

Meeting 1



Glucose Balance Makes a Difference

Welcome!



The meeting today is called “Glucose Balance Makes a Difference.”

We will talk about:

- ✓ Why it is important to keep blood glucose (sugar) in balance,
- ✓ What blood glucose numbers mean,
- ✓ Target blood sugar goals to prevent diabetes complications,
- ✓ Knowing what makes glucose go up and down,
- ✓ The importance of self-testing blood sugar,
- ✓ What a hemoglobin A1c is and how it relates to blood sugar numbers.

We have a lot to cover today, but before we get started, let’s visit with some new friends, Uncle Tommy and Kaipo.

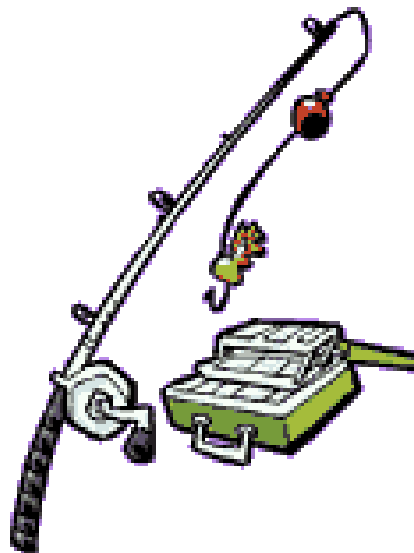
Uncle Tommy & Kaipo

Kaipo was a very active and curious boy who loved doing things with his uncle. He loved to fish, skateboard, and play with his friends. Kaipo had to sometimes wait until Uncle Tommy was feeling good though. Uncle has diabetes.



One day Kaipo decided he was going to ask Uncle Tommy about his diabetes. He had heard a little about diabetes from his mom and dad when they were talking at the kitchen table, but he didn't think he could ask them questions about Uncle and his diabetes.

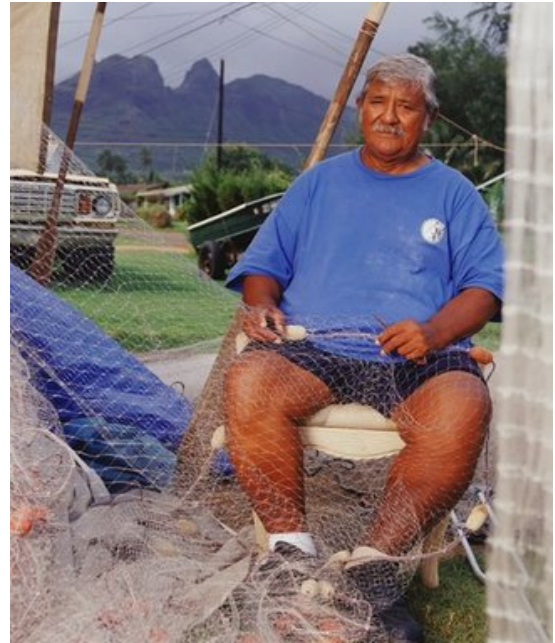
Kaipo decided to talk to Uncle on Saturday when they were fishing in the boat together. So early Saturday morning, Kaipo got his tackle box and fishing pole and went to Uncle's house down the street.



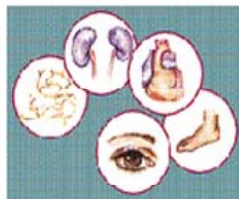
“Hi, Uncle. Are you ready to do some fishing?” Kaipo asked.

“I sure am. Just let me check my blood sugar and take my medicine. Then I will tell Auntie that we’re going to the boat.”

The day was just right and the fishing was good. Kaipo and Uncle were catching a lot of fish for dinner. They took a break for lunch and Kaipo decided this was a good time to ask Uncle about diabetes.



“Uncle, can I ask you something?” said Kaipo. As he sat and ate his lunch, Uncle Tommy looked at him and wondered what Kaipo was going to ask because he was always asking about something. “Sure Kaipo, what is it?” said Uncle Tommy. “You have diabetes, right?” asked Kaipo. Uncle Tommy said yes. “What is diabetes?” asked Kaipo.



“Well, let me see. There is so much to say about diabetes,” replied Uncle Tommy. “It has been something that I had to learn about. I know that I need to do certain things everyday so I can keep on doing all the things I like to do with you that I enjoy so much.”

“Everyday I check the sugar in my blood as part of taking care of myself. It helps me know what my body is doing. I can tell from my blood sugar numbers if I need to change what I’m eating, get more exercise, or change my medicines. It’s also very important that my family know about my diabetes so that whenever I need them to help, they will know what to do for me.”



“You know, Kaipo, it is good that you are asking me about diabetes. I want you to keep eating healthy foods and exercising so you will stay healthy.”

The day went by so fast and they needed to get home. Uncle Tommy told Kaipo that every time they get together, he would teach him a little bit more about diabetes. On this day, Kaipo learned what you are going to learn about today, so let’s get started!



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Glucose Balance Makes a Difference



Glucose Balance



Diabetes is a serious, lifelong medical condition that we have to take care of every day. Just like Uncle Tommy had to learn how to take care of his diabetes, it is also important for us to learn how to stay healthy with diabetes, and to help our families stay healthy.

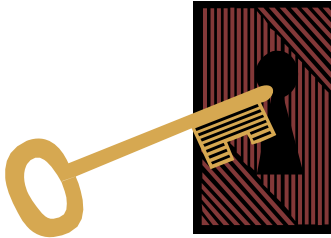
Diabetes is a disease of too much glucose (sugar) in the blood. Glucose balance means keeping your blood glucose within a healthy range to prevent diabetes complications, such as problems with eyes, feet, kidneys, nerves, and heart. Blood glucose refers to the amount of sugar, or glucose that is in your blood. Glucose and sugar mean the same thing.

The foods that we eat have a lot to do with our blood sugar. Our bodies turn all of the foods we eat into sugar (glucose). Our bodies need glucose as fuel to give us energy to think and live. Let's talk about what happens in our bodies every time we eat something.

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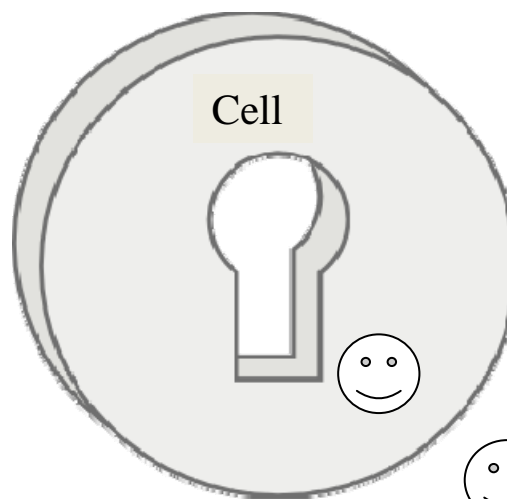
Glucose Balance Makes a Difference



Our bodies have a regulator called insulin. Insulin is a hormone produced by the pancreas which is located near the stomach. Every time we eat, our pancreas releases insulin into our bloodstream.

With type 2 diabetes, the pancreas still produces insulin, but the insulin is not able to get glucose into the cells of our body to make energy.

Picture a cell as a locked door and insulin is the key you need to open the door.



Insulin is
the key



Glucose waiting
to get into the
cell to make
energy



With type 2 diabetes, the key does not work like it used to when you didn't have diabetes, so the glucose (sugar) stays in your bloodstream. Sometimes our pancreas may not produce enough keys.

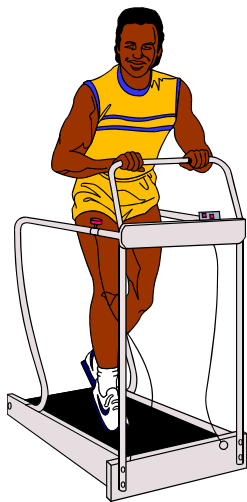
Too much sugar in the bloodstream can lead to some very serious problems, such as blindness, kidney failure, heart problems, or even amputation.



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Glucose Balance Makes a Difference

**Yes! It
is worth
the effort!**



The way to live healthy with diabetes is to work toward keeping blood glucose near normal levels. With diabetes you have to work to do what your body once did by itself.

It will be worth all your effort to get your glucose in balance because you will feel good and it may prevent or postpone serious problems.

In the short run you will:

- ✓ Feel better
- ✓ Stay healthier
- ✓ Have more energy
- ✓ Prevent the signs/symptoms of high blood glucose such as thirst, fatigue, frequent urination, blurred vision, and slow healing wounds or infections

In the long run (over years of time) you will:

- ✓ Lower your risk of eye and kidney disease, and nerve damage
- ✓ Lower your risk for heart attack, stroke, hardening of the arteries, or other heart and blood problems
- ✓ Enjoy a better quality of life

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Glucose Balance Makes a Difference

Good News!



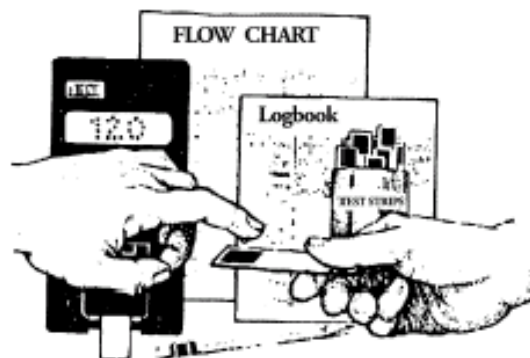
Getting glucose lower by ANY amount lowers a person's chance of developing diabetes problems.

Now you know why it is so important for you to do everything you can to get and keep your blood glucose in balance.

The first step to getting your diabetes in balance is to know your glucose numbers and what they mean. Do you know your glucose numbers?

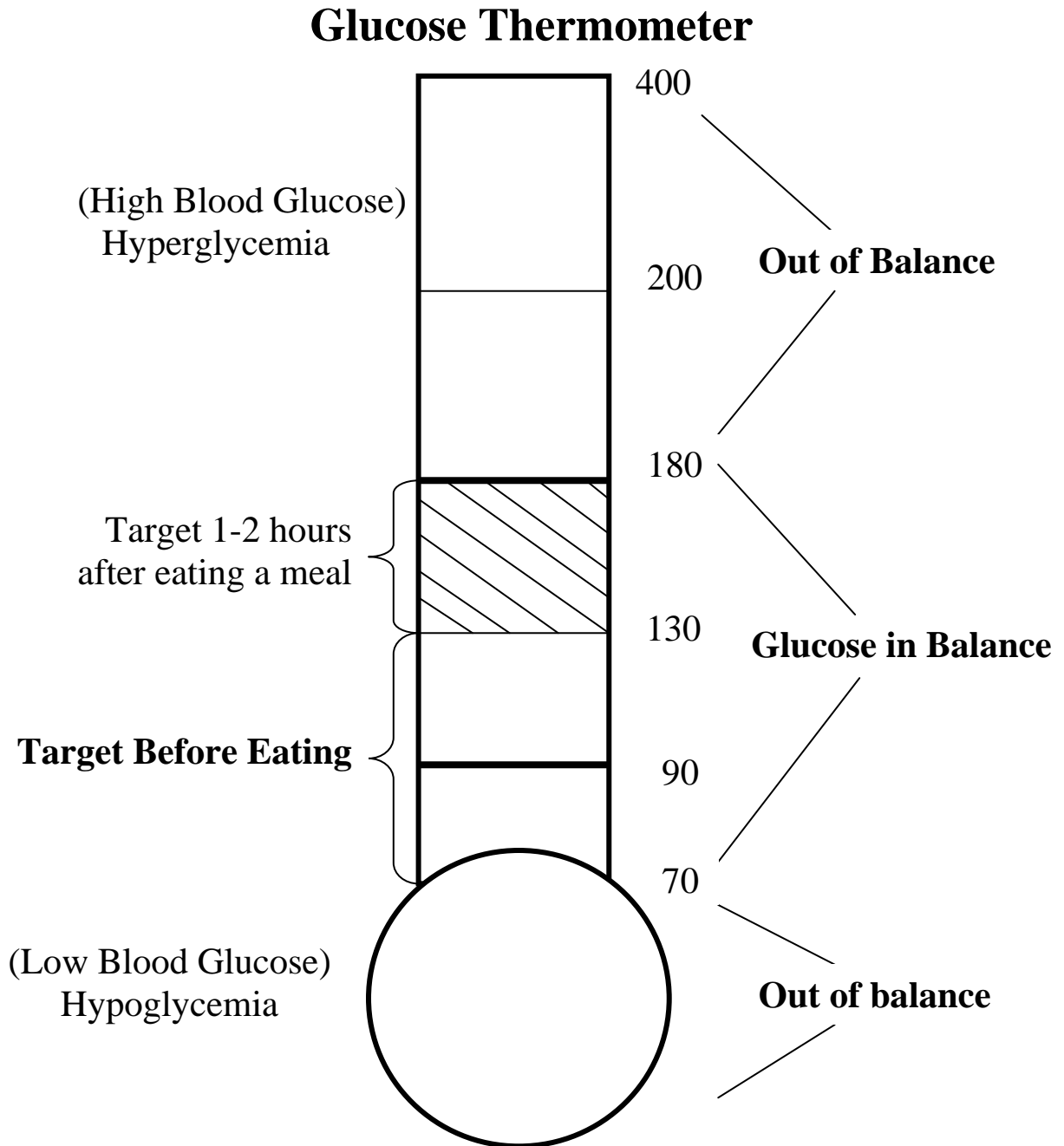
Know Your Glucose Numbers!

Knowing your glucose numbers and what makes your numbers go up and down will help you stay in balance.



Uncle Tommy knows how important it is to know his numbers, so let's talk about glucose numbers by using the Glucose Thermometer on the next page.

The Glucose Thermometer shows the ranges when blood glucose is in and out of balance.



Uncle Tommy does many things with Kaipō. One thing they like to do together is draw and color. Let's take a few minutes now to color in the thermometer.

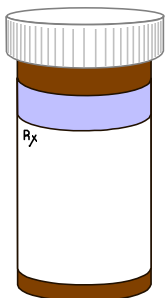
- ◆ Red – Out of Balance top section from 400-180.
- ◆ Green – Glucose in Balance from 180-70.
- ◆ Yellow – Out of Balance circle at bottom of thermometer.

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Glucose Balance Makes a Difference

What makes glucose numbers go up and down?



Here are some things that affect glucose numbers:

- Physical activity can cause blood sugar to go down.
- Diabetes pills and insulin cause blood sugar to go down. If you take too much, your blood sugar will go too low. If you forget to take your diabetes medicine or don't take enough, your blood sugar may be too high.

Other medicines, like cough syrup and cold pills can also affect blood sugar. Read the label before you buy anything. Avoid using medicines that have sugar or alcohol in them.
- Losing weight helps to lower blood sugar.
- Emotional stress can cause blood sugar to go out of control (either too low or too high)
- Illness or infection causes blood sugar to go up.
- Foods that contains a lot of sugar or starch causes blood sugar to go up.

When have you noticed your blood sugar go up or down?
What made your blood sugar go up or down?

To keep glucose in a normal range, we need to learn how to balance all of these things. Each person will find balance in different ways. In order to find your balance, you may need to monitor more when you make changes in your diet, exercise, or medicine.

Once you know what makes your glucose numbers go up and down, you can work on small reachable goals to get your glucose in the area of the thermometer that is marked, "Glucose in Balance."



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Glucose Balance Makes a Difference

Monitoring Your Blood Sugar



Hemoglobin A1c

There are two ways to monitor your blood sugar:

- 1) Self-testing, and
- 2) Hemoglobin A1c

When Uncle Tommy first found out he had diabetes, there was no such thing as self-testing glucose at home.

Now there are glucose meters! Wow! Science and medicine have come a long way in making life easier and better in many ways, hasn't it? You can now test your glucose anytime and anywhere.

Like Uncle Tommy, you can now find out what your glucose numbers are everyday by self-testing. You can also find out what makes your blood sugar go up and down right away.

Another test of blood glucose is called hemoglobin A1c. We will call this A1c from now on. This test is done by your doctor to find out how well you are staying in balance and if your diabetes treatment program is working, or if changes need to be made.

Let's talk about more about self-testing and A1c.

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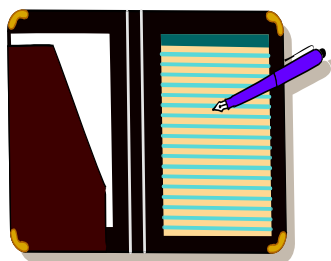
Glucose Balance Makes a Difference

Self-test



The first kind of test is the self-test that you do at home with a glucose meter. There are many different brands of glucose meters, such as the One Touch,TM Accu-Chek,TM, Glucometer,TM or Precision.TM

This test will show you the amount of glucose in your blood the very minute you test. It helps you to see how food, exercise, and diabetes medicines affect your glucose.



Keeping a logbook of your numbers will also give you an idea of how your body reacts to your diabetes care plan, and it can help you learn what you can do to keep your glucose in balance. For example, if you have a regular soda and a lunch high in starch, your glucose will go up.



What could you eat instead that would keep your blood sugar closer to normal?

An alternative could be a diet soda or water and a salad with grilled chicken or steak and low fat salad dressing.



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Glucose Balance Makes a Difference

Self-testing Goals

Target blood sugar goals for most people with diabetes when doing self-testing are:

Before meals	70 – 130
1 to 2 hours after eating	Below 180

Be sure to ask your provider and diabetes team for help with:

- how to use the meter,
- when to test, and
- how to understand how food, physical activity, and medicine affect your blood glucose.



When should I test?

Here are some suggested times to test your blood sugar:

- 1) Before breakfast or morning meal
- 2) Before supper
- 3) Before bedtime

The more you test, the more you will know about how food, exercise, and diabetes medicine affects your blood sugar. You will then be wiser in taking care of your glucose and staying in balance. We encourage you to do self-testing often!

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Glucose Balance Makes a Difference

Record Keeping



Do you self-test as often as you should? If not, make a goal of increasing the number of times you self-test.

Along with self-testing, it is important to keep track of the numbers that you get.

Once you get used to testing and recording the numbers, you will be able to see what affects your glucose numbers. You will also see how food, stress, illness, physical activity and medicines are all linked together in glucose balance.

In the pocket of this meeting there is a log you can use to keep track of your blood sugar numbers.

Take Your Logbook and Meter to Your Clinic Visit

Working with your health care provider and diabetes team will also help you stay in balance.

It is important that you take your logbook and meter to your clinic visit. It will not help you or your provider if you leave them at home. Make sure your provider knows you brought them with you and have him/her look at both the logbook and meter.

Make the most of your hard work and your clinic visits!



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Glucose Balance Makes a Difference

A1c is average glucose for the past 3 months



Now let's talk more about A1c.

A1c is a simple lab test done by a finger stick or blood draw in the doctor's office or lab. A small drop of blood shows the average amount of glucose that has been in a person's blood over the last three months. Let's talk about what "average" means.

Think of an A1c number like the average rainfall that we may get in a year. Some years, we get 15 inches of rain, other years, only 5 inches of rain. But on average, we know that we can expect to receive about 10 inches of rain because it has been around that amount every year for many years.

In the same way we think of rainfall, we can think of A1c. It is the average of all the blood sugars for the past three months.

If you added all of the blood sugar readings during the past 3 months, and then divided by the number of readings you had, you could calculate your A1c number.

But now a blood test can do all of the calculations for us!



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Glucose Balance Makes a Difference

Get Your A1c lower than 7



A1c numbers can range from about 4 to 15, or even higher.

The American Diabetes Association recommends an A1c of 7 or lower.

Research shows that an A1c lower than 7 can help prevent serious complications. Staying in the target blood sugar range (self test of 90-130 fasting, lower than 180 after meals, and A1c lower than 7) most of the time can result in better health.

Just think! **Lowering blood sugar by ANY amount can lower a person's chance of developing diabetes complications.**

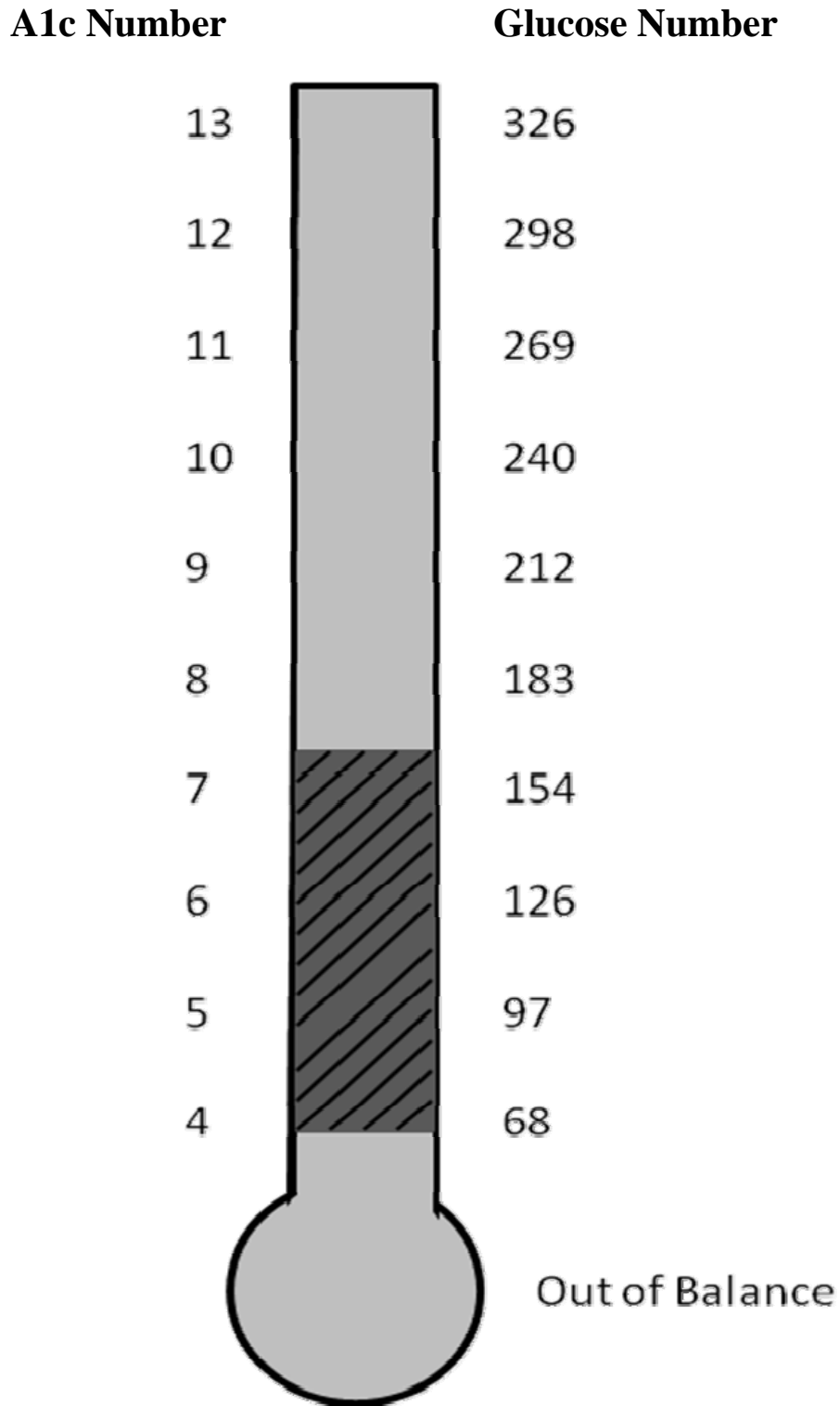


DO YOU KNOW YOUR A1C NUMBER?

If you do not know your A1c number, **ASK** your health care provider what the number is and write it down.

If your A1C number is 7 or higher, talk to your provider and work on a target goal that is reachable for you and a plan on how to get there.

Here is another thermometer that shows A1C numbers and how they relate to self-testing numbers. Remember, A1c is an average of your blood sugar numbers during the past 3 months. Glucose balance means an A1c lower than 7 to prevent complications.



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Glucose Balance Makes a Difference

Make a Commitment to Your Health!

If your A1C is higher than 7, make a commitment to work on getting your glucose numbers down.

Working with your provider and diabetes team to develop a self-care plan can also help make a difference in glucose balance.

Just like making a healthy change into a habit, which takes time and commitment, so does getting your glucose in balance.

Don't Give Up!



Do not expect this to happen overnight. Remember that Uncle Tommy had to learn to take care of his diabetes. He knows that it takes a lot of work everyday, but he thinks of the rewards that he gets from keeping his glucose in balance.

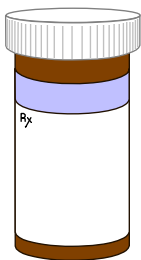
By exercising, eating healthful foods, and taking his diabetes medicine, Uncle Tommy feels better and can spend more time with Kaipo and the rest of his family.

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Glucose Balance Makes a Difference

Let's Review

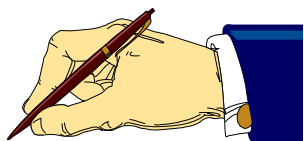


To get and keep your glucose in balance, it will help to:

- ✓ Know your glucose numbers,
- ✓ Know what makes them go up and down,
- ✓ Self-test often with goals of **70 - 130 fasting** and below 180 after meals,
- ✓ Set goals to get **A1c lower than 7**,
- ✓ Work with your health care provider and diabetes team, and
- ✓ Don't give up! The goal is progress, not perfection!

Set a Goal!

Take a few minutes now to write down one goal that you plan to work on this week to get your glucose number lower. Remember everything that you may have learned so far when deciding on your goal.



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Glucose Balance Makes a Difference

We appreciate that you have taken the time to be with us. Before you leave, please take a few minutes to give us your thoughts about today's meeting.

1. As you were going through today's meeting, what information did you find especially helpful to you?

2. What goal did you set for yourself?

3. Are there any other comments about today's meeting that you would like to share with us?

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Glucose Balance Makes a Difference

Extra Information for you

In closing today's meeting, remember that there is still much that we need to do to find balance with diabetes. By being in this program and working with your diabetes care team, you are gaining the wisdom and strength you need on your journey through each and every day.

After this page you will find a list of questions you could ask your healthcare provider about your glucose balance. There is also a dictionary of terms, and additional information in the pocket of this meeting for you to use if you need it.

Please bring your notebooks and your diabetes medicines to the next meeting.

Thank You!

Thank you for coming and I look forward to seeing you next time when we will talk about diabetes medicines.



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Questions, Dictionary, and Brochures

Glucose Balance Makes a Difference

By working with your provider and diabetes team you can reach your target goal for glucose balance.



Here are some questions that you can ask at your next doctors' visit:

What is my blood glucose number at today's visit? _____

What was my last A1c? _____

What changes can I work on for better blood glucose balance?

Can we set a small goal that I can work on for my next visit?

How often should I test my blood glucose?

What should I do with these results?

What can I expect from the changes in my diabetes treatment?

How long will it take to get my blood glucose in balance?

By asking questions and talking with your provider and diabetes team, you have become an active partner in your care!

Dictionary

Meeting 1: Glucose Balance Makes a Difference!

Term	Meaning of the Term
A1c (Hemoglobin A1c)	A blood test that measures the average blood glucose for the last 3 months.
Blood glucose	Also called blood sugar. Food is turned into glucose, or a simple sugar, and released from the stomach into the blood- stream. It is the body's main source of energy.
Blood glucose meter	A machine that helps test how much glucose (sugar) is in the blood.
Diabetes	Diabetes happens when the body cannot use the glucose (sugar) in the blood for energy. Either the pancreas is not able to make enough insulin or the insulin in the body is not working the way it should be.
Fasting blood glucose	A blood glucose test done after 12- hours of not eating or drinking.
Hyperglycemia	High blood glucose.
Hypoglycemia	Low blood glucose.
Insulin	The hormone that is produced in the pancreas that helps the body use glucose for energy.
Pancreas	A gland behind the lower part of the stomach that makes insulin so that the body can use glucose for energy.

Provider	A health care professional such as a physician or physician's assistant that is a partner in your health care.
Stress	Mental or physical tension.