

Individual treatment for diabetes – based on the latest research

The Medical Department and Clinic III at the Carl Gustav Carus University Hospital in Dresden is one of the leading diabetes centres in Germany. It currently has the country's only active islet cell transplantation programme and is home to Europe's first chair for diabetes prevention.

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Professor Bornstein, an estimated 300 million people around the world suffer from diabetes. And the number is set to rise dramatically. What does diabetes mean for those affected?

Professor Bornstein: Permanently elevated blood sugar levels are the key indicator for this metabolic disorder. There are two different types: diabetes mellitus type 1, which mostly affects children or younger adults, and diabetes mellitus type 2, which is often brought on by a poor diet and lack of exercise. High blood sugar causes long-term damage to the blood vessels, nerves, heart and kidneys. Diabetes also limits how well people can function physically. Serious complications of diabetes include renal damage and even organ failure, heart attacks, strokes, loss of sight and diabetic foot syndrome. The latter often leads to amputation. Four million people a year die of diabetes-related causes.

What do you offer in Dresden for people with diabetes?

Professor Bornstein: Our clinic is one of the leading centres in Europe for the treatment and research of diabetes mellitus type 1 and type 2 and their related diseases. We have one of the largest outpatient insulin-pump clinics in Germany, with room for 400 patients. The islet cell transplantation programme in Dresden was launched in 2008.

The transplantation of insulin-producing cells, known as islet cells, can greatly improve quality of life for people with type 1 diabetes, who, despite treatment with medication, suffer from severe fluctuations in blood sugar levels. These islet cells are taken from a donor organ, the pancreas, meticulously prepared in the laboratory and finally injected into the recipient's liver. Only a small abdominal incision is required for this. After transplantation to the liver, the cells soon begin to produce insulin. Dresden's university hospital is currently the only active centre in Germany that offers this treatment.

Around 30,000 patients every year come to your clinic for treatment. What makes it so special?

Professor Bornstein: We offer personalised treatment strategies designed to provide long-term solutions for the problems caused by diabetes. We also offer therapies, based on the latest research, to people who are already suffering from one or more of the secondary diseases resulting from diabetes, such as diabetic foot syndrome, vascular disorders and renal failure. This expertise and this service is provided by more than 200 doctors, nurses, technicians and administrative staff.

Where do your patients come from?

Professor Bornstein: From the federal state of Saxony and from all over Germany. We have lots of international patients and we are, after all, an international team ourselves. Many of our patients come from Russia, the Middle East and the USA as well as from other countries in Europe. There are no language difficulties, because any foreign patients who don't speak English can be looked after by native speakers.

And how important is research at your clinic?

Professor Bornstein: Very important. We see healing and research as two sides of the same coin, which enables our patients to continue receiving treatment based on the latest scientific findings. We work internationally in close collaboration with leading global institutions and researchers.

Is it true that Dresden is home to the first chair for the prevention of diabetes?

Professor Bornstein: Yes. Diabetes is a disease with the potential for severe complications. Prevention, i.e. stopping people from getting diabetes in the first place, remains the best form of treatment.

We offer special programmes and therapies designed to identify the disease in its early stages, delay its onset and possibly even prevent it.