
Managing type 1 diabetes in the active population

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Setting the scene:

The aim of this study is to answer the following clinical questions:

- ▶ How can clinicians raise awareness of type 1 diabetes as a possible cause of fatigue in active individuals and hence identify these athletes?
- ▶ How can we educate athletes with sportsspecific information and support?

What did they do?

An 18-year-old first-year university rower noticed that during an off-site training camp he was drinking a lot of water and losing weight, which he put down to maladaptation to the high training load in a hot climate. However, symptoms worsened when he returned to campus after the training camp. He reported feeling extremely fatigued, weak and sick, and was admitted to hospital. Following a formal diagnosis of type 1 diabetes, he reported receiving very little advice on discharge—what was offered was much generalised and there was no follow-up appointment offered. So he researched how to manage diabetes while exercising and looking for recommendations specific to rowing. He reported that information gave him the confidence to try to manage the condition and continue with his chosen sports.

Management Plan:

- Fatigued Athlete:
 - Clinical history, examination and investigations
 - Exclude functional conditions e.g. RED-S
 - Exclude systematic medical conditions eg. Infections/ endocrine/ auto-immune.
 - For Metabolic condition: Diagnose Diabetes Mellitus, based on blood glucose
 - If acute diabetic ketoacidosis stabilize as required
- Education:
 - Guidance
 - Arrange medical exemption for insulin use (Monitor Blood Glucose → Manage insulin → Manage Carbohydrate Intake)
- Sports Specific Advice:
 - Pre/ during/ post exercise: ↓ insulin- ↑ Carbohydrates (Blood Glucose Availability)

- Encourage discussion with coach and team mates
- Ensure awareness of increased risk of hypoglycaemia
- Establish location of emergency glucose supply in training and competition

Takeaway message:

- ▶ Always consider the possibility of type 1 diabetes mellitus in athletes presenting with fatigue.
- ▶ Provide adequate generic and sports-specific education.
- ▶ Empower and support athlete to make personalised changes to optimise their glucose management.
- ▶ Encourage support from teammates and coaches. Identify the location of the emergency source of glucose during training/competition.
- ▶ Mentorship of athletes from fellow athletes with type 1 diabetes can be beneficial.