

Nutrition & Exercise for Type 1 Diabetes

Type 1 diabetes is an autoimmune disorder which occurs when the body's immune system destroys the insulin-producing cells in the pancreas. It represents 10-15% of all cases of diabetes and is more commonly diagnosed in children and young adults, but can occur at any age. Unlike type 2 diabetes, it is not related to lifestyle and little is known about prevention. However a healthy lifestyle is important in its management. While insulin replacement is the mainstay of treatment, the person with type 1 diabetes must carefully balance insulin with food intake and exercise to maintain their blood glucose levels in the optimal range and avoid dangerous high or low blood glucose levels. This can be a difficult feat, particularly when it comes to exercise as the effects of exercise on blood glucose levels can differ depending on the type of exercise, the timing according to meals and insulin injections and other factors. Understanding this can assist exercise professionals in helping clients with type 1 diabetes to exercise safely and to enjoy the many benefits that exercise provides.

This course explores the following topics:

- ▲ What is type 1 diabetes ?
- ▲ Symptoms and diagnosis
- ▲ Management of type 1 diabetes
- ▲ Dietary recommendations
- ▲ Benefits of exercise in type 1 diabetes
- ▲ What happens during exercise
- ▲ Prevention of hypoglycaemia and hyperglycemia with exercise
- ▲ Exercise precautions and contraindications

Upon successful completion, course participants will:

- ▼ Understand the pathophysiology of type 1 diabetes and how it differs from type 2
- ▼ Be familiar with the common symptoms of type 1 diabetes
- ▼ Understand the key aspects of the management of type 1 diabetes
- ▼ Be familiar with the dietary recommendations for type 1 diabetes
- ▼ Understand the benefits of exercise for those with type 1 diabetes
- ▼ Be aware of the challenges that exercise presents to those with type 1 diabetes
- ▼ Be familiar with the symptoms and treatment of hypoglycaemia
- ▼ Be aware of precautions and contraindications for exercise for those with type 1 diabetes

Course creator bio: Kate is an Advanced Accredited Practicing Dietitian and Credentialed Diabetes Educator, with a Masters of Nutrition and Dietetics and PhD in nutrition from the University of Sydney and a Graduate Certificate in Diabetes Education and Management from the University of Technology, Sydney. She works in private practice in Sydney and has a particular interest in diabetes. Kate is co-convenor of the DAA National Diabetes Interest Group, a board member of Diabetes Counselling Online, an editorial board member for Diabetes Management Journal and a member of the magazine editorial advisory group for the Australian Diabetes Educators Association. She is also a member of the Type 1 Diabetes Network Expert Advisory Board. Kate has recently been involved in development of evidence-based guidelines for the diagnosis and management type 1 diabetes in Australia, the update of the Juvenile Diabetes Research Foundation "Straight to the Point" book and the update of the Type 1 Diabetes Network Type 1 Starter Kit. While she is no athlete, Kate has lived with type 1 diabetes for 30 years.

