

Benefits of Active Living for Diabetes

HOW IS EXERCISE BENEFICIAL TO THOSE WITH DIABETES?

Whether someone has **Type 1**, **Type 2** or **Gestational diabetes**, they all have something in common; **high blood glucose**. Chronically elevated blood glucose leads to multiple complications and thus it is essential for patients to manage their blood glucose levels within safe levels and for those with pre-diabetes to try to prevent full onset of the disease. **Insulin** plays a major role in regulation of blood glucose, this is the hormone which allows glucose to enter the cells in our body. During diabetes, insulin is either lacking (Type 1) or the body is resistant to it (Type 2 and Gestational).

You may have been told to **exercise** and lose weight in order to help **manage your blood glucose**, have you even wondered why?

When you exercise, e.g. doing arm curls (bending one arm by bringing the hand up to the shoulder), you are working the muscles within this one arm. Normally glucose needs insulin to enter the cells in your body, and if you have diabetes insulin is either lacking or the cells in the body are resistant to it. During movement however, muscle fibers are able to uptake glucose from the blood stream without the need of insulin. This is because there are special transporters in muscle cells called **Glut-4**, which are activated by mechanical stimulation and bring glucose into the cells.

The active muscles in the moving arm are able to uptake the glucose from blood for fuel, removing it from circulation. This effect is specific only to the muscles that are moving because it is the contraction of the muscle that activates **Glut-4**. Therefore, if more muscles are activated the uptake of glucose from blood will be greater. This mechanism works in everyone, including people with diabetes. Keep in mind that for patients taking medication, physical activity will lower their blood glucose, and this should be monitored. Taking advantage of the **Glut-4** in our bodies is very easy, we just have to **keep moving & walk your way to better health!**



THE EXERCISE SCIENCE OF URBAN POLING

When we walk, we use less than half of the muscles in our body, and our core muscles get engaged minimally. However, when we urban pole, we use most of the muscles in our body. Adding the poles results in a full body, bi-lateral activity, leading to greater caloric expenditure and significant engagement of core muscles. The result is;

Benefits of Urban Poling:

- ↑ Potential to lower blood glucose and increase insulin sensitivity
- ↓ Body Weight/BMI
- ↓ Total Fat mass
- ↓ Waist circumference
- ↓ Lowers cholesterol & Triglycerides
- ↓ Level of perceived claudication pain
- ↑ Social interaction, improves mood and overall quality of life

