

# Out of Hours

## Diabetes:

the danger of exercise

*'I would recommend that you don't attempt that. It could be dangerous. Let me just check with the doctor.'*

I had just told my diabetes specialist nurse of my intention to play squash for 12 hours, in an effort to raise money for charity. My GP promptly reiterated the nurse's concern, with somewhat increased vigour. Of course a patient with type 1 diabetes shouldn't be attempting such a thing! The only advice I was offered, if I wished to continue, was to *'test your blood sugar regularly'*.

Well, that was helpful.

Regular exercise is extremely important for controlling diabetes, but is there a point at which the exercise is so intense that it actually becomes dangerous? Yes, if not managed correctly. However, the risks can be minimised or completely avoided by doctors, nurses, and patients working together to construct a plan of diabetes management before, during, and after the activity.

### UNDERSTAND YOUR BODY

Since being diagnosed in 2001 at the age of 11 years, I have carried out a number of physically-demanding challenges. I have cycled the length of the country from Land's End to John O'Groats; I have walked and climbed in the Alps and Britain; last year, I played squash for 12 hours; and, most recently, I traversed the Welsh Threes, a 30-mile route over the 15 tallest mountains in Wales.

The main advice that I can give for fellow diabetics who want to undertake physical challenges is to really understand your own body. It is only by doing these activities, and by taking care while doing so, that you can determine what works for you. Health professionals don't need to know it all; they just need to provide patients with the tools and the confidence to learn the effects of exercise and insulin on their own bodies. In essence, they need to carry out careful experimentation. Learning how your body

responds to exercise, carbohydrate, and insulin provides invaluable knowledge that can also be applied to everyday diabetes control.

A general (and fairly obvious) rule is that more exercise means less insulin. As a starting point, for a day of sustained exercise, my experience says about half the usual dose: half the long acting, or basal (for pump users), and half the bolus with meals. From here, it depends on the intensity of the exercise and how the patient's body responds. Therefore, for each bike ride, run, walk, or even squash-athon, my GP was at least right on one aspect: *'test your blood sugar regularly'*.

### WORK WITH YOUR GP

When asked for such advice from a patient with diabetes, a doctor clearly faces an ethical dilemma. Advising a patient that they will be fine to attempt a physical challenge puts them at risk if the patient is unable to control their diabetes during it. Indeed, when I asked my GP whether I should be doing said 'squash-athon' I could almost see the word 'accountability' flashing behind his eyes. The safe bet is simply to advise the person not to take the risk. But limiting the activities that a patient can do because they are diabetic may be equally damaging to their quality of life. Clearly, a more patient-centred approach is needed. Doctors and specialist nurses should discuss with the patient the best strategy for controlling their blood glucose levels during intense exercise. Most patients with diabetes will be treated by their GP, who cannot be expected to have an encyclopaedic knowledge of diabetes management. However, they can work with their patients, giving them the confidence to experiment, and learning with them how their body responds. This is where other people with diabetes can also help and there is plenty of information on this topic readily available to active diabetics. The website [www.runsweet.com](http://www.runsweet.com) is a great place to start.

### ADDRESS FOR CORRESPONDENCE

#### Ben Stutchbury

University of Manchester, Michael Smith Building, B.3081, Oxford Road, Manchester M13 9PT, UK.

**E-mail:** [benjamin.stutchbury@postgrad.manchester.ac.uk](mailto:benjamin.stutchbury@postgrad.manchester.ac.uk)

There is no reason why a person with diabetes cannot carry out the same physical challenges as someone without. This is backed up by the long list of athletes with diabetes for example, Sir Steve Redgrave (five-time Olympic rowing champion: type 1 diabetes), Wasim Akram (a cricketing legend from Pakistani: type 1 diabetes), and Billie Jean King (39-time Grand Slam-winning tennis player: type 2 diabetes). I hope these athletes weren't advised against their career choice by concerned physicians!

Diabetes should never prevent a person from pushing themselves to the limit, or from doing an activity that they love. Clearly, it is important that they do so knowing the added risks and have a plan in place to account for these. This is where the specialist nurses, dieticians, and doctors can play an important role, working with the patient to help them to achieve their goal. Otherwise, it allows the diabetes to prevent the person from undertaking activities that they enjoy. The disease is then winning; something we should all be determined to avoid.

#### Ben Stutchbury,

PhD Student in Cell Biology, Wellcome Trust Centre for Cell-Matrix Research, University of Manchester, Manchester.

DOI: 10.3399/bjgp16X686365

*"Diabetes should never prevent a person from pushing themselves to the limit, or from doing an activity that they love."*