Pre Diabetes
& Physical Activity

In Pre-diabetes (or Impaired Glucose Tolerance) blood sugar levels are raised beyond the normal range but not at the level seen in Type 2 Diabetes. However if you have pre-diabetes, your risk of developing diabetes and cardiovascular disease (such as heart disease, peripheral vascular disease and stroke) is increased.

Physical activity can protect you from developing type 2 diabetes.¹ There is a 30 - 40% lower chance of developing diabetes in moderately active people compared with those who are sedentary². Just by doing more and eating healthier you are improving your body’s ability to control blood sugar and reducing the effects of other risk factors for disease such as high blood pressure, high cholesterol levels and body fat. Now is the ideal time to make a real positive lifestyle change for your health. You should aim for regular physical activity because this is good for your health, whether you lose weight or not.

Physical Activity Recommendations for currently inactive adults with pre-diabetes

Aim to do the following three types of activity:

- **Aerobic activity** at relative moderate intensity for at least 150 minutes (2 hours and 30 minutes) a week – one way to approach this is to do 30 minutes on at least five days each week.

- **Muscle strengthening activity** on two or more days a week which work all major muscles groups (legs, hips, back, abdomen, chest, shoulder and arms)

- **Flexibility exercises** on a daily basis

Regular physical activity also gives you more energy, builds confidence and can help you to sleep more soundly at night. You can combine your activity time with family and friends or use it as an opportunity to reflect on things and listen to your favourite music.

Keep it simple: Don’t make drastic commitments. Choose activities that are easy, simple and enjoyable to maintain.

Set a goal and monitor: Set weekly targets that are achievable and keep a record of what you do. If you fail, create barriers to the things that stop you from reaching them.

Go Public: Discuss your goals and activities with others to keep you motivated for longer.

See ‘Getting started’ at www.prescription4exercise.com for useful tips on planning your next move.

Do not worry if you struggle to meet the recommendations, because by trying to become more active, you are still gaining some health benefits.
Aerobic activity

Aerobic activity, also known as endurance activity, is when large muscle movements, maintained over a period of time, make the heart and lungs work harder.

**Activity Type?** – Any type that you can maintain continuously is ideal. Choose exercises that you enjoy, such as walking, cycling or group fitness classes. Starting off with some walking, static cycling or swimming will avoid too much joint overload if you are overweight and have joint pain.

**How long (duration)?** – You can split your total activity amount into minimum bouts of 10 minutes if needed. If you have been inactive for a long time, start with short daily amounts and increase this as your body allows and you feel more confident. Remember not to sit for hours. A regular break from sitting every hour is healthy.

**How hard (intensity)?** - Progress slowly to a relatively moderate-intensity activity. When doing moderate intensity activity you will feel warm, mildly out of breath and mildly sweaty. The 'talk test' is a simple way to measure moderate intensity. This means that you can still talk, but not sing, during the activity.

**How often (frequency)?** – If you aim to do 30 minutes per day then do this at least 5 times per week so that you reach the 150 minutes total per week. Distribute the sessions over the week and aim to have no more than 2 consecutive days without physical activity. When you start any new activities make sure you give your body enough time to recover and adapt between sessions.

Muscle Strengthening and Flexibility

Activities that promote strengthening and flexibility are vital for a complete physical activity programme. Strength training improves blood sugar control and the action of the body’s own insulin. Being stronger and more flexible makes it easier to carry out aerobic activities, such as brisk walking or swimming. Visit the ‘Strength and flexibility’ section at www.prescription4exercise.com for some simple video exercises that you can do at home.

*See prescription4exercise.com for video examples of strengthening and flexibility exercises you can do at home

Choosing the right activity

Where to start? Try to choose activities that are local, enjoyable and practical. Visit the website for plenty of ideas and choices of things to do new you.

Safety considerations

- If you have led a very sedentary lifestyle, begin by doing low intensity exercise of short duration, e.g. 10 minutes. Increase your level of activity gradually to avoid injury
- Stop exercising if you feel dizzy, sick, unwell or very tired.
- See a doctor if you are having chest pain, black outs or breathlessness on mild exertion.

If you have any other long term health conditions, ask your healthcare professional and/or visit www.prescription4exercise.com for additional useful safety considerations.

References

1. Exercise and Type 2 Diabetes. ACSM and ADA Joint position statement. Medicine and Science in Sports and Exercise 2010; 42 (12): 2282-2303

Further reading

- ACSM’s Guidelines for Exercise Testing and Prescription, American College of Sports Medicine, 2009

Visit www.prescription4exercise.com to learn more about physical activity and how it can prevent and treat many long term conditions.