

Physiotherapy + Diabetes

Facts on how physiotherapists help diabetics manage + prevent physical impacts of diabetes



Diabetes carries a heavy burden for patients, the healthcare system and society. Over the next decade, diabetes rates will rise from population growth, an aging population and declining mortality rates. However, diabetes can be prevented, treated, controlled, and the risk lessened via various health and lifestyle interventions including physiotherapy. Physiotherapists can assess, diagnosis, treat, and manage musculoskeletal (MSK) manifestations and complications of type 2 diabetes. They can also counsel patients and provide advice on appropriate and effective exercise, physical conditioning, and active, healthy living.

Diabetes facts:

- Over 217,000 Albertans are living with diabetes - or 1 in 20 people - this is expected to rise.¹
- Diabetes is twice as common among the Aboriginal population.
- Economic impact including medical, drug and disability expected to be \$1.1 billion dollars in 2010.²
- Adults with diabetes see family physicians and specialists 2-3X more often and spend almost 3 more days in hospital vs. non-diabetics.³ Also diabetics are twice as likely to have a heart attack and 3X as likely to have a stroke than non-diabetics.
- In 2007, total average costs (physician, hospital and emergency department) for diabetics was 3-4X higher than Albertans without diabetes.³
- Physical activity is a crucial intervention to prevent and manage type 2 diabetes.⁴⁻⁶ Thirty minutes of moderate physical activity/day plus a 5-7% reduction in body weight cuts type 2 diabetes risk by 58% (and 71% for those over age 60).⁴
- The benefits of physical activity in people with type 2 diabetes includes improved glycemic control, reduced cardiovascular complications and a 30-50% reduction in mortality.⁴⁻⁶
- Supervised physical activity programs are more effective than general exercise counseling,⁷ Tai Chi,⁸ home based exercises, or flexibility exercises.
- Complications or co-morbidities including cardiovascular disease, obesity, joint pain, neuropathies, skin breakdown, and amputation present barriers to regular physical activity.

How physiotherapists help Albertans with diabetes:

- **Prescribe safe, effective exercise** - Many diabetics are overweight + have joint/cardiovascular issues. Physiotherapists recommend aerobic + resistance exercises/movements that consider co-existing and/or potential complications + avoid those that may be detrimental. Physiotherapists teach patients specific exercise to improve function and glycemic control.
- **Use specific exercises + manual therapy to target specific MSK problems common to diabetics.**
- **Provide help beyond physical activity:**
 - **Skin management** - Counsel patients on skin/wound (e.g., blister/ulcer) care, pressure point avoidance, spotting trouble signs + provide wound debridement/management for ulceration.
 - **Foot care** - Blisters, loss of feeling + ill-fitting shoes can cause ulceration. Physiotherapists assess/advise on proper footwear and walking retraining to alleviate pressure on feet.
 - **Pain management** - Diabetics often have pain from nerve impairment. Electrical stimulation, sensory desensitization and targeted exercise help manage pain and let patients perform physical activity.
 - **Health promotion** - Support diabetes prevention including physical activity and healthy eating programs for all ages, removal of high sugar foods/drinks from schools, adequate food labeling, and smoking prevention and cessation.



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Key References

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