsky:

Right.

Benyamin Cohen:

When we return, Dr. Volovelsky talks about his latest research –creating a new kidney using stem cells. It could mean having to rely less on finding kidney donors. Plus, he explains the surprising reason why the grandchildren of Holocaust survivors have a much higher risk for kidney disease.

Dr. Volovelsky:

Yeah. It's not all about genetics. Environment has a very important effect on everything and the expression of our genes.

Benyamin Cohen:

All that and much more after the break.

Benyamin Cohen:

In recent days, the world has been socially distancing themselves from others. Terms like flattening the curve have become part of the common lexicon and working from home has, for the time being, become the new normal. So if you're looking for something to keep you company while you're at home, check out the Hadassah On Call podcast archive. If you're listening to this podcast on your phone, you can simply download all of our previous episodes right from your podcast app, or you can head on over to hadassah.org/podcasts to see a complete look at our archives. You can hear our interview with an Israeli midwife whose research on the MeToo movement is impacting her profession. Or listen to our conversation with an ophthalmologist who is doing the remarkable work of corneal transplant surgery. Those are just some of the topics you'll discover in the Hadassah On Call archive.

Benyamin Cohen:

And now back to our conversation with Dr. Oded Volovelsky.

So just to get back to what you were saying is we are born with a maximum, the best working kidneys for us, for each individual. We're born with the best.

Dr. Volovelsky:

Right.

Benyamin Cohen:

So you'd think kids wouldn't have that many kidney issues. So tell us, how would a child get a pediatric kidney issue?

Dr. Volovelsky:

Okay. I will divide my answer to two. So kidney disease is mainly because of, you have genetic disease in the kidney. For example, you have maldevelopment of the kidney, you have a problem with the tubing,

the drainage of the kidney, so you don't have enough kidney when you are born. This is the most common reason. And the other are kind of acquired disease or genetic diseases that you see them only after birth, in the first few years of life, of kind of inflammatory disease or other reasons. So what we tried to do in our research is to try to look for ways to increase the number of nephrons at birth. So for example, we already found that if you delete a specific gene in the kidney, you have 25% more nephron at birth. And this is very exciting because you can do it for populations at risk.

Benyamin Cohen:

At risk, interesting.

Dr. Volovelsky:

And what we deal now, we deal with prematurity. And this is today, the treatment of premature infants has really improved in the last decades. In the 1970s, kids that were born before 28 weeks of gestation died. And now we have 24, 23, and they survive in very high percentage. But now when they grow up after 40, 50 years, we see that they have much higher rate of kidney disease.

Benyamin Cohen:

Because their kidneys were not fully developed.

Dr. Volovelsky:

Right, because at the birth suddenly it stopped. So we look for ways to make it continue to happen after birth and how we can change stuff in the pregnancy for patient at higher risk in order to have higher nephron numbers. And the second population we deal with is in the developing world, in areas where there is malnutrition. This is very highly associated with higher risk of kidney disease in the offspring. For example, in the Holocaust patient, kids of mothers that didn't have enough caloric intake during the Holocaust, they have much higher risk of kidney disease in the future because they didn't have a good development of the kidney and nephron number during pregnancy.

Benyamin Cohen:

You're saying even grandchildren of Holocaust survivors?

Dr. Volovelsky:

This is actually our next question. This is what we try to do now, even to the second generation of Holocaust-

Benyamin Cohen:

That this genetic disorder, I guess, is passed down. That's amazing.

Dr. Volovelsky:

Yeah, so this is what we are dealing with. Now we are dealing mainly with the premature infants to see what we can do better during pregnancy and birth in order to increase the nephron number, but also like you said, we understand that this is not only the problem of the first generation but also the second generation of survivors of the Holocaust.

Benyamin Cohen:

It's a fascinating side effect of the Holocaust. No one's heard of that before.

Dr. Volovelsky:

You can call it a side effect of the Holocaust.

Benjamin Cohen:

That's amazing, that in 2020 you're still seeing a medical effect from the Holocaust.

Dr. Volovelsky:

Yeah. It's not all about genetics. Environment has a very important effect on everything and the expression of our genes. So we have genes, but if my parents have different history than yours, it will affect, even if we are twin brothers. For example, twin brothers that are completely ... you're born in California and I was born in Jerusalem, we will look different. Not just because of our education and nutrition and also because of changes that happens throughout our life that change the expression of the genes, what we call epigenetics.

Benjamin Cohen:

What is it that you're trying to research at Hebrew University?

Dr. Volovelsky:

Actually what we just discussed, how to look to increase the nephron number and stuff at birth. So my partner, his name is Morris. He did his postdoc in Harvard and he immigrated from Iran when he was about 12 years old. And we found each other and we created a very good partnership between science and medicine. So we created an acute dialysis care in a pediatric intensive care unit.

Benjamin Cohen:

What does acute mean?

Dr. Volovelsky:

It means that if your kid has a sepsis, like a bacterial infection. If a kid has a bone marrow transplantation or heart surgery and his kidney was injured, he needs to have a renal replacement therapy immediately, right. He cannot go to the dialysis unit. He is now intubated, he is not awake, his blood pressure is very low. So it's very difficult to do dialysis for this kid because you need to take a lot of blood and to clean it to a kid who is very non-stable.

Dr. Volovelsky:

So together with Cincinnati Children's, which is actually the master in this field.

Benjamin Cohen:

Cincinnati Children's Hospital.

Dr. Volovelsky:

Yeah. We created a partnership and we educated our team over here at Hadassah and now we're training other institution in order to do acute dialysis for very, very young patients, I mean like three

kilogram, four kilograms to do dialysis, which is very complicated and you need a very unique training to do it.

Benyamin Cohen:

And this is kind of temporary, like before a procedure or something?

Dr. Volovelsky:

Right. This is a bridge.

Benyamin Cohen:

In between procedures.

Dr. Volovelsky:

Yeah. This is a bridge. Hopefully the kidney will recover what happens and if it doesn't recover, so the patient needs to go to chronic dialysis and kidney transplantation.

Benyamin Cohen:

I was reading at your time in Cincinnati Children's Hospital, you celebrated a very unique birthday there if I remember.

Dr. Volovelsky:

Yeah. So I know Arabic, which is very, very helpful because I need to take care of a lot of patients at Hadassah. But in Cincinnati, the people that speak Arabic are coming from Iran, Iraq, Saudi Arabia, Kuwait, all the Gulf area. And because I was the only one who knows Arabic over there, I was in charge of all these Arab patients. And because for me it was much easier to understand their culture than Americans. They cannot understand all these trading culture and all these arguing culture like I need to deal with everyday with Jewish and Muslim over here. So at my birthday, one of my patients, that was from Kuwait, he got his kidney transplant.

Benyamin Cohen:

Okay.

Dr. Volovelsky:

And when we went to the O.R. in order to give him his kidney, they made me all his family a happy birthday surprise party for me, which is very unique because this is his day, and this is from Kuwait, and this was very secret. They didn't allow me to tell others that I'm Israeli ... I'm an American. And not that Americans are better for them. So it was funny because I was in charge of all the relationship with all the Gulf countries and I am the Israeli guy.

Benyamin Cohen:

You're the peacemaker.

Dr. Volovelsky:

The peacemaker, yeah.

Benyamin Cohen:

So one of the things that you do is that you're doing research that uses stem cells to regenerate kidneys?

Dr. Volovelsky:

Yeah.

Benyamin Cohen:

Can you explain that?

Dr. Volovelsky:

Yeah, of course. So this is something pretty new. It's just in the very first steps in our lab. But the future is not to get a kidney from a donor, it's to make a kidney from yourself. The issue is to take cells from your skin and to make a kidney.

Benyamin Cohen:

In a lab?

Dr. Volovelsky:

Actually came from you. Today what we can do is take a skin cell and make it an embryonic cell and then to induce the embryonic cells to create a kidney. You understand?

Benyamin Cohen:

In a laboratory.

Dr. Volovelsky:

In a laboratory.

Benyamin Cohen:

You would create a kidney based on my own cells?

Dr. Volovelsky:

Right. And then I can give you a kidney that comes from you. And if you have a genetic problem, I can fix it in a tube.

Benyamin Cohen:

Oh my gosh.

Dr. Volovelsky:

And then you don't need to have all these medications for against rejection of the new organ because it comes from you. Taking a kidney from you to me would look very weird.

Benyamin Cohen:

Right. It sounds like a miracle to do something like that.

Dr. Volovelsky:

Yeah, but we have a very, very long way because as we said, the kidney is a very complicated organ. So it's not just making the cells, it's making the architecture of the kidney, which is very complicated because every cell needs to be in a very specific location.

Benjamin Cohen:

When we return, Dr. Volovelsky discusses his work training Palestinian doctors and shares an inspirational patient story you won't want to miss.

Dr. Volovelsky:

And she is completely healthy today. I see her once every year or two and she is completely fine.

Benjamin Cohen:

All that and much more after the break.

Benjamin Cohen:

It seems that news headlines about the coronavirus are changing by the hour. Keep up to date with everything that Hadassah Hospital is doing to help combat this deadly disease. To find out how we're dealing with the crisis, visit our website at hadassah.org. We're posting frequently about how our doctors, nurses and researchers are working to fight the further spread of COVID-19. You can also follow Hadassah on our social media accounts on Facebook, Instagram, and Twitter. Also, we're looking to you, our listeners, for which medical experts you'd like to hear from in the weeks ahead on this podcast. Please let us know by sending an email to us at marketing@hadassah.org. That's marketing@hadassah.org.

Benjamin Cohen:

And now back to our conversation with Dr. Oded Volovelsky.

Has there been one patient that sticks out in your mind that was kind of like a really inspiring story for you?

Dr. Volovelsky:

Yeah. So when I was in my residency. A lot of stories happen when you are a resident and you really live in the hospital. I had a patient one day when I worked in the E.D.

Benjamin Cohen:

Wait, what does the E.D. stand for?

Dr. Volovelsky:

Emergency Department or Emergency Room.

Benjamin Cohen:

Okay.

Dr. Volovelsky:

And she was about three months old and she had a fever. And very quickly I found that she has meningitis, which means infection of the brain let's say, of the fluid in the brain. And this was an Orthodox family that came on Friday evening. And every Orthodox family that arrives on Friday evening, you know that this is very urgent. If they come in at Shabbat to the E.D., they need to have a very good reason, especially if they have a lot of kids. It means that their kid is very sick, right?

Benjamin Cohen:

Right.

Dr. Volovelsky:

In order to leave Shabbat.

Benjamin Cohen:

And the sun is setting on Friday night.

Dr. Volovelsky:

Yeah, and this was after. And I saw that everyone came and kissed the father, I didn't know the reason. And I found out that he is an important rabbi. His name is Rabbi Lau, who is today the chief of the rabbi, the Ashkenazi rabbi in Israel.

Benjamin Cohen:

Okay.

Dr. Volovelsky:

And we found that the patient has meningitis – a very, very violent one with a very, very, very dangerous. And we did a very special operation together with the Ministry of Health in order to find all the family that they have high risk that they have the same infection. And I just want to remind you that it was Friday evening, and it was in the ultra-Orthodox neighborhoods of Bnei Brak and Modi'in, in Jerusalem. And the story is very interesting. I don't know if you know. Do you know Rabbi Lau?

Benjamin Cohen:

I've heard of him yeah.

Dr. Volovelsky:

So his father was also the chief.

Benjamin Cohen:

His father was also Rabbi Lau.

Dr. Volovelsky:

Yeah, exactly. And he was the head of the Ashkenazi Rabanut, what we call rabbi.

Benjamin Cohen:

The Rabbinate, yeah.

Dr. Volovelsky:

In Israel. And he was a child during the Holocaust and he actually survived thanks to a Ukraine soldier that was in the same concentration camp, that hid and took care of him as a child, that he lost his parents. And he was also the head of Yad Vashem. And this soldier died, but Yad Vashem invited his daughters in order to get an award for their father. And in Ukraine, it's very common to carry this bacteria inside their throat, in former Soviet Union, it's very common. And they came and they kissed this girl when she was a baby, she was just three months and she was over there with all the very big Lau family. And they actually got contaminated because of these guests.

Dr. Volovelsky:

And this is why we had to find all the big Lao family and invite them in Shabbat dinner. And as I said, they're ultra-Orthodox, in order to make them get the vaccine, in order to avoid this very dangerous disease. And he is very inspiring. I am completely *chiloni*, secular, and he was really one of the most inspiring people I've ever met. Because he sat on Shabbat evening next to a phone, called everyone and made everyone in Shabbat to come to Hadassah or centers in Modi'in and Bnei Brak in order to get the antibiotic and vaccine. This was really an inspiring story. I still am in touch with him sometimes, and she's completely healthy today. I see her once every year or two and she's completely fine. But we have a lot of stories in Hadassah. Hadassah is a very unique meeting point between different cultures, between Orthodox and secular, between Muslims and Jews.

Dr. Volovelsky:

For example, another story: I remember is that one day there was a car accident in the Jordan Valley, between a car of Muslims from the West Bank and Jews that live in the West Bank in one of the settlements. And an IDF helicopter rescued the survivors over there to Hadassah. And I was in the E.D. and there was a child who is from Jenin, which is a Palestinian city in northern, the West Bank, that he was bleeding inside his heart. And we very rapidly recognized and really by miracle there was a surgeon, heart surgeon next to us and he was rushed into the O.R. and survived. But in the following morning after this very long night when I came home, my son broke his arm in the kindergarten and he was brought to Hadassah, to the E.D. and he was admitted in order to have a surgery. And I found myself, my son next to the one who I saved his life the previous night from Jenin. And they were in bed next to each other.

Benjamin Cohen:

Yeah, bed mates.

Dr. Volovelsky:

And he said, wow, you're such a nice doctor, you came to visit me to see how I am. And I said, no, actually I am with my son over here who just broke his arm. And this is very exciting. And actually every day we get a very exciting story at Hadassah because even more important and nicer than medicine, you have really very nice and inspiring personal stories, really every day.

Benjamin Cohen:

It's a very unique hospital, probably to work in because it's an oasis of peace. Everything stops at the front door.

Dr. Volovelsky:

Yeah, when I came from Netanya, which is a very, let's say secular and not a lot, just see the same people that are around you. And you come to Jerusalem, which is very diverse, into Hadassah and this is really amazing how you meet so many people, so different cultures, people that are really enemy five meters away from the hospital and over here there are such amazing friendships between nurses and doctors and patients from different cultures and different religions. And this is why I love Hadassah and I cannot imagine myself in a different institution.

Benyamin Cohen:

So Hadassah has a very unique relationship with Hebrew University and we see here a lot of physicians who are also involved in research. And I know physicians obviously have very busy schedules. Why is it important for a doctor to also be doing research?

Dr. Volovelsky:

Okay, this is a very interesting question. And really a lot of people will say, why do we need our physicians to be scientists, right? They just need to take care of patients. But I think there are different reasons and I think this is what makes Hadassah so unique and special in Israel. I think that if you're a scientist, you never accept stuff as guaranteed. You don't say, okay, this is the protocol for this disease, this is what I do, I just follow the protocol. You always try to be unique and to try to find new ways of care and to find new types of disease and not just obey to what is accepted in the world. And I like physicians that hesitate, that are not confident so much about the care, that always say maybe I can do it a bit different. And they can take it to the lab and to try to find a better way because biologists, they are great scientists but they are not involved in what's actually needed in the real world.

Dr. Volovelsky:

And I think that combination of physician and scientist; this is something that can change the world. And if you look at the novel ideas for example, in science, a lot of them are physicians or previously were a physician just because they know what is needed, what can change the world. And I really believe that it makes me a better physician because all the time, I inquire, ask new questions. And I also try to educate the new generation of physicians to be thinkers, *choshvim*, not to accept everything and all the time to try to find a better cure and not to accept what they say, okay, this is it. And Hadassah is very, very unique because they are accepting it because a lot of other hospitals in Israel, like you said, they want you to take care of patients and that's it, and science is only a nice title in your CV. But they don't really want you to spend time because they're losing money because the physicians are doing other stuff. But Hadassah is really unique. And you can see that more than 50% of the research grants in Israel goes to Hadassah. And we have about more than a dozen of hospitals because Hadassah, this is really a very important focus. And this is really what makes Hadassah a unique hospital and institution.

Benyamin Cohen:

So you obviously you work a lot and you work long hours. You said to me, I think, I don't know if we were recording or not, but you told me you woke up like at 5:30 this morning.

Dr. Volovelsky:

Yeah, and I came home very late. Yeah.

Benyamin Cohen:

So what do you do in your free time when you have free time? It's a very stressful job you have here at Hadassah.

Dr. Volovelsky:

I must say that I just don't have free time. So really I like my family a lot. And the rest of the time I spend with my family. I'm interested in reading – history, biographies. But I just love to be with my family and to travel with them and try to spend every moment they have, being with my kids and my beloved wife.

Benyamin Cohen:

And if you and I were to have this conversation again in five years or 10 years, we talked about the stem cell. Where do you hope to be we working on?

Dr. Volovelsky:

So my dreams.

Benyamin Cohen:

Your hopes and dreams and aspirations.

Dr. Volovelsky:

Yeah, I can tell you, I know my dream. Every day I think what I did, which steps I did today in order to make my dream come true. So first I would like to have a dialysis and pediatric kidney transplantation unit. Now it's really in the very, very, very first steps. So it's very challenging, but also very inspiring because I can do it my own way. I can choose my own people. I can do it the way I want it to happen. And this is a very, very tough work that I do every day in order to make it happen. But I really can see now how it becomes a reality. I also hope to have my, as I said, intensive care, pediatric nephrology become a reality. Not only in Hadassah, but the rest of the hospitals in Israel and to train people all over the world. I'm going to train now some physicians from the West Bank and I'm helping other centers out of Israel.

Benyamin Cohen:

That's like doctors who are working at hospitals in the West Bank.

Dr. Volovelsky:

Right.

Benyamin Cohen:

And you're training them here at Hadassah.

Dr. Volovelsky:

Yeah. They are coming through now. They are not here yet, but yeah, there are pediatric nephrologists in the West Bank, more intensivists that I really try to collaborate a lot with hospitals in the West Bank. And I have a lot of patients from the West Bank and the Gaza Strip and I want, even more important, to educate the generation of the future – physicians to be better doctors, more human and also be more scientific and to be more curious in what they do. And to try to change the outcome of what we do over here.

Benyamin Cohen:

That's beautiful. Those are good goals to aim for. Dr. Volovelsky, it's rare that I get to spend so much time one-on-one with a doctor. Normally I'm in the exam room, he comes in, he's gone in five minutes. I really appreciate you taking the time to sit down and chat with us today. I know a lot more about kidneys than I did a half hour ago, so I greatly appreciate your insight.

Dr. Volovelsky:

Thank you. It was a pleasure to be over here today. Thank you and continue to support Hadassah.

Benyamin Cohen:

Thank you so much. Take care.

Dr. Volovelsky:

Bye. Bye.

Benyamin Cohen:

Hadassah On Call: New Frontiers in Medicine is a production of Hadassah, The Women's Zionist Organization of America. Hadassah enhances the help of people around the world through medical education, care, and research innovations at the Hadassah Medical Organization. For more information on the latest advances in medicine, please head on over to hadassah.org/news.

Benyamin Cohen:

Extra notes and a transcript of today's episode can be found at hadassah.org/hadassahoncall. When you're there, you can also sign up to receive an email and be the first to know when new episodes of the show are released.

Benyamin Cohen:

Subscribe to our show on Apple Podcasts, Google Play, or your favorite podcast app. If you haven't already, please leave us a review on the Apple Podcast store. It only takes a minute, and when you do it helps others discover Hadassah On Call. This show is edited by Skyler Inman and produced by the team at the Hadassah offices in both New York and Israel.

Benyamin Cohen:

I'm your host Benyamin Cohen, and thanks again for joining us today. We'll see you next month.