ACON® Diabetes Care

On Call® Advisor

Diabetes and Exercise

How Regular Exercise can Help People with Diabetes?

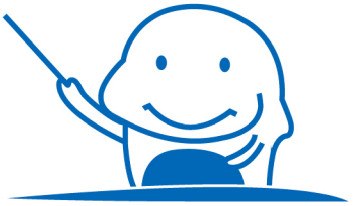
Making exercise as a part of your daily routine is the key factor to maintain controlled glucose levels.

- *Improves blood glucose control*
- *Reduces cardiovascular risk factors*
- *Contributes to weight loss*
- *Improves insulin sensitivity and assists in diminishing elevated blood glucose levels into the normal range for patients with type 2 diabetes*
- *Makes great improvements in A1c and fitness through high level of exercise intensity*

Physical Activities Advices

The American Diabetes Association (ADA) recommends that people with diabetes should be advised to perform all kinds of physical activities. In the meantime, people with type 2 diabetes should be suggested to perform resistance training if the patient has:

- *No symptoms of retinopathy, neuropathy, or nephropathy*
- *No cardiovascular problems such as angina, embolism, or aneurysm*
- *No other condition that makes exercise inadvisable*



Frequency and Type of Exercise for Diabetes

Adult over age 18 years perform 150 min/week of moderate-intensity or 75 min/week of vigorous aerobic physical activity or an equivalent combination of the two. In addition, adults also are suggested to perform resistance training three times per week.

Adult over age 65 years or those with disabilities should follow the adult guidelines if possible or (if not allowed) be as physically active as they possibly could.

Children with type 1 diabetes share the same exercise guideline with adult, but because children have greater variability in blood glucose levels, particular attention is required to balance the glycemic control while doing exercise.

Guidance to Ensure a Safe Exercise

- **Check your blood glucose level:** Always test your blood glucose before and after exercising to prevent hypoglycemia, because it can occur during, immediately after or many hours after physical activity. If your levels are below 100 mg/dl (5.56 mmol/L) before exercise, have a snack and retest in 15 minutes.
- **Do not inject insulin before exercise:** Doing exercise makes insulin injection metabolized faster, and also reduces your blood glucose level, posing a high risk for hypoglycemia.
- **Recommend intake:** Consume a right amount of carbohydrates to avoid hypoglycemia. Additionally, carbohydrate based foods should be readily available during and after physical activity.
- **Identify yourself:** Always wear a medical identification tag or bracelet on your body when you are exercising, so if you lose consciousness, others will know how to help you.

- **Prepare for exercise:** A standard recommendation from ADA is to warm-up for 5-10 min of aerobic activity (walking cycling, etc.) at a low-intensity level and gently stretch for an additional 5-10 minutes. The cool-down should also last 5-10 minutes until heart rate has returned to pre-exercise levels.
- **Keep a log:** Track your blood glucose level under to different activities and environments.
- **Ask for your doctor' advice:** Although physical activity can improve your health, an excessive release of counter insulin hormones during physical activity may increase already high levels of glucose and ketone bodies. Always consult your physician before starting a new exercise plan or changing your exercise regimens.

Reference:

1 Global Recommendations on Physical Acting for Health @ World Health Organization 2011

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