

Build Activity Into Your Everyday Life

Type 2 Diabetes

If you already have diabetes or you're reading this because you have risk factors for diabetes and are concerned about your future, you've probably heard about the benefits physical activity can have on managing diabetes. Essentially, they have an inverse relationship, the more physical activity you do, the more your risk of diabetes decreases. The less physical activity you do, the greater your risk of diabetes. Moderately active people, compared with sedentary people, can reduce the risk of diabetes by between 30% to 50%.

Being active is as important as taking your medication. A drop in HBA1c by just 0.6% can result in a reduction in medication of one tablet a day. A drop of 0.6% can be achieved quite simply by doing one resistance or strength training session a week.

So, why is physical activity so beneficial for people with type 2 diabetes?

The benefits of exercise affect many systems and result in:

- ① **Improved glycaemic control:** You can lower your HBA1c by between 0.4 and 0.9% by doing less than 150 minutes per week or more than 150 minutes per week, respectively, of moderate intensity exercise.
- ② **Improved blood pressure:** Physical activity causes a cascade of reactions to happen at a cellular level; one being an improvement in the blood vessels' ability to contract and relax and being less rigid. This lowers the blood pressure possibly even resulting in you requiring less blood pressure medication.
- ③ **Feeling more in control**
- ④ **Improved blood cholesterol**
- ⑤ **Reduced need for medication**
- ⑥ **Improved general fitness**
- ⑦ **Reduced risk of diabetic complications:** Physical activity improves cardiovascular fitness and, with that the function of the blood vessels. Improved microvascular circulation can reduce the development and progression of retinopathy and neuropathy.
- ⑧ **Reduced risk of cardiovascular complications:** Increases in physical activity and cardiovascular fitness and function results in the reduction of strokes by approximately 30%, coronary heart disease by 40% and cardiovascular disease (including artery disease, angina and heart attack) by 25%.
- ⑨ **Improved life expectancy.**

So as you can see, physical activity can lead to significant health benefits if you suffer from diabetes. It will also improve your general fitness. By increasing your activity level your muscles will become stronger, you feel less fatigued and motivated to do more, so the cycle continues and your fitness level improves. This all results in a better feeling of capability, independence and self-worth; you are able to do more with less effort and thus daily tasks and chores are easier – improving your quality of life. In addition to this, regular exercise can help control your diabetes to such an extent that you need fewer pills or maybe even no pills at all. If nothing else, managing your diabetes through exercise may ultimately prevent you from needing insulin, which has to be good news.

The benefits seem like a no-brainer but maybe you still have reservations? Maybe it's fears that could be holding you back from exercising? On the next page we cover some common concerns people with diabetes have about exercising.



Concern	Advice
I am overweight, will exercising help me lose weight?	Exercise alone won't guarantee long term weight loss. You need to add dietary modification and behaviour change to exercise in order to lose weight and keep it off. Although regular exercise will help reduce weight through improved glycaemic control, lowering your blood pressure, stronger bones and increases in lean muscle mass.
I am worried about causing foot ulcers	In people with peripheral neuropathy but with NO active foot ulcers , increasing your activity level through activities like walking causes no increased threat of developing a foot ulcer. If you have an active foot ulcer weight-bearing exercise should be avoided and you should have regular checks with your podiatrist until they give you the all-clear to start exercising. Check your feet regularly once you start exercising and ensure you wear good-fitting shoes.
Are there any absolute 'No Nos' for exercise with Type II diabetes?	1. If you know you have autonomic neuropathy, get checked by a specialist for any underlying cardiovascular risks before starting to exercise. 2. Diabetic retinopathy – if proliferative or severe non-proliferative, avoid vigorous exercise.
I am worried about having a 'hypo'	This is more of a problem with type 1 diabetes and not type 2 diabetes , unless you are on sulphonylurea or insulin. For safety always exercise with someone else and carry a carbohydrate snack: ● Build confidence in exercising by regularly monitoring your blood sugars before and after – know how your body responds to certain activities. ● Try not to exercise within 2 hours of having a meal (if you use insulin or sulphonylurea) – although having a hypo is a low risk in type 2 diabetes).
Will I need to check my blood sugars more often when I exercise?	This is only recommended for the first time of starting a new activity so you can judge how your body responds to it. If you are on insulin or sulphonylurea you will have to check more regularly when exercising. If you are feeling unwell or just not 'yourself' check your blood sugars before starting exercise just to be on the safe side.

The Last Word

A good idea before starting an activity is to sit down with your therapist or even a family member or friend and write down what it is you want to achieve. Set goals, easy achievable ones initially. These will help build self-esteem and confidence. Then you can start looking from short-term easier goals (which may be as simple as walking 10 minutes every day, or achieving a walk around the block 3 times a week) to middle- and long-term ones, extending over the coming months and year.

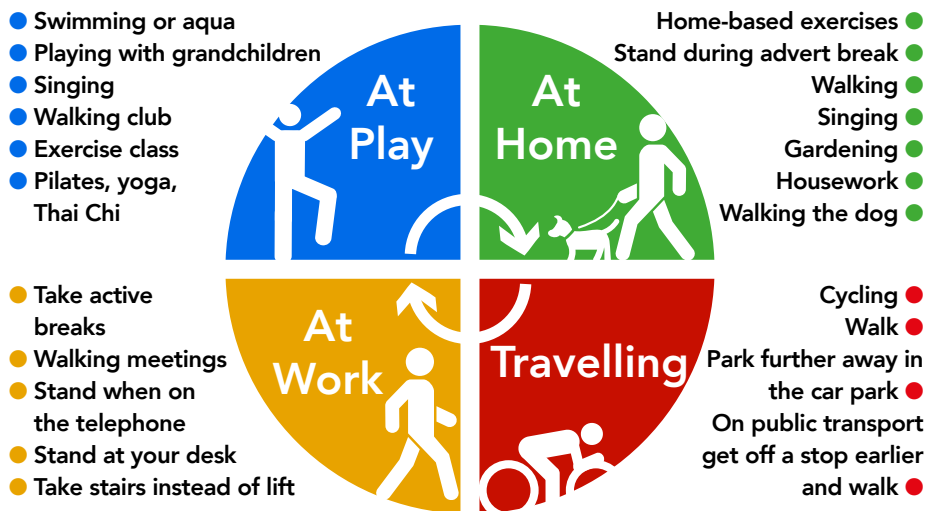
'Action planning' is the next step. Write down what you are going to do each day or as a weekly plan. Keeping these plans, together with a daily diary, will help you stay motivated and see the improvements over time. You can use self-monitoring devices like pedometers, wrist-worn accelerometers or smartphones to keep track of your daily step count. There are also many activity apps that can be downloaded to mobile phones to help you monitor your activity levels, motivate you or provide you with daily exercise routines. Get help and advice from your physical therapist about what would best suit you and your condition.

Make sure you have support – be it family and friends or a physical therapist, support group or exercise programme.

Making everyday life more active

Apart from formal exercise or group activities, you can build activity into your everyday life. Small changes will ultimately make big differences to your quality of life.

Ideas for making everyday life more active include:



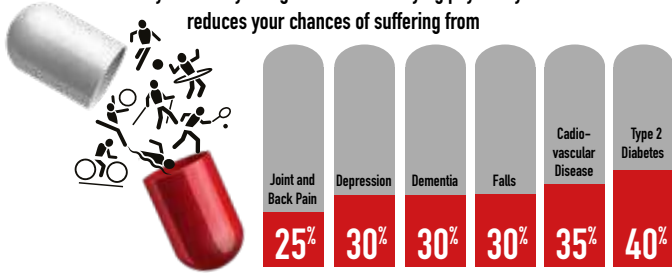
The right support will be invaluable in keeping you motivated and encouraged, particularly on those bad days, and make you accountable for changing your life!



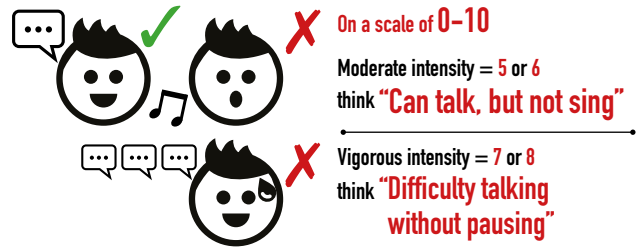
Gold Standard Exercise Recommendations for Health

If Exercise Was A Pill

Reduce your risk by being more active. Staying physically active reduces your chances of suffering from



What is Moderate Intensity Versus Vigorous Intensity Activity?

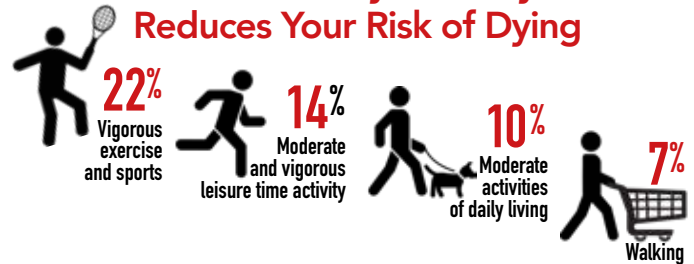


What Activity Should I Be Doing If I'm Between the Ages of 5-17?

- 60 minutes of moderate to vigorous-intensity physical activity – every day
- > 60 minutes daily will give even better health benefits
- Most of the daily physical activity should be aerobic
- But should incorporate vigorous – intensity activities that strengthen muscle and bone, at least 3 times per week



How Activity Intensity Reduces Your Risk of Dying



Reference: Domains of physical activity and all-cause mortality: systematic review and dose-response meta-analysis of cohort studies. <http://bit.ly/2S7BXOW>

What Activity Should I Be Doing If I'm Between 18-64?

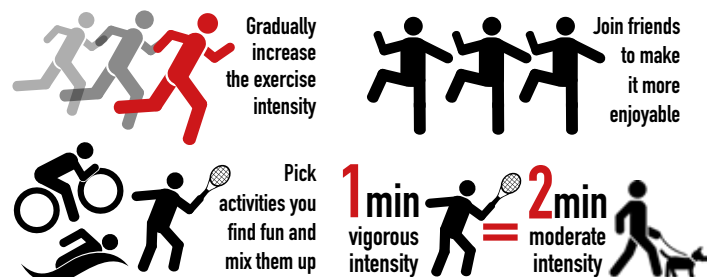
- 150 minutes of moderate-intensity aerobic physical activity each week, or 75 minutes of vigorous-intensity aerobic physical activity
- Aerobic activity should be performed in bouts of at least 10 minutes
- 300 minutes of moderate-intensity or 150 of vigorous-intensity aerobic physical activity brings even greater health benefits
- Muscle-strengthening activities should be done involving major muscle groups on 2 or more days a week.



First Steps to Being More Active



TIP If you are starting out try breaking your daily goal into shorter bouts of 10 minutes at a time



What Activity Should I Be Doing If I'm Over 65 Years of Age?

- 150 minutes of moderate-intensity aerobic physical activity each week, or 75 minutes of vigorous-intensity aerobic physical activity
- Aerobic activity should be performed in bouts of at least 10 minutes
- 300 minutes of moderate-intensity or 150 of vigorous-intensity aerobic physical activity brings even greater health benefits
- Activities that enhance balance and prevent falls on 3 or more days per week
- Muscle-strengthening activities should be done involving major muscle groups, on 2 or more days a week
- The goal is to be as physically active as your abilities and conditions allow.



Reference: Global Recommendations on Physical Activity for Health, World Health Organisation 2018

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