Elizabeth Grice

United Kingdom

The nature of diabetes is present
internal medicine specialist at the Clinic for Endo
who explains the development of the disease, possible com
Chief Executive at the Departm ent of Paedia
Hos pital in Ljubljana, who explained ways
on treating the disease in Slovenia an
ered some questions about the disea
etes, they suffer from a progres
isible risks for numerous
medical progress and m
nt easier managem
frequent. S u
ns is visi bly
hronic co mplicat
n eventu
blo od vess
or damages to
blood vessels c
Retinal failure can lea
the most frequent cause of
diabetic nephropathy or
people need to be tre
nsequence of which
tion, progression
betes can cause
the worst
angrene,
tage of
tic am
ation
extr
em

ed by Andrej Jane, MD, PhD,
crinology and Diabetes at the University Medical Centre, Ljubljana,
plications and ways of preventing its occurrence, and Tadej Battelino, MD, PhD,
tric En docrinology, Diabetes and Metabolism at the University Children's
of tre ating the disease today and in the future as well as perspec tives
d uk the gerorld. In addition, Iva, a 27-year old student from Ljubljana ans w
se that she hpls been dealing with for the past year. If one falls ill with diab
sive chronic disease that has long-term effects and poses high and inv
ptute and cslronic micro- and macrovascular complications. Desp ite
odealn ap p roaches towards diabetes treatment that give the patie
ent and contr ol over the disease, these complications are still quite
dden and unexpected worsening of life-threatening acute complicatio
smaller today than it was dec ades ago. However, slowly developing c
ions pose greater risks today. A high bl ood sug ar level ca
ally lead to damage to blood ves sels. With the smal ler
els the consequence is retinal failure, ren al failu re
the nervous system, and damage to the lar g e
an lead to heart-attack or str oke.
d to diabetic retino pat hy, whic h is
blindness in the world today. Due to
renal failure, a la rge n um ber of
ated with dialysis, the co
is a lower qualit y of life. In addi
of diabetes or p oorly managed dia
damages to ve ssels in the legs and in
case can e ven lead to diabetic g
due to which the percen
nsa n -trauma t
pu
s is

Elizabeth Grice

Media

THE DAILY TELEGRAPH
Features: Health & Wellbeing

United Kingdom

Inhabitants in the UK: 60,609,153
Source: CIA World Fact Book

People with diabetes in the UK: 2,000,000
Source: Diabetes UK

THE DAILY TELEGRAPH

Helping diabetics to be winners

The lives and performances of athletes with diabetes have been transformed by one doctor's dedication.

Elizabeth Grice reports

Whether their sport is rugby, marathon-running, swimming, martial arts or canoeing, the fear every young person raises after being diagnosed with diabetes is whether they will be able to carry on competing. Until recently, the outlook wasn't good. They could continue to enjoy sport but they could hardly expect to be record-breakers and award-winners. "Diagnosis is such a shock," says Dr Ian Gallen, a diabetologist at Wycombe Hospital, Buckinghamshire. "People are in a maze of confusion and worry. Professionals and would-be professionals come to me thinking their sporting career is over. That is their first question." Seven years ago, Gallen met a powerful 6ft 4in endurance athlete who was about to start training for the 2000 Sydney Olympics, but had just been diagnosed with diabetes. His name was Steve Redgrave, four times Olympic rowing gold medallist, and he doubted whether he would ever compete again.

Despite the lack of any encouraging precedents or medical expertise, Gallen refused to believe Redgrave's case was hopeless and, over the months, he devised a programme that met the oarsman's insulin and energy needs and restored his phenomenal performance. Redgrave and his team went on to win another gold and Gallen – credited in Redgrave's autobiography with having worked a near-miracle – started to see a stream of young diabetics desperate to know how they could remain successful in their chosen sport – runners, rugby players, swimmers, squash players, canoeists, even backpackers and judo experts. He now runs a unique service that creates diet and insulin programmes tailored to meet the differing daily needs of every kind of athlete or team player, whether they are training, racing or having a rest day. "I tell them how the body supports the energy required for exercise and what is different about their situation. I have only got two things to play around with: insulin dose and food intake. Once I have explained what I am trying to do and how the body works, these young people are so enthusiastic and dedicated, they can make their own programme. It becomes a partnership. They collect data about their blood sugar levels, carbohydrate consumption and training schedules, and we communicate regularly by e-mail to make adjustments. After a while, they seem to manage themselves very nicely." Gallen's patients, aged between 16 and 30, are encouraged to write personal accounts of how they manage their twin dictators – sport and diabetes – on his website and it has become what he calls "a kind of cookbook for sportspeople with diabetes", fascinating, detailed and instructive. Lindsey Ross, 17, is a swimmer specialising in the 400 and 800-metre front crawl, who was diagnosed with type 1 diabetes when she was six. She started swimming competitively when she was 10 but, two years ago, her performance began to falter. "I was training hard, sleeping and eating well and doing everything by the book, but I wasn't going anywhere. It was frustrating not knowing why I wasn't doing better. What I didn't realise was that insulin can block some fuel sources for working muscles. "Dr Gallen got me on to a different regime and an insulin pump, which releases a continuous, steady dose of insulin, instead of injections, five times a day. He also adjusted my diet according to whether I was training or competing. Other doctors had looked at me only as a diabetic and didn't understand the demands of my sport. He took both the swimming and the diabetes into account. Recently, I came second in the Blenheim Triathlon and I had so much energy. As a competitive swimmer, you need slightly higher blood sugar levels than you do as a diabetic." Insulin is normally prescribed for diabetics, irrespective of the sports they do. But it doesn't help their performance because, as Gallen explains: "In diabetes, the hormones released to support the exercise may not be as effective as in healthy people and the insulin you inject under the skin can't be switched off." The effect is that blood sugar levels plummet during prolonged exercise and can result in hypoglycaemia (known as a "hypo") – the dizzy and eventually comatose condition all diabetics dread. "You have to work out how to reduce the background level of insulin; how you can take some form of extra nutrition so your blood sugar remains steady," Gallen says. Crucially, he decided not to treat diabetics in "sickness mode", but to ask how the best sportsmen in their particular field eat, train and exercise. "I spent a lot of time listening to what they were doing at training and event days, finding out what their best peer does and trying to rule out diabetes as a source of under-performance." Laurence Marsh, 21, a 20-stone rugby player who hopes to go professional next year, says he had been on a "diabetic rollercoaster" for several years, with four or five scary admissions to hospital for hypos. "As rugby got harder, and I became more successful, I realised I had to do something quite severe and not just have a little bit of extra sugar to key me up in a game." Now, he is on a strict regime, monitoring blood sugar levels seven or eight times a day while training, evaluating his food intake and sending Gallen spread sheets of data. "It was a shock at first, when I realised how much more responsible I needed to be for myself. Now I'm just fine-tuning." Gallen, an endocrinologist by training, says he is not advocating that all type 1 diabetics should be fantastic sportsmen and women. "But we should protect the ones who want to be and make sure they can realise their ambitions. With an understanding of how the body works in health and under stress, any diabetic can look to the stars." ■

For further information about Ian Gallen's work with sporting diabetics, see www.runsweet.com elizabeth.grice@telegraph.co.uk