

# PREDIABETES



## What is Hemoglobin A1C?

The A1C is a blood test and estimates the amount of sugar attached to the red blood cells. A1C shows a person's average blood sugar level for the past 2 to 3 months. A hemoglobin A1C below 5.7% is considered normal.

## What is FPG?

FPG, or fasting plasma glucose, is a blood test that shows the blood sugar level after not eating for 8-hour(fasting). An FPG below 100 mg/dL is considered normal.

## Why do they increase?

Hemoglobin A1C and blood sugar levels increase when the body cannot efficiently control blood sugar. Specifically, cells in your body need to absorb sugars for energy and survival. If sugars cannot enter and energize cells, the sugars instead build up in the blood. This causes high A1C and blood sugar levels and leads to prediabetes or diabetes.

## What is Prediabetes?

Prediabetes is a serious condition that **increases your risk for diabetes**. Prediabetes usually occurs with no symptoms, but sometimes you may have the following symptoms:

- Excessive hunger
- Abnormal weight gain
- Increased thirst
- Frequent urination
- Fatigue

## What are risk factors?

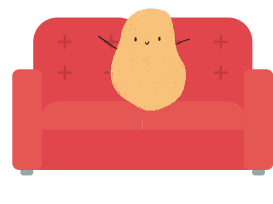
Prediabetes is more common in people with:



- Overweight
- Obesity



Family history



Sedentary lifestyle



Gestational diabetes

## What are my health risks?

Prediabetes increases the risk for developing **diabetes**, which is characterized by very high blood sugar levels and causes heart disease, stroke, kidney disease, eye problems, dental disease, nerve damage, and foot problems.

## Exercise recommendations

At least **60 min** or more of moderate-to-vigorous physical activity daily, such as:

### Vigorous aerobic activity.

These are activities that get your heart pumping and breathing fast, such as:

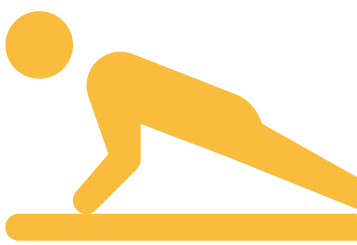
- Running
- Jumping rope
- Soccer
- Biking



### Activity that **strengthens muscles**.

These are activities with weight resistance, such as:

- Push-ups
- Sit-ups
- Climbing
- Weight lifting



Conduct a **talk test** to measure your physical activity intensity. With vigorous intensity, you will not be able to say more than a few words without pausing for a rest.

## Nutrition recommendations

- **Controlling portion and serving sizes** are critical for managing weight and blood sugar. Here are some TIPS:
  - Wrap up half your meal to-go when eating out to enjoy later
  - Measure out snacks and avoid eating out of the bag/box
  - Curb temptations for seconds by putting away serving bowls
  - Plan meals ahead of time
- Avoid grocery shop when hungry to reduce temptations of buying foods not on your shopping list
- Increase the frequency of eating home-cooked meals, and encourage kids to help out with food preparation

**Check on the back page for specific food recommendations!**

## Goals to achieve for next visit:

DATE: \_\_\_\_\_

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

- We recommend that you return in \_\_\_\_\_ days/weeks/months for follow up with your child's pediatrician.
- We are also referring your child to a \_\_\_\_\_ specialist/clinic for further evaluation of their prediabetes.

**Prediabetes is reversible. It is important to maintain normal A1C and FPG values to lower your risk of diabetes.**

## What is the treatment?

The recommended treatment for prediabetes is **weight management and lifestyle modifications**. Getting an A1C test is recommended to monitor blood sugar levels.

## Resources for patients and families:

- Prediabetes education: visit <https://www.cdc.gov/diabetes/basics/prediabetes.html>
- Tips for healthy eating: visit <https://www.choosemyplate.gov>



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## Nutrition Recommendations:

### Meal Planning with the Plate Method

Use healthy oils, like olive and canola oil, for cooking. Limit butter and trans fat.



Eat fruit of all colors, like berries, apples. **It's a great dessert!**



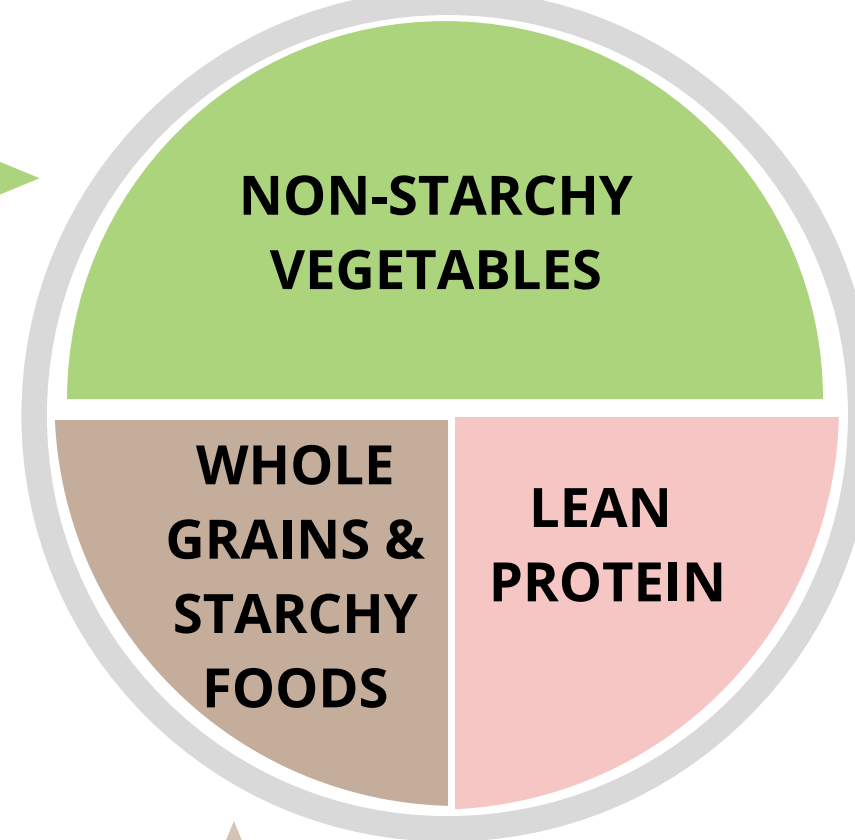
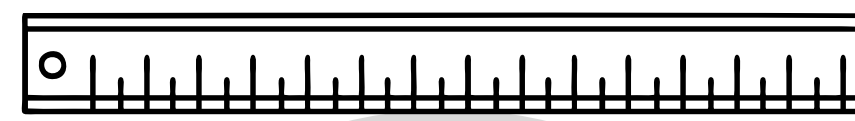
Drink water or natural fruit flavored water. Limit whole milk, juice, sugary drinks, tea and coffee.



Eat **1/2 plate** of non-starchy veggies:

- Spinach
- Green beans
- Broccoli
- Greens
- Cabbage
- Carrots

9-inch plate



Eat **1/4 plate** of lean meats & other protein:

- Chicken
- Turkey
- Beans
- Tofu
- Eggs

Limit bacon, deli meats, and other processed meats.

Eat **1/4 plate** of whole grains, rice, pasta, or potatoes OR eliminate grains and starchy foods and double up on non-starchy vegetables.

**Carbohydrates ("carbs")** are the sugars and starches found in foods. There are two types of carbs: 1) simple carbs and 2) complex carbs. Simple carbs are found in products like bread, cake, pasta, and juice and can raise blood sugar levels. Complex carbs are found in foods like fruits, non-starchy vegetables, and beans and will not raise blood sugar levels. It's really important to focus on **reducing simple carbs** in your meal plan to help the body with controlling and maintaining normal blood sugar levels.

**Go for it! Eat these whenever possible.**

- **Vegetables:** non-starchy fresh or frozen veggies such as salad greens, green pepper, eggplant, onion, garlic, cauliflower, cabbage, carrots, broccoli, green beans, collard greens, okra, spinach, etc.
- **Protein:** legumes, beans, nuts, chickpeas, lentils, fish, lean meats (chicken & turkey), tofu, eggs
- **Grains:** steel-cut or rolled oatmeal, high-fiber bran cereal, bulgar, barley, quinoa, brown rice
- **Fruits:** fresh fruits such as apples, oranges, grapefruit, cherries, apricot, plum, bananas, etc.
- **Beverage:** water, water flavored with real fruit (lemon slices or smashed berries), unsweetened non-dairy milks, low fat dairy

**Slow down! These foods can be enjoyed occasionally.**

- **Vegetables:** yams, corn, starchy veggies such as boiled or fried potatoes
- **Protein:** red meat, cheese
- **Grains:** pita bread, rye bread, couscous, whole grain pasta
- **Fruits:** dried fruits such as raisins & fruits canned in syrup such as canned peaches
- **Beverage:** 100% fruit juice, artificially flavored water, crystal light, full fat dairy

**STOP and think! Limit these foods if possible.**

- **Protein:** fried or high-fat meats like bacon, cold cuts, and other processed meats
- **Grains:** white rice, white bread, sweetened cereals, sweetened oatmeal, pasta
- **Beverage:** juices (not 100% fruit juice), soda, sports drinks, sweetened tea
- **Other:** donuts, waffles/pancakes, bagels, packaged crackers, french fries, ice cream, frozen yogurt