



## **Type 1 diabetes and sport**

### **Athletes & Coaches**

Type 1 diabetes affects about 0.3% of the general population and especially people under 30 years of age. The prevalence of the disease has been increasing for the past 20 years. In the case of type I diabetes, the pancreas produces no more insulin. To maintain a glycemic balance, the patient must therefore inject himself insulin several times a day depending on your physical activity and what you eat. Physical exercise is an important component of self-care activity in the management of type 1 diabetic patients.

But the fear of hypoglycaemia is often present and one of the major obstacles to carrying out physical activity. To avoid hypoglycaemia caused by physical activity, it is often necessary to reduce the usual doses insulin and ingest additional carbohydrates, but every athlete will need an individualized strategy.

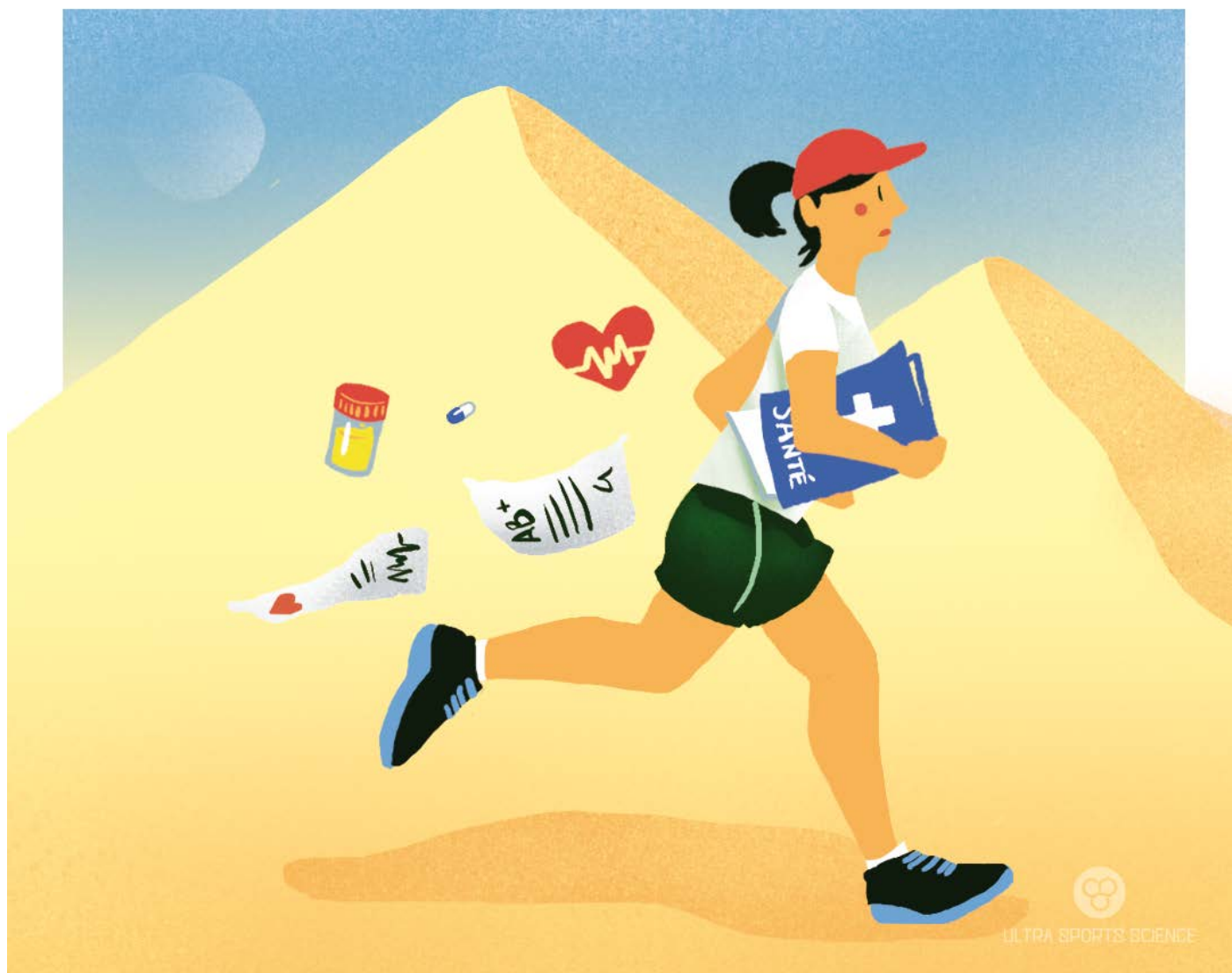
Sport will cause blood sugar levels to drop, because during physical activity, muscles consume glucose. There are general recommendations regarding the prevention of hypoglycemia during physical activity, which are generally either a reduction in basal and / or meal insulin doses and / or carbohydrate intake during physical activity. These strategies depend on the intensity, the time of day and the duration of the activity and are most often based on monitoring capillary glycaemia.

Drink water before and during your activity to keep you hydrated, stretch your muscles after exercise but above all, if you measure your blood sugar on a daily basis, take a blood sugar measurement before, during and after the exercise. It is recommended to always carry with you your medication (insulin) and a supply of sugar in case of signs hypoglycemia. It is especially important to monitor your blood sugars after exercise as they may drop during the night and you should consult with your doctor to get an individualized programme.

Recently, especially for ultra sports practitioners, there are tools for measuring blood sugar in continuous during exercise to measure continuous interstitial glucose (CGM). This CGM is a tool additional, especially at times when capillary blood sugar is difficult or impossible to achieve (for example during a race and at night after physical activity).

This continuous interstitial glucose monitoring system makes it possible to offer a more adapted to individual insulin and / or carbohydrate needs and you should discuss this with your doctor. It is therefore advisable to see with your attending physician for the practice of extreme sport for the use of a CGM, insulin pumps and other diabetology technologies to improve the athlete's daily life. However diabetes is not a contraindication of participating in ultra-endurance running and many athletes have successfully finished races. Also be aware of the current anti-doping regulations and speak to your sports doctor about it!

## LE PROGRAMME QUARTZ



*Je bénéficie d'un dossier d'ultra-santé si je m'inscris dans le programme Quartz (gratuit).*