

Complete Endocrine Care Prediabetes Management Resources



WHAT DOES PREDIABETES MEAN?

- Pre-diabetes is a condition where your blood glucose levels are higher than normal but aren't high enough to be called diabetes
- There are no clear symptoms of prediabetes, you can have it and not know it
- Having pre-diabetes means that you are at higher risk of developing diabetes in the future as the risk for pre-diabetes to diabetes is 5- 10% per year, cumulatively the risk over time is quite high
- With lifestyle changes, diet and exercises you have a 50-70% relevant risk reduction in progression to diabetes or get rid of prediabetes and go back to normal blood sugar level
- If you have prediabetes, the long-term complications – especially to your heart, blood vessels and kidneys – may already be starting

GOOD NEWS! YOU CAN GET RID OF PREDIABETES AND GO BACK TO NORMAL BLOOD SUGAR LEVEL!

RISK FACTORS FOR PRE-DIABETES

- **WEIGHT:** Being overweight is a risk factor for pre-diabetes/diabetes
- **WAIST SIZE:** A large waist size can indicate insulin resistance
- **DIET:** High concentrations of sugar, starches and fat in the diet
- **INACTIVITY:** Physical activity helps you control your weight as it absorbs the blood glucose for energy which makes the body use insulin more effectively
- **AGE:** Diabetes can develop at any age, but the risk increases after the age of 45
- **FAMILY HISTORY:** Having a parent or sibling with type 2 diabetes
- **GESTATIONAL DIABETES:** Having diabetes during pregnancy can increase one's risk as 50% of gestational diabetics develop prediabetes/diabetes after 5 years and 10% develop prediabetes/diabetes after 10 years
- **SLEEP:** Obstructive sleep apnea increases the risk of insulin resistance
- **RACE:** African Americans, Hispanics, Native Americans, Asian Americans and Pacific Islanders are at an increased risk for prediabetes
- **POLYCYSTIC OVARY SYNDROME:** Women diagnosed with PCOS have an increased risk for prediabetes/diabetes
- **TOBACCO SMOKE:** Smoking may increase insulin resistance
- **OTHER CONDITIONS ASSOCIATED WITH PREDIABETES:** High blood pressure, high cholesterol (LDL – bad cholesterol) and high triglycerides (a type of fat in the blood)

WHAT CAUSES PREDIABETES?

Insulin is a hormone made by your pancreas that acts like a key to let blood sugar into the cells in order to be used as energy. If you have prediabetes, the cells in your body don't respond normally to insulin. Your pancreas makes more insulin to try to get cells to respond. Eventually your pancreas can't keep up, and your blood sugar rises, setting the stage for prediabetes. Without healthy lifestyle choices, it can potentially lead to type 2 diabetes.

What determines if you are prediabetic?

- Determined by a blood test
 - An A1C of 6.0-6.4% or random blood glucose between 7.8-11.0 mmol/L



When cells are active, they become more sensitive to insulin and work more efficiently



Exercise can lower your blood glucose and improve your A1C levels



Lowering your A1C can lead to fewer pills or less insulin



Exercise lowers blood pressure and cholesterol, reducing risk of heart disease and stroke



Strengthens your muscles and bones



Burns calories to help you lose or maintain weight

CARDIO: Walking, jogging, running, treadmill, biking or using an elliptical trainer. Average steps a person should obtain is 5,000 – 10,000 steps per day.

AQUA FIT: Works well if you have mobility concerns or joint/muscle pains

RESISTANCE AND STRENGTH TRAINING: Resistance bands, light weights or even using water bottles can help build muscle and increases your metabolic rate

RESISTANCE TARGET: The goal is for 60 – 90 minutes per week, either done daily for 10 minutes, 5 times per week for 15 minutes, or 3 times per week for 20 – 30 minutes.

NEED BOTH CARDIO AND RESISTANCE EXERCISES!!!

HOW CAN I REDUCE MY RISK OF GETTING TYPE 2 DIABETES?



Manage your blood pressure



Maintain a healthy diet



Exercise regularly – cardio and resistance



Maintain routine follow-ups



Limit alcohol intake



Reduce or quit smoking

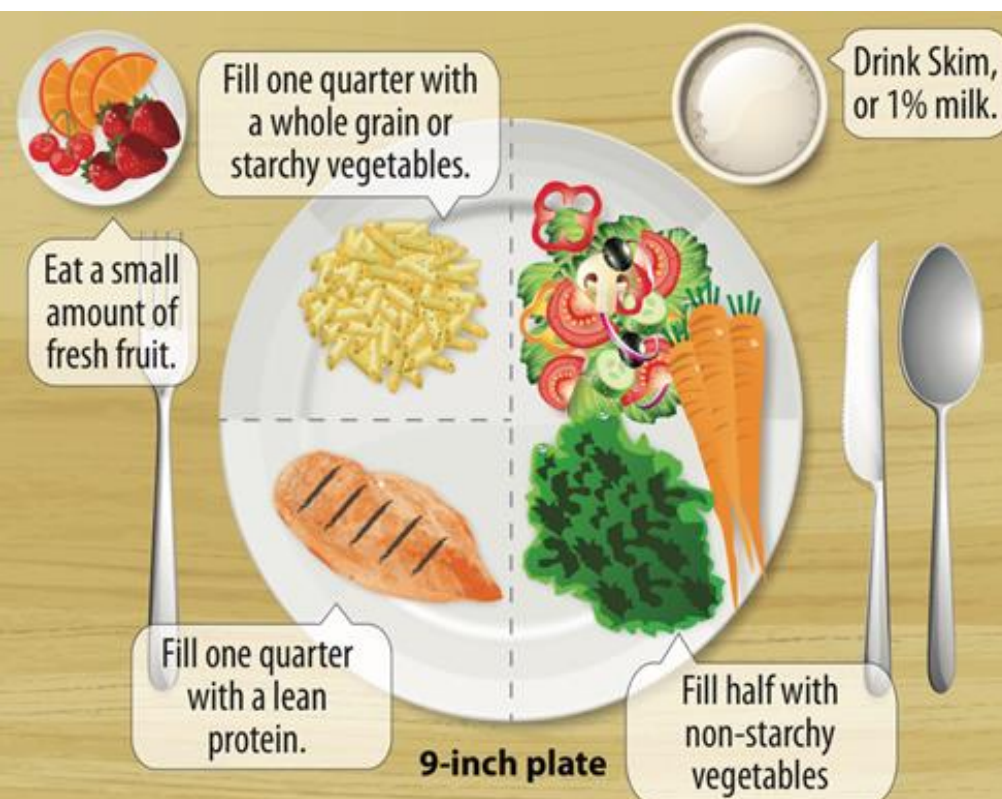
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DIETARY INTERVENTIONS

- Have 3 meals per day at regular times and space meals no more than 6 hours apart. Do NOT Skip meals!
- Add in small nutritious snacks. Ideas include small sized fruit, low fat yogurt, sliced vegetables, nuts, etc.
- Limit sugars and sweets such as sugar, pop, deserts, candies, jam and honey
- Limit the amount of high fatty foods including fried foods, chips and pastries
- Increase fibre and vegetables intake
- Beverages: Water, tea, coffee, low-fat milk. Limit the amount of pop or juice you drink!
- **GOOD NUTRITION MATTERS! YOUR FOOD CHOICES AFFECT YOUR DIABETES CONTROL!**

EATING HEALTHY PORTIONS



CARDIO AND WEIGHTS

COMPARING THE BENEFITS

CARDIO



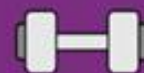
Improves body's ability to transport and utilize oxygen

Strengthens circulatory system (heart & blood vessels)

Reduces risk for heart disease by improving blood pressure, blood glucose, and cholesterol levels

Lowers resting heart rate

WEIGHTS



Improves muscle strength and increases lean muscle mass

Improves bone mass which reduces risk for osteoporosis

Improves pain/disability among people with musculoskeletal disorders

Improves functional fitness ability

BOTH

Increases insulin sensitivity which reduces risk of developing Type 2 Diabetes

Improves bone density

Reduces body fat

Reduces inflammation

Improves mental health (depression & anxiety)

Increases energy & reduces fatigue