

# What is an A1C test?

The A1C test tells you about your blood sugar control over the last three months. It is the best way for you and your doctor to measure how well you are doing. Your doctor uses the test results to change or adjust your diabetes medicines or management plan.

You should get an A1C test at least twice a year from your doctor. Get tested more often if you use insulin or if your A1C numbers are too high.

An A1C test is not the same as the finger stick test you do with your own meter. A finger stick only shows how much sugar is in your blood at the time you do the test.

The A1C number shows the amount of glucose molecules attached to the red blood cells. Glucose stays on the red blood cells until the cells die. Cells are replaced by new cells every two to three months.

High blood sugar levels cause more glucose to attach to the red blood cells. Keeping your blood sugars as low as safely possible, will lower your A1C number.

# What should your A1C number be?

Most people with diabetes should have an A1C below 7. Lower is better if you can reach it without danger of low blood sugars. If you cannot tell when you have low blood sugars, your A1C number may have to be higher. Ask your doctor to help you set an A1C goal that is right for you.

The right A1C number for you is based on your:

- Age
- Ability to recognize low blood sugars
- Ability to follow meal plans
- Ability to follow a daily routine

# How Can You Lower Your A1C To A Healthy Number?

Your A1C can be lowered with medicines, physical activity, weight loss and a healthy meal plan.

## How Do Your Medicines Help?

If you have type 1 diabetes, you need insulin shots because the body does not produce any insulin of its own. If you have type 2 diabetes, there are many kinds of medicines to help keep your blood sugar and A1C at safe levels.

Each type of medicine will work in one of the following ways to help lower your A1C:

- Add insulin when your body makes too little insulin or none at all
- Cause the body to make more insulin
- Cause less sugar to be made by your liver
- Make the body's insulin work better by reducing insulin resistance\*

Each type of medicine works in only one way. You may need more than one type of medicine to control your diabetes.

If you have type 2 diabetes, your diabetes may get worse over time. At some point, your body may not make enough insulin, even with your medicines. If that happens, oral medicines are not enough and insulin shots are needed.

Waiting too long to start insulin when needed can damage your body. High A1C numbers mean that damage is being done to your heart, kidneys, eyes and nerves. The result may be a heart attack, stroke, kidney dialysis, blindness or amputation. It is important to take your insulin or medicines the way your doctor tells you.

## Why is Physical Activity Important?

Physical activity works like a medicine. It lowers insulin resistance\* and helps move sugar from the blood into the muscles.

To get started:

- Talk to your doctor about a physical activity plan
- Set a physical activity goal you know you can reach
- Choose a physical activity that you would enjoy doing
- Do a physical activity for at least 30 minutes most days of the week
- Increase your physical activity goal over several weeks

Physical activities include walking, gardening, swimming, and biking.

\* Insulin resistance stops sugar from getting into your muscles.

Insulin resistance is common in type 2 diabetes. It means that your insulin is not working well.

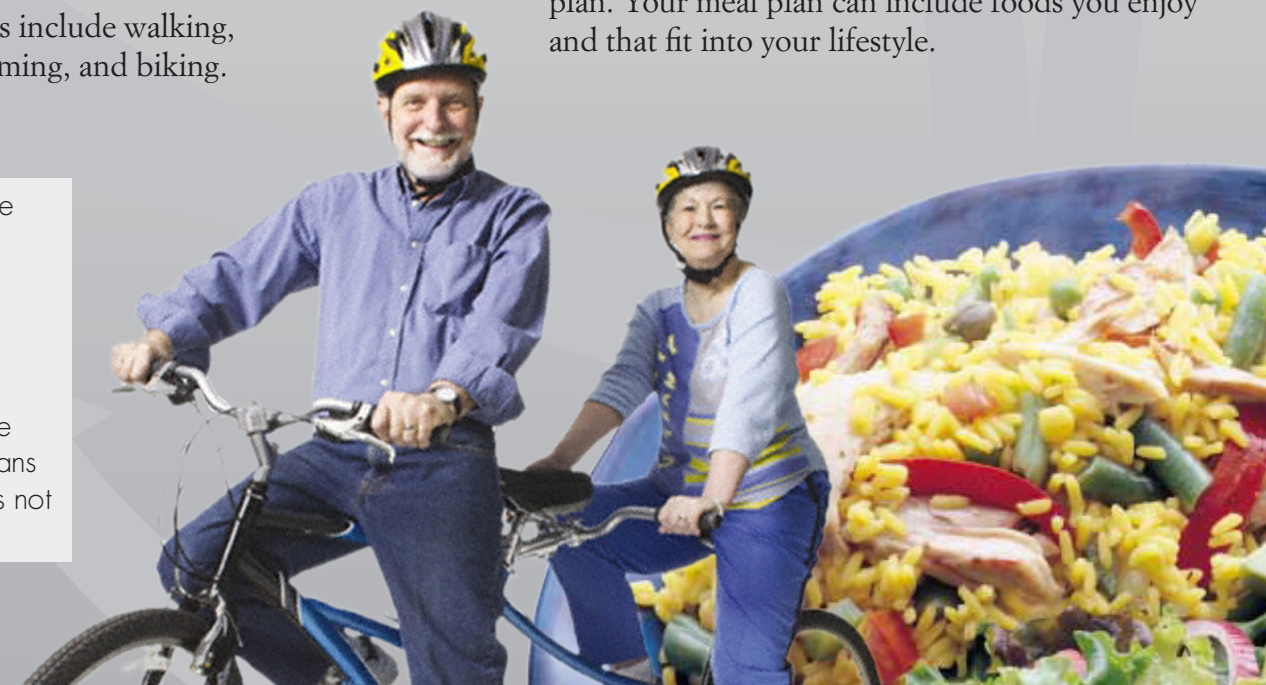
## How Does Meal Planning Help You Lower Your A1C?

A meal plan is a guide about foods and calories that affect your blood sugars. Sugar in the blood comes from two sources, the carbohydrates you eat and from the work of the liver.

Following a good meal plan can help you eat less of the foods that cause sugar to build up in the blood.

- Carbohydrates are in foods such as, bread, cereal, potatoes, rice, sugar, candy, and ice cream
- The liver also makes extra sugar when the body cannot move enough sugar into your muscles

A diabetes educator can help you create a meal plan. Your meal plan can include foods you enjoy and that fit into your lifestyle.





# Why is Weight Loss Important?

Body fat, especially around the middle, adds to insulin resistance. Weight loss can help reduce insulin resistance.

Weight loss can help your insulin and diabetes medicines work better. You may need less medicine if you lose weight.

# How Much Weight Should I Lose?

If you are overweight, losing just 5 to 10% of your body weight will improve your diabetes control. It may also lower your A1C number. Ask your doctor to help you set a healthy weight goal.

To lose weight and help you lower your A1C number, you will need to:

- Limit the carbohydrates you eat
- Reduce the calories you eat
- Increase your physical activity

*\*To lose weight, or maintain weight loss, you may need up to 60 minutes a day of physical activity along with eating less.*



# Why is my A1C Number Important?

Knowing your A1C will tell you if you are in poor control.

- When your A1C number is too high, it shows changes are needed
- Your doctor may change your medicines, your meal plan, or ask you to increase your physical activity or lose weight
- A decrease of just one point can cut your risk for problems in half. For example, from 8.5 to 7.5
- An A1C below 7 leads to lower costs for future diabetes care

# How Can I Learn More About Diabetes?

Diabetes educators can help you learn how to better manage your diabetes. They can teach you how to fit your diabetes management into your lifestyle.

If you are newly diagnosed with diabetes, changing to insulin or your diabetes is poorly controlled (A1C above 7), you should meet with a diabetes educator.

Call the Health Resource Line at (888) 222-2542 for a referral to a diabetes educator near you.

# Life is better under 7%! Now and in the future!

# RESOURCES

Utah Department of Health  
Diabetes Prevention and Control Program  
[www.health.utah.gov/diabetes](http://www.health.utah.gov/diabetes)  
Health Resource Line (888) 222-2542

Walking: Low Impact. High Benefit.  
[www.utahwalks.org](http://www.utahwalks.org)

American Diabetes Association  
1-800-DIABETES  
[www.diabetes.org](http://www.diabetes.org)

National Diabetes Education Program  
[www.ndep.nih.gov](http://www.ndep.nih.gov)

Contact customer service at your insurance plan

Produced by the Utah Diabetes Partnership through the Utah Diabetes Prevention and Control Program and Cooperative Agreement # 5U32 DP822702-04, Centers for Disease Control and Prevention

Participating members of the Utah Diabetes Partnership

a pamphlet for persons with diabetes

# Your A1C Number

*planning for tomorrow: it's not too late*

# WISH YOU COULD REVERSE TIME?