

# PPUK - Working with Type 1 Diabetics during Exercise



The type 1 diabetic can improve cardiovascular conditioning and accrue other health-related benefits by exercising three to five days per week. Daily exercise is often unrealistic for type 1 diabetics and can increase the risk of other complications. Type 1 diabetics who have no complications can exercise at 55 to 75 percent of functional capacity or a rating of perceived exertion (RPE) of 3 to 5, using a 10-point exertion scale. Sessions will last about 20 to 30 minutes to optimise fitness and health-related returns. Using a predictable and consistent pace is highly recommended.

Resistance training in type 1 diabetes is recommended in most cases. Strength training can increase aerobic capacity and, along with increased muscle mass, can improve insulin sensitivity and thus improve glucose control. Type 1 diabetics who have no complications can participate in a moderate resistance training programme that parallels an entry-level programme that non-diabetics would use. Increases in intensity (how hard you work) will be evaluated in comparison to your tolerance level. Any plan of action will be finalised with your GP or appropriately trained health expert.

## Exercise programme progression

Not all diabetics fall into general guidelines. Often, programme progression – which involves frequency (how often you workout), intensity (how hard you workout), and duration (how long you workout) of effort – is greatly affected by whether your diabetes was diagnosed, treated, and controlled at an early stage. Early treatment and management of diabetes can greatly limit the progression of the disease, thus minimising the necessity for many exercise precautions and constraints. You will be assessed on your individual case.

Exercise programme progression is determined largely by age, functional capacity, diabetes-related complications and other medical concerns, personal preferences, tolerance to exercise, and goals. Generally, as is true for most programmes of non-diabetics, initial changes in the programme will focus on duration increases rather than intensity. The blood glucose response to increases in duration will be easier to control, and your likelihood to adhere to the programme we design for you will be greater.

If you do not present any complications, you will probably follow a programme similar to that of a non-diabetic individual.

Looking long-term, if your diabetes is well-controlled, you will be able to run in marathons and take part in other athletic events if you wish. The key to success in more vigorous and sustained workouts depends greatly on self-monitoring of blood glucose and being sensitive to adjustments that might include changes in insulin doses, medication, exercise, or diet. For many diabetics, athletic competition is not a goal, but improving functional aspects of living and quality of life is. No matter what your goal is, through a working partnership with your health care team and your constant feedback, we can help you achieve it.



**Doing it with Power!**