

Exercising with Diabetes Complications

If you have had diabetes for a long time and have developed complications, you may have questions about whether you should be engaging in physical activity—and, if so, what kind of physical activity is best for your condition.

According to Jacqueline Shahar, MEd, RCEP, CDE, a clinical exercise physiologist and manager of Exercise Services in the Joslin Clinic at Joslin Diabetes Center, patients with diabetes complications should definitely continue to find appropriate opportunities for physical activity.

There is always some type of exercise people with complications can do. Not remaining active can lead to developing additional complications and loss of functional capacity (the ability to do the activities of daily living).

Here are some of the more common diabetes complications and exercise recommendations:

>> Peripheral Neuropathy

Peripheral neuropathy is nerve damage in the extremities, causing tingling, pain or loss of sensation in your toes, feet and fingers. Peripheral neuropathy increases the risk of loss of balance—and subsequently the increased risk of falling. In addition, the pain and burning can make it difficult to walk.

Exercise prescription:

Incorporate balance exercises and avoid weight-bearing activities such as walking or jogging. Good choices are the stationary bike and swimming.

>> Charcot Foot

Charcot Foot is a specific type of peripheral neuropathy in which there is destruction of the nerves on the bottom of the foot. The foot eventually becomes deformed and loses sensation. It is important to stay off your feet as much as possible.

Exercise prescription:

Use a stationary or arm bike, or do chair exercises using free weights in a seated position.

>> Nephropathy

Nephropathy is damaged to the kidneys, which eventually leads to complete kidney shutdown and the need for dialysis. With nephropathy, exercise capacity is decreased because of the buildup of waste products in the body.

Exercise prescription:

Light to moderate exercise is encouraged.



>> Proliferative Retinopathy

Proliferative retinopathy is advanced diabetic eye disease in which new, fragile cells develop on the optic disc. These new cells are prone to leakage or hemorrhage into the eye resulting in loss of vision. You may also be at risk for retinal detachment.

Any exercise that increases blood pressure should be avoided. You need to avoid lifting heavy objects and any vigorous exercise. In addition, do not perform any exercise that requires forward bending such as yoga or the valsalva manoeuvre (The valsalva manoeuvre is performed by moderately forceful attempted exhalation against a closed airway, usually done by closing one's mouth and pinching one's nose shut.)

Variations of the manoeuvre can be used either in medical examination as a test of cardiac function and autonomic nervous control of the heart, or to "clear" the ears and sinuses (that is, to equalize pressure between them) when ambient pressure changes, as in diving, hyperbaric oxygen therapy, or aviation].

Exercise prescription:

Stick to non-weight bearing exercise such as moderate intensity biking or walking in the pool. Or try slow, steady hiking, ballroom dancing or elliptical machines at low to moderate intensity.