



A Diabetes Self-Management Program

**Community Health Access Program
(CHAP)**

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Learning Objective	Behavior	Learning Method and Materials
1. Discuss the need for and the benefits of Self-Management.	1.	1. Written material " <i>Why should I take control of my diabetes?</i> " and class discussion.
2. Name five of the seven risk factors for diabetes.	2.	2. Written material " <i>Facts about Diabetes</i> " and class discussion.
3. Name seven to nine symptoms of diabetes.	3.	3. Written material " <i>Facts about Diabetes</i> " and class discussion.
4. Identify the differences between type 1 and type 2 Diabetes.	4.	4. Written material " <i>What is Diabetes?</i> " and " <i>What is the difference between type 1 and type 2 Diabetes?</i> " and class discussion.
5. Discuss what Pre-diabetes is and describe how you will promote pre-diabetes and diabetes awareness with your family and friends.	5. Talk with family and friend about pre-diabetes and diabetes.	5. Written material " <i>Pre-Diabetes</i> " and " <i>What is Diabetes?</i> " and class discussion.
6. Briefly identify the three organ systems responsible for high blood sugar in diabetes.	6.	6. Written material " <i>Problems that cause Diabetes</i> " and class discussion.
7. Explain the difference between fasting and random blood glucose/sugar tests and the normal values.	7.	7. Written material " <i>How do You Know if You Have Diabetes?</i> " and class discussion.
8. Define what HbA1c measures and how often it should be done.	8.	8. Written material " <i>Hemoglobin A1c</i> " and class discussion.

9. Explain why an HbA1c of 6.5 to 7 is a healthy goal.	9.	9. Written material and class discussion "Hemoglobin A1c" .
10. Name at least three risks of an HbA1c over 7.	10.	10. Written material "Hemoglobin A1c" and class discussion.
11. Name your current HbA1c and describe it as safe or dangerous.	11. Keep a record of the dates the HbA1c's were done and the results. Identify both their HbA1c on the HbA1c thermometer and the goal HbA1c.	11. Written form "Diabetic Record" to record the information and review it during class.
12. Explain the value of keeping a Diabetic Record.	12. Begin to maintain the "Diabetic Record" at each provider visit and use it to schedule appointments when studies are due.	12. Written form "Diabetic Record", "You and Your Provider" , and "Questions to ask the provider" .
13. Complete "The Taking Control of Diabetes Assessment" worksheet.	13. Complete the "Taking Control of Diabetes Assessment". Review the "Taking Control of Diabetes Assessment" with your provider.	13. Written form "Taking Control of Diabetes Assessment."

Welcome to Diabetes Education!

Why Should I Take Control of My Diabetes?

NEEDS and BENEFITS of SELF-MANAGEMENT

- + You make choices about your life and health
- + Controlling diabetes needs **every day** decisions
- + Your providers are here to help you make good decisions
- + People who manage their diabetes live longer with less complications

Put a check next to
the top 3 reasons
that are important
to you



Check It Out

Reasons to control blood sugar:

- To feel better
- To have more energy
- To do the things I enjoy doing
- To prevent complications
- To be able to work
- To see my children grow up
- To see my grandchildren
- I want to be independent
- I want to keep my driver's license
- Other

* Goals *

You are going to learn to set goals to help you control your blood sugar.

Facts About Diabetes

- ✚ Over 17 Million Americans have Diabetes. Half of them do not know it.
- ✚ Two-thirds of people with Diabetes die of some kind of heart disease or blood vessel disease
- ✚ There is no cure for Diabetes, but you can control it!

Risk Factors

- A family history of Diabetes (mother, father, brother or sister)
- Diabetes during pregnancy or a baby who weighed 9 pounds or more
- Being overweight
- Lack of exercise
- Having High Blood Pressure
- Having a High Blood Cholesterol
- If you are African American, Hispanic/Latino, Asian American, Pacific Islander or Native American

Signs and Symptoms

- Hungry or thirsty a lot of the time
- Going to the bathroom a lot - often at night
- Blurry vision at times
- Feel tired or weak a lot of the time
- Weight loss
- Very dry skin
- Cuts or sores that are slow to heal
- Problems with having sex
- Loss of feeling or get a tingling feeling in your feet and hands



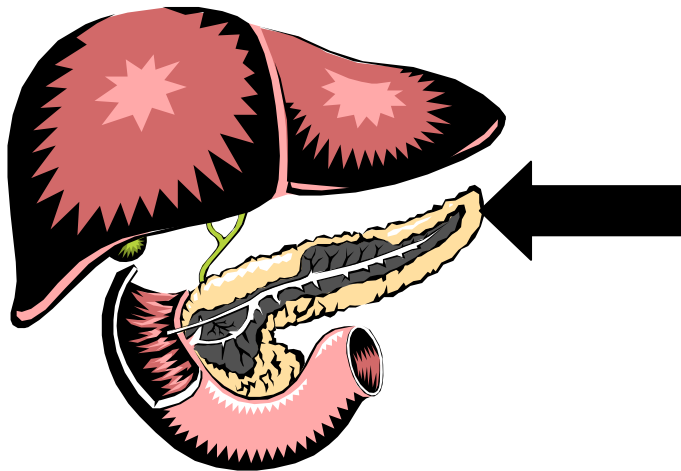
Do you have family or friends who have risk factors and/or symptoms? You can tell them how important it is to get checked for Diabetes?

What is Diabetes?

When you have Diabetes your body does not use insulin very well or does not make enough insulin.

Because of this, you have high blood sugar.

Where does insulin come from?



The Pancreas makes **Insulin**.

The Pancreas is located behind the stomach.

Why do you need insulin?

The food we eat is turned into **glucose** (sugar). Our bodies use the glucose for energy. The insulin helps the glucose get into our cells. When you have diabetes, your body may not make enough insulin or the cells cannot use the insulin the body makes. When the insulin does not let glucose into the cell, the glucose builds up in your blood. When this happens you have **high blood sugar**.

This high level of sugar in your blood can damage your eyes, kidneys, nerves, and blood vessels over time.

What is the difference between type 1 and type 2 diabetes?

type 1 Diabetes

This kind of Diabetes was also known as Insulin Dependent Diabetes Mellitus (IDDM) or Juvenile Onset Diabetes. These are now called type 1.

Type 1 Diabetes usually begins when you are young but can happen at any time. It does not usually run in families. It usually occurs in thin to normal weight people.

In children there is a quick onset with frequent urination, thirst, extreme hunger; very tired, rapid weight loss and the blood sugar levels are very high.

If you have type 1 Diabetes your pancreas makes little or no insulin. You will need to take insulin shots every day to remain healthy.

type 2 Diabetes

This kind of Diabetes was also known as Non-insulin Dependent Diabetes (NIDDM) or Adult Onset Diabetes. This is the most common kind of diabetes. About 90 % of people with diabetes have type 2 diabetes.

You may not have enough insulin or your body does not use the insulin that is made. Usually with type 2 diabetes your body still makes insulin.

Type 2 diabetes usually starts slowly and the person may not even know they have a problem. It most often occurs in people over 30 years of age but can start at any age. There are an increased number of teenagers with type 2 diabetes today.

Problems that cause high blood sugar (Diabetes)

There are three things that can happen with diabetes type 2 to cause high blood sugar

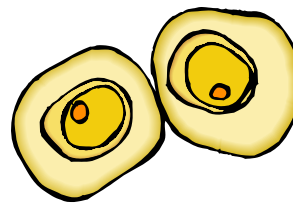


The liver puts out too much sugar.

The liver stores glucose (sugar). When the body has low blood sugar the liver sends glucose to raise the blood sugar. In diabetes it is like a leaky faucet and does not know when to stop sending out glucose.



The Pancreas may not make enough insulin or may not make any insulin at all.



Cells

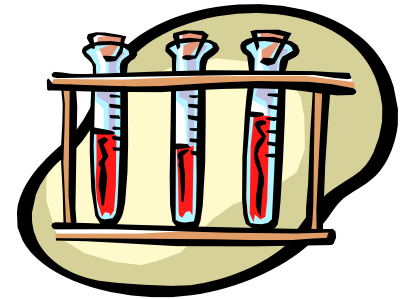
Sugar cannot get into the cells to be used as energy so it stays in the blood, and you have high blood sugar.

Insulin is the key that unlocks the cell so the glucose can get in. When the lock is broken the Insulin (the key) cannot help the glucose (sugar) get in the cell.



How do you know if you have diabetes?

Tests are done at the clinic when a person has signs and symptoms of diabetes or risk factors for diabetes. As part of your routine clinic visit, you will have a fasting or random blood sugar test done.



1. Random or Casual Blood Glucose Test - A finger stick or a tube of blood is taken even if you have had something to eat. This is used when you have symptoms of diabetes. If the result is more than 200 mg/dl you have diabetes.

2. Fasting Blood Glucose Test - No food for 8 hours. The lab will take a finger stick or a tube of blood. Usually this test confirms diabetes.

Normal = below 110 milligrams per deciliter (mg/dl)

Pre-Diabetes= 111 to 125 mg/dl

Diabetes= more than 126 mg/dl

3. Glucose Tolerance Test: You fast over night, nothing to eat or drink and go to the lab in the morning. At the lab you will have blood taken and then drink a sweet drink. 2 hours later you will have blood taken again.

Normal is below 140 mg/dl

Pre-diabetes is 141-199 mg/dl

Diabetes is above 200 mg/dl.

Pre-Diabetes

How is Pre-diabetes different from diabetes?

Pre-diabetes is a way to explain higher than normal blood sugar levels. When a person's blood sugar levels are higher than normal but not high enough to be diabetes it is pre-diabetes.

Other terms for pre-diabetes:

- ✚ Impaired glucose tolerance
- ✚ Borderline diabetes
- ✚ Insulin resistance
- ✚ Impaired fasting glucose

Why is it important to know if you have pre-diabetes?

- ✚ You may already be experiencing effects of diabetes
- ✚ If you have pre-diabetes you have a higher risk for cardiovascular (heart and blood vessel) disease.
- ✚ If you have pre-diabetes, you can and should do something about it. Studies show that you can prevent or delay type 2 diabetes by up to 58% by changing your life style.
 - Reduce weight by 5 to 10 %. Even if you do not get to an ideal body weight, a loss of 10 to 15 pounds can make a big difference.
 - Change your meal plan (smaller portions and fewer carbohydrates).
 - Moderate exercise (walking 30 minutes a day, 5 times a week).

If someone you know has pre-diabetes you may want to share this information.

Hemoglobin A1c

HbA1c more than 9 your average blood sugar is 210 mg/dl or more

HbA1c of 7.5 to 9 your average blood sugar is 180 to 210 mg/dl

HbA1c of 6 to 7 your average blood sugar is 120 to 150 mg/dl

% Hemoglobin A1c

14		360
13.5		
13	Seriously	330
12.5	elevated	
12	levels	300
11.5		
11		270
10.5		
10	Elevated	240
9.5	levels	
9		210
8.5	Slightly	
8	elevated	180
7.5	Good	
7	Goal!	150
6.5		
6		120
5.5	Non-	
5	Diabetic	90
4.5	levels	

Average Blood Glucose (mg/dl)

Hemoglobin A1c Test - A hemoglobin A1c (HbA1c) test is a number that tells how your blood sugar numbers were over the last three months. If your blood sugars have been high the HbA1c will also be high. This test should be done every 3 to 6 months. **This test tells if your diabetes is in control.**

You and your provider

You are in control of your diabetes



You and your provider (doctor, nurse practitioner, or physician assistant) are a team!

When you have Diabetes it is important to see your provider regularly

At least every 3 months, you and your provider should:

- Review your blood sugar numbers
- Look at your feet
- Check your blood sugar
- Check HbA1c

Once every year:

- Do blood work for Liver, if needed
- Do blood work for fats in your blood
- Referral to a Podiatrist (foot doctor) if needed
- Referral to an Eye Doctor
- Referral to a Dentist
- Flu shot
- Test your Urine

Schedule a visit with your Provider:

- Bring "My Diabetic Record" to visit.
- Bring all your medicine bottles.
- Bring a list of your questions.
- Bring the numbers from blood sugar checks in your logbook.
- Bring your "My Goals" record.
- Tell the provider if you have been following a diet.
- Tell the provider how much exercise you get.
- Tell your provider if you are having any of the following:
 - ✓ Problems with your eyes
 - ✓ Headaches or dizziness
 - ✓ Increased hunger, thirst or urination
 - ✓ Numbness or tingling in your hands or feet
 - ✓ Chest pain or trouble breathing. Call your provider, this may be an emergency!
 - ✓ Nausea, vomiting or diarrhea
 - ✓ Pain in legs with exercise



Other Healthy things to do:

- Get a tetanus shot every 10 years
- Get a Pneumovax
- Get a TB skin test



Questions To Ask The Provider



- What type of Diabetes do I have? _____
What is Diabetes?
- What medicine do I take? _____
Medicine

- When do I take my medicine? _____
Medicine
- Can I eat and take my medicine the day of my appointment? _____
What is Diabetes?
- How often should I check my blood sugar? _____
High blood sugar, low blood sugar
- What should my Hemoglobin A1c be? _____
What is Diabetes?
- What should my blood sugar be? _____
High blood sugar, low blood sugar
Fasting: _____

Before Bedtime: _____

After eating: _____
- What should I do if my blood sugar is low? _____
High blood sugar, low blood sugar
- What should I do if my blood sugar is high? _____
High blood sugar, low blood sugar
- What do I do if I get sick: _____
Sick Days
- What medicines should I not take when I am sick? _____
Sick Days

- Do I need to lose or gain weight? _____
What is Diabetes?
- What Diet should I follow? _____
Nutrition
- What kind of exercise should I do and how often? _____
Exercise
- When do you want to see me again: _____
What is Diabetes?

Write other questions you have on the back of this paper.

Ready for Change






Learning Objective	Behavior	Learning Method and Materials
1. Describe the unaware stage.	1. Recognize what areas of diabetes care may be at the unaware stage.	1. Written material, "Ready for change" and class discussion
2. Discuss the strategies to move to the aware stage.	2. Discuss and/or determine what your plan is to move to the aware stage. Review the "My Diabetic Day", "BMI Chart" and complete the "Food Mood Diary"	2. Written material, "Ready for change", "My diabetic day", "BMI Chart", "Food Mood Diary" and class discussion
3. Describe the aware stage.	3. Recognize what areas of diabetes care may be at the aware stage.	3. Written material, "Ready for change" and class discussion
4. Discuss the strategies to move to the making a plan stage.	4. Discuss and/or determine what your plan is to move to the making a plan stage.	4. Written material, "Ready for change" and class discussion
5. Describe the making a plan stage	5. Recognize what areas of diabetes care may be at the making a plan stage.	5. Written material, "Ready for change" and class discussion
6. Discuss the strategies to move to the acting on plan stage.	6. Discuss and/or determine what your plan is to move to the acting on the plan stage.	6. Written material, "Ready for change" and class discussion
7. Describe the acting on plan stage	7. Recognize what areas of diabetes care may be at the acting on plan stage.	7. Written material, "Ready for change" and class discussion
8. Discuss the strategies to move to the part of life style stage.	8. Discuss and/or determine what your plan is to move to the part of life style stage.	8. Written material, "Ready for change" and class discussion

9. Discuss the strategies for the part of life style stage.	9. Have a plan for when you get off course and use it.	9. Written material, "Ready for change" and class discussion
10. Determine individual stages	10.	10. Written material, Ready for change worksheet"

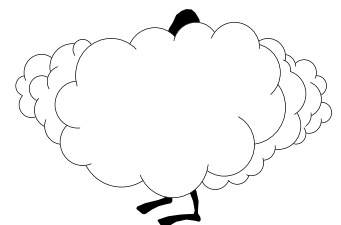
Ready for Change

Ready for Change

Changing the way you do things can be very hard. If you understand the stages that a person goes through in making a change, it may help you. Think about what it is that you need to do to better control your diabetes. Name a behavior that goes with preventing problems from diabetes. Walk through the stages. See what stage you are presently in and work on ideas to help you to move to the next stage.

 Unaware! 1	 Aware! 2	 Making a Plan! 3	Acting on Plan! 4 	Part of Lifestyle! 5 Congratulations! My goal is now part of my lifestyle I am living healthier!
	Are there changes I could make?	There are changes I could make!	I am making plans for change!	I am working on my plan and making changes as needed to meet my goal! 

Stage 1: Unaware



Are there changes I could make?

- You may not even be aware that there is a problem.
- You know there is a problem, but you may have no idea of changing in the near future - within the next 6 months.
- You may even deny the need for change.

You might say, "I have always been overweight. Everyone in our family is heavy."

What can you do? Move to the next stage!

Become more **aware** of the need for change.

- Get to know yourself
- Get more information on how changing can help you.
- Get more information on problems that may occur if you do not change.

Stage 2: Aware!

There are changes I could make

- You may be thinking about making a change in the near future.
- You know there is a problem but you are not ready to change.
- You are thinking about making a change in the next six months.



You might say, "I've heard that being overweight can lead to diabetes. But I don't think I can handle going on a diet".

What can you do? - Move to the next stage!

- Decide why you want to change.
- What is your end goal? What do you want to accomplish?
- Get more information on what you want to change.

My diabetic day

Just how different would your day be if you followed a healthy day for a diabetic? Check the boxes of the things you do daily. Write in things we may have left out.

My Current Day	My Healthy Day
On the run - no time to eat or take medicine	Check blood sugar Write in log book
	Take medicine before I eat
Took medicine but usually do not eat breakfast	Breakfast- Eat 3 to 4 servings of carbohydrate
Do not sit down and make a food plan	Take a few minutes to make my weekly food plan and make shopping list
No time to fit exercise in my day	Exercise by walking for 30 minutes - Check my feet
Feel hungry -eat a donut	Mid morning Eat 1 carbohydrate snack-fruit
May or may not eat lunch	Lunch Eat 3-4 servings of carbohydrate
Starving -Maybe eat fast food	Mid-afternoon Eat 1 carbohydrate snack- crackers
	Shop for groceries with list
Shop for groceries	Take medicine before dinner
Eat out or eat whatever is easy to fix	Dinner - eat 3-4 servings of carbohydrate
	Check blood sugar and write in log
Go to ER with Sugar crisis!	Sleep 6-8 hours

Find your Body Mass Index number to see if you need to loose or gain weight,
CHAP Take Action - Ready for Change

Body Mass Index, or BMI

is the measurement of choice to determine obesity. The BMI takes into consideration both your height and your weight.

The table on the next page has already figured it out for you.

Find your height in inches in the left-hand column.

Example: if you are 5 feet 4 inches tall

$$\begin{aligned} 5 \text{ feet} &= 60 \text{ inches} \\ 4 \text{ inches} & \\ &= \mathbf{64} \text{ inches} \end{aligned}$$



Move across the row closest to your weight.

Example: if you weigh 175 pounds choose the row with **174**

A person age 35 or older with a BMI of 27 or more is obese.

Look at the top of the row for your BMI
Example: if you are 64 inches tall and weigh 175 pounds your **BMI is 30**

For a person under age 34 a BMI of more than 25 is considered obese.



BMI CHART

Danger Zone

Height	Weight								<u>Danger Zone</u>					
	19	20	21	22	23	24	25	26	27	28	29	30	35	40
58	91	96	100	105	110	115	119	124	129	134	138	143	167	191
59	94	99	104	109	114	119	124	128	133	138	143	148	173	198
60	97	102	107	112	118	123	128	133	138	143	148	153	179	204
61	100	106	111	116	122	127	132	137	143	148	153	158	185	211
62	104	109	115	120	126	131	136	142	147	153	158	164	191	213
63	107	113	118	124	130	135	141	146	152	158	163	169	197	225
64	110	116	122	128	134	140	145	151	157	163	169	174	204	232
65	114	120	126	132	138	144	150	156	162	168	171	180	210	240
66	118	124	130	136	142	148	155	161	167	173	179	186	215	247
67	121	127	131	140	146	153	159	166	172	178	185	191	223	255
68	125	131	138	144	151	158	164	171	177	184	190	197	230	262
69	128	135	142	149	155	162	169	176	182	189	196	203	236	270
70	132	139	146	153	160	167	174	181	188	196	202	207	243	278
71	136	143	150	157	165	172	179	186	193	200	208	215	250	286
72	140	147	154	162	169	177	184	191	199	206	213	221	258	294
73	144	151	159	166	174	182	189	197	204	212	219	227	265	302
74	148	155	163	171	179	186	194	202	210	218	225	233	272	311
75	152	160	168	176	184	192	200	208	216	224	232	240	279	319
76	156	164	172	180	189	197	205	213	221	230	238	246	287	328

Stage 3: Making a plan!

I am making plans for change



- You are making a plan to change. You know what you want to do.
- Get help from your health care provider if necessary.
- You get the information, start planning,
- You may tell your family and friends.
You may need to ask your friends and family for help.
- You are serious about making a change in the near future.



You might say, "I am going to lose some weight. I learned that I might be able to take less insulin."



Planning for success means having a successful plan!

What can you do? - Move to the next stage!

- Decide on small goals that you know you can do. Small steps can lead to larger ones.
- Write specific **action plans**. What are the steps that you are going to do to reach your goal? Write them out with a date for when you are going to start.

Example:

Goal: lose weight

Plan: measure my portion sizes for one week

Mark my calendar to walk for 10 minutes every other evening

I will eat sugar free jello in place of ice cream this week

I will drink water in the place of soda in the morning for one week

Stage 4: Acting on my plan!

**I am working on my plan and making changes
as needed to meet my goal!**

Work with your plan every day!



- Make changes as needed to reach your goal.
- You may have a hard time getting started and keeping the change. Slipping back into old habits is normal. Don't give up, change is worth it!



**Don't worry about what happened yesterday.
Today is a new day.
Start working on your plan.**

You might say, "I'm walking three times a week for half an hour. I made this change, I can make changes"

- This stage may last six months to longer!

What you can do -

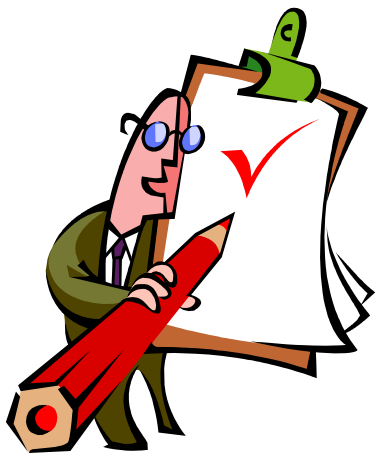
- Talk to your health care provider about how you are doing.
- Get ideas on how you can overcome problems.
- If needed, join a support group. Get help from your family and friends.
- Celebrate your successes. Buy that item you have always wanted, take a vacation, take your family to their favorite park, etc.

Do not use food for a reward

Stage 5: Part of my lifestyle

My goal is now part of my lifestyle I am living healthier!

- Continue working on your goals.
- You may have setbacks but get back on track as soon as possible.
- Remember the changes are worth it!
- Continue to make changes to your plan as needed.



**Celebrate your success!
Make changes as needed!**

What you can do -

- Remind yourself of your success and how much better you feel!
- You may be faced with problems or things that make it hard for you to stay on course. Look for help from family and friends.

Ready for Change Worksheet

Name _____ Date _____ Medical Record # _____

Fill in the next to the answer that best tells about you

Healthy Eating

1. Plan healthy meals

- | | | | |
|--|--|--|--|
| <input type="checkbox"/> I am not sure how to plan healthy meals | <input type="checkbox"/> I need to do better | <input type="checkbox"/> Most of the time I plan healthy meals | <input type="checkbox"/> I always plan healthy meals |
|--|--|--|--|

2. Grocery shop with a list

- | | | | |
|--|--|--|--|
| <input type="checkbox"/> I do not shop with a list | <input type="checkbox"/> I need to do better | <input type="checkbox"/> Most of the time I shop with a list | <input type="checkbox"/> I always shop with a list |
|--|--|--|--|

3. Cook with less fat, salt and sugar

- | | | | |
|--|--|--|--|
| <input type="checkbox"/> I do not cook with less fat, salt and sugar | <input type="checkbox"/> I need to do better | <input type="checkbox"/> Most of the time I cook with less fat, salt and sugar | <input type="checkbox"/> I always cook with less fat, salt and sugar |
|--|--|--|--|

4. Eat healthy meals

- | | | | |
|---|--|---|---|
| <input type="checkbox"/> I do not eat healthy meals | <input type="checkbox"/> I need to do better | <input type="checkbox"/> Most of the time I eat healthy meals (5-6 days a week) | <input type="checkbox"/> I always eat healthy meals (6-7 days a week) |
|---|--|---|---|

Being Active

5. Exercise 5 or more days each week

- | | | | |
|--|--|--|--|
| <input type="checkbox"/> I do not exercise | <input type="checkbox"/> I need to do better | <input type="checkbox"/> I exercise 2 or 3 times a week for 30 minutes | <input type="checkbox"/> I exercise 5 to 7 times a week for 30 minutes |
|--|--|--|--|

Monitoring

6. Check blood sugar as provider ordered

- | | | | |
|--|--|--|--|
| <input type="checkbox"/> I do not check my blood sugar | <input type="checkbox"/> I need to do better | <input type="checkbox"/> I check my blood sugar some times | <input type="checkbox"/> I check my blood sugar as ordered |
|--|--|--|--|

Taking Medication

7. Take medicine as ordered

- | | | | |
|---|--|---|---|
| <input type="checkbox"/> I am not sure when to take my medicine | <input type="checkbox"/> I need to do better | <input type="checkbox"/> Most of the time I take my medicine as ordered | <input type="checkbox"/> I always take my medicine as ordered |
|---|--|---|---|

Problem Solving

8. Know about low blood sugar

- | | | | |
|---|--|--|--|
| <input type="checkbox"/> I do not know when my blood sugar is low | <input type="checkbox"/> I do not know what to do when my blood sugar is low | <input type="checkbox"/> I know when my blood sugar is low but do not keep a quick sugar with me | <input type="checkbox"/> I know when my blood sugar is low and always keep a quick sugar with me |
|---|--|--|--|

9. Go to diabetes education classes

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> I have not been to classes | <input type="checkbox"/> I should go to classes | <input type="checkbox"/> I have been to some classes | <input type="checkbox"/> I am going to class |
|---|---|--|--|

10. Know about high blood sugar

- | | | | |
|--|--|--|---|
| <input type="checkbox"/> I do not know when my blood sugar is high | <input type="checkbox"/> I do not know what to do for high blood sugar | <input type="checkbox"/> I know when my blood sugar is high but do not know what to do | <input type="checkbox"/> I know when my blood sugar is high and know what to do |
|--|--|--|---|

11. Have a Hemoglobin A1c (HbA1c) of 7 or less

- | | | | |
|---|---|---|--|
| <input type="checkbox"/> I do not know what Hb A1c is | <input type="checkbox"/> My HbA1c is 10 or more
<input type="checkbox"/> I should work on it | <input type="checkbox"/> My HbA1c is between 7 and 9
<input type="checkbox"/> I want to get it lower | <input type="checkbox"/> My HbA1c is 7 or less |
|---|---|---|--|

Healthy Coping

12. Deal with stresses

- | | | | |
|--|--|--|--|
| <input type="checkbox"/> I do not know how to deal with stress | <input type="checkbox"/> I need to learn how to deal with stress | <input type="checkbox"/> I am working on dealing with stress | <input type="checkbox"/> Dealing with stress is not a problem for me |
|--|--|--|--|

Reducing Risks

13. Weight

- | | | | |
|---|--|---|---|
| <input type="checkbox"/> I know I need to lose weight but I can't | <input type="checkbox"/> I am trying but it is not working | <input type="checkbox"/> I am losing weight | <input type="checkbox"/> I do not need to lose weight |
|---|--|---|---|

14. Smoking

- | | | | |
|---|---|---|---|
| <input type="checkbox"/> I can't or do not want to stop smoking | <input type="checkbox"/> I know I should stop smoking | <input type="checkbox"/> I am working to stop smoking | <input type="checkbox"/> I do not smoke |
|---|---|---|---|

15. Diabetes ID

- | | | | |
|--|---|---|---|
| <input type="checkbox"/> I do not have or want diabetes ID | <input type="checkbox"/> I need to get ID for my diabetes | <input type="checkbox"/> I have diabetes ID but do not have it with me all the time | <input type="checkbox"/> I carry diabetes ID at all times |
|--|---|---|---|

16. Brush and floss teeth

- | | | | |
|---|--|---|---|
| <input type="checkbox"/> I do not brush or floss my teeth daily | <input type="checkbox"/> I brush my teeth daily but do not floss | <input type="checkbox"/> I brush my teeth daily and floss sometimes | <input type="checkbox"/> I brush and floss my teeth every day |
|---|--|---|---|

17. Check feet

- | | | | |
|--|---|--|--|
| <input type="checkbox"/> I do not know why I need to check my feet | <input type="checkbox"/> I need to start checking my feet daily | <input type="checkbox"/> I sometimes check my feet | <input type="checkbox"/> I check my feet every day |
|--|---|--|--|

My Action Plan

Learning Objective	Behavior	Learning Method and Materials
1. Discuss the need to make changes to be successful in controlling diabetes.	1.	1. Written material, "My Action Plan, Self-Management Skills" and class discussion.
2. Describe the skills you may need to change to control your diabetes.	2. Discuss about what skills you need to make to control your diabetes.	2. Written material "My Action Plan, Self-Management Skills" and class discussion.
3. Discuss how doing things to control your diabetes may interfere with your everyday activities.	3. Talk about what has changed in your everyday life since you have had diabetes	3. Written material "My Action Plan, Self-Management Skills" and class discussion.
4. Discuss how your emotions have changed since you have had diabetes.	4. Talk about the emotions you have experienced and how they affect you and your family.	4. Written material "My Action Plan, Self-Management Skills" and class discussion.
5. Discuss the 6 steps to an Action Plan.	5.	5. Written material "My Action Plan, Self-Management Skills", "Ready for Change Worksheet" , and class discussion.
6. Decide what behaviors you would like to change to better manage your diabetes.	6. List the things you are ready to change in you diabetes care.	6. Written material "My Action Plan, Self-Management Skills", "Ready for Change Worksheet", and class discussion.
7. Select a behavior that you are ready to change.	7. Look at the "Ready for Change Worksheet" and select one thing you are willing to change now.	7. Written material "My Action Plan, Self-Management Skills", "Ready for Change Worksheet", and class discussion.
8. Write your action plan.	8. Using what, how much, when and how	8. Written material "My Action Plan,

My Action Plan

	often write and Action Plan for the goal you selected.	Self-Management Skills", and class discussion
9. Determine your confidence level.	9. Write down your confidence level, if it is below 7 make changes to your Action Plan.	a. Written material "My Action Plan, Self-Management Skills", and class discussion.
10. Monitor your progress	10. Write your goal in the "Goal Tracker" and circle the days you will work on your goal, check it off when you have done it.	a. Written material, " Goal Tracker "
11. Review your "Goal Tracker"	<p>11. After a week look at your "Goal Tracker"</p> <p>✚ If you were successful Congratulations! Do you want to keep the same goal for the next week or would you like to change it or add another goal?</p> <p>✚ If you were not successful use the Review 'to see how to change</p>	a. Written material, "Goal Tracker"

My Action Plan

Self-Management Skills



Your success in making changes depends on how you think about it. If you think the task is hopeless and cannot be done it will be much harder to make changes.

Thinking of diabetes as a journey may help. Like any journey, this one has ups and downs. Sometimes the road is smooth and at other times the road becomes rough. To complete the journey one must make changes and overcome barriers.



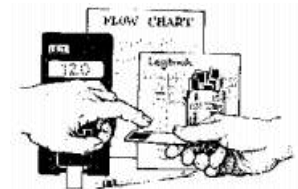
Skills that may help you on your journey.

1. Skills you need to deal with the illness:

When you have diabetes, there are many things you must do to manage and control your blood sugar.

Why do we call these skills? They are **behaviors** you may need to **practice**.

- You may need to practice making meal plans and practice making and using a shopping list!
- You may need to practice eating breakfast or eating three meals a day.
- Practicing new ways to remember to take medicine can become a common everyday activity.



Adapted from "Living a Healthy Life with Chronic Conditions" by Kate Lorig, RN, DrPH

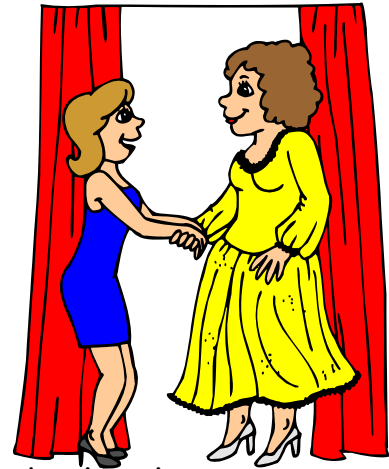
2. Skills you need to continue to live a normal life:

Just because you have diabetes does not mean that life does not go on. You still need to:

- maintain relationships with family and friends
- grocery shop
- do household chores
- go to work
- participate in hobbies and sports

You may have to learn new skills or

make changes in your daily routine to continue to do the things you need to do and the things you enjoy doing.



3. Skills you need to deal with emotions:

With any chronic illness come many emotions - anger, denial, frustration, and depression. You may feel isolated and alone. Having high and low blood sugar can change your emotions and how you react to people and problems. Here we focus on coping skills.

First learn the signs of anger, denial and depression. Next, learn and practice things to do to keep from getting angry or not letting your anger get the best of you like meditation or breathing exercises. The **TAKE ACTION** program in Module 4 will help you to learn more about dealing with emotions.



This course will provide you with information about self-management skills. You can make changes to live a healthier and happier life.

Action Plans

ACTION PLAN- the Take Action program uses a form or tool called an Action Plan. This form is a contract or agreement you make with yourself to practice positive health behaviors to meet goals.

Goals: these are major changes that may take a few steps or many steps to reach.



The short term Action Plan is your contract with yourself. When you write your Action Plan make the goal(s) something you can and **WANT** to do. Make the steps something you can do in the next week.

"My Action Plan" is a tool to help you. Do not write your Action Plan as something to please your provider, family or friends. Most of us can do things to be healthier but we do not make everyday plans for change.

Steps to an Action Plan

Step 1: Decide What You Will do

Look at the Ready for Change worksheet you did. Are there some things that you checked under column 3. One of these might be a good place to start. Remember to make sure you plan is a behavior that can be observed.



TIP! It is a big help if you look at the big picture first. Then, write the steps down in the order you would do them.

Keeping track of when you do your action plan will help you know where you started and how far you have come. Use your "Goal Tracker" it has three months of weeks.



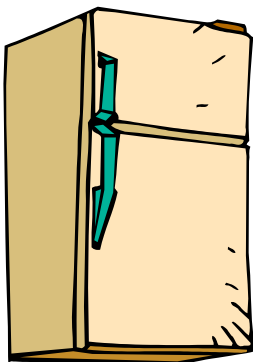
1. Write your action plan behavior in the first space

2. Circle the days of the week you will work on the action plan

3. Put an "X" in the circle when you do the activity

Action item	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
I will walk 15 minutes 3 times a week after breakfast		○ rained		○ X		○	

4. If you did not work on the action plan make a note why



When you are happy with your plan:

➤ Post it where you can see it every day.

- **Carry out your Action Plan**
Ask family and friends to check your progress. Reporting to someone else is good motivation.



- **Make changes if needed**
If something is not working, **DO NOT** give up. Try to make the steps easier. Try to find out what the problem is so you can come up with a list of ways to solve the problem. Sometimes the problem cannot be solved right now.

Review: Do this activity if you did not accomplish your action plan:

1. Ask: What were the problems?
2. Brainstorm: What are the possible ways to solve these problems?
3. Ask for help. This may be the group at education class, the support group, your educator, provider or family and friends.

4. Write down the ideas

Check the ones that might work

Now rewrite your action plan. Good luck!

- **Reward yourself**
Do something special like visit a friend or see a movie



Your Turn...

Using your **Ready for Change Worksheet**, pick a goal to work on. Take a few minutes to think of some of the things about your diabetes care you would like to change, write some goals down.



1. _____
2. _____
3. _____
4. _____

Put an * beside the one you would like to start on.

Write down some of the things you can do to meet your goal.

1. _____
2. _____
3. _____
4. _____

Put an * beside the one or two you would like to work on.

This week I will _____ (what)
_____ (how much)
_____ (when)
_____ (how often)

How confident are you that you can do your plan? Score: ____

Explain: _____.



Write your Action Plan in your Goal Tracker

TIP!

A successful Action Plan includes:

- Choosing something that you **WANT** to do
- Choosing something that you will be able to do.
- Starting where you are or start slowly (not too hard and not too easy)
- A behavior (something someone can watch you do)

Write your Action Plan (contract) to include:

- ✓ What you are going to do
- ✓ How much you are going to do
- ✓ When you are going to do it
- ✓ How often or how many days a week you are going to do it

In the next several classes, you will learn how to make changes in your lifestyle and take control of your diabetes.

When you complete the **Take Action A Diabetes Self-Management Program**, you will receive a certificate.





Here are some ideas for your action plan. Pick things you are willing to try. Good luck and share with your educator and provider!

- WHAT you are going to do
- HOW MUCH you will do
- WHEN you will do it
- H

HbA1c	I will call (when) to make an appointment with my provider to check my HbA1c.
My Diabetic Record	I will take My Diabetic Record with me to each provider visit and write in the new information.
	Using My Diabetic Record I will make an appointment to see my provider when I need to have tests done.
Food Mood Diary	I will fill out the Food Mood Diary on (day) and (day) and bring it to class next week.
	I will look at my Food Mood Diary (when) and see where I can start to make some changes (how often).
Blood sugar checks	I will check my blood sugar (how often) (when). I will write the results in my logbook.
Blood sugar level	I will lower my blood sugar (when, example at meals) I will (what example eat smaller portions) (how often) starting (when) for (how long).
	I will take my logbook with me to each provider visit and review the numbers with my provider.
Classes	I will come to class every (day) for the next five weeks.
Support Group	I will come to the Support Group every _____
Look at your diabetes care	I will (what example, use the Ready to change worksheet to look at my current diabetes care), (when) once
Make plans for change	I will (what example, decide which of the parts of my diabetes care I am ready to work on to move to the next stage?) (how much) (when)

High Blood Sugar, Low Blood Sugar

Learning Objective	Behavior	Learning Method and Materials
1. Demonstrate or describe how to check a blood sugar and review tips for testing.	1. Check blood sugars per provider orders or protocol.	1. Written material " Testing Your Blood Sugar " and demonstration.
2. Name the normal range for blood sugars when fasting, two hours after a meal, and at bedtime.	2. State the normal ranges or be able to locate the information.	2. Written material " What should blood sugar levels be? " and class discussion.
3. Explain when to check blood sugar levels.	3. Be able to state when to check blood sugars. When the provider requests or three times a week at different times each day. When symptoms of Hypo (low) or Hyperglycemia (high) and when sick.	3. Written material "What should blood sugar levels be? When should you check your blood sugar? " and class discussion
4. Explain the care of the glucometer.	4. Show how to clean the glucometer.	4. Written material "Testing your blood sugar", glucometer manual, demonstration and class discussion.
5. Keep a log of blood sugars and indicate why results may be high or low. Bring the log to provider visits.	5. Check blood sugar, record them in a logbook and bring the logbook to provider visits.	5. Written material "What should blood sugar levels be?" and class discussion and Blood sugar log handout
6. Define high blood sugar as above 180 mg/dl.	6. Explain what High Blood Sugar means.	6. Written material " High Blood Sugar " and " Hyperglycemia " Novo Nordisk Diabetes Care handout

High Blood Sugar, Low Blood Sugar

Lesson Plan

		and class discussion.
7. Describe the dangers high blood sugar creates for you.	7. Recognize the signs and symptoms of high blood sugar.	7. Written material "High Blood Sugar" and class discussion.
8. Name 4 of the 6 signs and symptoms of high blood sugar.	8. Determine the cause of the high blood sugar.	8. Written material "High Blood Sugar" and class discussion.
9. Describe the six reasons why your blood sugar could be high.	9. Treat the high blood sugar correctly.	9. Written material "High Blood Sugar" and class discussion.
10. Describe the proper treatment for high blood sugar.	10.	10. Written material "High Blood Sugar" and class discussion.
11. Describe when to call the provider.	11.	11. Written material "High Blood Sugar" and class discussion.
12. Describe when to call the provider.	12. Contact the provider.	12. Written material "High Blood Sugar" and class discussion.
13. Describe the danger low blood sugar creates for you.	13. Recognize the signs and symptoms of low blood sugar.	13. Written material " Low Blood Sugar " and " Hypoglycemia " Novo Nordisk Diabetes Care handout and class discussion.
14. Name 6 of the 9 signs and symptoms of low blood sugar.	14. Determine the cause of the low blood sugar.	14. Written material "Low Blood Sugar" and class discussion.
15. Recall the seven reasons why your blood sugar could be low.	15. Give examples of high sugar food to take to raise blood sugar and have something on hand at all times. Treat the low blood sugar without over	15. Written material "Low Blood Sugar" and class discussion

	treating	
16. Describe the proper treatment for low blood sugar and have high sugar	16.	16. Written material "Low Blood Sugar" and class discussion
17. Describe when to call the provider.	17. Contact the provider	17. Written material "Low Blood Sugar" and class discussion.
18. People with type 1 diabetes know what Ketoacidosis is and what to do.	18. List the signs and symptoms and describe how to check for ketones.	18. Written material "Low Blood Sugar" and class discussion
19. Discuss the level of confidence you have to recognize high and low blood sugar and treat correctly.	19. Add a goal to your Action Plan.	19. Written material " Ketoacidosis " and class discussion.

High Blood Sugar, Low Blood Sugar

Testing your blood sugar

- + Check with your provider to see if and when he/she wants you to check your blood sugar.
- + Keep a record of your blood sugar numbers, the date and time of day. Take the record (log) with you to every clinic visit.
- + Ask your provider what the numbers should be.
- + Ask your provider what to do if the numbers are high or low.
- + Test your blood sugar, include a record of the food you eat and your activities in the log, this will help you and your provider control your diabetes.
- + A nurse can teach you how to use the glucometer.

Let's Check our Blood Sugar



Supplies you will need:

- + Glucometer
- + Test Strips
- + Alcohol wipes or soap and water
- + Lancets

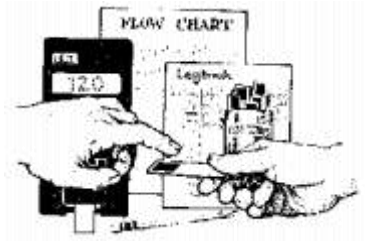
How to test:

- + Wash your hands.
- + Place the test strip on table top or in the glucometer as directed by instructions with your machine.
- + Wipe your finger with an alcohol wipe or wash with soap and water.
- + Stick your finger with the lancet.
- + Squeeze your finger to get a drop of blood.
- + Place the test strip in the center of the drop of blood that is on your finger.
- + Read and write down the number (blood sugar) in logbook.

Tips for testing Blood Sugar

CHAP Take Action - High Blood Sugar, Low Blood Sugar
Cass, Tiernan Revised 11/04

- ✚ For more comfort, prick the sides of the tips of your finger, not the fleshy part
- ✚ Change where you prick your finger, use all your fingers
- ✚ Milk your finger from the base to the tip to get a good drop of blood
- ✚ Hold your finger pointing down
- ✚ Dispose of lancets and test strips in a safe way (in a plastic milk bottle and tape lid shut when full. Dispose of in the trash.)
- ✚ Never share lancets
- ✚ Keep your glucometer clean



Why do you keep a log of your blood sugar numbers?
 Use your blood sugar number to check how you are doing with your meal plan and exercise plan. Make changes as necessary. Your goal is to keep your blood sugar between 70 and 120.

Always take your blood sugar log with you to your clinic visit. Write down your questions so you do not forget to ask them.




- ✚ Clean your glucometer following the manual's instructions
- ✚ Have your glucometer checked by the clinic lab a least once a year.
- ✚ If you have problems with the glucometer call the "800" number that came with your glucometer


What should blood sugar levels be?

Here is a good start setting goals.

1. Write the blood sugar number from your home test in the #1's.
2. Ask your provider for your "blood sugar goal". Write the answers in the #2's (You might start with a high number and work to a safe blood sugar goal).

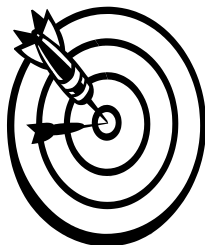
 70-110 mg/dl before meals

 140 mg/dl or less at 2 hour after meal

 100-140 mg/dl at bed time



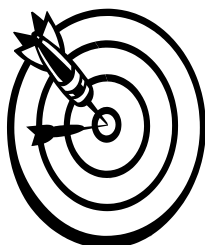
70 - 110 mg/dl before meals



1. My blood sugar before breakfast _____

2. My blood sugar goal before breakfast _____

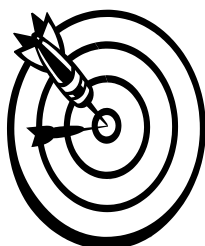
140 mg/dl - or less at 2 hours after a meal



1. My blood sugar 2 hours after a meal _____

2. My blood sugar goal 2 hours after a meal _____

100 - 140 mg/dl at bedtime



1. My blood sugar before bedtime _____

2. My blood sugar goal before bedtime _____

- Use the blood sugar goal numbers to write your Action Plan

When should you check your blood sugar?

Ask your provider when to check your blood sugar.

If your provider does not tell you, a good rule of thumb is to check blood sugar levels at least 3 times a week, for example:

- ✚ Monday before breakfast
Blood sugar should be 70-110 mg/dl
- ✚ Wednesday 2 hours after lunch
Blood sugar should be 140 mg/dl or less
- ✚ Friday at bedtime
Blood sugar should be 100-140mg/dl
- ✚ When you have symptoms of high or low blood sugar
- ✚ When you are sick or feel bad



Day	Time	Medicine/ Insulin	Blood Glucose Test Number						Comments
			Before Breakfast	Before Lunch	After Lunch	Before Dinner	2 hours After Dinner	Bedtime	
Mon									
Tues									
Wed									
Thurs									
Fri									
Sat									
Sun									

High Blood Sugar (Hyperglycemia)

High Blood Sugar is a reading of

200 mg/dl or greater!

Blood sugar readings help you know when you are in **danger**.

If your blood sugar is usually under control, and suddenly goes **above 200 or you have symptoms of hyperglycemia.**



DANGER! Call your provider.
4 C's Clinic Patients call
409-943 -3430
After hours, call the UTMB Health Care
Hotline at 409-772-222.



Is High Blood Sugar Dangerous? YES!

- ✚ High blood sugar can cause problems with your heart, eyes, kidneys and nerves
- ✚ In some people it could result in diabetic coma

Signs and Symptoms of High Blood Sugar

- ✚ Increased thirst
- ✚ Hunger
- ✚ Frequent urination
- ✚ Dry mouth
- ✚ Feeling tired
- ✚ Blood sugar higher than 140 before meals
- ✚ Blurry vision
- ✚ Irritable and grouchy feelings

Reasons Blood Sugar May be High

- ✚ You forgot to take your insulin or diabetes medicine
- ✚ Medicine may not be strong enough
- ✚ You ate more than usual
- ✚ You exercised less than usual
- ✚ You are not feeling well
- ✚ You have increased stress in your life

Can you identify behaviors that caused your blood sugar to be high? Add positive behaviors that control blood sugar to your action plan.

Always call your provider if:

- ✚ Your blood sugar is 400 mg/dl or more
- ✚ Your blood sugar is 200-400 mg/dl or if you have symptoms
- ✚ You are unsure about high or low blood sugar

Treat High Blood Sugar

- ✚ Exercise can help, but pace yourself and be smart!
- ✚ Decrease the amount of food you eat
- ✚ Drink water—the higher your blood sugar, the more water you should drink!
- ✚ Take medication as directed by your provider
- ✚ Recheck blood sugar in an hour
- ✚ Do not exercise if your blood sugar is 400 mg/dl or higher



HYPERGLYCEMIA

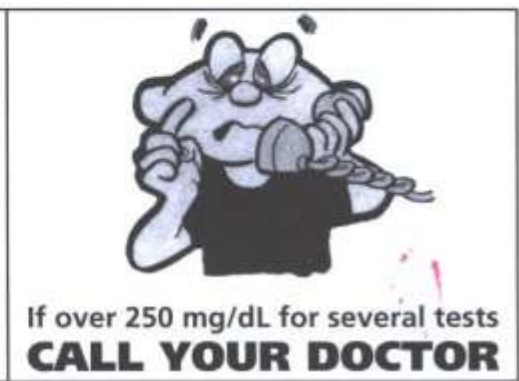
(High Blood Glucose)

Causes: Too much food, too little insulin or diabetes medicine, illness or stress.

Onset: Gradual, may progress to diabetic coma.



SYMPTOMS



Concept developed by Rhonda Rogers, RN,BSN,CDE, Sunrise Community Health Center, Northern Colo. Medical Center

Low Blood Sugar (Hypoglycemia)

A blood sugar of **less than 70** is usually a low blood sugar.

Is Low Blood Sugar Dangerous? **YES!**

- ✚ You could pass out
- ✚ It could cause damage to your brain

Low blood sugar happens to everyone with diabetes from time to time.

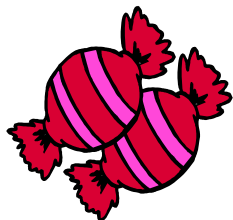
Signs and Symptoms of Low Blood Sugar

- Shakiness
- Dizziness
- Tiredness/sleepiness
- Moodiness
- Fast heart rate
- Sweating
- Hunger
- Headache
- Pale skin
- Numbness and tingling around the mouth and tongue
- Confusion
- Clumsy or jerky movements

Reasons Your Blood Sugar May be Low

- ✚ Taking medicine without food
- ✚ Medicine may be too strong
- ✚ Not eating enough food
- ✚ Eating later than usual
- ✚ More activity or exercise than usual
- ✚ Taking too much diabetes medicine
- ✚ Drinking beer, wine or liquor

Treat Low Blood Sugar The Rule of 15's



- ✚ Always carry a high sugar food with you—to prevent an emergency
- ✚ If you have symptoms of low blood sugar, check your blood sugar
- ✚ If your blood sugar is 70 mg/dl or lower or you cannot check your blood sugar, take a high-sugar food (15 grams of carbohydrate).

** If blood sugar is below 40, eat or drink 30 grams of carbohydrates.*

- ✚ Check your blood sugar again in 15 minutes. If it is still low or you do not feel better take more of the high-sugar food
- ✚ If you can't check your blood sugar but still have symptoms, take more of the high-sugar food

Repeat until your blood sugar returns to normal. Be careful not to over treat.

- ✚ If your next meal is more than one hour away, eat a peanut butter sandwich, tortilla with cheese, one cup of skim milk, or cheese and crackers
- ✚ When traveling, have a snack plan in case you get delayed

What high sugar foods* do you keep handy?

- $\frac{1}{2}$ cup of juice or regular soda
- 1 small box of raisins
- 6-7 hard candies
- 3 glucose tablets
- 8 ounces of skim milk
- 1 tablespoon of honey or sugar **Each of these have 15 grams of carbohydrate*



Call your provider if:



- ✚ If you treat more than two times and your sugar is still low
- ✚ If you cannot check your blood sugar with a glucometer, and continue to have symptoms
- ✚ If you have low blood sugar three or more times a week or if you pass out





HYPOGLYCEMIA

(Low Blood Glucose)

Causes: Too little food, too much insulin or diabetes medicine, or extra exercise.

Onset: Sudden, may progress to insulin shock.

	
SHAKING	FAST HEARTBEAT

SYMPTOMS

			
SWEATING	ANXIOUS	DIZZINESS	HUNGER
			
IMPAIRED VISION	WEAKNESS FATIGUE	HEADACHE	IRRITABLE

WHAT CAN YOU DO?



Drink 1/2 glass of orange juice or skim milk, or eat several hard candies.



TEST BLOOD GLUCOSE
If symptoms don't stop, call your doctor.



Within 30 minutes after symptoms go away, eat a light snack (a 1/2 peanut butter or meat sandwich and a 1/2 glass of milk).

Treatment may vary with different medications.

Created by Rhonda Rogers RN, BSN, CDE Sunrise Community Health Center, Northern Colo. Medical Center

Ketoacidosis

Ketoacidosis is when you have ketones (waste products) in your urine
Ketoacidosis is a life-threatening condition

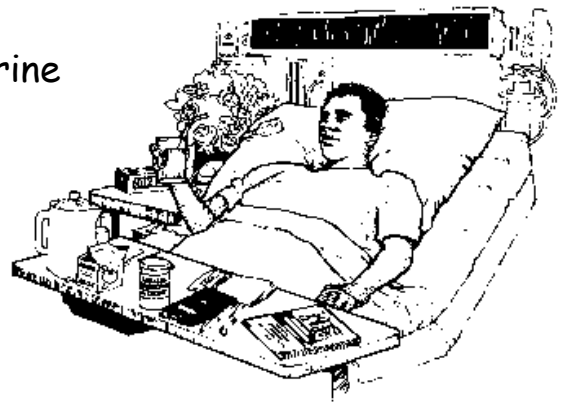
Usually, only people with type 1 diabetes can get it
It can lead to Diabetic Coma or death

Signs and Symptoms of Ketoacidosis:

- Thirsty or very dry mouth
- Frequent urination
- High blood sugar levels
- High levels of ketones in the urine

Then other symptoms appear:

- Feeling very tired
- Dry or flushed skin
- Hard time breathing
- Breath that smells fruity
- Nausea, vomiting, and abdominal pain
- Unable to pay attention



Reasons you may have ketones in your urine:

- ✚ You forgot to take your insulin or diabetes medicine
- ✚ Medicine may not be strong enough
- ✚ You ate more than usual
- ✚ You exercised less than usual
- ✚ You are not feeling well
- ✚ You have increased stress in your life

To test for ketones:

- ✚ Use test strips that you can buy to test your urine. Ask your provider about them. (Results show small, moderate or large amount of ketones in the urine).
- ✚ People with Type 1 diabetes should check for ketones every four to six hours when:
 - Blood sugar is higher than 240
 - Feeling sick (even colds and flu)



- ✚ Ask your provider when you should call if you have ketones in your urine
- ✚ If you have not talked to your provider about ketones, call when you have had moderate amounts of ketones more than once



Here are some ideas for your action plan. Pick things you are willing to try. Good luck. Share these with your educator and provider!

- **WHAT** you are going to do
- **HOW MUCH** you will do
- **WHEN** you will do it
- **HOW OFTEN** you will do it

Treating low blood sugar

I will carry (*what*) with me at all times to treat my low blood sugar.

Preventing low blood sugar

I will (*what*) (*when*) (*how much*) for (*how long*).

Treating high blood sugar

I will (*what*) each time my blood sugar is greater than (*#*) or I have symptoms of high blood sugar. I will decide what caused my blood sugar to be high.

Lowering high blood sugar

I will lower my blood sugar to (*#*) by (*doing what*), (*how often*) for (*how long*).

Complications

Learning Objective	Behavior	Learning Method and Materials
1. Explain what "Complications of Diabetes" means.	1.	1. Written material, " Complications " and class discussion.
2. List the body systems that high blood sugar can affect over time. <ul style="list-style-type: none"> • Nerves • Kidneys • Heart and blood vessels • Eyes • Teeth and gums • Skin • Infections 	2.	2. Written material, " Complications " and class discussion.
3. Describe how the filter system of the kidneys is damaged from high blood sugar (diabetes).	3. Control blood sugar and blood pressure. Have a urine test for protein once a year. Take an Ace-inhibitor if ordered by your provider.	3. Written material, " Kidney Problems " and class discussion.
4. Explain how high blood sugars damage blood vessels and the heart.	4. Control blood sugars.	4. Written material, " Heart and Blood Vessel Problems " and class discussion.
5. Describe how high blood sugar along with high blood pressure and high cholesterol damage blood vessels and the heart.	5. Control blood sugar, blood pressure and cholesterol levels. If you smoke, stop. If you are overweight, lose weight. Be active every day.	5. Written material, " Heart and Blood Vessel Problems ", pictures of blood vessel disease and class discussion.

Complications

6. Name the signs and symptoms of stroke and heart attack that would cause you to seek medical advice.	6. Seek medical help immediately for signs and symptoms of heart attack or stroke.	6. Written material, "Heart and Blood Vessel Problems" and class discussion.
7. Describe how diabetes and high blood sugars affect the eye. <ul style="list-style-type: none"> • Glaucoma • Cataracts • Retinopathy • Retinal detachment 	7. Have a dilated eye exam every year. Control blood sugar, blood pressure and cholesterol levels. Wear protective lenses in the sun.	7. Written material, " Problems of the Eye ", pictures of eye disease and visual problems and class discussion.
8. Describe how good dental hygiene can help prevent gum and tooth disease.	8. Have at least one dental exam a year. Brush your teeth two times a day and floss your teeth every day. Use sugar-free liquids, candy and gum to treat dry mouth. Control blood sugars.	8. Written material, " Teeth and Gum Problems " and class discussion.
9. Describe how to care for your skin.	9. Practice good skin care.	9. Written material, " Skin Problems " and class discussions.
10. Describe the greater risk from cuts, blisters and other injuries to the skin for infection.	10. Control blood sugars.	10. Written material, " Infections " and class discussion.
11. Discuss ways you can help prevent infections and the complications of infections.	11. Check feet and skin daily for injuries. Treat injuries with mild soap and water and clean dressing. Avoid harsh chemicals and sharp objects. Seek medical assistance for wounds that do not	11. Written material, " Foot Ulcers and Infections " and class discussion.

Complications

	heal, become red and painful or have drainage.	
12. Discuss how high blood sugar and decreased circulation can lead to infections of the feet.	12. . Control blood sugars and check feet daily.	12. Written material "Take Good Care of Your Feet" and class discussion
13. Describe the major "do's" and "don'ts" of foot care.	13. . Practice good foot care on a daily basis. Seek medical help at signs of infection, or when a Podiatrist is needed.	13. "Self Testing Instructions for Diabetic Foot Screen Test Sites" and class discussion.
14. Discuss how damage to nerves can affect different areas of the body.	14. Recognize the symptoms of nerve damage and discuss your symptoms with your provider.	14. Written material "Nerve Damage" and class discussion
		Written material, pictures of foot problems and class discussion.

Complications of Diabetes

Complications are health problems that result when your blood sugar stays high over a long time. Usually you have Diabetes for several years before it is diagnosed. During this time, your blood sugars may have been high and started to cause long-term complications.

Acute Complications:

High or low blood sugars that you treat on a day-to-day basis.

Long-term Complications:

Happen over time and are a result of high blood sugars. It is not known why high blood sugars causes long-term complications.

High blood sugar causes damage to the following body systems:

- ✚ Nerves
- ✚ Heart & Blood Vessels
- ✚ Eyes
- ✚ Feet
- ✚ Teeth & Gums
- ✚ Skin
- ✚ Kidneys

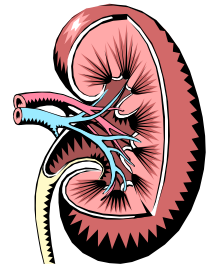
High blood sugar also makes it hard to treat infections.

In the space below, list the body systems and complications you have.

Body System

Problem

Kidney Problems



- ✚ Kidney Failure
- ✚ End Stage Renal Disease

Kidneys are made up of many blood vessels that act as filters. They take the waste products out of the blood. Diabetes can hurt your kidneys by making them work too hard. Then the kidneys cannot filter the waste from the blood and the waste products stay in the blood.

When the kidneys stop working it is called **end stage renal disease**. When this happens the person needs a **kidney transplant** or dialysis (when a machine takes the waste products from the blood). If kidney damage is found early there are treatments that may keep it from getting worse.



Your provider may order a medicine called an ACE inhibitor, it is a blood pressure medicine that can also protect the kidneys from more damage.

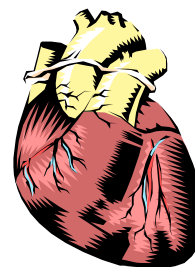
Controlling blood sugar can reduce kidney damage by up to 84%

Prevent Kidney Damage!



- ✚ Keep your blood sugar levels under control.
- ✚ Control high blood pressure.
- ✚ See your provider regularly so he can test for protein in the urine and check your blood pressure.
- ✚ Take an ACE Inhibitor if prescribed by your provider.

Heart and Blood Vessel Problems



- + High Blood Pressure
- + Heart Attack
- + Stroke
- + Blood vessel problems

People with Diabetes have a higher risk for heart and blood vessel problems. High blood sugar can cause damage to the blood vessels. Over time, high cholesterol and fat levels in the blood vessels can slowly reduce or block blood flow to the heart and other organs.

Signs of Health Problems are:

Stroke warning signs or symptoms:

- + Feeling dizzy or sudden severe headache with no known cause
- + Sudden trouble walking
- + Loss of balance or coordination
- + Sudden loss of sight or trouble seeing with one or both eyes
- + Slurring of speech, confusion or trouble speaking or understanding
- + Numbness or weakness in face, arm or leg especially one side of the body

Heart attack warning sign or symptoms:

- + Chest pain or pressure
- + Trouble breathing
- + Discomfort or pain in one or both arms, the back, the neck, the jaw and the stomach (indigestion with no known cause).
- + A cold sweat, stomach sickness or feeling lightheaded

Things that can increase the risk of problems:

- + High blood sugar
- + High blood pressure
- + High blood fat (cholesterol)
- + Tobacco use /Smoking
- + Over weight
- + Lack of physical activity
- + Family history of heart disease

If you have any of these signs or symptoms go to the emergency room. At the emergency room they may be able to give you medicine to reduce the effects of a heart attack or stroke.



Tell your provider if you have pain in the buttocks, thighs or calf of the leg with exercise.

See your provider regularly so he/she can watch for problems and treat them early.

Blood vessel problems and feet

Poor circulation caused by Diabetes can make sores and cuts slow to heal.

Signs and symptoms caused by damage to blood vessels:

- + Color or temperature change in your feet
- + Loss of hair on toes, feet and lower legs
- + Dry, cracked skin on your feet
- + Numbness in one arm or leg
- + Thick or yellow toenails
- + Trouble breathing
- + Sudden loss of sight

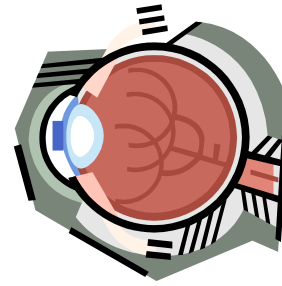
Behaviors to prevent heart and blood vessel problems:

- + Control your blood sugar
- + Control high blood pressure
- + Lose weight if over weight
- + Quit smoking
- + See your provider every three months
- + Exercise

Controlling blood sugar can reduce the risk of heart attack and stroke by 16%*

Problems of the EYE

- ✚ Glaucoma
- ✚ Cataracts
- ✚ Retinopathy
- ✚ Detached Retina



People with Diabetes are twice as likely to have:

- ✚ **Glaucoma** - a build up of pressure in the eye. The pressure pinches the blood vessels and sight is slowly lost.
- ✚ **Cataracts** - cloudy lens in the eye

Diabetic Retinopathy happens when blood vessels grow over the inside of the eye. They leak blood or cause scars, resulting in loss of sight.

Behaviors to Prevent Eye Problems

- ✚ Keep your blood sugar levels under control
- ✚ Control High Blood Pressure
- ✚ Quit Smoking
- ✚ See an eye doctor once a year for a dilated eye exam



Never get new glasses while your blood sugar is high!



Call your provider if:

- ✚ Your eyes hurt
- ✚ You feel pressure in your eye
- ✚ You see spots or floaters
- ✚ If you can't see to the side
- ✚ If you have double vision or blurry vision.

*** Good blood sugar control may reduce the risk of eye problems by 21%***

Mouth, Teeth and Gum Problems

- + Plaque
- + Gingivitis
- + Periodontitis



Plaque is a sticky film made up of food, saliva and germs. Good brushing of teeth can remove plaque. If plaque is not removed it hardens into tartar. Tartar can only be removed by a dentist. If the tartar is not removed it can cause gum disease and sometimes destroy the bone.

Gingivitis is the first sign of gum disease; it causes your gums to bleed when you brush them.

Periodontitis is more severe; the gums pull away from the teeth, and there may be pus around the teeth. There may be bone damage and the teeth may be loose. Often gum disease does not cause pain until it is very serious.

Signs and Symptoms of Gum Disease

- + Plaque on teeth
- + Gums that bleed when you floss and brush your teeth
- + Red, swollen or tender gums
- + Gums that are pulled away from the teeth
- + Loose or sensitive teeth
- + Pus around your teeth
- + Bad breath

Behaviors to Prevent Gum Disease

- + Brush teeth after every meal and snack
- + Use a soft toothbrush
- + Get a new tooth brush every three to four months
- + Brush your gums and tongue
- + Floss once a day
- + See the dentist at least two time a year
- + Tell your dentist you have diabetes
- + Ask the dentist to show you the best way to brush and floss
- + Call the dentist if you have any signs of infection or gum disease
- + If you wear dentures or a partial plate make sure they fit well and are clean
- + Control your blood sugar

Important things to know:



- ✚ If your mouth is sore after a dental visit use the list of foods in "Sick Days" until you can eat your regular foods
- ✚ If you smoke talk to your provider about quitting
- ✚ High levels of sugar in the saliva can cause tooth decay
- ✚ Infections in the mouth are hard to treat

Take your medicine and eat before going to the dentist.

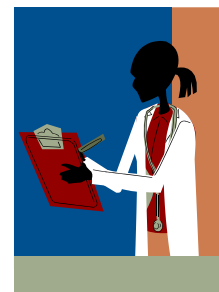
Dry mouth:

Dry mouth may be a problem for people with diabetes. This may be caused by the medicine you take. You may also notice a dry mouth when your blood sugar is high. Less saliva can cause cavities because the saliva washes away germs and acid.

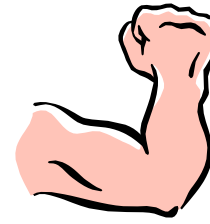
If dry mouth is a problem try drinking more fluids, chewing sugar-free gum or sugar free hard candy. These help to increase the saliva in the mouth

See the dentist if you have:

- ✚ Swelling or pus around your gums and teeth or anywhere in your mouth. Swelling can be as small as the size of a pimple.
- ✚ Pain in your mouth and face that does not go away
- ✚ White or red patches on your gums, tongue, cheeks or the roof of your mouth. This may be a fungus infection called thrush.
- ✚ Teeth that hurt when you eat something hot, cold or sweet.
- ✚ Pain when chewing
- ✚ Dark spots or holes in your teeth



Skin Problems



- + Poor healing
- + Dry itchy skin

Skin should be:

- + Warm and soft
- + Free of red areas, scrapes and lumps and cracks
- + Moist but not too oily
- + Free of irritation and disease
- + Able to feel a pinprick, cold, hot and touch

Behaviors to Care for Your Skin:

Prevention:

- + Keep your skin clean
- + Use lanolin-based lotion to keep your skin moist. Over drying may cause cracks. This is a good place for infection to start.
- + Drink plenty of water to prevent dehydration.
- + Mucus membranes of mouth or nose should be pink, moist and warm (Use Chap Stick® or petroleum jelly as needed)

Treatment of skin problems:

- + Wash cuts or scrapes with warm water and non-irritating soap.
- + Apply an antibacterial ointment to the wound and cover it loosely.
- + Change bandages when they get moist, dirty or as instructed by your provider.
- + Do not use any sharp objects to take care of the wound.
- + Do not use harsh chemicals like alcohol, vinegar, gasoline, onion, garlic or iodine on wounds.



- + Call your provider if after two days there is more pain, swelling, redness, pus or heat.
- + Call anytime the cut is severe.
- + Report any unusual drainage or odor from a wound.

Infections

People with diabetes are at risk of getting infections.

High Blood Sugar makes infections hard to heal!

Behaviors that Can lead to Infections:

- ✚ Poor nutrition
- ✚ Not taking medications as ordered
- ✚ Lack of exercise
- ✚ Poor hygiene
- ✚ Bad foot care (shoes that don't fit or protect, not checking feet daily)

Some types of infections include:

- ✚ Mouth infections, thrush and gum disease
- ✚ Fungal infections, like athlete's foot
- ✚ Bladder and kidney infections
- ✚ Yeast Infections
- ✚ Wound infections
- ✚ Ulcers of the feet
- ✚ Boils

Why are infections a complication of diabetes?

Poorly controlled diabetes can cause the white blood cells to have less ability to fight infections.

What can you do if you think you have an infection?



- ✚ See a provider for any discharge from the vagina or penis.
- ✚ Tell your provider about burning when you pass your urine, or a change in the color or odor of your urine.
- ✚ See your provider if you have a cut or sore that is not healing or if a cut or sore becomes swollen, red, painful or has pus.

Foot Ulcers and Infections

When you have diabetes it is harder for your body to fight infections. Damage to the blood vessels can cause poor circulation in your feet. Any sore or cut on your feet can become serious. A small cut can quickly become a big problem.



Preventing foot infections is one of the most important thing you can do! **CHECK YOUR FEET EVERY DAY!**

Diabetics are 20 times more likely to have gangrene

Life cycle of a foot problem:

- ✚ Pressure on the foot may cause a blister
- ✚ Poor blood flow to the area can lead to infection at the blister site
- ✚ High levels of sugar in the blood feed the infection and makes it worse

Early symptoms of infection:

- ✚ Swelling
- ✚ Redness
- ✚ Pain (if you have nerve damage you may not feel pain)

If the sores are not treated or do not heal they can become ulcers. The skin around the sore or ulcer may die and turn black.

Treatment

- ✚ The provider may order antibiotics or medicines to treat the infection. Be sure to take all your medicine, even if the sore looks better. These medicines help remove the dead tissue and help new, healthy tissue grow. You may need to go to a wound care center if the sore does not heal. The dead tissue may need to be surgically removed. If you have gangrene you may have all or part of your foot amputated. Keep all your visits to your provider.

Take good care of your Feet

Socks

- ✚ Always wear socks or stockings to help avoid blisters and sores
- ✚ Make sure the top of the sock is not tight around your leg. If the top of the socks or stockings leaves a dent in the skin, they are too tight!
- ✚ Avoid wrinkles in your socks
- ✚ Wear thick, white, cotton socks
- ✚ Wear socks to bed to keep your feet warm
- ✚ Wear clean socks every day
- ✚ Wear socks without seams



Shoe Don'ts!



- ✚ Pointed toes and high heels put pressure on your toes
- ✚ Check the inside of your shoes for rough spots or objects before you put your shoes on
- ✚ Do not wear vinyl or plastic shoes, they do not let your feet breathe
- ✚ Do not wear sandals with a thong between the toes

Shoes do's! Wear shoes that fit well!



- ✚ Canvas or soft leather shoes are best because they let your feet breathe and they give support
- ✚ Choose low shoes with wide toes.
- ✚ If you wear sandals make sure they have protection for your toes

Be Careful with your feet - Never go bare footed!

- ✚ Always wear shoes and socks even at the beach and in your house
- ✚ Put sunscreen on the tops of your feet
- ✚ Keep your feet warm and dry
- ✚ Keep your feet away from open fires and radiators
- ✚ Do not use hot water bottles, heating pads or electric blankets



Good Foot Care

- ✚ Check your feet at the end of every day for redness, swelling, corns, calluses, ingrown toenails, blisters or breaks in the skin
- ✚ Always check the bottoms of the feet and between the toes
- ✚ Use a mirror if necessary
- ✚ If you have trouble seeing have a family member check your feet

Keep your feet clean and dry

- ✚ Wash your feet every day with warm (not hot) water and soap
- ✚ Always check the water temperature before putting your feet in
- ✚ Make sure you dry your feet very well, especially between the toes
- ✚ Use talcum powder between the toes to keep the area dry
- ✚ Use lanolin, lotion or petroleum jelly on the tops and bottoms of your feet to keep the skin soft
- ✚ DO NOT SOAK YOUR FEET!



Toe Nail Care

- ✚ Do not cut cuticles
- ✚ Smooth the edges of the nails with an emery board
- ✚ Cut your nails after you wash your feet
- ✚ If you cannot see well or have thick, yellow nails or problems cutting your nails ask your provider for help
- ✚ Be careful not to cut the skin around the nail
- ✚ Do not have a professional pedicure - the instruments may not be sterile!



Exercise your feet

- ✚ Exercising your feet is good for blood flow
- ✚ Wiggle your toes for five minutes two to three times a day
- ✚ Move your ankles up and down and in and out
- ✚ Walking, dancing, swimming and bicycling are good exercises that are easy on your feet
- ✚ Avoid activities that are hard on your feet like running and jumping

Tips

- ✚ Do not cross your legs for long times
- ✚ Put your feet up when sitting
- ✚ Do not wear tight socks, elastic or rubber bands or garters around your legs
- ✚ Do not smoke, it decreases blood flow to your feet
- ✚ **Do not go barefoot you could step on something**
- ✚ Do NOT cut corns or calluses or use over the counter treatments on corns and calluses



Call your provider if you have:



- + Blisters, sores, or ulcers on your feet
- + Swelling, redness or pain in your feet
- + Fungus infection between your toes
- + Corns or calluses
- + Thick yellow nails
- + Nails you can't cut

Common Foot Problems

- + **Corns and calluses** - Thick layers of skin that are caused by too much rubbing or pressure on the same spot.
- + **Blisters** - Caused by shoes always rubbing the same spot, wearing shoes without socks, or wearing shoes that do not fit.
- + **Ingrown toenails** - Caused by the edge of your nail growing into the skin. This can happen when shoes do not fit or if you cut into the corners of the nail.
- + **Bunions** - Your big toe slants toward your little toe and the space between the bones at the base of the big toe grows large. This causes your shoes to rub and creates a red spot. Bunions can run in a family or can be caused by pointed -toe shoes. It may be necessary to have surgery to fix it.
- + **Hammertoes** - Muscle weakness caused by diabetes that shortens the tendons in your foot, causes toes to curl under. Wearing shoes that are too short can also cause this problem. Hammertoes cause problems with walking and finding shoes that fit. They may result in sores on both the tops and bottoms of your foot.
- + **Dry and Cracked Skin** - Nerves in the legs and feet can become damaged and you may not feel that the skin is dry. Dry skin can become cracked and infected.

Nerve Damage

High Blood Sugar can damage the covering of the nerves.

- + Loss of feeling in feet and hands
- + Bowel and Bladder Problems
- + Impotence

Feet and Nerve Damage is the number one problem caused by diabetes

Behaviors to Prevent Nerve Damage

- + Keep blood sugar levels under control.
- + Stay active and exercise.

Signs and symptoms of Nerve damage:

- + Pain, burning, tingling and loss of feeling in your feet
- + Problems swallowing
- + Constipation and diarrhea
- + Difficulty passing urine
- + Impotence
- + **Neuropathy**-You may not be able to feel touch, heat or cold.
- + Change in shape of foot- your shoes may no longer fit correctly causing pressure areas.

Does your provider do a monofilament test to check for nerve damage? Even if you have lost some sensitivity, **YOU** can **PREVENT IT** from getting worse by controlling your blood sugar!



Self Testing Instructions

(You may screen your own feet or ask a relative, friend, or neighbor to do it for you).



Step 1



Step 2

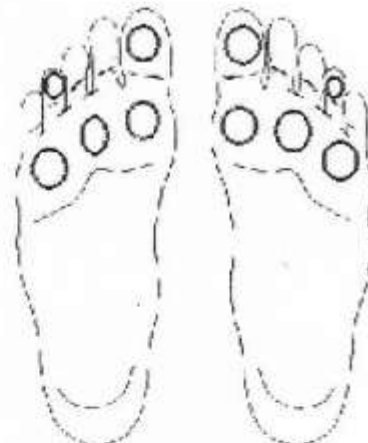
1. Hold the red filament by the paper handle, as shown in Step 1.
2. Use a smooth motion to touch the filament to the skin on your foot. Touch the filament along the side of and NOT directly on an ulcer, callous, or scar. Touch the filament to your skin for 1-2 seconds. Push hard enough to make the filament bend as shown in Step 2.
3. Touch the filament to both of your feet in the sites circled on the drawing below.
4. Place a (+) in the circle if you can feel the filament at that site and a (-) if you cannot feel the filament at that site.
5. The filament is reusable. After use, wipe with alcohol swab.

Diabetic Foot Screen Test Sites

If you have a (-) in any circle, take this form to your health care provider as soon as possible.



Date _____



Date _____

Place
Filament
Here



Here are some ideas for your action plan. Pick things you are willing to try. Good luck and share with your educator and provider!

- **WHAT** you are going to do
- **HOW MUCH** you will do
- **WHEN** you will do it
- **HOW OFTEN** you will do it

Control Blood Pressure	I will (<i>what, example take my blood pressure medicine</i>) (<i>when</i>) starting (<i>when</i>) (<i>how often</i>)
Lowering Cholesterol	I will (<i>what, example, eat fat free salad dressing</i>) every day starting tomorrow.
	I will (<i>what example, eat a salad instead of french fries</i>) three days next week.
Weight Loss	I will (<i>what, example lose five pounds</i>) by eating one less tortilla with each meal starting tomorrow.
Eye Exam Dental Exam Podiatry Exam	I will call for an (<i>what kind</i>) appointment tomorrow.
Floss Teeth	I will floss my teeth every night before bedtime starting on next Monday.
Foot Checks	I will have my wife check my feet every night before we go to bed.
Properly Fitting Footwear	I will buy a pair of walking shoes that fit properly next Friday.
Monofilament Exam	I will call tomorrow to make an appointment with my provider to have the monofilament foot exam.

Learning Objective	Behavior	Learning Methods and Materials
<ol style="list-style-type: none"> 1. Explain how other illnesses, even colds and flu can affect your blood sugar. 2. Explain what happens to blood sugar when you are sick. 3. Explain what a sick day plan is and the things you should talk to your provider about. 4. List the items you should have on hand to treat common illnesses. 5. Explain who should check for ketones and when. 6. Discuss when and how often you should check your blood sugar and take your temperature when you are sick. 7. Explain what you should eat when you are sick, both when you can eat regular foods and when you cannot. 	<ol style="list-style-type: none"> 3. Develop and use a list of the information discussed with the provider about what to do when you are sick. 4. Have the items on the list in your home. 5. Type 1 Diabetics should have Ketone test strips and know how to use them. 6. Take your temperature every 4 hours and blood sugar every 2 to 4 hours and record the results. 7. Have items in the pantry that will provide 15 grams of carbohydrate. When sick eat regular meals if possible, if not eat 15 grams of carbohydrate an hour. 	<ol style="list-style-type: none"> 1. Written material, "Sick Days" and class discussion. 2. Written material, "<i>Sick Days</i>" and class discussion. 3. Written material, "<i>Sick Days</i>" "Sick Day Plan" and class discussion. 4. Written material, "<i>Sick Days</i>" and class discussion. 5. Written material, "<i>Sick Days</i>" and class discussion. 6. Written material, "<i>Sick Days</i>" "Sick Day Record" and class discussion. 7. Written material, "<i>Sick Days</i>" "<i>Sick Days Plan</i>", and class discussion.

<ul style="list-style-type: none"> 8. List the 5 signs of dehydration. 9. Discuss the importance of keeping a record of what you eat and drink, your temperature, your symptoms and your blood sugar. 10. List 6 to 8 of the times you should call your provider when you are sick. 11. Explain how over the counter medications can affect your blood sugar. 12. Describe some items you want to work on to control diabetes when you are sick. 	<ul style="list-style-type: none"> 8. Check for signs of dehydration when you are sick and get help as indicated. 9. Keep a record of what you eat and drink, your temperature, your symptoms and your blood sugar. 10. Call the clinic or go to the emergency room as directed. 11. Read the labels of over the counter medications and talk with your provider or the pharmacist about the right medications to take. Enter your medications on the action plan. 12. Check your Action Plan 	<ul style="list-style-type: none"> 8. Written material, "<i>Sick Days</i>" and class discussion. 9. Written material, "<i>Sick Days</i>" "Sick Day Record" and class discussion. 10. Written material, "<i>Sick Days</i>" and class discussion. 11. Written material, "<i>Sick Days</i>" and class discussion. 12. Written material, "Action Plan".
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Sick Days

When You Are Sick

Anytime you are sick, even a cold or the flu, you can get high blood sugar. If you have diabetes, it is very important to plan ahead. When you are sick your blood sugar can go very high. The high blood sugar could lead to very serious problems. Having a plan before you are sick will help you prevent more serious problems.

What Happens When You Are Sick

Your stress level goes up when you are sick. This causes your body to release a hormone to help fight the disease. In addition to fighting the disease, the hormones also make your blood sugar higher and keep the insulin from working.

High blood sugar can cause ketoacidosis in people with type 1 diabetes and hyperosmolar hyperglycemic non-ketotic coma in people with type 2 diabetes. Both of these conditions are very serious and can be life-threatening.



Make a "Sick Day Plan". Use the plan to help you.

- ✚ Talk with your provider about when you should call
- ✚ Talk with your provider about if you should take your medicine
- ✚ Ask the provider how often you should check your blood sugar and urine ketones
- ✚ Ask your provider what medicine to take
- ✚ Ask your provider when you should eat
- ✚ Know how to talk with a provider on weekends, holidays and at night
- ✚ Use your sick day worksheet to list your information and keep it in a safe place

**Always ask a pharmacist for help picking an over-the-counter medicine.*



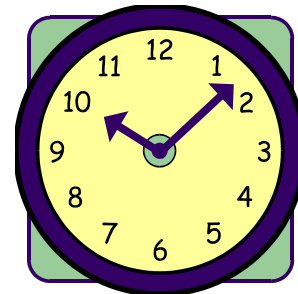
All diabetics should have the following things on hand:

- An extra week's supply of insulin or diabetes pills
- Sugar-free cough medicine
- Aspirin and non-aspirin pain medicine (ask your provider which ones you can take)
- Antacids
- Medicine for diarrhea and vomiting
- Thermometer
- Your glucometer and strips



When should you measure your temperature, blood sugar and ketones?

- ✚ People with type 1 diabetes should monitor their blood sugar and ketones every four hours. People with type 2 diabetes should check their blood sugar every two to four hours and check for ketones if the blood sugar is over 240mg/dl.
- ✚ Check your temperature every four hours
- ✚ Continue to monitor until you feel better



Use your sick day record to record your blood sugars, urine ketones, temperature and your symptoms. Also include what you have had to eat and what medicine you have taken.

Diabetes Medicine

When you are sick you still need to take your medicine. Even if you are throwing up, do not stop your medicine unless your provider tells you **not** to take it. If you cannot take your pills, you may need insulin. The body makes extra glucose (sugar) when you are sick. Make sure you understand your provider's instructions for what to take and how much.

What should you eat when you are sick?

It is best if you can eat and drink your regular diet. Add plenty of fluids by drinking one-half to one cup of sugar-free liquids every one to two hours. Examples would be: water, tea without sugar, instant broth, diet sodas, sugar-free Popsicles®, sugar-free Jell-O® and soups.



If you cannot eat and drink your regular food then eat or sip about 15 grams of carbohydrates every hour. Examples are:

- ❖ $\frac{1}{2}$ cup low-fat ice cream
- ❖ $\frac{1}{2}$ cup soft yogurt
- ❖ $\frac{1}{4}$ cup sherbet
- ❖ $\frac{1}{2}$ cup Jell-O®
- ❖ 1 cup creamed soup (thinned)
- ❖ 1 cup milk
- ❖ $\frac{1}{2}$ cup soft pudding
- ❖ $\frac{1}{2}$ cup cooked cereal
- ❖ 1 tbsp honey
- ❖ $\frac{1}{2}$ cup regular soda
- ❖ $\frac{1}{2}$ cup grape juice
- ❖ $\frac{1}{2}$ twin Popsicle®

- ✚ If you want more than one of the above in an hour, use sugar-free foods
- ✚ It is easier for your body to digest carbohydrates than proteins and fat
- ✚ Small frequent feedings are quickly absorbed and quickly changed to blood glucose
- ✚ Keep a record of how much you eat and drink
- ✚ Have someone check in on you



If you have been very sick to your stomach, start drinking clear liquids like broth, tea, apple juice or grape juice, eating Jell-O® or Popsicles®. When you tolerate this, move on to full liquids like tomato or orange juice, ice cream, and cream soups.

Dehydration

Dehydration can be a problem if you do not replace your fluids or if you have diarrhea and vomiting.

Signs and Symptoms of Dehydration

- ✚ Dry mouth
- ✚ Thirst
- ✚ Decreased urination
- ✚ Dry, flushed skin
- ✚ Dry lips
- ✚ Higher than normal body temperature

If you notice these signs of dehydration, drink clear liquids until signs go away. **If you can't sip fluids call your provider or the Health Care Hotline immediately!**



Medicine

When you are sick, you may want to take over-the-counter medicines. Always check the label before you buy them to check for sugar. Tell the pharmacist your medical problems (diabetes, hypertension, etc) and ask for help to find sugar-free medicine.

Many medicines can affect your blood sugar level.

- ✚ Some antibiotics can lower blood sugar levels in people with type 2 diabetes
- ✚ Decongestants and products to treat colds can increase your blood sugar level and blood pressure

When do I call my provider?

4C's Clinic patients call 409-943-3430



- ✚ If you have blood sugar levels of 200 to 400 mg/dl and have symptoms call the clinic or your provider
- ✚ If you have blood sugar levels above 400 ALWAYS call your provider
- ✚ If you have blood sugar levels under 70 mg/dl for two readings in a row and you have symptoms
- ✚ If you have an upset stomach, vomiting or diarrhea for more than four to six hours
- ✚ If you are sick to your stomach and can not keep fluids down
- ✚ If you have a temperature of 101 or more for over 24 hours.
- ✚ If you have dry mouth, thirst, decreased urination and dry, flushed skin
- ✚ If you have pain that does not go away
- ✚ If you are sick for more than two days
- ✚ If you are not sure about something

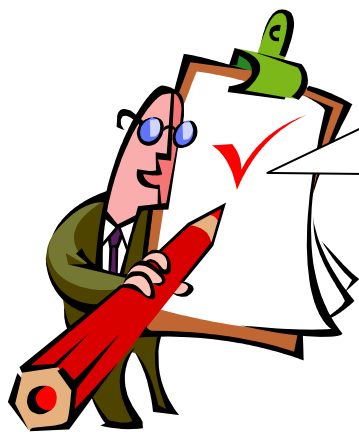
Be sure to keep accurate notes in you "Sick Day Record" and have them with you when you call your provider.

- ✚ Temperature (time and temperature)
- ✚ Blood sugar (time and number)
- ✚ Medicine you have taken (time taken and if it helped)
- ✚ What you have eaten and had to drink
- ✚ How many times you have vomited or had diarrhea

If you go to the emergency room, be sure to tell them you have diabetes and take the above information with you.

Wear a medical alert bracelet or have information with you that you have diabetes at all times.

Be sure to get a flu shot every year, the flu can be dangerous. Ask your provider if you should get a pneumonia shot.



Here are some ideas for your action plan. Pick things you are willing to try. Good luck and share with your educator and provider!

- WHAT you are going to do
- HOW MUCH you will do
- WHEN you will do it
- HOW OFTEN you will do it

Sick Day Plan	I will discuss the "Ask Your Provider" section of the "Sick Day Plan" with my provider at my next visit and write the information on my plan. I will place the "Sick Day Plan" <i>(where)</i> .
Foods For Sick Days	I will buy (foods) from the list of foods for sick days <i>(when)</i> and keep them on hand.
Medicine For Sick Days	I will buy the <i>(medicine my provider suggests to treat common illnesses)</i> <i>(when)</i> and keep it handy for sick days.

Nutrition

Learning Objective	Behavior	Learning Method and Materials
1. Identify what it means to eat healthy. 2. Identify the importance of a prescription for the number of calories per day prescribed by your provider.	1. Make healthy eating a part of your meal planning. 2. Select the correct number of servings of carbohydrates each day.	1. Written material " Healthy eating with diabetes " and class discussion. 2. Written material, "Heating healthy with diabetes" and class discussion.
3. Explain what an "Exchange List" is and how to select from the food groups.	3. Use the "Exchange List" to make a daily food plan	3. Written material, "Eating healthy with diabetes", " Exchange List ", food models and pictures, measuring cups and spoons, and class discussion.
4. Describe serving sizes on an "Exchange List".	4. Demonstrate using the "Exchange List", artificial food and food pictures, and verbalize understanding of portion size	4. Written material, " Visualize Your Portion Size ".
5. Identify carbohydrates, protein, sodium, and fats on a food label.	5. Demonstrate reading a label using food containers. Make good food choices, good serving size and follow a good schedule. Practice using the "Reading Food Labels" worksheet.	5. Written material, " New Food Labels are Here! ", worksheet and class discussion.
6. Compare the regular Food Pyramid with the Diabetic Food Pyramid.	6. Make food choices based on the Diabetic Food Pyramid.	6. Written material " Food Pyramids " and class discussion.
7. Describe the effect of carbohydrates on your body then identify foods that are high and low in carbohydrates.	7. Make food choices based on the carbohydrate content	7. Written material " Carbohydrates " and class discussion.

Nutrition

8. Describe the number of servings of carbohydrates per day in your meal plan.	8. Ask your provider for the number of calories you should have each day.	8. Written material, " Meal Plans by Calories ", "What Counts as Carbohydrates" and "Exchange List".
9. Describe serving size and the number of servings per day of meat, eggs and cheese.	9. Select the correct number and size of servings of meat, eggs and cheese per day	9. Written material, " What counts as Meat, Eggs and Cheese? ".
10. Describe healthy ways to prepare meat, eggs and cheese without adding fat.	10. Prepare meat, eggs and cheese without adding fat	10. Written material, "What counts as "Meat, Eggs and Cheese"?"
11. Describe foods that contain cholesterol and how to reduce cholesterol.	11. Select foods low in cholesterol as part of the meal plan	11. Written material, " What counts as Cholesterol? "
12. Describe foods that contain cholesterol	12. Select most of the fats from the unsaturated choices	12. Written material, " What counts as fats? "
13. Describe how to determine "Hidden sugar" on a food label and how to include these foods in a meal plan.	13. Read labels for "Hidden sugar" and substitute them for other carbohydrates in the meal plan	13. Written material, " What counts as hidden sugar and sodium? "
14. Understand that "sugar-free" and "fat-free" does not mean that it is a free food, it still needs to be counted in the meal plan.	14. Examine the labels of foods with these statements to determine the carbohydrates in a serving	14. Written material, "What counts as hidden sugar and sodium?" and packages of "sugar free" and "fat free" food, " How sweeteners compare ".
15. Describe foods that are high in sodium.	15. Select foods that are low in sodium as part of the meal plan	15. Written material, "What counts as hidden sugar and sodium?"
16. Review tips for health eating	16. Use tips in daily meal planning.	16. Written Materials, " Tips for Healthy

Nutrition

		Eating"
17. Understand the importance of three meals a day at the same time each day and not to skip meals	17. Eat at least 3 meals per day at scheduled meal times	17. Written material, "Tips for Healthy Eating".
18. Compare what is a current days food intake to a healthy diabetic meal plan.	18. Determine daily caloric need. Complete the "What is on your plate" worksheet and make a meal plan for a day	18. Written material, " What's on your plate?"
19. Name some strategies to stick with a food plan.	19. Compare your current meal plan with target plan.	19. Worksheet, " Making changes to your meal plan"
20. Name some strategies to use when eating out.	19. Discuss strategies that would work when eating out.	20. Written material, " Dining out" .

Nutrition

Eating Healthy with Diabetes

Healthy eating means:

- ✚ Making good food choices
- ✚ Eating the correct portion size
- ✚ Eating three meals a day
- ✚ Eating a balance of starches, vegetables, fruit, milk, meat and fat each day.



- ✚ Knowing how many calories your provider wants you to have in your daily plan. This is just as important as knowing how much medicine you should take
- ✚ If you do not know how many calories you should eat each day make a note to ask your provider at your next visit

To be able to work on food plans in class here is a quick way to find out how many calories to eat each day. Multiply your weight x 10 and that is the number of calories.

Example: you weigh 180 pounds $180 \times 10 = 1800$ calories

*Remember to ask your provider for your number of calories at your next visit. *

When you know how many calories you can eat each day then you will know how many servings of carbohydrates, protein and fat you can eat each day.

For this class we will use 1800 calories as the example.

1800 Calories = Total each day of **14** servings of Carbohydrates

You may choose 14 carbohydrate servings from the starch, fruit and milk group

For a well balanced meal plan choose:

Starches = 8 servings

Fruit = 3 servings

Milk = 1 serving

Breakfast **4 servings**, Lunch **4 servings**, Dinner **4 servings**

Snack is **2** extra choices from the starches, fruit or milk

Before we get started some things you need to know

1. Food exchange lists:

Food exchange lists are groups of foods having about the same number of calories, carbohydrates, fats and proteins. You can select any of the food within a group or "exchange" for any other food in the group. The foods in the starch, fruit and milk groups may also be exchanged. For example, if you do not want all the milk servings you can exchange one milk and have an extra fruit.

2. Serving size:

One of the most important things to learn is what a serving size is. Americans are used to very large serving sizes. On your meal plan you will need to start to measure your food until you know what a serving size looks like. On the next page are some common things that you can use to judge serving size when you do not have measuring cups.

Visualize your portion size



Healthy eating includes making healthful food choices and understanding portion sizes. What exactly is a portion? Do you know what a half a cup of vegetables looks like? How much is three ounces of chicken?

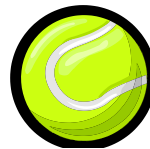
Once you've learned portions, they stay with you forever. If you're looking for some easy ways to know if your serving size is right, try these tips:

✚ A teaspoon of margarine is equivalent to the tip of a thumb to the first joint



✚ Three ounces of meat is the size of a deck of cards or a cassette tape

✚ One cup of pasta is the size of a tennis ball

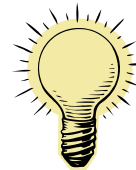


✚ An ounce and a half of cheese is the size of three dominoes

✚ Two tablespoons of peanut butter is the size of a ping pong ball



✚ One-half cup of vegetables is the size of a light bulb



✚ A medium potato should be the size of a computer mouse.

✚ A cup of fruit is the size of a baseball.

✚ A cup of lettuce is four leaves.

✚ Three ounces of grilled fish is the size of your checkbook.

✚ One ounce of cheese is the size of four dice.

✚ One teaspoon of peanut butter equals one die.

✚ One ounce of snack foods-- pretzels, etc. = a large handful.



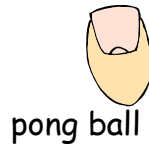
Learning to recognize portions, with simple measures, can make it easy to judge portions whether at home or away. So why not get control by checking out the portions you choose.

Produced by ADA's Public Relations Team

Serving Size Test

Mark the correct portion size.

1. Susie is putting margarine on her toast for breakfast.



pong ball



thumb

ping

2. Mark is at Luby's® for dinner. His serving of meat should be?



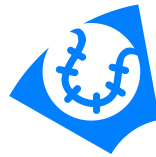
glove



deck of

cards

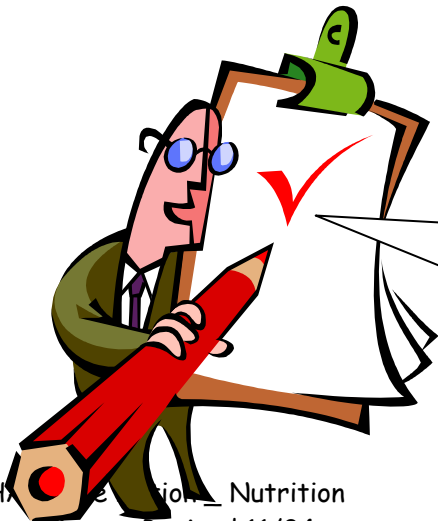
3. Frank is going to have a fruit serving.



baseball



dominoes



It takes practice to figure out serving sizes. Americans are getting used to 'super size', so it's difficult to keep track of true serving sizes. As you practice it may help to name objects to remember the right serving size. Share some of your ideas about serving size with your class, friends, and family.

3. Reading food labels

Nutrition Facts	
Serving size	1 cup
Servings per container	2
Amount per serving	
Calories	90
Calories from fat	30
Total Fat	5 g
Saturated Fat	0g
Cholesterol	0 g
Sodium	300 mg
Total Carbohydrates	13 g
Dietary fiber	3 g
Sugar	3 g
Protein	3 g

The information on the food label is for the amount of food listed as serving size

On the meal plan a **serving of fat is 5 grams (g)**

You should limit your sodium (salt) to 2400 mg or less each day

On the meal plan a **serving of carbohydrates is 15 grams (g)**

*If you have high blood pressure you should eat less sodium each day, ask you provider how much you should have.

Nutrition Facts	
Serving size	½ cup
Servings per container	16
Amount per serving	
Calories	180
Calories from fat	80
Total Fat	9 g
Saturated Fat	5g
Cholesterol	30 mg
Sodium	100 mg
Total Carbohydrates	21 g
Dietary fiber	0 g
Sugar	17 g
Protein	4 g

Let's look at a label!

Blue Bell®Ice Cream
Cookies 'n Cream

- ½ cup serving has
- 2 servings of fat
 - 1 ½ servings of carbohydrates

Cheerios®

Nutrition Facts	
Serving size 1 cup	
Servings per Container 9	
Amount Per Serving	
Calories 100	Calories from Fat
Total Fat 1.5 g	
Saturated Fat 0 g	
Cholesterol 0 g	
Sodium 240 mg	
Total Carbohydrate 19 g	
Dietary Fiber 2 g	

Serving size _____
 # Total Carbohydrates _____
 Meal plan servings _____

Frosted Mini Wheats®

Nutrition Facts	
Serving size 24 biscuits	
Servings per Container 9	
Amount Per Serving	
Calories 240	Calories from Fat
Total Fat 1 g	
Saturated Fat 0 g	
Cholesterol	
Sodium 5mg	
Total Carbohydrate 48g	
Dietary Fiber 6 g	
Sugars 12 g	

Serving size _____
 # Total Carbohydrates _____
 Meal plan servings _____

Raisin Bran®

Nutrition Facts	
Serving size ¾ cup	
Servings per Container 9	
Amount Per Serving	
Calories 130	Calories from Fat
Total Fat 1 g	
Saturated Fat 0g	
Cholesterol 0g	
Sodium 230 mg	
Total Carbohydrate 30 g	
Dietary Fiber 5 g	
Sugars 13 g	

Serving size _____
 # Total Carbohydrates _____
 Meal plan servings _____

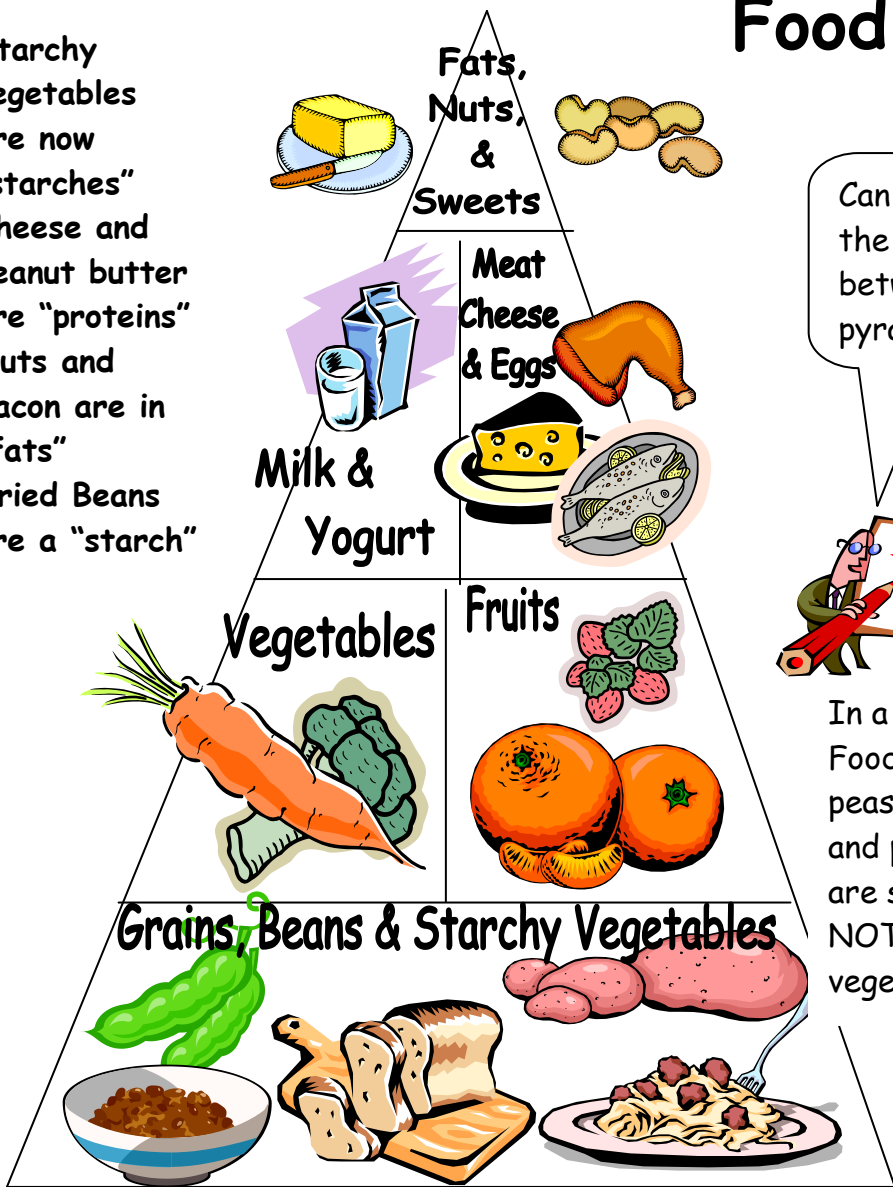
Rice Krispies®

Nutrition Facts	
Serving size 1 cup	
Servings per Container 9	
Amount Per Serving	
Calories 90	Calories from Fat
Total Fat 0 g	
Saturated Fat 0g	
Cholesterol 0g	
Sodium 240 mg	
Total Carbohydrate 22 g	
Dietary Fiber 0 g	
Sugars 2 g	

Serving size _____
 # Total Carbohydrates _____
 Meal plan servings _____

Food Pyramid

- Starchy vegetables are now "starches"
- Cheese and peanut butter are "proteins"
- Nuts and bacon are in "fats"
- Dried Beans are a "starch"

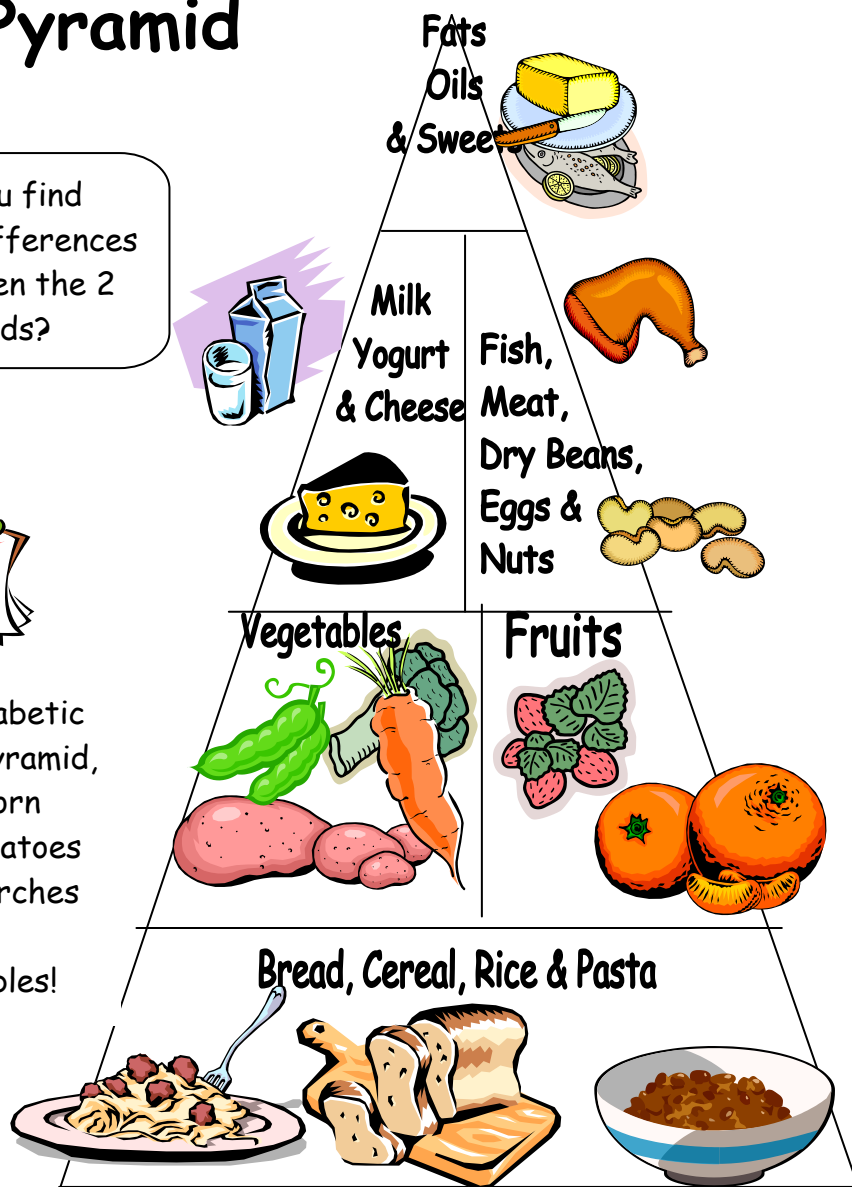


Diabetic Food Pyramid

Can you find the differences between the 2 pyramids?



In a Diabetic Food Pyramid, peas, corn and potatoes are starches NOT vegetables!



Regular Food Pyramid

Carbohydrates (starches, grains, fruit and milk) have the greatest effect on the blood sugar. You may be surprised that some of the vegetables are counted as carbohydrates. These include the corn, peas, potatoes, sweet potatoes, yams and dried beans. These are called starchy vegetables.

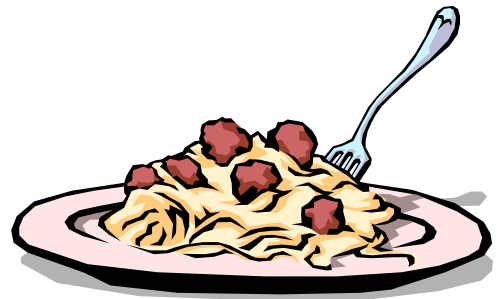
It is very important to measure the carbohydrates so you will know how many servings you eat each day.

A serving of carbohydrates has 15 grams of carbohydrate.

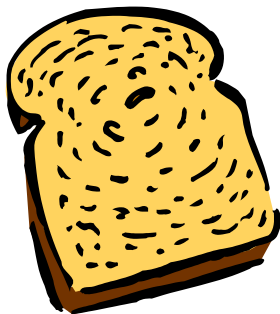
Look at the exchange list and highlight the foods that you eat most often, notice what the serving size is.

Does this look like 1 serving of pasta?

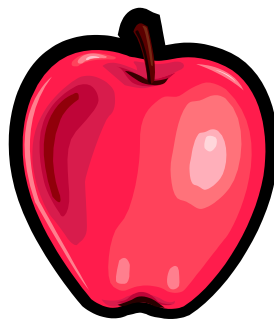
If you want to have **a cup of pasta** then you would count it as **3 servings**.



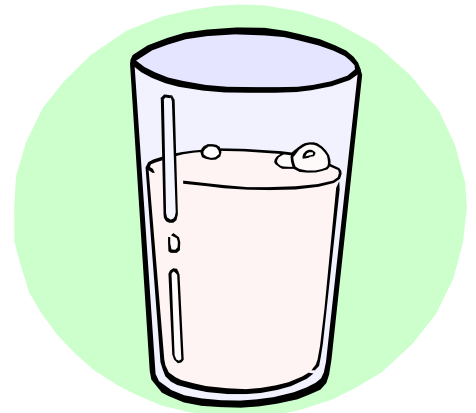
Each of these is one serving of carbohydrate



1 slice of bread



1 apple



8 ounces of milk

When planning meals the carbohydrates should be spaced throughout the day.

Breakfast

Lunch

Dinner

Snack

4

4

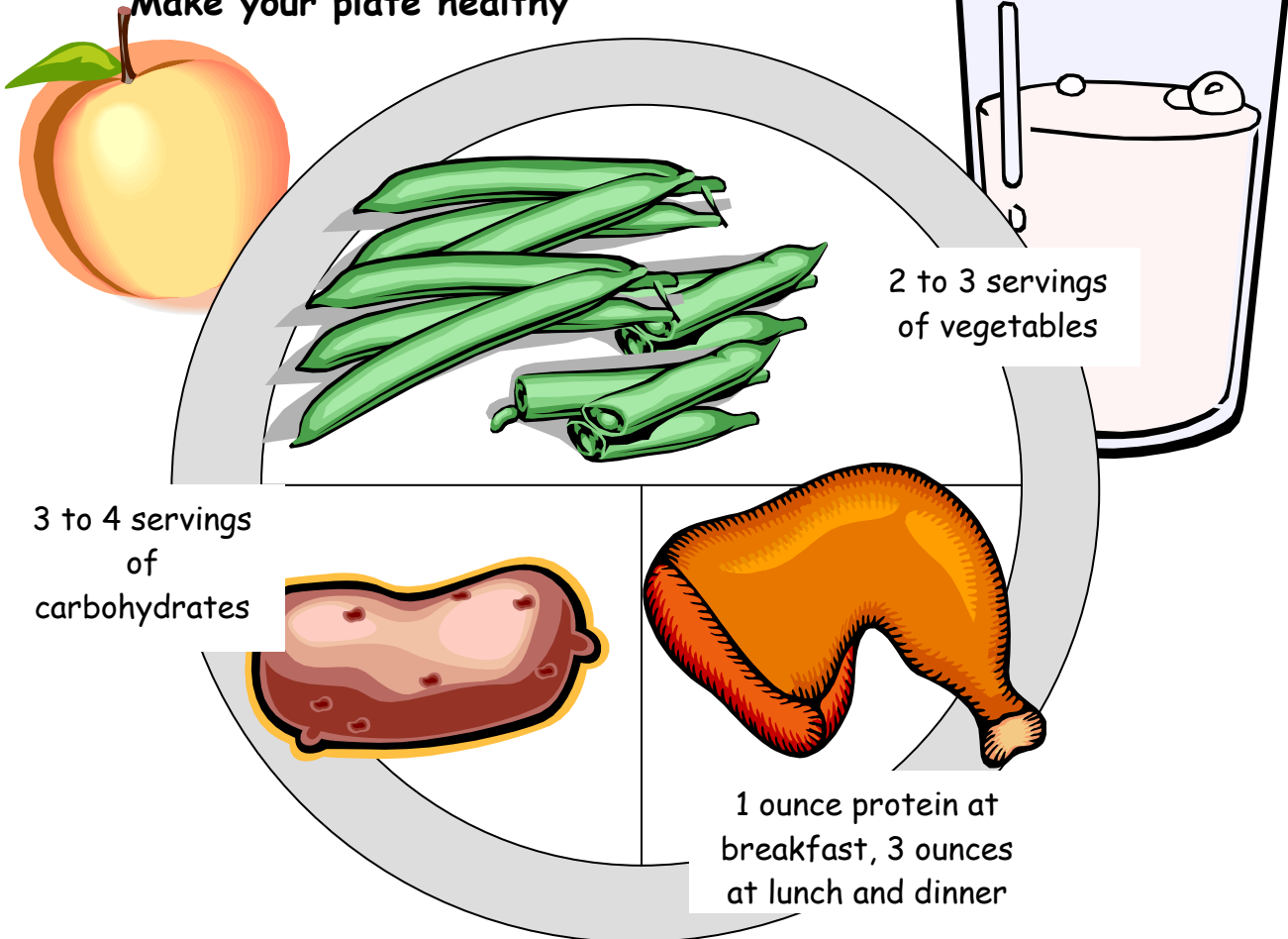
4

2

Non-starchy vegetables

This includes all the other vegetables. You should have two (2) to three (3) servings two (2) times a day. Non-starchy vegetables have 5 grams of carbohydrates in a serving. They have a lot of vitamins and minerals as well as fiber. Include them every day.

Make your plate healthy



1500 Calories = Total each day of **11** servings of Carbohydrates

You may choose 11 carbohydrate servings from the starch, fruit and milk group

For a well balanced meal plan choose:

Starches = 6 servings

Fruit = 1 serving

Milk = 2 servings

Breakfast **3 servings**, Lunch **3 servings**, Dinner **3 servings**

Snack is **2** extra choices from the starches, fruit or milk

Non starchy vegetables:

1 or 2 servings at lunch and dinner

Protein:

1 ounce for breakfast and 3 ounces for lunch and dinner

Fat:

3 servings a day (if you have high cholesterol you should have less)



1800 Calories = Total each day of **14** servings of Carbohydrates

You may choose 14 carbohydrate servings from the starch, fruit and milk group

For a well balanced meal plan choose:

Starches = 8 servings

Fruit = 3 servings

Milk = 1 serving

Breakfast **4 servings**, Lunch **4 servings**, Dinner **4 servings**

Snack is **2** extra choices from the starches, fruit or milk

Non starchy vegetables:

1 or 2 servings at lunch and dinner

Protein:

1 ounce for breakfast and 3 ounces for lunch and dinner

Fat:

5 servings a day (if you have high cholesterol you should have less)

2000 Calories = Total each day of **15** servings of Carbohydrates

You may choose 14 carbohydrate servings from the starch, fruit and milk group

For a well balanced meal plan choose:

Starches = 8 servings

Fruit = 3 servings

Milk = 2 servings

Breakfast **4 servings**, Lunch **4 servings**, Dinner **5 servings**

Snack is **2** extra choices from the starches, fruit or milk

Non starchy vegetables:

1 or 2 servings at lunch and dinner

Protein:

1 ounce for breakfast and 3 ounces for lunch and 4 ounces for dinner

Fat:

6 servings a day (if you have high cholesterol you should have less)



2200 Calories = Total each day of **17** servings of Carbohydrates

You may choose 17 carbohydrate servings from the starch, fruit and milk group

For a well balanced meal plan choose:

Starches = 9 servings

Fruit = 3 servings

Milk = 2 servings

Breakfast **5 servings**, Lunch **4 servings**, Dinner **5 servings**

Snack is **3** extra choices from the starches, fruit or milk

Non starchy vegetables:

2 or more servings at lunch and dinner

Protein:

1 - 2 ounces for breakfast and 3 ounces for lunch and dinner

Fat:

8 servings a day (if you have high cholesterol you should have less)

What Counts as Meat, Eggs and Cheese?

Using an Exchange List

- ✚ Meat, poultry, beans, eggs and cheese give you protein, vitamins and minerals.
- ✚ You should have **two three-ounce servings of protein a day plus one ounce for breakfast (optional).**

Example:

Breakfast: 0-1 serving Lunch: 3 oz. serving Dinner: 3 oz. serving

A serving of meat is about the size of a deck of cards.



Serving size of proteins that equals one ounce of meat!

- 2 tablespoons of peanut butter
- 1 egg
- 1 ounce of cheese
- 1 hot dog
- $\frac{1}{4}$ cup cottage cheese

one ounce (oz) meat

Choose:

- ✚ Beef - round, loin, sirloin, chuck, arm roast/steaks
- ✚ Pork - tenderloin, center loin, and ham
- ✚ Veal - all cuts except ground
- ✚ Lamb - leg, loin and fore shanks roasts/chops
- ✚ Chicken and Turkey - light and dark meat without skin
- ✚ Fish and Shellfish - most are low in fat, avoid those canned in oil
- ✚ Low-fat Cheese; low fat cheese is very high in sodium



Cooking meats:

- ✚ Prepare meats using low-fat methods, such as broiling, roasting, grilling or boiling
- ✚ Cut off any fat you see

What Counts as Fat?

Using an Exchange List

Your meal plan allows you between three and seven servings of fat a day unless you have high cholesterol. If your cholesterol is high have less servings of fat each day. A serving equals five grams of fat.

Most of your fats should be **monounsaturated** or **polyunsaturated** fats.

Here are sample serving sizes:

- | | |
|--|-----------------------------|
| 1/8 avocado | 1 teaspoon margarine |
| 1 tsp mayonnaise | 1 tablespoon nuts and seeds |
| 2 teaspoon salad dressing | 5 large olives |
| 1 teaspoon oil (corn, cottonseed, safflower, soybean, sunflower, olive) | |

Only a small amount of the fat you eat should be saturated fat. This fat is usually solid at room temperature like coconut, butter, cheese, bacon, cream cheese, sour cream and red meat fat.



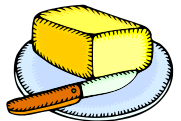
Controlling cholesterol and fat in your diet is important to protect your blood vessels. Read the label on low-fat and fat-free food. If it has five or more grams of fat, count it as one fat-serving for each five grams!

What Counts as Cholesterol?

Cholesterol is a fat-like substance in all animal foods, like meat, poultry, fish, milk and egg yolks. Eat foods low in cholesterol for a healthy heart.

Hints to reduce cholesterol:

- ✚ Limit cholesterol intake to less than 300 mg/dl per day.
- ✚ Use lower fat dairy products, such as skim, 1 %, 2 % or low fat.
- ✚ Occasionally include beans and peas in place of the meat.
- ✚ Organ meats like liver are very high in cholesterol; eat these only occasionally.
- ✚ Remember to count the eggs, milk and butter used in cooking. Choose low fat milk products in cooking also.
- ✚ Take the skin off chicken and turkey before you cook it.
- ✚ Have only one egg yolk per serving; use extra egg whites to increase the amount. The yolk is high in cholesterol.

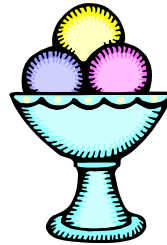


What Counts as Hidden Sugar?

You are working to control sugar in your meal plan -look for **hidden sugars** in food. Sugar by any other name can still raise blood sugar.

Beware of foods labeled "sugar free". Sugar free means the food does not contain refined white sugar but is sweetened with other products that add carbohydrates. When you read food labels look for these added or hidden sugars:

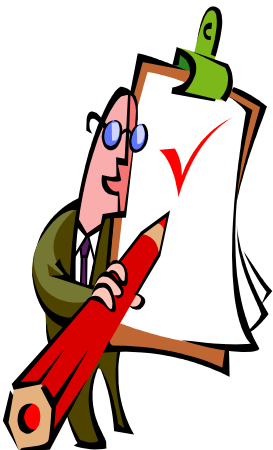
- ✚ Brown sugar
- ✚ Corn syrup
- ✚ Molasses
- ✚ Glucose
- ✚ Lactose
- ✚ Malt syrup
- ✚ Sorbitol



- ✚ Raw sugar
- ✚ Honey
- ✚ Sugar alcohol
- ✚ Fructose
- ✚ Dextrose
- ✚ Dextrin
- ✚ Mannitol

Look at the label, 15 grams of carbohydrate is one serving. For each 15 grams of carbohydrate you will need to exchange one serving of starch, fruit or milk in your meal plan.

Two regular cookies = three sugar-free cookies



Wow- both servings contain 15 grams of carbohydrates. Do you want to pay more **TO BUY SUGAR-FREE !!!** Check out the labels first.

What Counts as Salt or Sodium?

Many people with diabetes also have high blood pressure and should limit their salt intake. Salt will cause an increase in blood pressure. If you do not have high blood pressure authorities recommend no more than 2,400 mg of sodium (salt) a day-that is one teaspoon. If you have high blood pressure, ask your provider how much sodium you should have each day (how many milligrams - not teaspoons!).



Choose:

- ✚ Low salt foods such as fresh or frozen vegetables
- ✚ Choose canned foods that say "no added salt"
- ✚ If you have canned vegetables, drain off the water and rinse the vegetables to remove added salt
- ✚ Don't put the shaker on the table
- ✚ Taste food first, then add salt, if needed
- ✚ Use salt substitute (Try seasoning like Mrs. Dash® in place of salt)

Avoid:

- ✚ Powdered seasonings like garlic and onion salt, instead use garlic or onion powder.
- ✚ Fast foods and convenience (packaged) foods are high in sodium.
- ✚ Chinese foods, such as soy sauce, are high in sodium.
- ✚ Cured meats like ham and lunchmeats like bologna are high in sodium.
- ✚ Canned soup is high in sodium.



Healthy Eating starts with:

- Healthy meal planning
- Healthy shopping
- Healthy recipes
- Healthy cooking
- Healthy portions
- Healthy snacking

Controlling blood sugar levels is very important when you have diabetes. You want to plan your meals so your blood sugar does not get too low or too high.

Here are some tips to help you

- ✚ Develop a routine
- ✚ Make a meal plan and a shopping list
- ✚ Eat your meals at the same time every day
- ✚ Meals should be four and one half to five hours apart.
- ✚ Avoid unplanned snacks; if you are hungry between meals eat some raw vegetables or drink water, diet soda, sugar free tea.
- ✚ Eat three balanced meals daily
- ✚ Use your correct portion size
- ✚ Second helpings = more servings - **DON'T FORGET TO COUNT**
- ✚ When you want to have foods not on the meal plan remember to exchange them for things on the meal plan, do not have them as extras
- ✚ **Always eat at the table.**
- ✚ **Avoid eating in front of the T.V.**

Do not skip meals! You are learning to balance your medicines and foods to prevent high or low Blood sugar.



Dining Out



Plan for eating out.

Make it a part of your meal plan.
Know what a portion size looks like
then, you will not over eat.

Before you go out to eat:

- ✚ Pick a food healthy restaurant
- ✚ If you know the restaurant decide what you will order before you get there, that way you will be less likely to order high calorie foods

At the restaurant:

- ✚ Skip the chips or other snack foods that come before the meal
- ✚ Consider sharing a meal with a friend if the portions are large
- ✚ Be on the look out for fats:
 - Look for words like oil, butter, sour cream, cheese, sausage, golden brown, battered, cream sauce as these add extra calories
- ✚ Choose foods prepared with tomato sauce, vegetables, fruits, mustard, or vinegar
- ✚ Ask for foods to be broiled, baked, stir fried, grilled or steamed instead of fried
- ✚ Ask that sauces and salad dressings be served on the side
- ✚ If you do not know what is in a food, ask
- ✚ Ask about hidden sugar such as honey, molasses or syrup used in food preparation
- ✚ If portions are large, ask for a to go box, it may be helpful to divide the food before you start to eat

Beware of the salad bar!



- ✚ Use a small plate
- ✚ Choose vegetables and fruit
- ✚ If you must, take only a **small taste** of high calorie foods like pasta and potato salad, cheese, croutons, sunflower seeds and bacon bits
- ✚ Avoid "all-you-can-eat" salad bars
- ✚ Remember to use the serving size for salad dressing

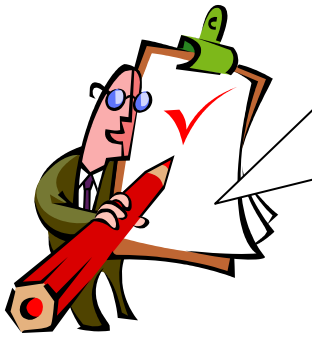
Fast Foods:

- ✚ Choose grilled instead of fried or deep fried
- ✚ Have a salad instead of french fries or onion rings
- ✚ **DO NOT super size.**
- ✚ Use mustard and catsup instead of mayonnaise, cheese and guacamole
- ✚ Eat your sandwich as "open faced", only half of the bun
- ✚ Select children's-size or junior-size portions
- ✚ Have water, low-fat milk, iced tea, or diet beverages instead of regular soft drinks

Food item	Carbs	Total fat	Sodium
Big Mac®	45 Gms	31 Gms	1070 mgs
Super size fries	68 Gms	26 Gms	350 mgs
Large Coke®	86 Gms		30 mgs
Total	199 Gms	57 Gms	1450 mgs
# servings	13	11	$\frac{1}{2}$ tsp +

Pizza:

- ✚ Choose vegetables as toppings
- ✚ Avoid pepperoni, sausage and extra cheese
- ✚ Have thin crust



Here are some ideas for your action plan. Pick things you are willing to try. Good luck and share with your educator and provider!

- WHAT you are going to do
- HOW MUCH you will do
- WHEN you will do it
- HOW OFTEN you will do it

Food labels	I will read food labels when I go to the grocery store.
Portion size	I will use measuring cups for serving sizes from the exchange list at (which meals) starting (when).
Number of portions	I will have (number) less servings of (food) at (meal) (number of days) each week starting (when).
Number of calories per day	At my next clinic visit I will ask my provider for the number of calories to eat each day.
Cholesterol	I will eat one (less serving or substitute a food) of (food) at (meal) (times) each week starting (when)
Eating three meals a day	I will eat (meal) at (time) (number of days) a week starting (when).
Planning meals	I will plan meals for (number of days) (when) he Calories by meals and the exchange list for the next (how long).

What is on Your Plate?



- List the foods you eat for one day and the serving size.
- Using the exchange list, put in the number of servings under the correct food group.
- At the end of the day, total each column. Using "Meal Plan by Calorie", put in the TARGET number of servings for each food group. How close are you?

	Serving Size	Carbohydrates			Vegetables	Meat and Cheese	Fat
		Bread Cereal Rice Pasta	Fruit	Milk and yogurt			

Breakfast

Example: egg	2					2oz	
Example: Toast	2	2					
Example: margarine	2						2

Lunch

Big Mac®	1	3				8 oz	6
Fries	Super	5 1/2					5
Diet Coke®	32 oz						

Dinner

Tortillas	3	3					
Rice	1 cup	3					
Beans	1 cup	3					
Chicken	6 oz					6 oz	

Snacks

Candy Bar	1	3					

Subtotal:		22 1/2				16 oz	13
Total:		22 1/2					
Target:		14				7 oz	5

What is on Your Plate?



- List the foods you eat for one day and the serving size.
- Using the exchange list, put in the number of servings under the correct food group.
- At the end of the day, total each column. Using "Meal Plan by Calorie" put in the TARGET number of servings for each food group. How close are you?

	Serving Size	Carbohydrates			Vegetables	Meat and Cheese	Fat
		Bread Cereal Rice Pasta	Fruit	Milk and yogurt			

Breakfast

Lunch

Dinner

Snacks

Subtotal:							
Total:							
Target:							

My Meal Plan Worksheet



- ✚ Using your prescribed calories a day, for example 1,800, write in your target number of servings at the bottom of the table.
- ✚ Using **Meal by Calories** and **The exchange list** plan your meals for a day.
- ✚ Total each column. How close are you when you match the total with the target?

	Serving Size	Carbohydrates			Vegetables	Meat and Cheese	Fat
		Bread Cereal Rice Pasta	Fruit	Milk and yogurt			

Breakfast

Lunch

Dinner

Snacks

Subtotal:							
Total:							
Target:							

Coping with Diabetes

<i>Learning Objective</i>	Behavior	Learning Method and Materials
1. Discuss some ways you can cope with diabetes.	1. Try some of the coping strategies.	1. Written material " Coping with Diabetes " and class discussion.
2. Discuss how denial can affect your diabetes care.	2.	2. Written material, " Coping with Denial, Anger and Depression " and class discussion.
3. Discuss the kind of comments that mean you may be denying or avoiding some part of your diabetes care.	3. Know when you are avoiding or denying parts of your diabetes care	3. Written material, "Coping with Denial, Anger and Depression" and class discussion.
4. Discuss ways to change the denial to action.	4. Use a strategy to fight denial.	4. Written material, "Coping with Denial, Anger and Depression" and class discussion.
5. Discuss the difference between occasional depression and serious depression.	5.	5. Written material "Coping with Denial, Anger and Depression" and class discussion.
6. Discuss how depression can affect diabetes care.	6. Recognize the symptoms of depression when you have them.	6. Written material "Coping with Denial, Anger and Depression" and class discussion.
7. Discuss the nine symptoms of depression.	7. Talk with your provider if you have three or more symptoms of depression that have lasted more than two weeks.	7. Written material "Coping with Denial, Anger and Depression" and class discussion.
8. Review the treatment options for depression.	8.	8. Written material "Coping with Denial, Anger and Depression", " Denial Worksheet " and class discussion.

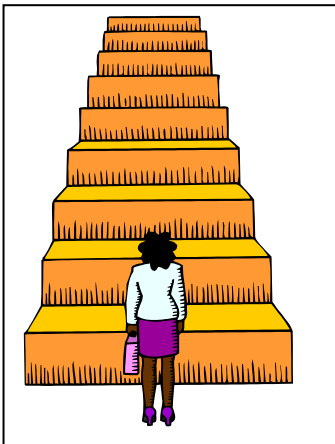
Coping with Diabetes

<p>9. Discuss why diabetes and anger sometimes go together.</p>	<p>9. Determine if your response to diabetes is anger. Complete work sheets on anger.</p>	<p>9. Written material "Coping with Denial, Anger and Depression" and class discussion.</p>
<p>10. Review some common signs that anger may a response to having diabetes.</p>	<p>10. If you experience anger recognize the first signs that anger is building and have some strategies to take charge of your anger.</p>	<p>10. Written material "Coping with Denial, Anger and Depression" and class discussion. "Getting to Know Your Anger" Worksheets.</p>
<p>11. Discuss strategies to use when you feel anger start to build.</p>	<p>11. Choose a couple of the ideas to help you cope with diabetes or come up with your own.</p>	<p>11. Written material "Coping with Denial, Anger and Depression" and class discussion. Worksheets on anger</p>
<p>12. Read the list of ideas for coping with diabetes.</p>	<p>12.</p>	<p>12. Written material "Coping with Diabetes" "Debt or Deposit Story" and class discussion</p>

Coping with Diabetes

When you have diabetes you may feel unwell and have to deal with the fact that you have a life long disease. You also have to learn about taking care of yourself.

You play an active part in controlling your diabetes. Your provider or diabetes teacher will ask you to tell 9+63the ways you can change your behavior to improve your health. This will include the way you eat, sleep, control your weight and exercise all at the same time!



Coping with your diabetes will be the most important thing you can do for yourself and the people who care about you. You will find benefits in every step you take! Being sick only makes you feel worse when you do not help yourself.

Here are a few ideas to help you cope and get through this learning period:

1. **Let your friends and family help you.** They may want to learn with you. Coping may mean you will ask people close to you to change the way they shop and cook.

2. **Set small goals** (such as losing five pounds or walking around the block three times a week) and work to meet your goals. Start by taking small steps to build your confidence.



3. **Do not feel guilty** if you slip up. Expect to slip up sometimes. The important thing is to keep trying.

4. When you reach a goal **congratulate yourself** on doing a good job. You can control your diabetes—don't let it control you!



5. Do not try too hard. Do not look at all the things you "should" do. If you try to do everything at once, you might feel overwhelmed and give up.

6. If you are having a problem keeping up with your program, **let your provider know**. Together, you can set goals that are reasonable.



7. Think positively. You can do this! The worst thing you can do is deny there is a problem. There is so much you can do to prevent problems.

8. Do not worry about what people will think. This is your chance to teach them that diabetes can be controlled.

Having diabetes isn't the end of the world.

It's up to you to take charge.

You can make a difference.



Go to your Goal Tracker and look at your Goals. Did you set goals you can meet? If you do not feel you can meet your goals change them! You want to be successful.

Coping with Denial, Anger and Depression

You have probably heard that Diabetes care is up to you. That is easier said than done.

Staying motivated 24 hours a day, seven days a week is hard.

The more you stick to your plan of care, the healthier and more energetic you will feel.

Sometimes you lose your drive. Your emotions may be getting in the way of following your diabetes plan. What do you do to get back on track? Learn to spot these feelings and what to do when they occur.

Three common culprits are denial, depression and anger.



Denial



Have you said, "Not me, there must be some mistake".

Denial is a normal reaction when you find out you have diabetes or any chronic illness.

The problem comes when you keep on denying that you have diabetes. Continued denial keeps you from learning to take control of your diabetes and keep yourself healthy.

Why denial?

Sometimes denial can serve a purpose. It is a way of coping with bad news. It can keep you from getting overwhelmed and depressed. It lets you accept bad news a little at a time, when you are ready.

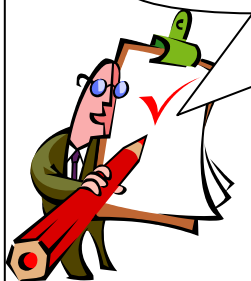


- + Denial can happen years after you are diagnosed with diabetes.
- + Denial is serious because it prevents you from taking care of your diabetes.
- + It keeps you from the fact that diabetes is a life long, chronic illness and if left untreated can lead to serious problems.
- + Denial can also let your support group (family and friends) pretend that diabetes is not that serious.



Sometimes the comments your provider makes, "your blood sugar is good" or "you have a mild case of diabetes" may add to your denial. What you may hear is my diabetes is not serious.

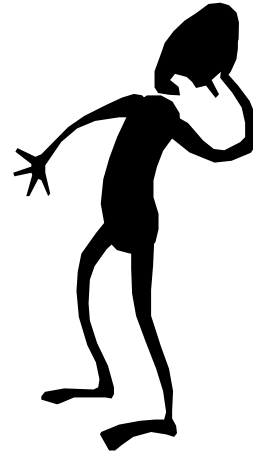
If you hear yourself saying or thinking the following you are *denying* or avoiding some part of your diabetes care.



- + One bite won't hurt
- + I'll go to the provider later, I feel OK now
- + I don't have time to test my blood sugar, eat what I should or exercise
- + I don't have time to eat breakfast
- + My diabetes is not serious because I only take pills

How can denial hurt your diabetes self-care?

✚ Not checking your blood glucose— it can be a bother to check your blood sugar regularly. You may think that you know what your blood sugar is without testing. But a glucometer is much better at measuring your blood sugar.



✚ Not following your diet —changing eating habits and food choices is very hard. Denial could be the problem if you think:

- It costs too much to buy the right foods.
- I can't ask my family to change what they eat. I don't want to eat alone or fix two meals.
- I can't buy healthy food at work.
- It's too hard to bring my lunch.



✚ Eating right may not be as hard as you think, talk with a diabetes educator or dietician.

✚ Not taking care of your feet—you know you should check your feet each day, it takes too much time, you forget or it is hard and you have trouble moving around.

✚ Washing and checking your feet for signs of problems every day is necessary to find problems before they become serious.

✚ Smoking and diabetes is a deadly mix. Smoking increases your risk of problems from diabetes. Comments such as "I only take a couple of puffs" or "If I quit I will gain weight" are denial.

Denial can creep up from time to time; when it does you can fight back.

What can you do about denial?

Identify what parts of your diabetes care you are avoiding.
What can you do to change?

Understand why each thing on your list is important.

- ✚ Accept that it will take time to reach your goals; you didn't learn these habits yesterday.



- ✚ Tell your friends and family how they can help.

- ✚ Ask them to



encourage you to stay on your



meal plan or exercise plan.

- ✚ Encourage them to join you in eating healthy and exercising.



Depression

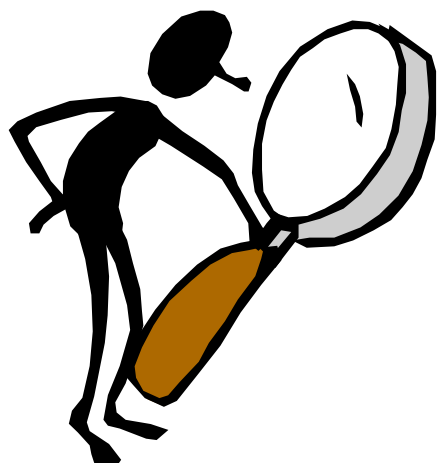
Everyone feels down once in a while, this is normal. If you feel sad, if life feels hopeless and these feelings last for more than two weeks you have a sign of serious depression.

People with diabetes are at greater risk for depression than people without diabetes. There are no easy answers as to why this is true.

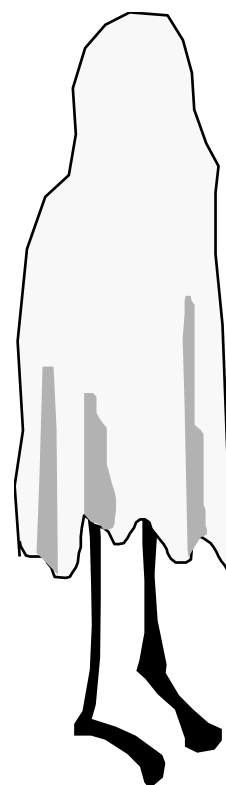
Stress from the daily management of your diabetes can build up. You may feel alone or set apart from friends and family who do not have diabetes. You may feel like you are losing control.

Depression can interfere with good diabetes care. If you are depressed chances are you will not have the energy to check your blood sugars, exercise and follow your meal plan. You may not feel like eating at all.

Step one: Spotting depression—if you have been feeling sad, blue, or down in the dumps, check for these symptoms.



- ✚ Loss of pleasure, you no longer take interest in doing things you used to enjoy.
- ✚ Change in sleep patterns, you have trouble falling asleep, you wake up often during the night, or you want to sleep more often during the day. You wake up early and cannot go back to sleep.
- ✚ Change in appetite, you eat more or less resulting in quick weight gain or loss.



- # Trouble concentrating, you cannot watch a TV program or read a book because thoughts and feelings get in the way.
- # Loss of energy, you feel tired all the time.
- # You feel nervous; you are anxious and cannot sit still.
- # Guilt, you feel like you "never do anything right".
- # Morning sadness, you feel worse in the morning than the rest of the day.
- # Suicidal thoughts, you feel like you want to die.



If you have three or more of these symptoms, or if you have just one or two but have been feeling bad for more than two weeks it is time to get help. If you think about suicide, talk to your provider or go to the emergency room immediately.

Getting help!

Do not keep these feelings to yourself!

Diabetes that is in poor control can make you feel depressed.

- # During the day high or low blood sugar can make you feel anxious.
- # Low blood sugar can cause hunger and eating too much.
- # High or low blood sugar at night can disturb your sleep.
- # High blood sugar may cause you to wake up at night to urinate and then you will feel tired during the day.

Talk with your provider there may be a physical reason for your symptoms. Physical causes of depression can include:

- ✚ Alcohol and drug abuse
- ✚ Thyroid problems
- ✚ Side effects from other medications

Do not stop taking your medications before talking with your provider.

Treatment for depression

1. Antidepressant medicine
2. Counseling or psychotherapy
3. Attend a support group

Anger

Anger can start at the diagnosis of diabetes with the question, "Why me?"

You may dwell on how unfair diabetes is. You may not want to treat it, you may not want to control it, and you hate diabetes.

One of the reasons that diabetes and anger go hand in hand is that you feel your life is threatened. Life with diabetes can seem full of dangers such as insulin reactions and complications. When you feel threatened anger often comes to your defense.



An example of how anger can affect your diabetes is:

Mary, a woman in her mid-fifties was diagnosed with diabetes six months ago. She was furious; she saw diabetes as not only a threat to her health but to her whole way of life. A very proud woman, active in community and social affairs she found it impossible to be open about her "weakness". She didn't want her friends to prepare special food for her. Denial fueled Mary's anger at diabetes.

Mary was stuck in an anger circle. She was angry at diabetes for changing her life. She refused to face her health care needs because she refused to change her life. Her diabetes went uncared for and her blood sugar levels stayed high. As the blood sugars levels went on uncontrolled she felt worse and her anger at diabetes grew.

You can learn to use your anger; you can put it to work for better diabetes care.

How do you change your anger circle?

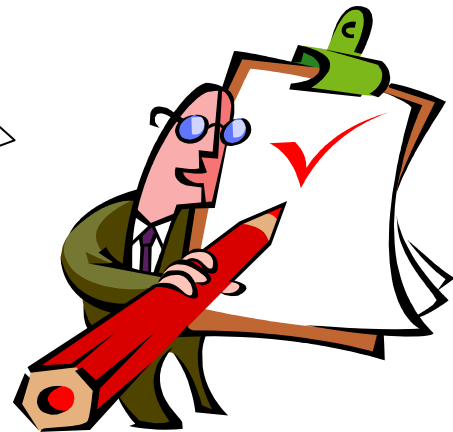
Dr. Hendrie Weisinger in his Anger Work-Out Book suggests:

Figure out what is making you angry and how is it affecting your life?

Keep a diary of when you feel angry.

Each evening think back over the day.

- ✓ When were you angry?
- ✓ What time was it?
- ✓ Who were you angry with?
- ✓ What did you do about it?



After several weeks, you can go back and read over your notes. Do you see any patterns?



When Mary read over her diary she learned that social activities made her angry. She did not like talking about her diabetes in public. She felt angry if her friends asked her what she could eat or made a special food for her. She felt like her diabetes was the center of attention.

Change the thoughts, physical responses and actions that fuel your anger. Look for warning signs that your anger is building.



Do you feel tense?

Are you talking louder or faster?



When you feel anger taking over, calm yourself by:

- Talking slowly
- Slowing your breathing
- Getting a drink of water
- Sitting down
- Leaning back
- Quieting yourself

These steps do not mean you stop feeling angry, but you are taking charge of your anger.



Mary decided her anger was helping her avoid talking about her diabetes. She tried answering questions in a matter of fact way but this still made her furious.

Find ways to make your anger work for you. Your anger diary can help. How is your anger helping you cope with diabetes?

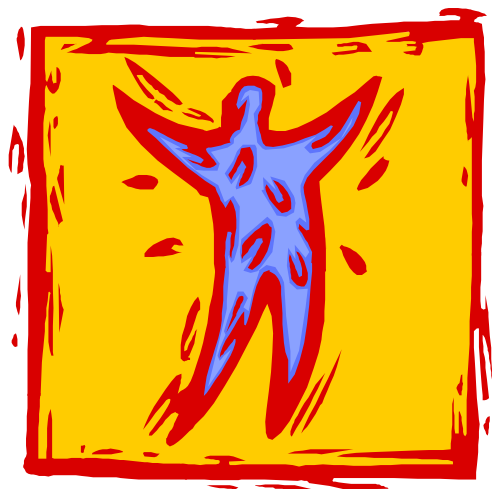


Mary's anger told her that she still hadn't accepted her diabetes. Going to diabetes classes and meeting other people with diabetes helped. She was able to enjoy her friends again and to tell them not to treat her special.

You may go on feeling angry. When you feel threatened, afraid, or frustrated, anger is a normal response. Anger may signal a need for you to take action.

The better you understand your anger, the better you will be able to use it for good self care.

Anger can be a force for action, change and growth.





Here are some ideas for your Action Plan. Pick things you are willing to try. Good luck and share with your educator and provider!

- WHAT you are going to do
- HOW MUCH you will do
- WHEN you will do it
- HOW OFTEN you will do it

Denial	I will (what example, eat breakfast) at (time example, 8 AM) (how often example, Monday, Wednesday and Friday) starting (when example, next week)
Depression	I will call (when) to make an appointment with my provider to talk about my depression.
Anger	When I start to feel (first signs of anger) I will (activity to decrease anger) for (how long), I will start on (day).
	I will keep an Anger diary for a week, each night I will look at my day and write down what made me angry.
	I will start on (day) After a week, I will look at the diary to see if there is a pattern.

Learning Objective	Behavior	Learning Method and Materials
1. Discuss when stress is a good response and when it is not	1. Begin to talk about stress	1. Written material " Diabetes and Stress Management " and class discussion
2. Discuss at least three of the physical changes that can be caused by stress and why controlling your response to stress is important	2.	2. Written material "Diabetes and Stress Management" and class discussion
3. Review the common symptoms of stress	3. Recognize the symptoms of stress that apply to you. Determine what the early signs of stress are for you	3. Written material "Diabetes and Stress Management" and class discussion and ' Are You under Stress? and ' Causes of Stress ' Handout
4. Discuss unhealthy ways of handling stress	4. Think about the way you handle stress. Do you have unhealthy ways to handle stress?	4. Written material "Diabetes and Stress Management" and class discussion
5. Explore healthy ways to handle stress	5. Discuss healthy ways that you could stress and find one to try	5. Written material "Diabetes and Stress Management" and class discussion
6. Discuss ways you can prevent added stress in your life	6. Review your daily schedule and determine if there are things you can change. Develop a plan to start to make changes	6. Written material "Diabetes and Stress Management" and class discussion
7. Discuss and try some of the relaxation training, stretching and deep breathing exercises	7. Try one or more of the exercises when you start to feel stressed	7. Written material "Diabetes and Stress Management" and class discussion and demonstration

Diabetes and Stress Management



Stress is a natural part of life for everyone. This is a good thing in emergencies. Stress can be good for you by adding energy and excitement to your day-to-day activities. But, too much of any good thing can be bad. Normally, stress causes changes to our emotions and our bodies.

The changes can be good as well as bad. The problem is not just the event that caused the change but how you react to it. It is bad when you feel like your body is working overtime and has no place to go. You may feel anxious, afraid, worried or uptight. Each person is different, what is stressful to one person may not cause stress for someone else.

Stress causes the following physical changes:

- + Blood pressure and heart rate rise
- + Breathing rate rises
- + Blood sugar rises

These changes can be harmful when you have diabetes.



Some Symptoms of Stress

- + High blood Pressure
- + Depression
- + Fatigue
- + Insomnia
- + Headaches
- + Anxiety
- + Upset stomach
- + Constipation or diarrhea
- + Weight gain or loss
- + Back and neck pain



Many of the symptoms of stress are the same as other health problems, so make sure to talk with your provider about your symptoms.

Healthy Ways to Cope With Your Stress



Find some ways to change unhealthy habits into a healthy lifestyle.

What can I do when I feel stressed?

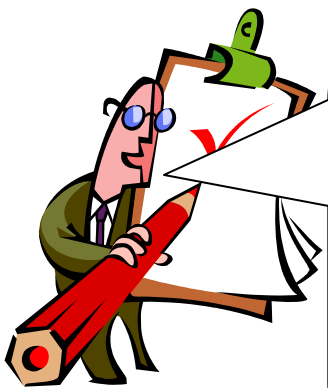
- ✚ *Learn your early signs* of when you feel stressed. Usual signs are tension in the shoulders and neck or clenched fists.
- ✚ If you cannot avoid the things that cause stress then *change how you react to them*.
- ✚ ***Avoid unhealthy coping habits***, check the ones you would try to change.
 - Caffeine
 - Alcohol
 - Nicotine
 - Poor diet
- ✚ ***Try positive coping habits*** -- check the ones you would try.
 - Avoid people or things that are negative or make you feel bad
 - Listen to music
 - Read a good book, such as romantic or joke book
 - Work on your favorite hobby
 - Be creative -- Frame pictures, paint some furniture, draw pictures, knit or crochet, write a letter***
 - Write your thoughts and feelings down on paper
 - Find someone to share your thoughts with and talk to - this could be your pet
 - Do volunteer work
 - Learn a new skill
 - Learn positive self-talk
 - Try imagery
 - See a positive, uplifting movie
 - Plan a trip or vacation - even if you don't go, it can be fun to plan
 - Walk around the block or your house



Ideas to prevent stress

Ways to look at life that reduce stress:

- + Look at change as a challenge, not a threat
- + Do not worry about things you can not change
- + Think positive thoughts
- + Find out what is truly important in your life
- + Keep and/or seek spiritual guidance if you wish



Check the ideas you would use in your Action Plan.

- Set realistic goals to help you get control of your life
- Prepare ahead of time for things that may be stressful
- Set time management goals, use your time wisely
- Use good nutrition
- Drink enough fluids
- Have a plan for daily activity
- Include activities you enjoy in your day/week
- Include exercise three times a week
- Get enough sleep
- Take time for yourself
- Develop a strong support system around you
- Tell your feelings to friends and family
- Enjoy a sense of humor
- Seek professional help as needed
- Teach others about diabetes
- Join a support group, attend classes

Other ways to decrease stress:

- Relaxation training - Start with a muscle and hold it tight for a few seconds and then release the muscle. Start at the top of your head and work your way down.
- Stretching - Roll your head in a gentle circle. Reach toward the ceiling and bend from side to side slowly. Roll your shoulders.
- Deep breathing - lay down on a flat surface and take a slow deep breath and hold it for a second, then breathe out slowly.
- Light candles, darken the room and listen to your favorite music.
- Talk to your provider or diabetes teacher about getting help if you cannot handle stress on your own.

You do not have to handle this problem alone.



**Here are some Actions
to pick for your Action
Plan**

- WHAT you are going to do
- HOW MUCH you will do
- WHEN you will do it
- HOW OFTEN you will do it

Positive coping habits	I will read (what) for 15 minutes every night before bedtime (find a time for yourself activity) For some people, reading the Bible or prayer reduces stress. When I start to feel (what is my stressor) I will (what) my favorite music for (time) 30 minutes
Changing unhealthy habits	I will (what) (when) (how much) for (how long) I will decrease my caffeine by having one less coffee in the morning I will quit drinking caffeine after noon
Preventing stress	I will (what) say no to (what) things that stress me out I will keep my blood sugar normal (when) during the holiday to keep from going to the emergency room. I will practice (what) deep breathing for 15 minutes three times a week after dinner I will get eight hours of sleep every night
Scheduling	I will plan to eat three meals a day to avoid the stress of high and low blood sugar I will plan my day to allow me to check my blood sugar and write the results down in my log book I will plan a reward (movie, visit with friend, shopping) for one week of diabetes self management success.



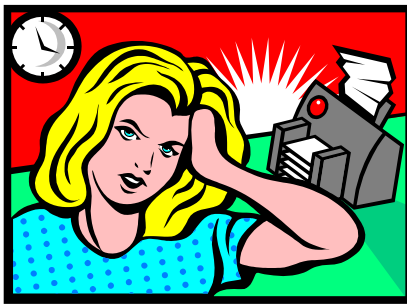
Stress

When I am stressed: (Warning signs and symptoms)

Check the ones that you have

- | | |
|---|--|
| <input type="checkbox"/> Feel hot | <input type="checkbox"/> Eat a lot |
| <input type="checkbox"/> Heart rate is faster | <input type="checkbox"/> Can not sleep |
| <input type="checkbox"/> Sweat | <input type="checkbox"/> Trouble concentrating |
| <input type="checkbox"/> Nervous | <input type="checkbox"/> Sleep a lot |
| <input type="checkbox"/> Anxious | <input type="checkbox"/> Neck or back pain |
| <input type="checkbox"/> Cry easily | <input type="checkbox"/> Tired |
| <input type="checkbox"/> Stomach problems | <input type="checkbox"/> Afraid |
| <input type="checkbox"/> Feel out of control | <input type="checkbox"/> Headache |
| <input type="checkbox"/> Yell | <input type="checkbox"/> Get angry |
| <input type="checkbox"/> | <input type="checkbox"/> |





What causes you to be stressed?

Check the ones that cause you stress

- | | |
|---|---|
| <input type="checkbox"/> Work | <input type="checkbox"/> Family |
| <input type="checkbox"/> Children | <input type="checkbox"/> Husband/wife |
| <input type="checkbox"/> Too much to do | <input type="checkbox"/> Illness |
| <input type="checkbox"/> Money | <input type="checkbox"/> Getting medical care |
| <input type="checkbox"/> Having a place to live | <input type="checkbox"/> Buying medicine |
| <input type="checkbox"/> Taking care of the house | <input type="checkbox"/> Traffic |
| <input type="checkbox"/> Shopping | <input type="checkbox"/> Loss of loved one |
| <input type="checkbox"/> | <input type="checkbox"/> |

How do you cope with stress?



- | | |
|--|--|
| <input type="checkbox"/> Relaxation exercise | <input type="checkbox"/> Do not cope |
| <input type="checkbox"/> Exercise | <input type="checkbox"/> Eat |
| <input type="checkbox"/> Read a book | <input type="checkbox"/> Drink alcohol |
| <input type="checkbox"/> Watch a movie | <input type="checkbox"/> Use drugs |
| <input type="checkbox"/> Talk to a friend | <input type="checkbox"/> Smoke |
| <input type="checkbox"/> Pray | <input type="checkbox"/> |
| <input type="checkbox"/> Listen to music | <input type="checkbox"/> |

List some of the things that cause you stress.

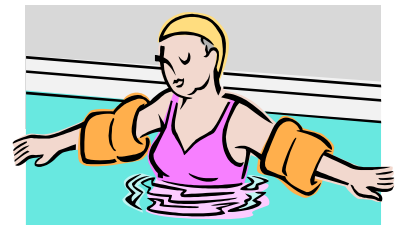
Stress?

1. _____
2. _____
3. _____

Danger!

What are some of your early warning signs and symptoms:

1. _____
2. _____
3. _____



Unhealthy ways to cope
(list the unhealthy ways you cope)

1. _____
2. _____
3. _____

Healthy ways to cope
(list healthy ways to cope, some may be new things to try)

1. _____
2. _____
3. _____

Learning Objective	<i>Behavior</i>	Learning Method and Materials
1. Discuss at least seven benefits of exercise.	1.	1. Written material, "Exercise" and class discussion.
2. Talk with your provider about the right exercise for you before starting an exercise program.	2. Talk to your provider about the right exercise program for you. Select an exercise you can start to do.	2. Written material, "Exercise" and class discussion.
3. Discuss the seven things you need before you exercise,	3. Select appropriate clothing and foot wear and have the other items before you exercise.	3. Written material, "Exercise" and class discussion.
4. Discuss how to exercise safely and the symptoms you should report to your provider.	4. Follow the guidelines for safe exercise and report any of the symptoms listed to your provider if you experience them.	4. Written material, "Exercise" and class discussion.
5. Discuss the importance of checking your blood sugar before exercising, when it is safe to exercise and what to do if your blood sugar is high or low.	5. Check blood sugars before exercise and exercise if your blood sugar is 120 to 250 mg/dl. If not, follow the recommendations.	5. Written material, "Exercise" and class discussion.
6. Review the ways to prevent low blood sugar when exercising.	6. Exercise safely.	6. Written material, "Exercise" and class discussion.
7. Talk about strategies to be more active every day.	7. Include ways to be more active in your daily activities.	7. Written material, "Exercise" and class discussion.
8. Review the precautions to take when exercising if you take insulin.	8. Safely exercise if you take insulin.	8. Written material, "Exercise" and class discussion.
9. Choose an exercise to do.	9. Complete the "My Exercise Plan" and start to exercise.	9. Written material, "My Exercise Worksheet".

Exercise

- + Exercise makes your blood sugar go down!
- + Your body needs to be active!
- + Exercise is a part of good diabetes care



Benefits of exercise:

- + Exercise makes your blood sugar go down
- + Helps to keep your blood pressure down
- + Helps to lower your cholesterol
- + Exercise helps with weight loss
- + Increases your energy level
- + Exercise can help decrease stress
- + Prevent heart and blood vessel disease



Where do you start?

Talk to your provider about exercising.

Talk about:

- ✓ What kind of exercise is good for you
- ✓ How much exercise you should do
- ✓ If you will need to change your medicine
- ✓ What you should do if you have dizziness, nausea or vomiting, pain in the chest, jaw, arms or ears, irregular pulse or trouble breathing.

Exercise and blood sugar:

Check your blood sugar before and after exercise!

❖ Blood sugars less than 80 mg/dl:

- Eat a large snack: 1 cup skim milk, 2 tablespoons of peanut butter and 6 saltine crackers

Wait 10 - 15 minutes and recheck your blood sugar, if it is more than 120 mg/dl it is OK to exercise

❖ Blood sugars between 80 - 120 mg/dl:

- Eat a small snack: an apple or crackers

❖ Blood sugar between 120 - 250 mg/dl:

- Exercise

❖ Blood sugars greater than 250 mg/dl:

- BE AWARE, blood sugar may increase OR decrease after exercise. Monitor your blood glucose closely, especially 4 to 6 hours after you exercise.
- If you have Type 1 diabetes check your ketones, if they are moderate to large do not exercise. Rest and drink fluids and do as instructed by your doctor or provider

❖ Blood sugars greater than 400 mg/dl:

DO NOT EXERCISE! You may have an illness or infection

Prevent low blood sugar:

✚ Do not drink alcoholic beverages before or while exercising

✚ Do not inject insulin into the part of the body you are exercising

✚ Do not exercise when your insulin is at its peak

Insulin and exercise:

- ✚ Exercise at the same time each day. You take your insulin at the same time each day and you eat your meals at the same time each day, do the same with exercise.
- ✚ Test your blood sugar before you exercise and follow the directions above.
- ✚ Do not exercise when your insulin is reaching its peak. A good time to exercise is one to two hours after a meal.
- ✚ Always carry a quick source of sugar.
- ✚ Do not inject your insulin in an area you will be exercising hard. If you are playing tennis do not inject your insulin in your arm.

Is there any difference between activity and exercise?



**ALL EXERCISE IS ACTIVITY BUT,
NOT ALL ACTIVITY IS EXERCISE
We want you to be active and exercise!**

What kind of exercise do you enjoy? Check the exercises you could begin to do.


- | | |
|---|--|
| <input type="checkbox"/> Walking | <input type="checkbox"/> Stair climbing |
| <input type="checkbox"/> Biking | <input type="checkbox"/> Home video exercise tapes |
| <input type="checkbox"/> Jogging | <input type="checkbox"/> Skating |
| <input type="checkbox"/> Exercise Classes | <input type="checkbox"/> Dancing |
| <input type="checkbox"/> Swimming | <input type="checkbox"/> Horse back riding |

Choose an exercise that you can do at a steady pace. Aerobic exercise is good for your heart. Do not pick exercises that cause you to strain, such as lifting weights.

What you will need to get started:

- + A **POSITIVE** attitude
- + Shoes that fit well, tennis shoes or walking shoes
- + Cotton socks that are not tight around the top and comfortable clothing
- + Sun screen and insect repellent if outside
 - ❖ Water
 - ❖ Quick sugar
 - ❖ Carry ID with name, address, diabetes and a list of your medications.

How to exercise safely:

- + Look at your feet, before and after you exercise! 
- + Warm up before you exercise, do stretches for 5 to 10 minutes before you start. Warming up will prevent cramps and sore muscles.
- + Wait at least 30 minutes to an hour after a meal to exercise.
- + Walking should be done on level surfaces, slow down on inclines.
- + Walking should be at an even pace, do not stroll or stop unless necessary.
- + Do not exercise during the heat of the day in the summer.
- + Do not over do it, you want to push yourself a little but not too much. You want to work up a light sweat.
 - ❖ if you are short of breath and can't talk when you exercise, slow down

- ❖ if you can sing while you exercise you are moving too slowly
- ❖ if you can talk while you exercise it is just right

See your provider if you have any of the following symptoms:



- ❖ Feeling very tired
- ❖ Feeling dizzy or lightheaded
- ❖ Nausea or vomiting
- ❖ Any unusual joint or muscle pain

+ Go to the Emergency Room if you feel:

- ❖ Pain in chest, teeth, jaws, arms or ears
- ❖ Irregular pulse
- ❖ Trouble breathing

How often should you exercise?

- + You should exercise at least 4 times a week, but every day is better.
- + Start slow and work up to 30 minutes a day

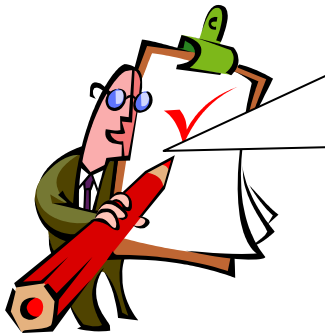


Be active every day!

- + Get off the bus before your stop and walk the rest of the way
- + Park your car at the back of the parking lot
- + Take the stairs instead of the elevator
- + Walk for 30 minutes of your lunch hour
- + Get an exercise video and use it at home
- + Exercise to Sit and be Fit on channel 8
- + Put music on and dance with yourself or a friend or your kids
- + On a day off go for a long walk in the park, take a friend along



✚ Walk your dog, both of you will enjoy the walk



Here are some ideas for your action plan. Pick things you are willing to try. Good luck and share with your educator and provider!

- WHAT you are going to do
- HOW MUCH you will do
- WHEN you will do it
- HOW OFTEN you will do it

<i>Exercise plan</i>	I will discuss exercise with my provider at my next visit
Shoes and clothing	I will buy shoes and comfortable clothing next Friday when I go shopping
Exercise	I will _____ for _____ minutes _____ times a week. I will start my exercise plan on _____(date). I will mark the calendar for exercise and check off when I'm done

My Exercise Worksheet

My Exercise Goal: _____

Check each of the things below when you have done them:

- Talk to provider about what exercise to do and how often
- Find and wear shoes that fit well
- Pick comfortable clothing
- Use sun screen and insect repellent if exercise is outside
- Take and drink water
- Have a quick sugar
- Wear ID that shows you are diabetic
- Talk to provider about how to change what exercise to do if you have dizziness, pain in chest, jaw, arms, ears, irregular pulse or trouble breathing.



Choose an exercise:

- | | |
|---|--|
| <input type="checkbox"/> Walking | <input type="checkbox"/> Stair climbing |
| <input type="checkbox"/> Biking | <input type="checkbox"/> Home video exercise tapes |
| <input type="checkbox"/> Jogging | <input type="checkbox"/> Skating |
| <input type="checkbox"/> Exercise Classes | <input type="checkbox"/> Dancing |
| <input type="checkbox"/> Swimming | <input type="checkbox"/> TV exercise program/Video |

Things I will need to be successful:

Medicine

Learning Objective	Behavior	Learning Method and Materials
1. Discuss the seven things you should ask your provider about when starting on a medication.	1. Talk with your provider about any new medication and your current medication if you have questions.	1. Written material " Oral Medication " and class discussion.
2. Discuss side effects and the importance of talking with your provider before discontinuing medication.	2. Know the side effects for the medication you are taking and talk with your provider before stopping or changing the dose of your medication.	2. Written material "Oral Medication" and class discussion.
3. Review the three problems that cause high blood sugar and discuss how different medication works on the problems to lower blood sugar.	3. Know which medication you are taking and the problems it works on.	3. Written material "Oral Medication" and class discussion.
4. Managing diabetes is balancing medication, exercise and food intake to keep your Hemoglobin A1c between 6 and 7.	4. Set goals to address areas of diabetes self-management where you need to make changes.	4. Written material "Oral Medication" and class discussion.
5. Discuss what insulin does in your body.	5.	5. Written material " Insulin " and class discussion.
6. Discuss proper storage of insulin.	6. If you take insulin, store your insulin properly.	6. Written material "Insulin" and class discussion.

Medicine

7. Discuss the different insulins, when they lower the blood sugar the most and when they finish working.	7. Know which insulin you take, when it lowers the blood sugar the most and when it finishes working.	7. Written material "Insulin" and class discussion.
8. Review the seven steps to draw up insulin and demonstrate the technique to new insulin users.	8. Use proper technique to draw up your insulin.	8. Written material "Insulin" and class discussion.
9. Review the five steps for injecting insulin.	9. Use proper technique to inject your insulin.	9. Written material "Insulin" and class discussion.
10. Discuss the different site where insulin can be injected and the importance of rotating the injection sites.	10. Use the correct injection sites and rotate them.	10. Written material "Insulin" and class discussion.

Oral Medication

Some people with type 2 diabetes can control their blood sugar levels with life style changes such as following a meal plan and exercising. For many people with type 2 diabetes, following a meal plan and exercising is not enough. They also need medication. This does not mean your diabetes is getting worse. You just need medication to control your blood sugar.

Your provider will consider your life style when ordering medications. Your weight, how tall you are, how much exercise you get, what kind of work you do, and how much you eat are all important things your provider needs to know.

Things to talk to your provider about before starting a medicine:



- ✚ How much to take
- ✚ When and how often to take the medicine
- ✚ When and how often to check your blood sugar
- ✚ What to do if you forget to take your medicine
- ✚ What to do if you are sick
- ✚ The other medicines you are taking— bring your medicine with you to your provider visit. This includes herbal medicines.
- ✚ Any side effects

Side Effects

Many medications can have side effects. Many times they only last a short time. Ask your provider what kind of side effects you might have and when you should call about them. Never stop taking your medication on your own. Always talk to your provider or nurse. You may need less medicine or a different medicine.

Diabetes medications

There are many different kinds of medicine for diabetes and there are new ones becoming available all the time. Sometimes your provider will have you take more than one kind of diabetes medicine.



Have you talked to your provider about the medicine you take? What medicine or medicines do you take?

Do you know when and how to take this medicine?

Check out your medicine here. Can you name your medicine and explain how it works? Be sure your medication is listed in **My Diabetic Record**.

Generic name: Metformin

Brand name: Glucophage

Glucophage controls blood sugar by keeping the liver from releasing too much glucose. It also helps the muscle and liver tissue to use insulin.

Duration: 24 hours

You can take this medicine with or without food.



← Liver

Side effects: Gastrointestinal upset, abdominal discomfort and diarrhea. Taking Metformin with meals will reduce the side effects.

This medicine does not cause hypoglycemia (low blood sugar) unless used with another medicine.

Generic name: Tolbutamide

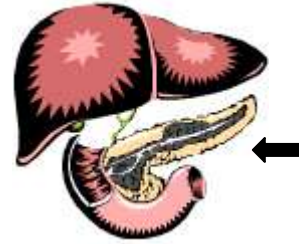
Tolazamide

**Chlorpropamide and
many more**

Brand name: Glipizide

Glyburide

Glimepiride



Pancreas

These medications help the pancreas to release more insulin.

Duration: 20 to 24 hours

This medicine should be taken before or with meals.

Side effects: weight gain is the most common side effect; also skin reactions and gastrointestinal upset.

This medication can cause hypoglycemia
(low blood sugar)



↑ Muscle

Generic name: Rosiglitazone and Pioglitazone

Brand name: Avandia and Actos

Avandia lowers blood sugar levels by making the muscle cells and liver cells better able to use the insulin your body makes. It also decreases the amount of glucose the liver makes.

Duration: 24 hours

Take this medicine with or without food

Side effects: May cause edema or swelling

Liver Function should be watched while on this medicine.

This medicine does not cause hypoglycemia (low blood sugar) unless used with another medicine.

Generic name: Repaglinide
Brand name: Prandin



Pancreas

Prandin lowers blood sugar levels by helping the pancreas to make more insulin. It is used quickly.

Duration: maximum effect 1 hour lasts 2 to 3 hours

Must be taken 30 minutes or less before each meal.
If you skip a meal you DO NOT take the medicine.

Medicine can cause hypoglycemia.

Generic name: Acarbose
Brand name: Precose



Intestine



Precose lowers blood sugar level by causing your body to not use as many of the carbohydrates (sugar). Precose works in the intestine. The blood sugar does not peak (go as high) as high after meals.

Duration: 1 to 3 hours

Take Precose 3 times a day.

Take pills with the first bite of the meal.

If you have hypoglycemia, your blood sugar may be slow to respond to treatment. Take 3 - 4 glucose tablets, one tube of glucose gel or 10 - 12 ounces of skim milk.

Side effects: G-I upset abdominal discomfort, diarrhea or gas

Diet should have more complex carbohydrates (unrefined) than simple carbohydrates.

Combination Therapy:
Glucovance

Glucovance is a combination of Metformin (Glucophage) and Tolbutamide (Glipizide, Glyburide or Glimpiride). This combination can cause hypoglycemia or low blood sugar.

Tips:

- ✚ Make sure you know **when** to take your medicine.
- ✚ When you take your medicine, you **need** to eat.
- ✚ Make sure you **refill your prescription before you run out**. Check if you have any refills left. If not, call your provider before you run out.
- ✚ Do not use herbal medicine without talking to your provider.
- ✚ Always talk to your provider about the medicine you are taking. Ask if there are any special tests you should have while taking the medicine. **Test your blood sugar** to see how the medicine is working.
- ✚ Ask if you should take your medicine when you are sick.
- ✚ Remember **medication is only one part of controlling your blood sugar**. Good nutrition divided into three meals a day and snacks if recommended by your provider are part of your diabetes care.

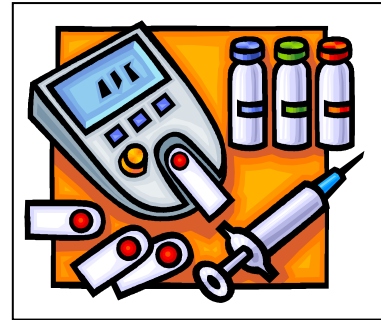


Write the names of your medicines and the doses in "My Diabetic Record".

Insulin

Who needs Insulin?

- ✚ Everyone with type 1 diabetes
- ✚ Women with gestational diabetes (diabetes when they are pregnant) if diet alone does not control their blood sugar
- ✚ Anyone with type 2 diabetes who can not control their blood sugar with diet, exercise and oral medicine
- ✚ Sometimes when a person with diabetes has surgery



What does insulin do?

- ✚ It helps change the food we eat into fuel (energy) for the cells
- ✚ It helps store glucose (sugar) in the liver
- ✚ It helps break down protein and helps the body store fat
- ✚ Insulin lowers your blood sugar even if you do not eat, so eat on a regular schedule when taking insulin

Is there an insulin pill?

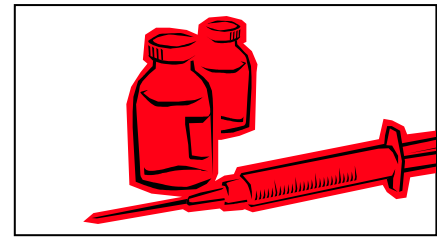
No. Insulin is a protein. If you took an insulin pill, your body would digest it like any food that is protein. It would not get to your blood to lower the blood sugar level.

Where does insulin come from?

- ✚ Insulin is not a medicine. It is something the body makes. When the body does not make this protein, or not make enough, you have to take insulin by shot.

TIPS

- ✚ Make sure you always have prescription refills.
- ✚ Always keep an extra bottle of each kind of Insulin you use in the refrigerator.



✚ Storage

- Vials you are using do not need to be stored in the refrigerator.
- If the insulin is not kept in the refrigerator, mark it with the date you start to use it and throw it out in 30 days. (If you use the bottle of insulin after 30 days and see a change in your blood sugar, you need to get a new bottle.)
- Avoid extreme temperatures. **Do not store insulin** in the freezer or in hot places like the car or in a window.



✚ Syringes

- Syringes can be pre-filled. This is helpful for anyone who has difficulty seeing or using his or her hands.
- Pre-filled syringes should be stored with the needle pointing down in the refrigerator for no more than 3 weeks. Before giving the insulin, roll the syringe in your hand.

When and how often do you take insulin?



Write your medicine in "My Diabetic Record".

Write your insulin taking behavior in your "Action Plan"

Most people need to take at least two shots a day. Some people take 3 or 4 shots a day.

Your provider will tell you how often to take insulin.

Kinds of Insulin:



Quick acting insulin is Lispro (Humalog):

It starts to act in less than 15 minutes; it lowers the blood sugar the most in 30 to 90 minutes and finishes working in three to four hours.

Short acting insulin is Regular (R) insulin:

It starts to act in 30 minutes to two hours; it lowers the blood sugar the most in two to five hours and finishes working in five to eight hours.

Intermediate acting, NPH (N) or Lente (L):

It starts to act in four to six hours; it lowers the blood sugar the most in eight to 14 hours and finishes in 16 to 20 hours.

Long acting, Ultralente (U)

It starts to work in six to ten hours; it lowers the blood sugar the most in eight to 20 hours and finishes in 18 to 20 hours.

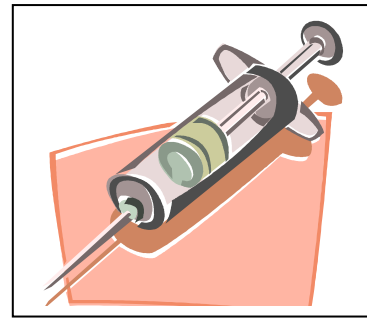
NPH and Regular insulin mixture (70/30 and 75/25):

Two types of insulin are mixed in one bottle. It starts to work in 30 minutes; it lowers blood sugar the most in seven to 12 hours and finishes working in 16 to 24 hours.

How fast the insulin works depends on your own response, where on your body you give the shot and the amount of exercise you do.



Drawing up insulin: Always wash your hands.



Single Dose:

- + Draw air into the syringe, the same amount as the insulin dose
- + Inject the air into the insulin vial (bottle)
- + Invert the vial and pull back to the correct amount of insulin
- + Check for air bubbles, tap syringe to get the bubbles up by the needle
- + Push the plunger to put the bubbles in the vial
- + Pull back on the plunger to the correct amount of insulin
- + Remove the needle from the vial and give the insulin

Mixed Insulin (to give more than one kind at the same time):

- + Draw air into the syringe to the amount of long acting insulin and inject it into the long acting insulin vial
- + Take the needle from the vial
- + Draw air into the syringe to the amount of the shorter acting insulin and inject it into the short acting insulin vial
- + Invert the short acting vial and pull back to the correct amount of insulin
- + Check for bubbles if there are bubbles tap the syringe to bring them up to the needle and push the plunger to put the bubbles in the vial and make sure you have the correct amount of insulin in the syringe
- + Remove the needle from the vial
- + Rotate the longer acting insulin vial
- + Insert the needle in the longer acting insulin and draw up the correct amount. Remember to add the two insulin amounts together.
- + Remove the needle from the vial and give the insulin

Always wash your hands first!

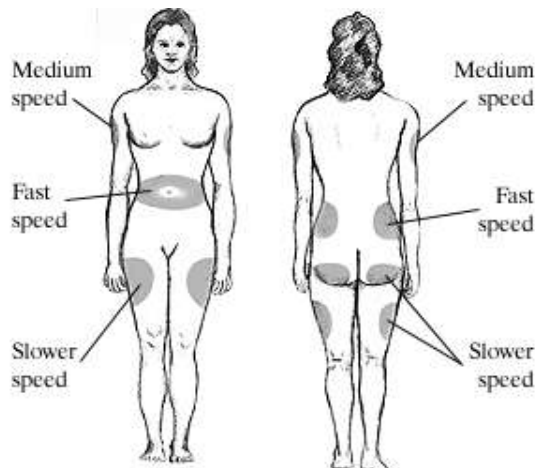
To give a shot:

- ✚ Clean the skin with alcohol or soap and water
- ✚ Pinch up 1 to 2 inches of skin
- ✚ Insert the needle straight in
- ✚ Push the plunger down
- ✚ Release the skin and remove the needle

Where can you give insulin?

There are several places on your body you can give your insulin shot. How fast your insulin works changes with the area where you give the shot.

Insulin shots given in the area near the stomach works the fastest. The area in the thigh is the slowest. The arms are about medium. Over time you will learn how your body responds to the insulin.



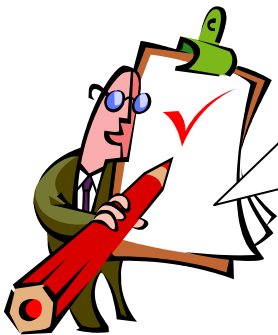
Areas where insulin shots can be given

- ✚ If you have questions, talk to your provider
- ✚ Be sure to follow your diet and do not skip meals
- ✚ Take your insulin and eat at the same time each day

Never reuse needles!

To dispose of the needle & syringe:

- ✚ Place them in a plastic or aluminum bottle or can
- ✚ You do not need to break the needle
- ✚ When the bottle or can is full, replace the lid and tape it shut
- ✚ Place in the trash



Here are some ideas for your Action Plan. Pick things you are willing to try. Good luck and share with your educator and provider!

- WHAT you are going to do
- HOW MUCH you will do
- WHEN you will do it
- HOW OFTEN you will do it

Medication	I will talk to my provider(when) at my next visit about my medication
Medicine refills	I will go to the pharmacy to get my refills before all my medicine is gone I will call for a clinic appointment before I use my last refill
Medication/Insulin taking	I will take my medication (when) in the morning with a meal starting (when). I will use a daily pill box to help remember my meds
Insulin taking	I will draw up my insulin for the week on Sunday and store it in the refrigerator I will ask a family/friend to draw up my insulin for the week

