

# Athletes With Type 1 Diabetes

## Athlete Scenario

*I am very competitive in my age group for sprint distance triathlons. However, I struggle with knowing how much to eat and how to adjust my insulin during training and competition. I often experience large fluctuations in my blood glucose, especially when I am biking and running. What can I do to maintain normal blood glucose levels during exercise?*

## Challenges

- Every athlete's blood sugar responds uniquely to exercise.
- Type, intensity and duration of exercise, time of day, temperature, altitude, and stress also affect blood sugar.
- Recording your unique response to exercise will allow you to adjust insulin doses and timing to stabilize blood sugar during exercise and recovery (up to 12 hours later). This may involve adjusting basal (or long acting), and/or bolus (or short acting) insulin throughout the day in anticipation (minimizing the need for corrections).

## Goals

- Determine your response to each type of exercise by monitoring blood sugar about every 20 minutes before, during, and after training. Continuous glucose monitors are helpful.
- Check blood sugar 30, 20 & 10 minutes prior to start of swim to determine trending.
- Provide adequate fuel for your activities. Consume 30-60 grams of carbohydrate per hour from food or sports drink, adjusting insulin as needed.
- Check blood sugar during transition to the bike and to the run.
- Stay well hydrated.

Written by SCAN registered dietitians (RDs). The key to optimal meal planning for athletes is individualization. For personalized nutrition plans contact a SCAN sports dietitian or Board Certified Specialist in Sports Dietetics (CSSD) by accessing "Find a SCAN Dietitian" at [www.scandpg.org](http://www.scandpg.org) | 800.249.2875.



## Tips to Take With You

1. Excitement of competition and early start times can result in elevated blood sugar levels.
2. Track blood sugar responses to various sport foods to identify the foods and amounts most appropriate for you.
3. Consider teaming up with both a sports dietitian to determine optimal fueling and hydration and a diabetes educator to help adjust insulin doses and patterns for your sport.

## Contact SCAN

Web site: [www.scandpg.org](http://www.scandpg.org)  
Voice: 800.249.2875