



**CHI Saint Joseph
Health Partners**

Diabetes Education



The team at CHI Saint Joseph Health Partners is excited to help you understand your diabetes and learn the skills to help you manage it.

It is our goal that you will feel more confident about:

- Understanding diabetes and its causes
- Healthy eating and your meal plan
- How being active can help improve your blood sugar level
- The importance of blood sugar testing and understanding your lab results
- What the short and long-term complications of diabetes are and how to reduce your risks of developing them
- The ability to solve problems related to your diabetes
- How the different diabetes medications work
- Develop an action plan to help you manage and cope with having diabetes

This book is one of your diabetes resources, but another resource to help you manage your diabetes is your diabetes care team.

MY TEAM:

Physician: _____ Phone Number: _____

Diabetes Educator: _____ Phone Number: _____

Pharmacy: _____ Phone Number: _____

To learn more about CHI Saint Joseph Health Partners, scan the qr code or visit CHISaintJosephHealthPartners.org/our-approach/our-network/



WHAT IS DIABETES?

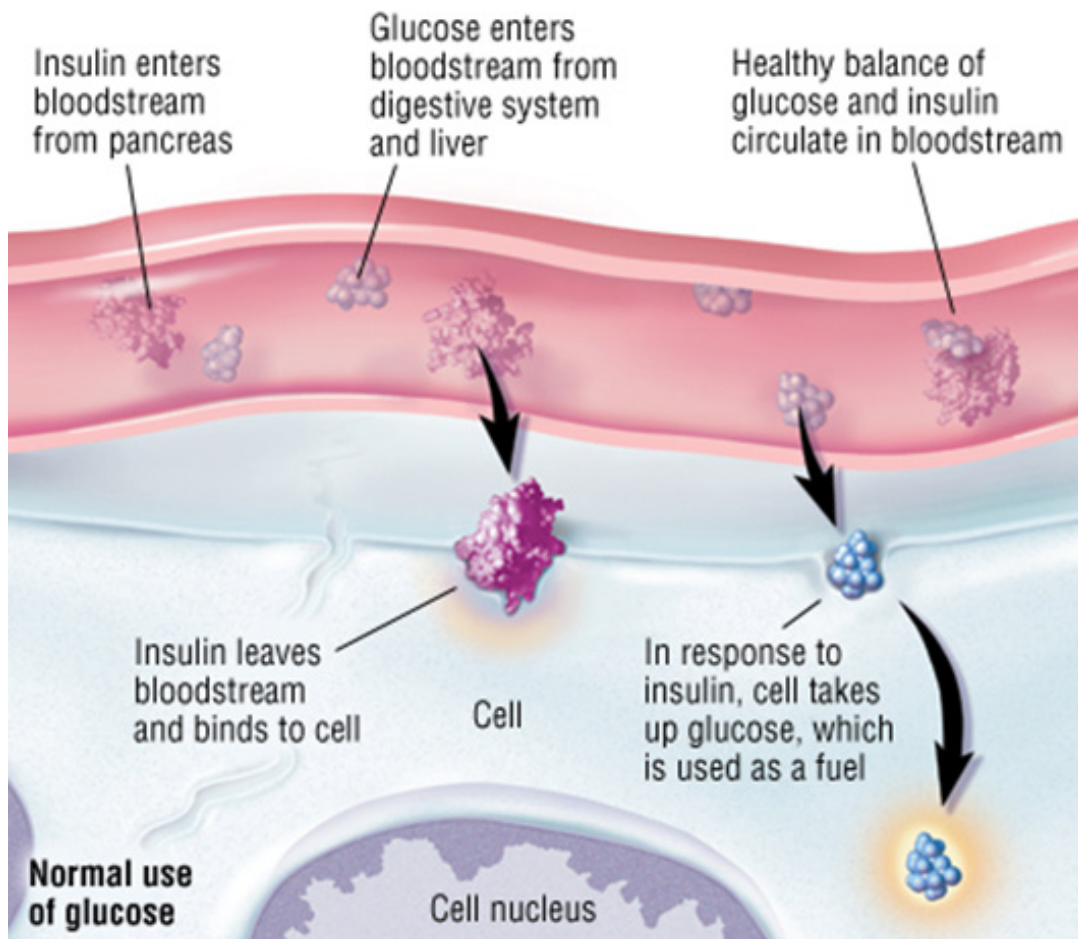
Insulin is a hormone made by the pancreas that helps get blood glucose (sugar) from the bloodstream into the body's cells. Insulin acts much like a "key" and opens the cells inside of our body. All the cells use blood sugar for energy (fuel).

With diabetes:

1. The insulin being made is unable to work right.
2. The insulin supply in the pancreas is running low.
3. The body does not make any insulin.

In any of these situations, the blood sugar starts to build up in the bloodstream and the body cannot use the blood sugar for fuel. Over time, high blood sugar levels from uncontrolled diabetes can lead to health problems.

NORMAL PANCREAS FUNCTION:



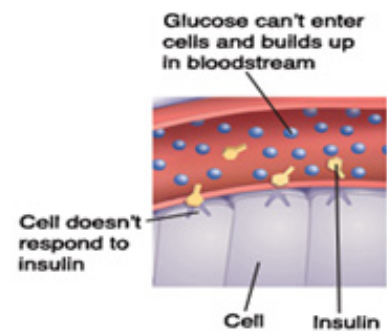
TYPES OF DIABETES

Pre-Diabetes

- The state in which the body is beginning to have trouble processing carbohydrate
- Blood sugar is high, but not high enough to be diagnosed with Type 2 diabetes
- Weight loss and exercise can help prevent or delay being diagnosed with Type 2 diabetes
- Sometimes called “Borderline Diabetes”

Type 2 Diabetes

- Insulin is still being made by the pancreas, but the cells have “changed the lock” on insulin
- The insulin “key” no longer works and the cells do not allow sugar to enter
- May or may not require insulin injections
- Most common form of diabetes; used to be called Adult Onset Diabetes
- In some cases, lifestyle changes are enough to keep type 2 diabetes under control. If not, there are several medications that may help. If your body can’t make enough insulin, you may need insulin therapy. This does not mean that type 2 has “turned into” type 1 diabetes.
- Risk factors include:
 - Overweight/Obesity
 - Middle age and older
 - Family history
 - History of Gestational Diabetes
 - Physical inactivity/sedentary lifestyle
 - African-American, Hispanic, American Indian, Asian American, Pacific Islander populations

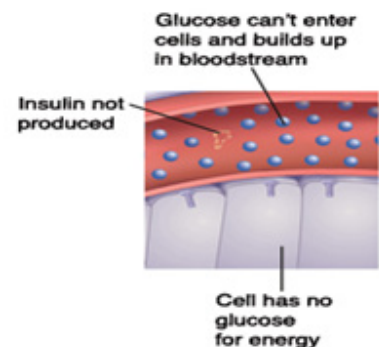


Gestational Diabetes

- Diabetes that occurs only during pregnancy, due to the presence of “pregnancy” hormones
- Can cause problems for both mom and baby if left untreated
- Increases mom’s risk of developing Type 2 Diabetes later in life

Type 1 Diabetes

- The body makes an antibody that attacks all of the insulin producing cells in the pancreas
- Insulin injections are required for life
- Used to be called Juvenile Onset Diabetes



Other Types of Diabetes

- Steroid-Induced
 - Caused by long-term steroid use
- Latent Autoimmune Diabetes of Adults
 - Can't distinguish between Type 1 or Type 2
 - Sometimes called Type 1.5
 - Insulin resistant but also insulin deficient

HOW DIABETES IS DIAGNOSED

	Fasting Plasma Glucose	Oral Glucose Tolerance Test	HgbA1c
Diabetes	≥126 mg/dL	≥200 mg/dL	≥6.5%
Pre-diabetes	100-125 mg/dL	100-125 mg/dL	5.7-6.4%
Normal	≤99 mg/dL	≤139 mg/dL	≤5.6%

BLOOD SUGAR TARGET RANGE

Recommendations from the American Diabetes Association (ADA)



Blood sugar testing at home is your tool to help you manage your diabetes on a day-to-day basis. It can help you make better decisions about food and activity. The following ranges are the recommended safe levels for people with diabetes according to the American Diabetes Association (ADA).

FASTING AND BEFORE MEALS: 80-130 MG/DL



2 HOURS AFTER EATING: ≤180 MG/DL

Things to remember:

- Check the batteries
- Every fall and every spring, change the date and time on the meter.
- Keep test strips in their original container, they do expire.
- Keep the user guide in the event that you get an ERROR message.
- Do not leave it in your car, extreme temperatures affect the results.
- Check your insurance coverage.
- Dispose of lancets properly. Contact your local Health Department, or the waste management company that picks up your trash, to help determine how to throw away your container of medical waste.



HEMOGLOBIN A1C

Your doctor will regularly check a blood test called a Hemoglobin A1c, or sometimes just referred to as A1c. This blood test measures your average sugar level over the last 3-4 months. The results are given in a percentage form. To prevent long term complications, the ADA recommends a safe range for people with diabetes of $\leq 7\%$. A1c is the main way for your doctor to know how your treatment plan has worked over time. Your doctor should check this every 3 months.

MY A1c prior to class: _____

	HbgA1c result	Level of Control	Estimated Average Blood Sugar Level
Out of Control	14%	Immediate Action Required	380 mg/dL
	13%		330 mg/dL
	12%		300 mg/dL
Poorly Controlled	11%	Medication Changes Needed	270 mg/dL
	10%		240 mg/dL
	9%		210 mg/dL
Getting Out of Control	8%	Monitor Closely	180 mg/dL
Good Control	7%	ADA Goal Range	150 mg/dL
	6%		120 mg/dL
Excellent Control	5%	Normal Range	90 mg/dL

BLOOD SUGAR TESTING

Blood sugar testing is YOUR tool to help you manage your blood sugar levels. Because blood sugars levels are constantly changing and testing can help you figure out what foods and situations cause your blood sugar to change. Keeping a log of your blood sugars will help your diabetes team help you manage your blood sugar better. This is called pattern management and goes along with problem solving. Look at the following examples:

Before Breakfast	After Breakfast	Before Lunch	After Lunch	Before Dinner	After Dinner	Before Bed
108						
184						
82						
147						
201						
90						
194						

What conclusions can we come to for this blood sugar log entry?

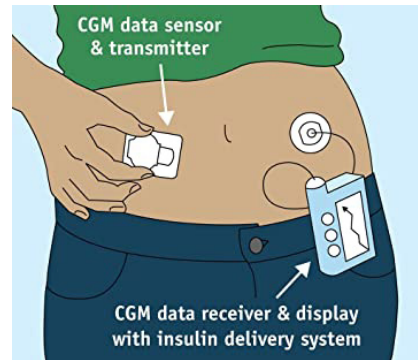
Before Breakfast	After Breakfast	Before Lunch	After Lunch	Before Dinner	After Dinner	Before Bed
108						
	184					
				82		
		147				
					201	
				90		
	194					

What conclusions can we come to for this blood sugar log entry?

CONTINUOUS GLUCOSE MONITOR (CGM)

A CGM works through a tiny sensor inserted under your skin, usually on your belly or arm. The sensor measures your interstitial sugar level, which is the sugar found in the fluid between the cells. The sensor tests every few minutes. A transmitter wirelessly sends the information to a monitor.

The monitor may be part of an insulin pump or a separate device, which you might carry in a pocket or purse. Some CGMs send information directly to a smartphone or tablet. Some CGM's require calibration (checking blood sugar on standard blood sugar meter) to ensure accurate readings. The readings should be similar on both devices

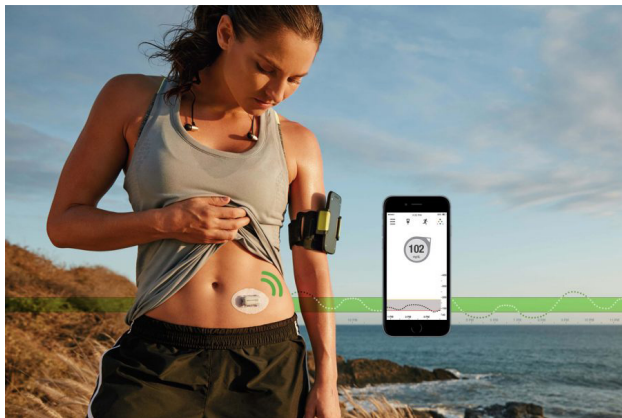


You'll also need to replace the CGM sensor every 3 to 10 days, depending on the model.

With most CGM models, you can't yet rely on the CGM alone to make treatment decisions. For example, before changing your insulin dose, you must first confirm a CGM reading by doing a finger-stick sugar test.



Freestyle Libre



Dexcom G6



Medtronic Guardian

GOALS OF DIABETES CARE

- ✓ Keep your blood sugar, blood pressure, and cholesterol levels in target range.
- ✓ Balance your diabetes treatment plan with your daily life.
- ✓ Prevent, delay, or slow the progression of health problems caused by uncontrolled blood sugar.
- ✓ Feel better every day.

To help meet these goals, we will help you learn how to balance your treatment options. A food plan and regular physical activity are a part of EVERY diabetes treatment plan. Diabetes medications may be needed as well.

Balancing your diabetes treatment may look like one of the following options:



Food & Activity Plan



Food & Activity Plan

+



Diabetes Pills



Food & Activity Plan

+



Diabetes Pills
(two or more pills)

+



Non-Insulin Injection



Food & Activity Plan

+



Diabetes Pills
(two or more pills)

+



Insulin
(One or more injections)



Food & Activity Plan

+



Insulin *(two or more injections)*

MEDICATION LIST

How different oral diabetes medications work:

Oral diabetes medications (pills) prescribed by your doctor work to lower blood sugar levels in different ways. The type and dose depends on your blood sugar levels. More than one type of medication may be needed.

Know Your
Meds



The way oral diabetes medications work:

- Helps the pancreas release more insulin
- Helps the body use insulin better
- Makes the liver release less sugar
- Slows down the absorption of carbohydrate in the intestinal tract
- Helps the kidney safely flush extra sugar out of the body

How different insulins work:

- If insulin is a necessary part of your treatment plan, your doctor will decide what type of insulin will be beneficial for you and how much you should inject.
- Insulin should not be feared, because it is the oldest diabetes medication and has only one side effect, low blood sugar. This can often be avoided if you follow your treatment plan and work to solve the cause of the low blood sugar.
- If you ever get admitted to the hospital do not get concerned if they start you on insulin, many hospitals have this policy for all people with diabetes. Often it will be discontinued when you are discharged from the hospital.
- Insulin can be administered using a variety of devices. It can be injected with a syringe, or with an insulin pen that is already prefilled with insulin. Some people with diabetes may wear an insulin pump that is filled with three days of insulin or a personal insulin delivery system that is filled with your daily insulin dose.



ORAL DIABETES MEDICATIONS

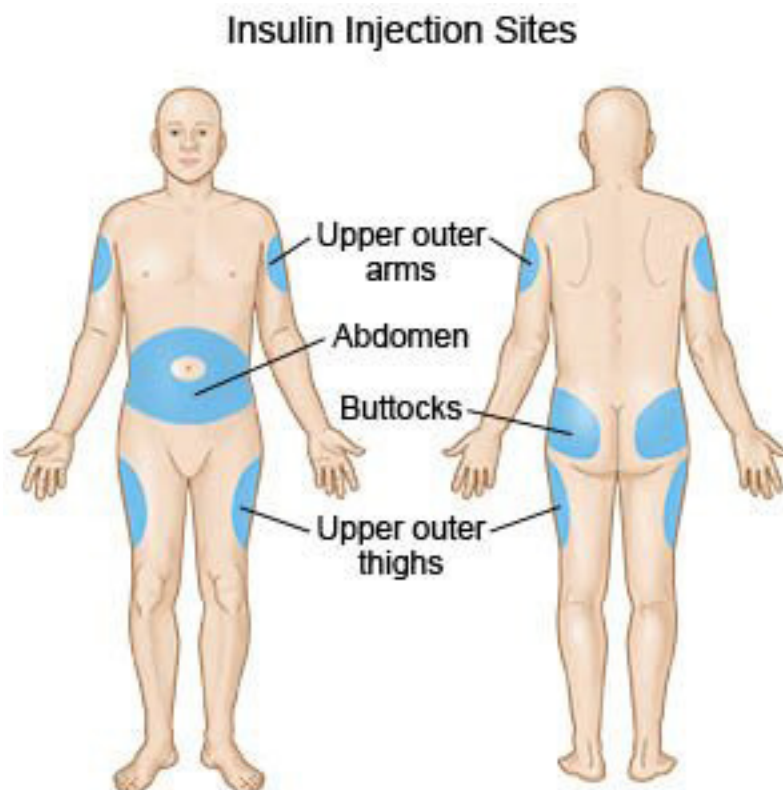
COMMONLY USED NAME	OTHER NAMES
BIGUANIDES: Reduce sugar production in the liver, slow down the absorption of sugar in the intestines, help the body use insulin better, help the muscles absorb sugar SIDE EFFECTS: Stomach cramps, diarrhea, long term use could cause a vitamin B12 deficiency	
Metformin, Glumetza ER, Fortamet, Riomet	Glucophage
SULFONYUREAS: Cause the pancreas to release more insulin SIDE EFFECTS: Low blood sugar	
Glimepiride	Amaryl
Glipizide	Glucotrol
Glipizide Extended Release	Glucotrol XL
Glyburide	Diabeta, Micronase, or Glynase
THIAZOLIDINEDIONES (TZDs): Makes muscle and fat cells more sensitive to insulin SIDE EFFECTS: Heart and liver problems, weight gain	
Actos	Pioglitazone
Avandia	Rosiglitazone
DPP-4 Inhibitor: Increases glucose-dependent insulin secretion, decrease release of extra sugar from the liver SIDE EFFECTS: Headache, sore throat, upper respiratory infections, pancreatitis, joint pain	
Januvia	Sitagliptin
Onglyza	Saxagliptin
Tradjenta	Linagliptin
Nesina	Alogliptin
Glavus	Vildagliptin
SGLT 2 INHIBITORS: Removes sugar from the body by way of the kidney SIDE EFFECTS: Dehydration, hypotension, UTI, increased urination, non-symptomatic DKA, weight loss	
Invokana	Canagliflozin
Farxiga	Dapagliflozin
Jardiance	Empagliflozin
Steglatro	Ertugliflozin
GLP-1 RECEPTOR AGONIST (Injectable): Delays stomach emptying, increases glucose-dependent insulin secretion, decreases production of sugar in the liver SIDE EFFECTS: Nausea, pancreatitis, upper respiratory infections, injection site reaction, weight loss	
Byetta	Exenatide
Victoza	Liraglutide
Ozempic	Liraglutide
Saxenda	Liraglutide
Bydureon	Exenatide (extended release)
Trulicity	Dulaglutide
AMYLIN ANALOG (Injectable): Reduces sugar production in the liver and slows the absorption of carbohydrate SIDE EFFECTS: Nausea, low blood sugar, headache, weight loss	
Symlin	Pramlintide
DOPAMINE AGNONIST: Improves insulin action SIDE EFFECTS: Nausea, Vomiting, loss of appetite, constipation, headache, heartburn, runny nose, weakness	
Cycloset	Bromocriptine

TYPES OF INSULIN

TYPE OF INSULIN & NAME	ONSET	PEAK	DURATION	ROLE IN BLOOD SUGAR MANAGEMENT
RAPID-ACTING				
Novolog (Aspart)	5-15 minutes	30-90 minutes	3-5 hours	Covers insulin needs for meals eaten; often present as a percentage of pre-mixed insulin. Fiasp and Apidra can be taken before or up to 20 minutes after the start of a meal.
Humalog (Lispro)				
Apidra				
Fiasp (Aspart)				
Lymujev	20 min	60 min	6 hours	
SHORT-ACTING/REGULAR				
Humulin R	30-45 minutes	2-5 hours	5-8 hours	Covers insulin needs for meals eaten within 30-60 minutes of injecting
Novolin R				
Humulin R U-500	30-45 minutes	2-5 hours	8-24 hours	This is an insulin that is 5 times stronger than Humulin R. Used more for people who are on large doses of insulin. Often taken twice a day.
Velosulin	30 min - 60 min	1-2 hours	2-3 hours	Can be used in insulin pumps
INTERMEDIATE ACTING/NPH				
Humulin N	1-2 hours	4-12 hours	18-24 hours	Covers insulin needs when take twice a day; often present as a percentage of pre-mixed insulin
Novolin N				
PRE-MIXED				
Novolin 70/30 or Humulin 70/30	30 minutes	2-12 hours	14-24 hours	Generally taken twice daily before mealtime
Novolog Mix 70/30	10-20 minutes	1-4 hours	Up to 24 hours	
Humulin 50/50	30 minutes	2-5 hours	18-24 hours	
Humalog 75/25	15 minutes	30 minutes - 2 ½ hours	16-20 hours	
LONG-ACTING				
Lantus	1-1 ½ hours	None,	20-24 hours	Usually taken once a day, in larger doses it might be necessary to split it up into twice a day.
Levemir (Detemir)	1-2 hours	None	12- 24 hours	
Tresiba	1 hour	None	36-42 hours	
Toujeo	1-1 ½ hours	None	24-36 hours	
Basaglar	1-1 ½ hours	None	20-24 hours	
Semglee	1-1 ½ hours	None	20-24 hours	
RAPID-ACTING INHALED INSULIN				
Afreeza	1 minute	12-15 minutes	3 hours	Rapid-acting insulin taken before meals. Does not replace long-acting insulin. Not for use in people with lung issues

INSULIN INJECTION POINTERS

1. Always wash your hands before drawing up and giving your insulin.
2. Your doctor will decide how much and when to give the insulin.
3. Take your scheduled insulin about the same time(s) each day.
4. Insulin should be injected into the subcutaneous tissue.
5. Insulin injections are given in the abdominal area, the arm, thigh, or buttocks. Insulin does work the best in the abdomen (belly).
6. Insulin injections must be rotated in different body areas so as to prevent thickening of the skin at the site of injection.
7. Any pre-mixed insulin must be mixed by rolling the bottle (vial) or pen device between your hands.
8. Try to get rid of any bubbles in the bottle or pen. Bubbles take up room so that you may not get your full dose of insulin.
9. If your insulin bottle (vial) looks discolored, lumpy, or sticks to the sides of the bottle..... DO NOT USE!
10. Always have a spare bottle or pen of your insulin.
11. Throw away syringes and needles in a sturdy plastic container with a lid. Do not cut off the needle. Large plastic detergent bottle is a good example of a container. Once full, tape the cap on and write on it.... SHARPS - DO NOT RECYCLE. The local Health Department can help determine how to throw away the container.
12. If questions, please contact your physician's office.



INSULIN STORAGE TIPS

1. Unopened insulin should be stored in the refrigerator between 36°-46°F.
2. Insulin that has been opened should be stored at room temperature between 56°-80°F
3. Do not keep in hot places. Do not leave insulin in a hot closed car. Heat makes insulin break down and will not work well to lower your blood sugar. Also, do not carry it in your pocket. Your body temperature is normally around 98.6°.
4. Do not keep in freezing places. Never store in a freezer. If insulin is frozen, do not use. You will not be able to inject the insulin if it is frozen. Do not use even after thawing. Freezing temperature will break down the insulin and then it will not work well to lower your blood sugar. Throw frozen insulin in the garbage.
5. Do not leave in sunlight. Light can make insulin break down and then it will not work well to lower your blood sugar.
6. Never use insulin if it has expired. The expiration date will be stamped on the vial or pen.
7. Write the date on the insulin vial, or pen, on the day you begin using it and start keeping it outside the refrigerator. This will help you remember when to stop using it. Throw the insulin away according to the chart below.
8. Inspect your insulin before each use. Look for changes in color, or clarity. Look for clumps, solid white particles or crystals in the bottle or pen. Insulin that is clear should always be clear and never look cloudy.
9. Throw away syringes and pen needles in a sturdy plastic container with a lid, you can use the same one you use for your blood sugar testing needles.

INSULIN NAME	DATE TO THROW AWAY AFTER OPENING
Lantus vial or pen	28 days
Apidra vial or pen	28 days
Levemir vial or pen	42 days
Humalog vial or pen	28 days
Humalog 75/25 or 50/50 vials	28 days
Humalog 75/25 or 50/50 pens	10 days
Novolog vial or pen	28 days
Novolog 70/30 pen	14 days unrefrigerated
Novolog 70/30 vial	28 days unrefrigerated
Basaglar	28 days
Toujeo	28 days
Tresiba	56 days

DIABETES COMPLICATIONS

SHORT TERM COMPLICATIONS

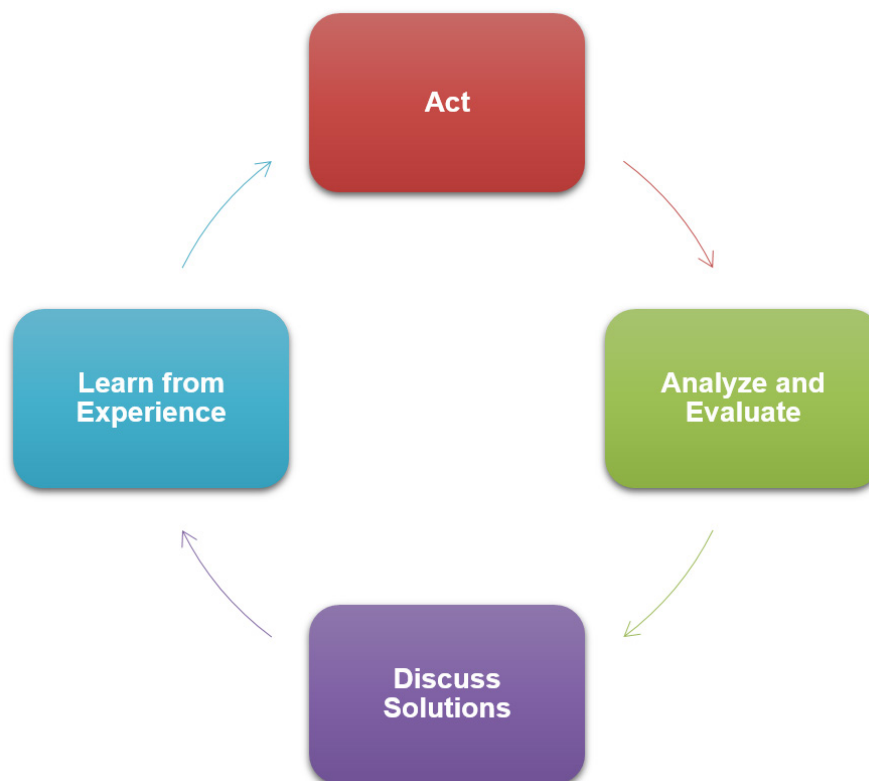
Blood sugar levels are constantly changing. They go up when you eat a meal and down between meals. Blood sugar levels are also changing at night while we sleep. This is completely normal! You won't feel good if your blood sugar levels are too high or too low. Short term complications include, but are not limited to:

- Hypoglycemia (low blood sugar)
- Hyperglycemia (high blood sugar)
- Diabetic Ketoacidosis (DKA)

These may occur for many reasons, the key to preventing short term complications are to:

1. Know how you feel when they happen
2. Know how to treat the problem
3. Know what causes the complication and prevent it from happening again

The Diabetes Problem-Solving Cycle:



ACUTE COMPLICATIONS

Hypoglycemia symptoms (low blood sugar)

Treatment Steps:

1. First check your blood sugar level with your meter, if it is <70 mg/dL ALWAYS TREAT it by eating/drinking 15 grams of fast acting carbohydrate (see list below).
2. Recheck it in 15 minutes.
3. If your blood sugar level is not >70 mg/dL then repeat steps 1 & 2.
4. Once blood sugar is >70 , follow with a snack or meal.
5. If after an hour and blood sugar still <70 mg/dL, call your MD or 911.
6. Ensure your blood sugar is stable before operating a vehicle.

EXAMPLES OF 15 grams of Fast Acting Carbohydrate

- 1/2 cup of juice
- 1 cup skim milk
- 1/2 can regular soda
- ~ 4 glucose tablets or 1 tube of glucose gel
- 1 small tube of Cake Icing Gel
- 1 Tbsp. of Honey








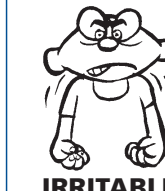


HYPOGLYCEMIA (Low Blood Glucose)

Causes: Too little food or skip a meal; too much insulin or diabetes pills; more active than usual.

Onset: Often sudden; may pass out if untreated.

SYMPTOMS:

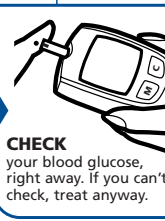
 SWEATING	 DIZZY	 ANXIOUS	 HUNGRY
 BLURRY VISION	 WEAKNESS OR FATIGUE	 HEADACHE	 IRRITABLE



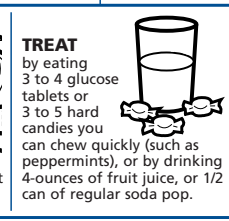
SHAKY



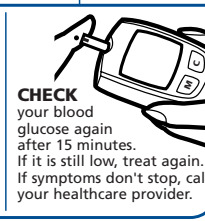
FAST HEARTBEAT



CHECK
your blood glucose, right away. If you can't check, treat anyway.



TREAT
by eating 3 to 4 glucose tablets or 3 to 5 hard candies you can chew quickly (such as peppermints), or by drinking 4-ounces of fruit juice, or 1/2 can of regular soda pop.



CHECK
your blood glucose again after 15 minutes. If it is still low, treat again. If symptoms don't stop, call your healthcare provider.

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Remember: First step is to check your blood sugar!
Carry your blood glucose meter with you at all times!

ACUTE COMPLICATIONS

Hyperglycemia symptoms (high blood sugar)

Treatment Steps:

1. First check your blood sugar level with your meter, if it is >200 - 250 mg/dL, then increase activity or take a walk.

Unless your blood sugar is >250 mg/dL, then increase water intake (unless you are on a fluid restriction).

2. If stressed practiced relaxation techniques.
3. Consider monitoring ketone levels with Ketone strips.
4. After one to two hours recheck it again to make sure your blood sugar is coming down closer to the normal levels.
5. If you have a sliding scale for insulin take as directed.

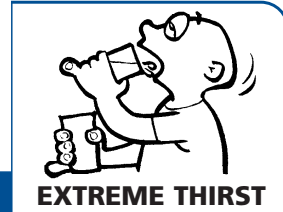
With high blood sugar, check it several times a day. If it remains > 200 mg/dL for 3 or more days in a row, call your physician or leave a message on the nurse line.



HYPERGLYCEMIA (High Blood Glucose)

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

Onset: Often starts slowly. May lead to a medical emergency if not treated.



EXTREME THIRST

SYMPTOMS:

<p>NEED TO URINATE OFTEN</p>	<p>DRY SKIN</p>	<p>HUNGRY</p>
<p>BLURRY VISION</p>	<p>DROWSY</p>	<p>SLOW-HEALING WOUNDS</p>

WHAT CAN YOU DO?

CHECK BLOOD GLUCOSE

If your blood glucose levels are higher than your goal for 3 days and you don't know why,

CALL YOUR HEALTHCARE PROVIDER

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Remember: First step is to check your blood sugar!
Carry your blood glucose meter with you at all times!

SICK DAY MANAGEMENT

Any illness can put added stress on your body (flu, cold, fever, infection, vomiting, diarrhea, etc.). You still need carbohydrates throughout the day for fuel for healing. However, when you are sick you may not feel like eating. If you are unable to eat regular foods, try carbohydrate containing liquids or soft foods like the examples shown below. Try for 30-45 grams of some sort of carbohydrate every 3-4 hours while you are sick to prevent lows and to allow you to continue to take your diabetes medications.

EXAMPLE OF 15 GRAM CARBOHYDRATE OPTIONS:

- 1/2 cup regular soft drink
- 1 slice of toast
- 1/2 cup sweetened Jell-O
- 1/2 cup ice cream or frozen yogurt
- 6 saltine crackers
- 1 cup soup with noodles or rice
- 1 regular popsicle
- 1/4 cup sherbet



TREATMENT

1. Drink plenty of fluids (non-sugary).
2. Check your blood sugar often (every 2 - 4 hours until your results are normal).
3. Always take your medication unless your physician tells you otherwise.
4. Take your temperature.
5. Discuss with your physician ahead of time when he wants you to call him.
6. Consider testing ketone levels if blood sugar >240.
7. Call physician if:
 - a. Most blood sugars are > 250 mg for 3 days in a row.
 - b. Blood sugar < 70 mg more than once in your illness.
 - c. Persistent vomiting or diarrhea.
 - d. Fever of 101 or higher.
 - e. When your 'gut' tells you to.
 - f. Be prepared to tell your physician symptoms and blood sugar readings.
 - g. If you find moderate amounts ketones after more than one test or if you have high levels of ketones.

MANAGING STRESS/HEALTHY COPING

Stress results when something causes your body to behave as if it were under attack. The body prepares to take action against the stress (known as the fight or flight response) as a result hormone levels increase. In people who have diabetes, this response does not work well because the result is that blood sugar can build up in the bloodstream. Stress can be mental or physical.



In individuals with diabetes, stress can alter blood sugar levels in two ways:

- Individuals under stress may not take good care of themselves. They may drink more alcohol, exercise less, forget their medications or to check their sugar levels, and not plan ahead for healthy meals.
- Stress hormones may also alter blood sugar levels directly.

The effects of mental stress have been found to be mixed in those with Type 1 diabetes, meaning that their blood sugar levels could go up or down too low. In those with Type 2 diabetes, the glucose levels usually go up with mental stress. Physical stress, such as illness or injury, causes higher blood glucose levels in people with either type of diabetes.

Reducing Mental Stress:

The best way to reduce stress is to set your priorities. Another way, if possible, is to eliminate the sources of stress in your life, you may have to make changes to get rid of the stress as a way of coping. For others positive self talk can be helpful saying to yourself “this problem really isn’t so bad after all.” Here is our list of ways to help reduce your stress level:

- Start an exercise program or join a sports team.
- Take dance lessons or join a dancing club.
- Start a new hobby or learn a new craft.
- Prayer, yoga, meditation, or tai chi are all activities to relax the mind and the body.
- Deep breathing to release physical tension.
- Avoid social media for a few days.
- Watch your favorite comedy, laughing helps eliminate stress.



AVOID BURNOUT:

Living with a chronic health condition like diabetes takes focus and concentration every day. You don’t get any vacation from having diabetes. To help fight burnout take care of yourself as a whole person, get support, and remember a bad day is just an opportunity to learn. Research has even shown that stress is as bad for your heart as smoking 5 cigarettes a day.

GET SUPPORT:

- Your diabetes care team
- Friends
- For stress that won’t go away, talk to your healthcare provider

DIABETES AND DEPRESSION

“...people with diabetes are **50% more likely** to suffer from **depression** than people without diabetes

Occasionally feeling down is normal. We all have “blue days” but some people feel a sadness that just won’t go away and life seems hopeless. Feeling this way most of the day for two weeks or more could be a sign of depression.

Studies show that people with diabetes have a greater risk of depression than people without diabetes. There are no easy answers about why this is true. Having to do extra work to

manage your diabetes can make you feel alone or set apart from others. If you have complications from diabetes, or you have trouble keeping your blood sugar levels within a healthy range, could cause you to feel like you are losing control. Depression can get you into a vicious cycle and can prevent good diabetes self-care

- If you have been experiencing some of the following signs and symptoms most of the day, OR nearly every day, for at least two weeks, you may be suffering from depression.

If you are feeling symptoms of depression, do not keep them to yourself. First, talk them over with your doctor. There may be a physical cause such as abnormal thyroid or side effects of some medications. Do not stop taking a medication without telling your doctor. If you and your doctor rule out physical causes your doctor will most likely refer you to a specialist that can help you.

1. Persistent depressed mood
2. Diminished interest or pleasure
3. Significant weight change
4. Sleeping too much or too little
5. Psychomotor agitation or retardation
6. Fatigue or loss of energy
7. Feelings of worthlessness
8. Diminished ability to think or concentrate
9. Recurrent thoughts of death (not just fear of dying)

From: American Psychiatric Association, 2000.

If you have symptoms of depression do no wait too long to get help.

DIABETES CHANGES OVER THE YEARS

You have some control over your diabetes, but if you don't manage your blood sugar levels, your diabetes may progress faster.

- With Type 2 Diabetes, the pancreas produces less and less insulin over time. Therefore, if you don't manage it early, you might run out and require insulin injections sooner.
- With Type 1 Diabetes, your body doesn't make insulin so meal planning and insulin management will help prevent long term complications.
- Sometimes diabetes pills alone may not keep blood sugar levels in a healthy range. Don't feel like you have failed if you do need to take insulin, or increase your insulin dose.
- As blood sugar levels remain uncontrolled, other health complications can occur. As these changes happen your treatment plan may need to be changed as well.

~~Plan A~~
Plan B



CHRONIC COMPLICATIONS



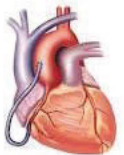
EYES

High blood sugar can damage the back of the eyes that can lead to vision problems.



EARS

High blood sugar can damage the nerves in the ear that may cause hearing loss.



HEART

High blood sugar can lead to hardening of the arteries, heart attack, or stroke.



KIDNEYS

High blood sugar can damage the blood vessels inside the kidneys which can lead to kidney failure and increased blood pressure.



FEET

High blood sugar can lead to poor circulation in legs and feet. Decreased feeling and increased risk for infections can occur. Sores that don't heal can occur as well.



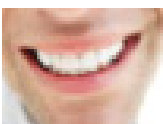
NERVES

High blood sugar can lead to loss of sensation, tingling, pain, numbness in our legs, feet, and hands.



STOMACH / BOWELS

High blood sugar can affect the nerves that go into the stomach / bowels making it harder to digest your food. Nausea and vomiting can be a side effect of this.



MOUTH / TEETH / GUMS

High blood sugar can lead to a risk of gum disease.



SEXUAL FUNCTION

High blood sugar can lead to erectile dysfunction and loss of desire.

DIABETES CARE ISSUES

Healthy Eyes:

Make sure that your eye doctor knows that you have diabetes. It is recommended that people with diabetes have a dilated eye exam once a year. Diabetic retinopathy can be detected and treated early. If you wait until the symptoms occur it might be too late.



Healthy Kidneys:

Kidney function tests should be done once a year. Your health care provider should do both a blood test and a urine test to determine the health of your kidneys. The blood tests done are called Glomerular Filtration Rate (GFR) and Creatinine (Crt). The urine check is called a microalbumin/creatinine ratio.

Teeth and Gums:

Brush and floss your teeth daily. Make sure that your dentist knows that you have diabetes. Have dental exam every 6 months. People with diabetes are at a higher risk of having Periodontal disease.



Immune Function:

Diabetes is considered an immune compromising disease, meaning you are at a higher risk of getting sick. It is encouraged that you get a flu shot annually and recommended vaccinations. Remember, prevention is better. If you get sick your blood sugar levels will go up and/ or you may need to be hospitalized.

Healthy Heart:

Having diabetes increases your risk of heart disease. At this point cardiovascular disease is the #1 killer of people with diabetes. Maintaining your blood sugar, blood pressure, and cholesterol levels will help to decrease your risk factors for heart disease. Following a consistent carbohydrate meal plan, not smoking, and making heart healthy food choices helps to prevent heart disease.

STOP SMOKING:

Smoking increases your risk of heart disease. High blood sugar levels cause your blood to be thicker and smoking narrows your blood vessels. These two factors combined make it especially dangerous. Smoking also increases your risk for amputations, blindness, impotence, losing all of your teeth, and dialysis.



Foot Care:

Foot exams should be done at each doctor's office visit and then a complete yearly foot check for nerve damage. Diabetic neuropathy is usually the first long term complication people with diabetes will notice. Uncontrolled diabetes is the leading cause of non-traumatic amputation.

FOOT CARE

Nerve damage and poor circulation from high blood sugar level can cause foot problems. Daily foot care is an important part of your diabetes plan. Your physician should check your feet and pulses/circulation at each visit.



1. Clean

- a. Wash feet daily with soap and water.
- b. Do not soak your feet.
- c. Dry your feet well, especially between the toes.
- d. Trim nails straight across.
- e. Pumice stone may be useful.

2. Protect

- a. Never go barefoot (even inside your own home). Wear cotton socks and shoes made of natural material like leather.
- b. When buying shoes, it is best to do so later in the day when your feet are at their largest due to swelling to get a better fit.
- c. Avoid extreme temperatures
- d. Safety with Pedicures (i.e., bring your own instruments, know your shop, test the temperature of water with your elbow)

3. Check Daily

- a. Inspect the tops and bottoms of your feet and in between your toes. Use a mirror if needed and ask for help if you cannot do it yourself.
- b. Check the inside of your shoes for any loose pebbles or debris and shake them out before putting on.

4. Treat

- a. It is okay to use cream and lotion on your feet, avoid putting it between your toes.
- b. Do not use chemical treatments, sharp instruments, or abrasive materials on trouble spots (ex., Ped-eggs, corn removal products, etc.). If you need to use something, a pumice stone may be used.
- c. It is okay to treat minor cuts and blisters, but make sure they are healing. If you see no improvement in a day or two or notice redness, swelling or drainage, contact your health care provider immediately.

5. Meet with your Provider

- a. Each time you have a doctor's appointment remove your shoes and socks so the doctor can examine your feet.

If you have foot problems, ask your doctor for a referral to a podiatrist.

STOP TOBACCO USE

Smoking leads to disease and disability and harms nearly every organ of the body. Smoking is the leading cause of preventable death.

Tobacco and diabetes make a poor combination when it comes to every long-term complication related to diabetes. This is because tobacco products interfere with your body's ability to use insulin, therefore making blood sugar control more difficult to achieve.

- Teeth and gums are at a higher risk of getting infections, gum disease and plaque buildup.
- Increases nerve damage in your feet and legs that occurs with diabetes. This is because tobacco products keep oxygen and nutrients from traveling to nerves by damaging vital blood vessels. This increases your risk of amputation.
- Smoking is a known cause of erectile dysfunction in males.
- Chewing tobacco is also bad for your kidneys.
- Smokeless tobacco isn't any "safer" as it can also raise blood sugar levels, making your diabetes harder to manage. Chewing tobacco is especially dangerous because it is high in sugar.

THREE GOOD REASONS TO CALL IT QUILTS

1. Your Family – Live a healthier, longer life and watch your family grow.
2. Your Health – Tobacco use causes cancer, heart disease, chronic bronchitis, emphysema and asthma attacks. Chewing tobacco can lead to a lot of mouth, teeth, gums and throat problems.
3. The Cost – In Kentucky the average cost of one pack of cigarettes is \$5.40 + 6% tax. If you smoke one pack per day that equals about \$40.00 per week, \$172.00 per month, and \$2,087.00 per year!!! That is just the cost of the package of cigarettes, this doesn't include the medical expenses that are caused by smoking and tobacco use.

HOW TO TAKE CONTROL OF YOUR TOBACCO DEPENDENCE

Call or contact one of the following for free advice, information, support, and written materials.

1.800.QUIT.NOW

www.quitnowkentucky.org

WHY SHOULD I QUIT? Health benefits of quitting tobacco	
Within 20 Minutes	Body starts to heal
Within 12 Hours	Carbon Monoxide levels in your blood drop to normal
2 weeks to 3 months	Heart attack risk drops and lung function begins to improve
1-9 months	Coughing and shortness of breath decrease
Within 1 year	Risk of heart attack drops sharply
After 2-5 years	Risk of stroke is similar to that of a person who never smoked
After 5 years	Risk of mouth, throat, esophagus, and bladder cancers are cut in half
After 10 years	Risk of lung cancer is cut in half

DIABETES AND PHYSICAL ACTIVITY

Being active is an important part of being healthy and preventing long term complications. We all know that it can help us lose weight, but it does a lot more than that. Here are a few of the many benefits beyond helping with weight loss:

- Lowers your blood sugar naturally
 - Lowers blood pressure and cholesterol
 - Burns calories to help you lose or maintain weight
 - Increases your energy for daily activities
 - helps you sleep better
 - Relieves stress and reduces symptoms of depression
 - Strengthens your heart and improves your blood circulation
 - Strengthens your muscles and bones
 - Improves your immune system
 - Improves your balance to prevent falls
- ✓ If you have an active job, great – but it doesn't hurt to try to be even more active.
- ✓ If you're not active, that's ok, being active doesn't mean that you have to start "exercising." It just means moving your body more than what you already are.
- ✓ If you are already doing regular exercise...keep it up. It will help with your blood sugar management.

SIMPLE WAYS TO BE MORE ACTIVE:

AT HOME

- Walk your dog and play fetch
- Work in your garden
- Clean your house
- Lift weights, march in place or walk around the room while watching TV



AT WORK

- Walk at lunch
- Exercise in your chair
- Take the stairs
- Stand while on the phone, reading or eating
- Talk face-to-face with your coworkers



WHEN YOU'RE OUT

- Go dancing
- Do tai chi
- Take a walk after dinner
- Park far away from the door
- Wear a pedometer



**DO SOMETHING
TODAY THAT
YOUR FUTURE
SELF WILL
THANK YOU
FOR**

Circle one thing from above that you can start doing this week to help you move more or write down one thing you will add:

HELPFUL EXERCISE TIPS

American Diabetes Association (ADA) Issues New Recommendations on Physical Activity and Exercise for People with Diabetes.

Updated guidelines suggest short periods of movement every 30 Minutes. The ADA recently updated their guidelines for regular, structured physical exercise for everyone with diabetes and recommends less overall sedentary time every day. Sedentary behavior—awake time that involves prolonged sitting, such as sitting at a desk on the computer, sitting in a meeting or watching TV—has a negative effect on preventing or managing health problems, including diabetes.

- The most notable recommendation calls for three or more minutes of light activity, such as:
 - walking
 - leg extensions
 - overhead arm stretches
- Physical movement improves blood sugar levels in people who have inactive jobs/lifestyle who are having a difficult time maintaining blood sugars in a healthy range.



DIABETES AND WEIGHT LOSS



Losing weight will not only make you feel better, but research proves over and over again that it can help lower blood sugar, blood pressure, and cholesterol levels. It will also lessen the strain on your feet and joints. The good news is that it doesn't take getting down to an "ideal" body weight, the goal would be to just lose 10% of your current body weight.

My current weight: _____ My 10% weight loss goal: _____

We know that losing weight can be difficult. We also know that there are TONS of confusing messages about the "best way" to lose weight. There are lots of different fad diets that someone can follow but that doesn't mean that it is designed for people with diabetes. Weight loss is still best achieved when you balance food intake with physical activity.

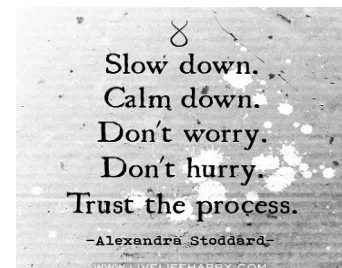
Overall, a healthy eating plan combines:

- A variety of foods that include a combination of whole/real plant based foods (fruits, vegetables, and whole grains), lean meats (chicken, turkey, fish), and lower fat dairy products.
- Limit intake of processed foods.
 - ✓ Remember if it's made IN a plant, we probably weren't intended to eat a lot of it. If it's made by a plant we should probably eat more of it!
- Research shows that people who eat breakfast have an easier time controlling their blood sugar levels and are able to maintain the weight they have already lost longer.
- Eating 3-8 servings of non-starchy/low carbohydrate vegetables every day.
- Eating slowly
- Consider being more mindful and avoid situations that cause MINDLESS eating.
 - ✓ Eating while watching TV, smart phone, or computer
 - ✓ Ask yourself why you are eating
 - ✓ Avoid skipping meals
 - ✓ Use smaller plates/bowls

** We offer a weight loss program called NEW. If interested, please ask for more information.

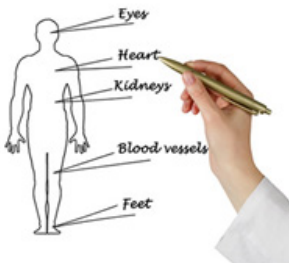
Lexington area 859.313.2393

London area 606.330.6863



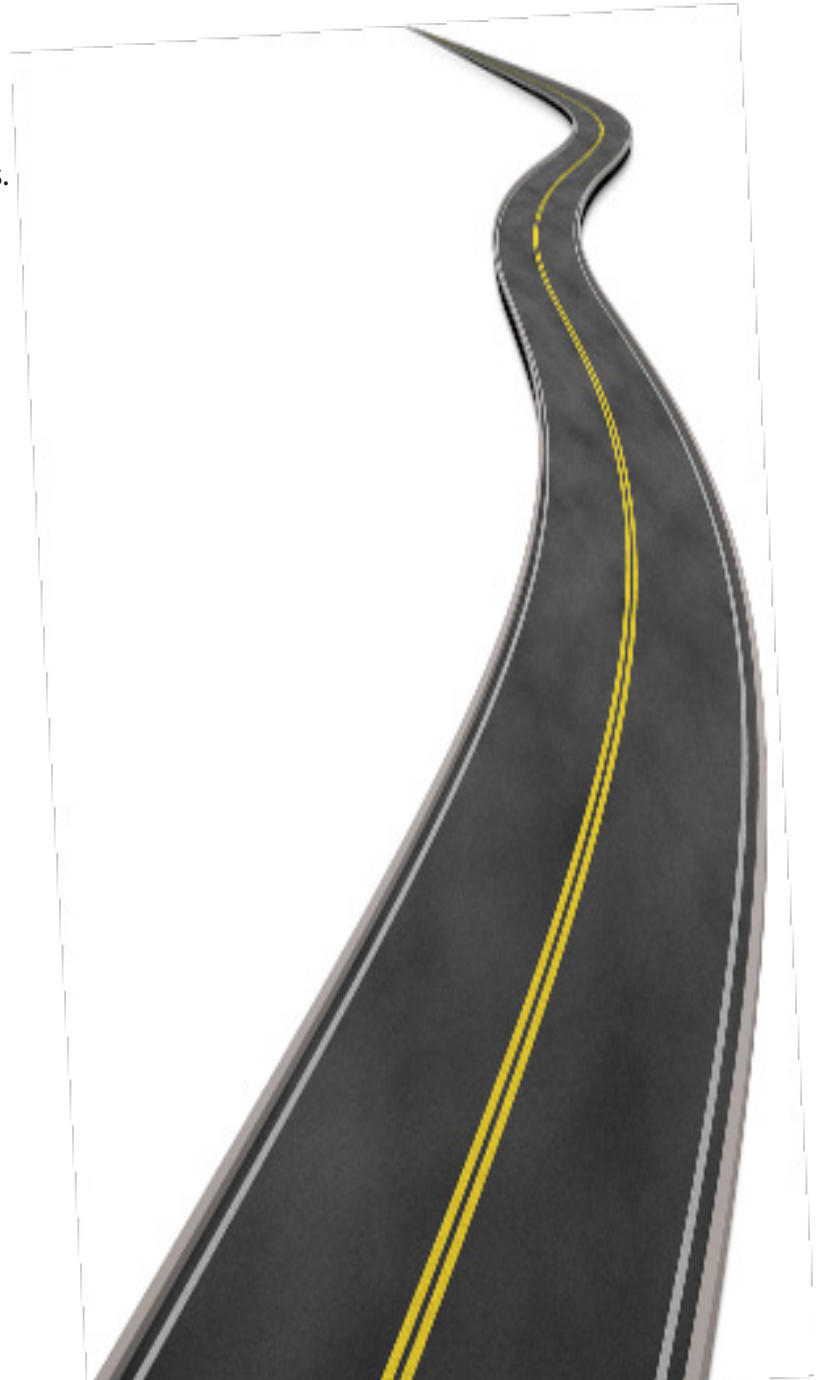
HEALTHY LIVING TO PREVENT COMPLICATIONS

Diabetes Complications



The path to prevention starts with:

1. **Acknowledgment** - Diabetes doesn't define you, but you do need to be proactive to keep it under control.
2. **Know Your Numbers** - Know what your HbA1c, blood pressure, and cholesterol numbers are.
3. **Increase Physical Activity** - Even walking moderately every day will help bring your blood sugar down.
4. **Health-Checks** - Including eye doctor, dentist, and your own home foot checks.
5. **Lose 5-10% Of Your Current Body Weight**
6. **Modify Your Diet**
7. **Track Your Blood Sugar Numbers** - Mainly to watch for patterns of what causes spikes and dips in your blood sugar.
8. **Find a Support System**



NUTRITION

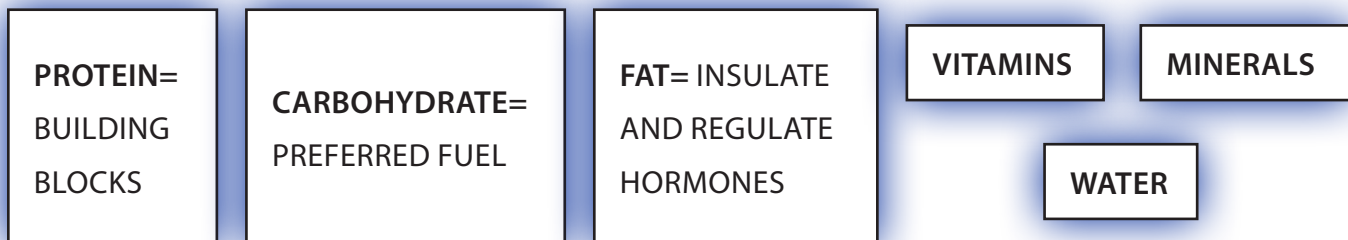
Healthy eating is about what works for you and your life. Find your healthy eating style and work to maintain it for a lifetime. The right mix can help you be healthier now and into the future!

Meet the food groups:

- Grains/Starchy Foods
- Dairy (Milk and Yogurt)
- Fruits
- Vegetables
- Protein/Meats
- Fats



The main parts of food include:



All foods can fit into a healthy eating plan by focusing on balance, variety, and moderation.

NUTRITION

How does food affect blood sugar?

- Research indicates that certain foods, specifically **CARBOHYDRATES**, are broken down into blood sugar to use as energy.
- When you have diabetes, it's important to know which foods contain high amounts of **CARBOHYDRATE** and how much your body can handle at one meal.

Q: Do I have to be on a diet because I have diabetes?

A: No! Diets are like bad boyfriends, they say "I love you" and promise you the world only to leave you broken hearted.

Instead of trying to "diet" the ADA recommends that people with diabetes have a meal plan. A meal plan can:

- ✓ Help you balance your plate and be mindful of what, and how much you are eating.
- ✓ Help you keep blood sugar levels in target to prevent/delay diabetes complications.
- ✓ Reach or maintain a healthy weight.

Your individual meal plan is based on:

- What and when you like to eat
- Your lifestyle, including activity level
- Your health needs



CARBOHYDRATE

Carbohydrate is the nutrient that gets digested and turned in to blood sugar the fastest. Therefore, it has the quickest impact on your after-meal blood sugar increase. Carbohydrate is the body's "preferred" source of fuel. A healthy diabetes meal plan will work best by figuring out how much is too much and how much is too little for your body. Carbohydrate is NOT intended to be avoided, just planned!

HIGH CARBOHYDRATE FOODS

ALL fruit & juices



Grains: Wheat, white rice, oats, corn, quinoa, barley, wild rice, brown rice, rye, and millet.

This would include anything made from any of these such as cereals, breads, pasta, crackers, corn bread, tortillas, rice cakes, cookies, pretzels, waffles, pancakes, popcorn, and all snack foods.

Starchy Foods: Potatoes, peas, pinto beans, chili beans, garbanzo beans, red beans, black beans, black eyed peas, navy beans, chickpeas, great northern beans, lentils, soybeans, parsnips, acorn squash, butternut squash

- This would include anything made from these such as potato chips, French fries, refried beans, hummus, baked beans, etc.

Milk and Yogurt

Regular Sodas

Desserts: Cakes, cookies, ice cream, candy, pies, etc.



LOW OR NO CARBOHYDRATE FOODS

Non-Starchy Vegetables: Artichokes, asparagus, bean sprouts, green beans, Italian beans, wax beans, beets, broccoli, brussel sprouts, cabbage, carrots, cauliflower, celery, cucumbers, eggplant, salad greens, jalapenos, kohlrabi, lettuce, mushrooms, okra, onions, pea pods, peppers, pickles, radishes, sauerkraut, spinach, tomatoes, turnips, zucchini, spaghetti squash, summer squash

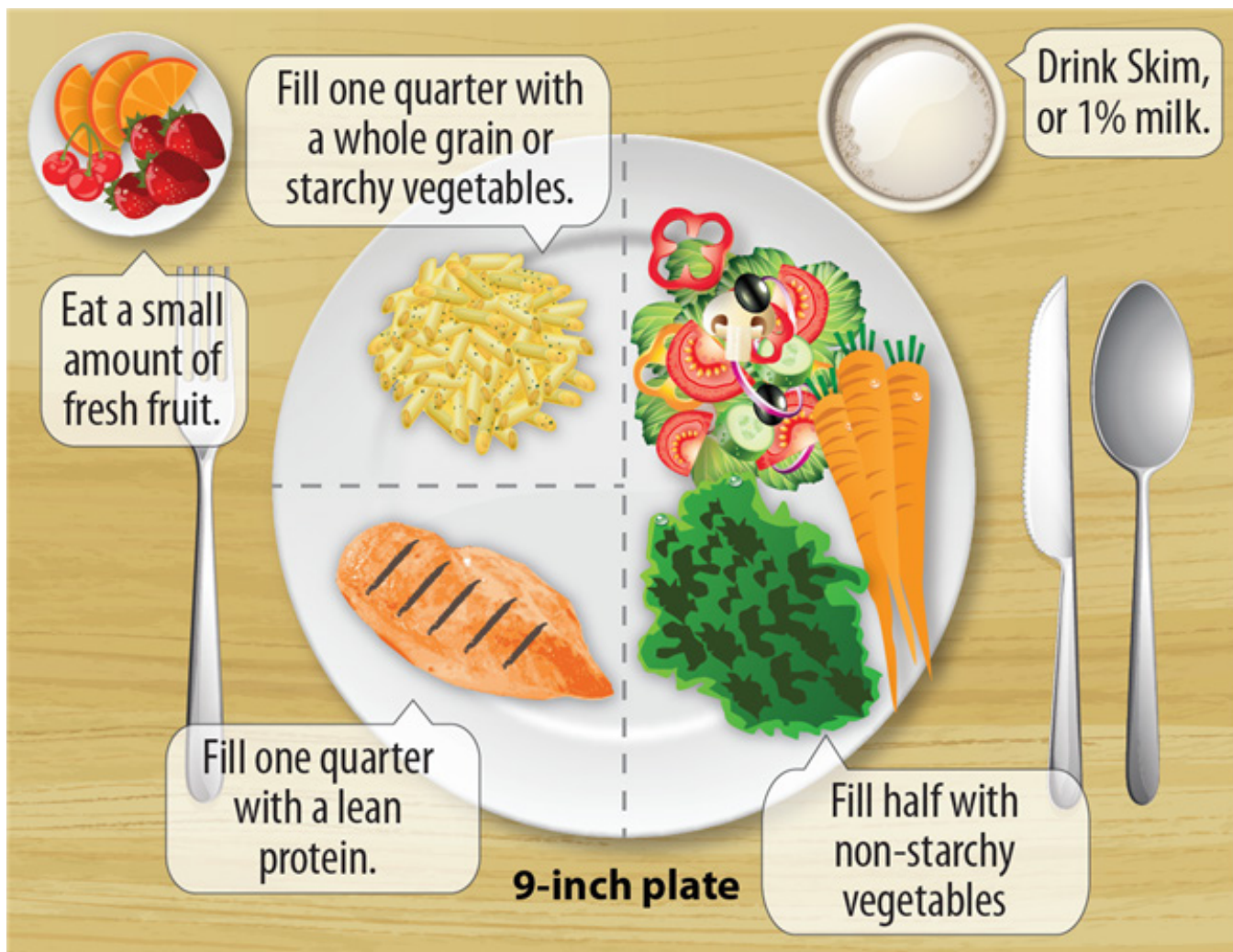
Protein/Meats: Eggs, beef, chicken, turkey, fish, shellfish, cheese, cottage cheese, tofu



Fats: Sour cream, butter, all oils, most salad dressing, nuts/nut butters, bacon, margarine, avocado

MANAGING DIABETES WITH HEALTHY EATING

- **Avoid adding sugar to drinks.**
 - ✓ The American Diabetes Association (ADA) still recommends for people with diabetes to choose diet soda, Crystal Light, plain water, flavored water or unsweetened tea to drink.
- **Do not add simple sugars such as granulated sugar, honey or brown sugar.**
 - ✓ Use Equal, Stevia, Splenda or Sweet n Low.



Nutrition tips to keep a balanced plate:

- Eat 3 balanced meals a day, 4 - 5 hours apart.
- Try to add protein to each meal/snack.
- Fill 1/2 of your plate with low carbohydrate vegetables, 1/4 with lean meat/protein, and 1/4 with starchy foods/grains; on the side have 1/2 cup of fruit and 1 cup of milk. If you don't drink milk and/or aren't having fruit then you can have a larger portion of starchy foods/grains with your meal.
- Use a smaller plate/bowl.
- Serve the food in the kitchen to prevent over eating at the table.

PORTION CONTROL

If you are trying to get your blood sugar under control by eating better, portion control is a good place to start.

- ✓ This does not mean you have to stop eating your favorite foods.
- ✓ It does mean eating less. Unfortunately portion sizes have grown dramatically over the last 40 years.
 - Adults today consume an average of 300 more calories per day than they did in 1985.

Understanding healthy portions can be hard. Here are some common things that you can use when you aren't able to measure the food you are planning to eat with measuring cups and spoons.

<p>½ cup =</p>  <p>Cup of hand</p>  <p>Tennis ball</p>	<p>1 cup =</p>  <p>Fist</p>  <p>Baseball</p>	<p>1 serving baked potato =</p>  <p>Computer mouse</p>	<p>3 ounces meat =</p>  <p>Palm of hand</p>  <p>Deck of cards</p>
<p>1 serving of fresh fruit</p>  <p>Baseball</p>	<p>1 pancake=</p>  <p>CD / DVD</p>	<p>1 Tsp.=</p>  <p>Tip of the thumb</p>  <p>Dice</p>	<p>1 Tbsp.=</p>  <p>Whole thumb</p>  <p>Poker chip</p>
	<p>2 Tbsp. peanut butter=</p>  <p>Golf Ball</p>		

FOOD LABEL

- ✓ Food labels give information on the nutrients that are in the foods that we eat.
- ✓ The information on the label is based on the serving size listed at the top.
 - If you don't eat the serving size listed on the label, then you won't be eating the amount of calories, fat, carbohydrate, sodium, etc. listed.
- ✓ The information on the food label is reliable and approved by the United States Department of Agriculture (USDA).
- ✓ The amount of carbohydrate listed on the label is measured in grams. Carbohydrate includes starch, fiber, sugar alcohol, and sugar.
 - When you read food labels, the grams of sugar are already included in the total carbohydrate amount, so you do not need to count this sugar amount separately.



Nutrition Facts	
about 8 servings per container	
Serving size 16 pieces (31g)	
Amount per serving	
Calories	140
% Daily Value*	
Total Fat 5g	6%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 55mg	2%
Total Carbohydrate 22g	8%
Dietary Fiber 3g	11%
Total Sugars 4g	
Includes 4g Added Sugars	8%
Protein 2g	
Vitamin D 0mcg	0%
Calcium 9mg	0%
Iron 0.89mg	4%
Potassium 90mg	0%

Serving Size
←

Total Carbohydrate
←

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

COUNTING PRACTICE

LUNCH

Lunch	Amount	Carbohydrate Grams
Whole Wheat Bread	2 slices	
Turkey lunch meat	2 ounces	
Cheese	1 ounce slice	
Lettuce, tomato	1 slice each	
Mayonnaise, reduced fat	1 Tbsp.	
Grapes	17 small	
Pretzel twists, mini	17	
Cookies (2 inch wide)	2 each	
Unsweetened Ice Tea	16 ounces	
Total Carbohydrate =		

MEAL MAKEOVER

Lunch	Amount	Carbohydrate Grams
Total Carbohydrate =		

COUNTING PRACTICE

FAST FOOD

Fast Food Meal	Amount	Carbohydrate Grams
Arby's Pecan Chicken Salad Market Fresh Sandwich	1 sandwich	
Curly Fries	1 small serving	
Diet Coke	Large cup	
Total Carbohydrate =		

MEAL MAKEOVER

Lunch	Amount	Carbohydrate Grams
Total Carbohydrate =		

WHAT TO DO WHEN DINING OUT?

- Ask for butter, sour cream and salad dressing on the side.
- Choose lean meats such as center cut pork chop, skinless chicken, turkey, broiled fish or sirloin steak.
- Cut back on pasta and rice.
- Limit bread & appetizers
- Take home half. Request a box before you start eating.
- Share an entrée with someone.



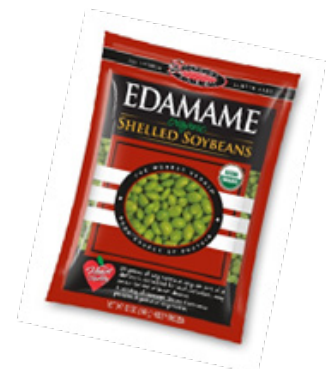
SNACK IDEAS

Not all of us need to have snacks. Snacks can help curb hunger while adding a nutritious energy boost to your day. If your meals are going to be more than 6 hours apart, you may want to plan for a healthy snack. For those who take insulin, you may need to plan snacks into your daily routine. Snacking does not mean trips to the vending machine or sitting in front of the TV with a bag of chips. Plan ahead and pack a healthy snack, this will help you to avoid mindless snacking in front of the TV or computer or while driving.

EXAMPLES OF HEALTHY SNACKS WITH 15 GRAMS OF CARBOHYDRATE AND A SOURCE OF PROTEIN

Fast, simple, and easy. Most take less than 5 minutes to prepare.

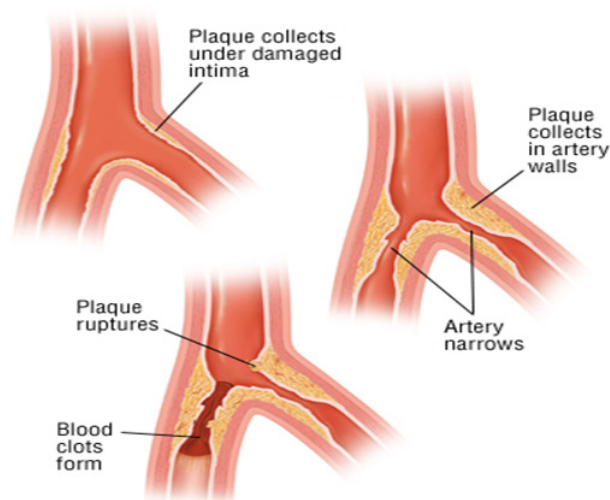
- 3 squares of graham crackers + 1 Tablespoon of natural peanut butter (for dipping)
- 6 ounces of light flavored Greek yogurt
- ½ of a turkey sandwich on whole wheat bread
- 1 small apple + 10 almonds or peanuts
- 2 Tbsp. of raisins (1 small box) + 10 almonds or peanuts
- 3 cups of popped popcorn + 1 piece of string cheese
- 1 small apple (size of a baseball) + 1 Tablespoon of almond butter
- ½ large (6 inch) banana + 1 Tablespoons natural peanut butter
- 5 Reduced Fat Triscuit crackers + 1 slice of provolone cheese
- 1 mixed fruit cup (packed in its own juice) + ¼ cup of cottage cheese
- 1/3 cup of hummus + baby carrots/celery sticks
- 6-inch tortilla shell + 1 Tablespoon natural peanut butter (roll it up)
- 2 brown rice cakes (4 inches across) + 1 teaspoon of natural peanut butter on each rice cake
- 2 Tablespoons hummus + 10 waffle pretzels
- Oscar Meyer P3 snacks
- Cheese Quesadilla (fill 6-inch tortilla with ¼ cup shredded cheese, melt in the microwave for 30 seconds, when it's done fold in half)
- Boiled egg + baseball size piece of fruit, or 1 cup fresh fruit salad
- Breakfast burrito (6-inch tortilla + 1 scrambled egg + 2 Tablespoons salsa)
- 1 cup Edamame (shelled)
- Kroger Carb Master Vanilla Cream Protein smoothie + 10 grapes
- Chobani Flavored Yogurt Drink
- Glucerna, Boost Glucose Control
- Premier Protein drink + 1 Halo orange



DIABETES AND CARDIOVASCULAR DISEASE

Carbohydrates often get ALL of the attention for managing diabetes, but it's also important to watch your fat intake.

- ✓ High fat foods might be low in carbohydrate but they are high in calories and some high in saturated fat which can increase bad cholesterol levels.
- ✓ Over time, high blood sugar levels can lead to cardiovascular (heart and blood vessel) disease. Cardiovascular disease(CVD) can lead to heart attack or stroke. The main cause of CVD is called atherosclerosis, this is when your blood vessels get clogged up with a substance called plaque. This causes the area that blood can flow to be narrower, which can cause blockage over time.



Taking care of your diabetes, high blood pressure, and cholesterol can lower your chances of developing CVD.

Cardiac Marker	ADA Goal	My Numbers
Blood Pressure	$\leq 140/90$	
Triglycerides	≤ 150 mg/dL	
LDL "bad cholesterol"	≤ 100 mg/dL	
HDL "good cholesterol"	≥ 40 mg/dL (men), and ≥ 50 mg/dL (female)	



TIPS FOR LOWERING CHOLESTEROL

1.

Lose Weight – 5-10% weight loss can help lower your cholesterol by up to 20%.



2.

Eat less processed foods such as baked goods, desserts, hot dogs, chips, etc. and avoid trans fat.



3.

Choose more foods high in healthy fats such as monounsaturated, polyunsaturated, and omega-3 fats.



4.

Increase intake of fiber from whole grains, and whole fruits and vegetables.



5.

Avoid fried foods.



CHOOSE YOUR FAT CALORIES WISELY

High fat foods often have 0 grams of carbohydrate but they contain twice as many calories. Just because something is low in carbohydrate doesn't always make it healthier.

MONOUNSATURATED FATS:

These lower the production of bad cholesterol and increase the production of good cholesterol.



- Avocado
- Olives
- Olive Oil
- Avocado Oil
- Canola Oil
- Peanut Oil
- Hazelnuts
- Pecans
- Almonds
- Cashews
- Pistachios
- Peanuts
- Almond Butter
- Natural Peanut Butter

POLYUNSATURATED FATS:

These lower the production of bad cholesterol and unfortunately the good cholesterol.



- Sesame Oil
- Corn Oil
- Soybean Oil
- Sunflower Oil
- Grape Seed Oil
- Vegetable Oil
- Oil Salad Dressings
- Mayonnaise
- Miracle Whip
- Tub Margarine

SATURATED FATS:

Raise the production of bad cholesterol and cause increase in plaque.



- Bacon
- Cheeses
- Bacon grease
- Animal/Meat Fats
- Coconut Oil
- Palm Oil
- Chocolate
- Lard
- Ghee/Clarified Butter
- Butter
- Pork Rinds
- Sour Cream
- Cream

OMEGA-3 FATS:

These help to lower triglyceride levels. Slow the buildup of plaque, which could prevent a stroke. Also, lower your risk of irregular heartbeats (arrhythmias). Your body does not make omega-3 fatty acids on its own. You need to get them from your diet.



- Salmon
- Mackerel
- Albacore Tuna (packed in water)
- Trout
- Sardines
- Chia seeds
- Flax Seed
- Walnuts
- Walnut Oil
- Flax Seed Oil

TRANS FAT:

The FDA generally allows minimal amounts of trans fats in our foods. Aim to avoid foods with hydrogenated or partially hydrogenated oils in the ingredient list.

TIPS FOR HOW TO LOWER FAT INTAKE

1. Instead of frying, try air frying, baking, broiling, roasting, steaming, grilling, or microwaving.
2. Use water or broth when sautéing meats.
3. Choose low fat salad dressing, cheeses, or sour cream.
4. Choose mustard instead of mayonnaise. Or choose low fat mayonnaise.
5. Substitute applesauce for oil in cake mixes.
6. Substitute plain Greek yogurt for mayonnaise when making tuna, egg, or chicken salad.
7. Choose low fat 1% or skim milk.
8. Trim all visible fat from meats BEFORE cooking. Remove the skin from poultry before eating, if not before cooking.
9. Choose meats with little marbling (the white stuff you can see inside of the meat before cooking).



- a. Prime grade- will contain the most amount of marbling.
 - b. Choice grade- will contain a modest amount of marbling.
 - c. Select grade- will contain a slight amount of marbling.
10. Choose ground beef that is labeled 95/5 or 90/10 or switch out ground beef for ground turkey, lean ground beef, or ground buffalo.



THE IMPORTANCE OF FIBER

Most Americans need more fiber in their diets. The average American only gets about half the fiber needed daily. The recommended amount to help lower your cholesterol is 25-35 grams per day.

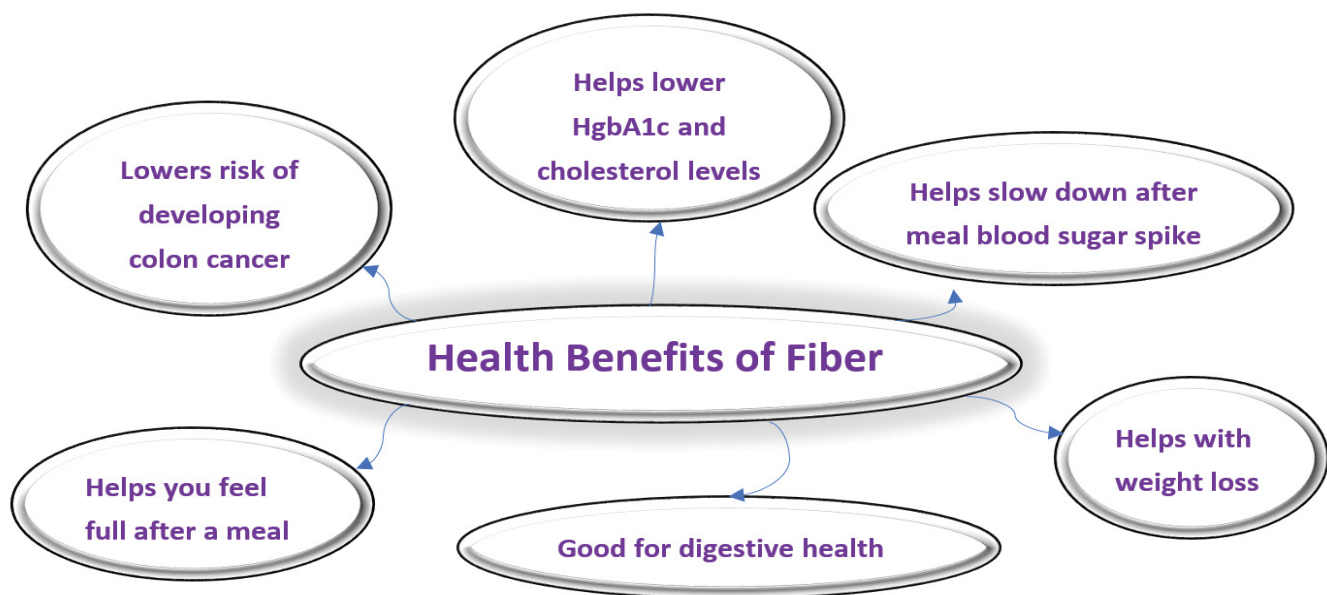
You get fiber from plant foods, so plan to eat more of these foods:

- Fresh fruits and vegetables
- Cooked dried beans and peas
- Whole-grain breads, cereals, and crackers
- Brown rice
- Bran products
- Nuts and seeds

Other than low carbohydrate vegetables and nuts all foods high in fiber are high in carbohydrate. High carbohydrate/high fiber foods should definitely be part of your daily food intake to help lower your cholesterol and fiber helps to slow down the after meal blood sugar.

Although it's best to get fiber from food sources, fiber supplements can also help you get the daily fiber you need. Research even confirms that fiber supplement psyllium husk not only lowers your cholesterol but also HgbA1c levels.

Increase your fiber intake slowly to help prevent gas and cramping. It's also important to also increase the amount of liquids that you drink.



TIPS FOR INCREASING FIBER

High Fiber Foods	Low/No Fiber Foods
Fresh or Frozen Fruits	Canned fruit, fruit juice
Old Fashioned/Steel Cut Oats	Instant Oatmeal, Cream of Wheat
Whole Grain/Wheat bread, cereals, pasta, crackers, etc.	White bread, refined cereals, crackers
Fresh or Frozen Vegetables and beans	Canned vegetables or vegetable juice
Popcorn	Pretzels
Whole potatoes (white and sweet) with the skin	Inside of the potato, French fries, chips, mashed potatoes
Brown rice, Wild Rice, Quinoa	White rice
Wheat flour	White flour
Pistachios, Almonds, Walnuts, Pumpkin seeds	Nut butters, cashews
Hummus	Ranch Dip



See page 8 in the reference section for fiber content in select foods

LIMITING SODIUM

The American Diabetes Association (ADA) recommends that people with diabetes aim to have 2,300 mg or less per day of sodium. If you have high blood pressure, your health care provider may recommend even less.

Type of Salt	Serving Size	Amount of Sodium
Table Salt	1 tsp.	2,240 mg
Sea Salt	1 tsp.	2,240-2,325 mg
Pink Himalayan Salt	1 tsp.	1,540-1,880 mg
Kosher Salt	1 tsp.	1,120 mg

It is estimated that the average “shake” of salt that we add to our food is around ½ tsp. This will take up about half of your recommended amount of sodium for the day.

Removing the salt shaker from the table is not typically enough.

1. Cut down on luncheon/deli meats, or purchase lower sodium types.
2. Prepare your own food, restaurant food is ALWAYS high in sodium.
3. Buy fresh vegetables, or frozen. If you must buy canned, always drain and rinse them.
4. Scratch the condiments. Soy sauce, ketchup, salad dressings, and seasoning packets tend to have a lot of sodium in them. Choose lite or reduced sodium soy sauce and no-salt-added ketchup. You can also add olive oil and balsamic vinegar to a salad rather than bottled salad dressings.
5. Limit processed snack foods.



FROZEN DINNERS ≤ 600 mg



SNACK FOODS ≤ 300 mg per serving

See page 6-7 of the reference section for a list of high sodium foods.

OTHER NUTRITION TIPS

CAN YOU HAVE AN ALCOHOLIC BEVERAGE?

Research has shown that there can be some health benefits to drinking alcohol, such as reducing risk for heart disease. Unfortunately, when you have diabetes there are also risks. Drinking alcohol can cause a drop in blood sugar levels because alcohol blocks the production of glucose in the liver. (The liver contains “emergency stores” of glucose to raise your blood sugar if it drops too low) Once the liver’s stores of glucose are used up, a person who has drunk alcohol without eating any carbohydrate containing food, can’t make more right away. This can lead to dangerously low blood sugar level, or even death. Also, once the liver has processed all of the alcohol it will then turn it in to a form of alcohol sugar, which will cause a rise in your blood sugar.

- Alcoholic beverages usually don’t contain a label, therefore limit your intake, even for “lower carbohydrate” drinks/beer.
- Watch out for craft beers, which can have twice the alcohol and calories as a light beer.
- For mixed drinks, choose free drink mixers like diet soda, club soda, diet tonic water or water. Avoid sweet mixers.
- When drinking alcoholic beverages make sure to check your blood sugar more often than what you normally do (up to 24 hours later).
- Always check with your physician first before drinking; drinking alcohol is not best when taking some medications.
- If you must choose to drink alcohol, it is best to do so when your blood sugar levels is under good control.
- Make sure to drink alcohol with meals or snacks that contain carbohydrates.
- Check for HYPOGLYCEMIA (even up to a day later).

ADA RECOMMENDATIONS If you drink alcoholic beverages:

- Men = 2 or less drinks per day
- Women = 1 or less drinks per day

ONE DRINK IS EQUAL TO any of the following:

- Beer = 12oz
- Wine = 5oz
- Hard Liquor = 1.5oz



HEALTHY GROCERY SHOPPING IDEAS

The next time you are at the supermarket...Here are some ideas for ways to select food to fit into your healthy meal plan that is lower in fat and more heart healthy.

Bread/Cereal: Look for lower fat types of cereal that list whole grains first on the label and contain (per serving):

- Cereals should have at least 3 grams of fiber per serving
- Breads should have at least 2 grams of fiber per slice
- Both should contain less than 2 grams of fat per serving
- Both should contain less than 5 grams of sugar per serving/slice



Crackers and snack foods: Look for the word Whole Grain, **NOT** Multigrain. This means that the fiber content is better.

- Choose ones that have less than 2-3 grams of fat per serving
- Contain less than 300 mg sodium per serving

Rice, pasta, and whole grains: Choose converted, brown, or wild rice. Look for unstuffed fresh or dried pasta, preferably made with whole grain flours. Try to avoid pasta that contain eggs and fat. There are several pasta alternatives available such as spaghetti squash or Shirataki spaghetti.

Desserts: Choose varieties that contain 3 grams or less of fat per 4 ounce serving (1/2 cup). Avoid foods made with cream of coconut, coconut milk, or coconut or palm oils (these are high in saturated fats and contain trans fatty acids). Consider fruit popsicles or frozen fruit. For cookies and cakes, choose brands that contain 3 grams or less of fat per 100 calories. Remember that sugar free does not mean carbohydrate free, count the carbohydrates and fit into your meal plan.

Cheese: Look for fat-free and reduced fat cheese with 6 grams or less of fat per ounce.

Red meat: Prime cuts are highest in fat and Choice or Select are lowest in fat per ounce.

Luncheon meat: Look for lean or 95% fat-free meats with:

- 30-55 calories per ounce
- 3 grams or less of fat per ounce
- 140 milligrams or less of sodium per serving
- Turkey or chicken salami, hot dogs, bologna can be high in fat, look for those that are 30% or less fat.

Pork: Choose center cut pork chops or pork roast. Limit intake of bacon and rib meat due to increased amount of saturated fat and ham which is high in sodium.

Poultry: Breast meat is the leanest of all. Removing the skin before cooking cuts fat by 50-75% and cholesterol by 12%.

HEALTHY GROCERY SHOPPING IDEAS

Vegetables: Fresh and frozen vegetables are the most nutritious. Drain and rinse canned vegetables to reduce sodium content.

Seafood: Look for clear eyes, red gills, shiny skin, and no “fishy” smell of fresh fish. Choose canned fish packaged in water. Look for low sodium products (140 milligrams or less per serving).

Milk: Choose skim or 1% milk and buttermilk. Look for low fat and artificially sweetened yogurt.

Fruit and fruit juice: Choose fresh, frozen, or dried fruit, preferably without added sugar/ syrup. Look for 100% pure fruit juice. Be sure to count the carbohydrate content and fit into your meal plan.

Margarine and oil: Choose:

- Olive or canola oils.
- Brands of margarine that have liquid oil listed first on the label
- Brands that contain 1 gram or less of saturated fat per serving and no trans fatty acids.

Salad dressing: Try reduced-calorie and fat-free types. Be sure to count the carbohydrate content to fit into your meal plan.

Sour cream and cream cheese: Try fat-free and light. Also try fat-free greek yogurt as an alternative to sour cream, either plain or flavored with chives, herbs and spices.

Soups: Choose low sodium, reduced fat varieties. Prepare creamed soups with skim or 1% milk or water. Choose more broth based which are lower in saturated fat.



EATING LESS FAT

Fast Food Meal	Amount	Carbohydrate Grams	Fat Grams
Total Carbohydrate =			Fat =

MEAL MAKEOVER

Fast Food Meal	Amount	Carbohydrate Grams	Fat Grams
Total Carbohydrate =			Fat =

IN SUMMARY

MEAL PLANNING

- ✓ **Consistent Carbohydrates**
 - Eat about the same amount of carbs at each meal.
- ✓ **Portion Control**
 - Utilize the Plate Method.
 - Don't graze through the day.
- ✓ **Timing**
 - Eat regular routine meals.
- ✓ **More vegetables**
 - Eat a colorful variety of non-starchy vegetables.
- ✓ **Well balanced meals**
 - Each meal should consist of protein/meat, starch/carb, and vegetable.
- ✓ **Limit sugary foods**



MOVEMENT (EXERCISE)

- ✓ Try to move every 30 minutes.
- ✓ Exercise regularly. Aim for 150 minutes per week.
- ✓ All movement counts even chair exercises.
- ✓ Check with physician first if have any medical condition.



MONITORING

- ✓ Check blood sugar daily.
- ✓ If you are sick, check more often.
- ✓ If you "don't feel right," check blood sugar.
- ✓ If $>200\text{mg}$ several days in a row, check with physician.
- ✓ Check to ensure your test strips have not expired.
- ✓ Have A1C (2- 4 times/year).



MEDICATIONS

- ✓ Take as prescribed.
- ✓ Don't just stop taking them, talk with physician first.
- ✓ If having too low or too high blood sugar, meds may need adjusting; check with physician.



PLANNING FOR SUCCESS



Setting SMART Goals

Life coach Richard Leider has been quoted in saying the following statement about behavior changes and we couldn't agree more.

"Information does not change behavior. Changes do."

We are so glad that you chose to attend this information session, but that is all that it is. We realize that changing behaviors related to food, physical activity, testing your blood sugar, and taking medication could require changing some of your current behaviors. We also realize that this will take time and could be overwhelming.

Setting goals for behavior change is an important part of the process. But make sure to set some SMART goals. In one month from now you will be meeting with an educator to review your short term SMART goal and to assess your long term SMART goal. This is not the end of your journey to control, but the beginning and we want to be here to help you along the way.



ARE YOU AT A HEALTHY WEIGHT?

In the table below, find your way in the top row. Put your finger on the weight that most closely matches yours. Then move your finger down the column until you reached the height closest to yours. Put an X on the chart where your weight and height meet.

		Weight In Pounds																
		100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	or more
Height In Feet and Inches	4'	30.5	33.6	36.6	39.7	42.7	45.6	48.8	51.9	54.9	58	61	64.1	67.1	70.2	73.2	76.3	
	4'2"	28.1	30.9	33.7	36.6	39.4	42.2	45	47.8	50.6	53.4	56.2	59.1	61.9	64.7	67.5	70.3	
	4'4"	26	28.6	31.2	33.8	36.4	39	41.6	44.2	46.8	49.4	52	54.6	57.2	59.8	62.4	65	
	4'6"	24.1	26.5	28.9	31.3	33.8	36.2	38.6	41	43.4	45.8	48.2	50.6	53	55.4	57.9	60.3	
	4'8"	22.4	24.7	26.9	29.1	31.4	33.6	35.9	38.1	40.4	42.6	44.8	47.1	49.3	51.6	53.8	56	
	4'10"	20.9	23	25.1	27.2	29.3	31.3	33.4	35.5	37.6	39.7	41.8	43.9	46	48.1	50.2	52.2	
	5'	19.5	21.5	23.4	25.4	27.3	29.3	31.2	33.2	35.2	37.1	39.1	41	43	44.9	46.9	48.8	
	5'2"	18.3	20.1	21.9	23.8	25.6	27.4	29.3	31.1	32.9	34.7	36.6	38.4	40.2	42.1	43.9	45.7	
	5'4"	17.2	18.9	20.6	22.3	24	25.7	27.5	29.2	30.9	32.6	34.3	36	37.8	39.5	41.2	42.9	
	5'6"	16.1	17.8	19.4	21	22.6	24.2	25.8	27.4	29	30.7	32.3	33.9	35.5	37.1	38.7	40.3	
	5'8"	15.2	16.7	18.2	19.8	21.3	22.8	24.3	25.8	27.4	28.9	30.4	31.9	33.4	35	36.5	38	
	5'10"	14.3	15.8	17.2	18.7	20.1	21.5	23	24.4	25.8	27.3	28.7	30.1	31.6	33	34.4	35.9	
	6'	13.6	14.9	16.3	17.6	19	20.3	21.7	23.1	24.4	25.8	27.1	28.5	29.8	31.2	32.5	33.9	
	6'2"	12.8	14.1	15.4	16.7	18	19.3	20.5	21.8	23.1	24.4	25.7	27	28.2	29.5	30.8	32.1	
	6'4"	12.2	13.4	14.6	15.8	17	18.3	19.5	20.7	21.9	23.1	24.3	25.6	26.8	28	29.2	29.2	
	6'6"	11.6	12.7	13.9	15	16.2	17.3	18.5	19.6	20.8	22	23.1	24.9	25.4	26.6	27.7	28.9	

 Underweight
 Normal
 Overweight
 Obese

Your current body mass index (BMI): _____ Your BMI goal: _____

WHAT KINDS OF PHYSICAL ACTIVITY CAN HELP ME?

FOUR KINDS OF ACTIVITY CAN HELP YOU:

1. Be Extra Active Every Day.

Being extra active can increase the number of calories you burn. Try different ways to be extra active, or think of other things you can do.

- Walk around while you talk on the phone.
- Play with the kids.
- Take the dog for a walk.
- Get up to change the TV channel instead of using the remote control.
- Working the garden or rake leaves.
- Clean the house.
- Wash the car.
- Stretch out your chores. For example, make two trips to take the laundry downstairs instead of one.
- Park at the far end of the shopping center parking lot and walk to the store.
- At the grocery store, walk down every aisle.
- At work, walk over to see a co-worker instead of calling or emailing.
- Take the stairs instead of the elevator.
- Stretch or walk around instead of taking a coffee break and eating.
- During your lunch break, walk to the post office or do other errands.

2. Do Aerobic Exercise.

Aerobic exercise is an activity that requires the use of large muscles and makes your heart beat faster. You will also breathe harder during aerobic exercise. Doing aerobic exercise for 30 minutes a day at least 5 days a week provides many benefits. You can even split up those 30 minutes into several parts. For example you can take three brisk 10-minute walks, one after each meal.

If you haven't exercised lately, see your doctor first to make sure it's OK for you to increase your level of physical activity. Talk with your doctor about how to warm-up and stretch before you exercise and how to cool down after you exercise. Then start slowly with 5 to 10 minutes a day. Add a little more time each week, aiming for at least 150 minutes per week. **Try:**

- Walking briskly
- Hiking
- Climbing stairs
- Swimming or taking a water-aerobics class
- Dancing
- Riding a bicycle outdoors or stationary bike indoors
- Take an aerobics class.
- Play basketball, volleyball or other sports
- In-line skating, ice-skating, or skateboarding
- Playing tennis
- Cross country skiing

3. Do Strength Training.

Doing exercises with hand weights, elastic bands, or weight machines three times a week builds muscle. When you have more muscle and less fat, you'll burn more calories because muscle burns more calories than fat, even between exercise sessions. Strength training can make daily chores easier, improving your balance and coordination, as well as bone health. You can do strength training at home, at a fitness center, or in a class. Your healthcare team can tell you more about strength training and what kind is best for you.

4. Stretch.

Stretching increases flexibility, lowers stress and helps prevent muscle soreness after other types of exercise. Your healthcare team can tell you what kind of exercise stretching is best for you.

FREQUENT QUESTIONS ABOUT EXERCISE:

1. Can I Exercise Anytime I Want?

Your health care team can help you decide the best time of day for you to exercise. Together, you and your team will consider your daily schedule, your meal plan, and your diabetes medicines. If you have type 1 diabetes, avoid strenuous exercise when you have ketones and your blood or urine. Ketones are chemicals your body might make when your blood glucose level is too high in your insulin level is too low. Too many ketones can make you sick. If you exercise when you have ketones in your blood or urine, your blood glucose level may go even higher. If you have type 2 diabetes and your blood glucose is high but you don't have ketones, light or moderate exercise will probably lower your blood glucose. Ask your health care team whether you should exercise when your blood glucose is high.

2. Are There Any Types Of Physical Activity You Shouldn't Do?

If you have diabetes complications, some kinds of exercise can make your problems worse. For example, activities that increase the pressure in the blood vessels of your eyes, such as lifting heavy weights, can make diabetic eye problems worse. If nerve damage from diabetes has made your feet numb, your doctor may suggest that you try swimming instead of walking for aerobic exercise. When you have numb feet, you might feel pain in your feet. Sores or blisters might get worse because you don't notice them. Without proper care, minor foot problems can turn into serious conditions, sometimes leading to amputation. Make sure your exercise in cotton socks and comfortable, well-fitting shoes designed for your activity you're doing. After you exercise, check your feet for cuts, sores, bumps, or redness. Call your doctor if any foot problems develop.

• Can Physical Activity Cause Low Blood Glucose?

Physical activity can cause low blood glucose, also called hypoglycemia, in people who take insulin or certain types of diabetic medicines. Ask your health care team whether your diabetes medicines can cause low blood glucose. Low blood glucose can happen while you exercise, right afterward, or even up to a day later. It can make you feel shaky, weak, confused, grumpy, hungry, or tired. You may sweat a lot or get a headache. If your blood glucose drops too low, you could pass out or have a seizure.

However you should be physically active. **These steps can help you be prepared for low blood glucose:**

A. Before Exercise

- Ask your healthcare team whether you should check your blood glucose level before exercising.
- If you take diabetes medicines that can cause low blood pressure, ask your healthcare team whether you should change the amount you take before you exercise.
- Have a snack and if your blood glucose level is below 100.

B. During Exercise.

- Wear your medical identification (ID) bracelet or necklace or carry your ID in your pocket.
- Always carry food or glucose tablets so you'll be ready to treat low blood glucose.
- If you'll be exercising for more than an hour, check your blood glucose at regular intervals. You may need snacks before you finish.

C. After Exercise.

- Check to see how exercise affected your blood glucose level.

EXERCISE

	Calories / hour	Calories / minute
LIGHT ACTIVITY:		
Light housework	150	2.5
Strolling - 1.0 miles / hour	150	2.5
Golf, riding golf cart	200	
Level walking 2.0 miles per hour	200	3.5
MODERATE ACTIVITY:		
Cycling 5.5 miles / hour	210	3.5
Gardening	220	3.5
Canoeing 2.5 miles / hour	230	4.0
Cleaning windows, mopping, vacuuming	240	4.0
Lawn mowing, power mower	250	4.0
Lawn mowing, hand mower	270	4.5
Walking 3.0 miles / hour	275	4.5
Bowling	300	5.0
Golf, pulling a cart	450	
Scrubbing floors	300	5.0
Rowboating 2.5 miles / hour	300	5.0
Swimming 0.25 miles / hour	300	5.0
Cycling 8 miles / hour	325	5.5
Badminton	350	6.0
Horseback riding, trotting	350	6.0
Square dancing	350	6.0
Volleyball	350	6.0

**Based on body weight between 130-155*



Physical Activity in Individuals With Diabetes Complications

Retinopathy

- Proliferative diabetic retinopathy or severe nonproliferative diabetic retinopathy
- Vigorous aerobic or resistance exercise may be contraindicated

Autonomic Neuropathy

- Can increase risk for exercise-induced injury
- All individuals with autonomic neuropathy should undergo cardiac investigation before beginning more-intense-than usual physical activity

Peripheral Neuropathy

- Decreased pain sensation and a higher pain threshold in the extremities cause increased risk of skin breakdown and infection
- All individuals with neuropathy should wear proper footwear and examine feet daily for lesions
- Foot injury or open sore: restricted to non-weight-bearing activity

Albuminuria and Nephropathy

- Physical activity can acutely increase urinary protein excretion
- No evidence that vigorous-intensity exercises increases diabetic kidney disease progression
- No restrictions needed for individuals with diabetic kidney disease

SODIUM CONTENT OF FOODS

- Eating more than the serving size for a moderate or low-sodium food will make it a high- sodium food. Foods made with high-sodium foods will also be high in sodium.
- Unless otherwise noted, all foods are cooked; meat is roasted, fish is cooked with dry heat, vegetables are cooked from fresh, and fruit is raw.
- This is a guide. Actual values may vary depending on product and/or processing. Canned and processed foods may have a higher sodium content.
- Values are rounded to the nearest 5 mg increment and may be averaged with similar foods in group.

High Sodium (more than 300 mg)		
Food	Serving	mg
Bacon	2 slices	300
Bagel, 4", egg	1 each	450
Bagel, 4", plain, onion, or seeded	1 each	400
Barbeque sauce	2 tbsp.	350
Beans, baked, plain	1/2 cup	435
Beans, garbanzo	1/2 cup	360
Beans, kidney, canned	1/2 cup	440
Beans, lima, canned	1/2 cup	405
Beef, dried	1 oz.	790
Biscuit, 2 1/2"	1 each	350
Catsup	2 tbsp.	335
Cheese, American	1 oz.	400
Cheese, cottage	1/2 cup	460
Cheese, feta	1 oz.	315
Corn, creamed, canned	1/2 cup	365
Croissant	2 oz.	425
Fish, salmon, canned	3 oz.	470
Fish, salmon, smoked	3 oz.	670
Fish, sardines, canned	3 oz.	430
Frankfurter, beef or pork	1 each	510
Ham	3 oz.	1,125
Lobster	3 oz.	325
Miso	1/2 cup	1,280
Mushrooms, canned	1/2 cup	330
Pickles, dill	1 large	570
Potatoes, au gratin or scalloped	1/2 cup	500
Pretzels	1 oz.	400
Pudding, instant, chocolate, prepared with milk	1/2 cup	420
Salad dressing, Italian, commercial	2 tbsp.	485
Salami, dry or hard	1 oz.	600
Salt, table	1 tsp.	2,325
Sauerkraut, canned	1/2 cup	780
Soup, canned	1 cup	700-1,000
Soy sauce	1 tbsp.	900
Teriyaki sauce	1 tbsp.	690
Tomato or vegetable juice, canned	1/2 cup	325
Tomato sauce, canned	1/2 cup	640
Tomato sauce, spaghetti or marinara	1/2 cup	510
Veggie or soy patty	1 each	380

Moderate Sodium (140 - 300 mg)		
Food	Serving	mg
Asparagus, canned	4 spears	205
Beans, green or yellow, canned	1/2 cup	175
Bologna, pork and beef	1 oz.	210
Bread, pita, 4"	1 each	150
Bread, pumpernickel or rye	1 slice	215
Bread, white	1 slice	170
Carrots, canned	1/2 cup	175
Cereal, raisin bran	1/2 cup	175
Cheese: muenster, mozzarella, cheddar	1 oz.	175
Cheese, parmesan	2 tbsp.	150
Cheese, provolone, part-skim	1 oz.	250
Cheese, ricotta	1/2 cup	155
Corn, canned	1/2 cup	285
Crab, canned	3 oz.	240
English muffin	1 each	250
French fries	10 fries	200
Greens, beet	1/2 cup	175
Milk, buttermilk	1 cup	260
Milk, chocolate	1 cup	165
Milkshake	8 oz.	240
Muffin	2 oz.	250
Nuts, mixed, salted	1 oz.	190
Olives, ripe, canned	5 large	190
Pancake or waffle, 4"	1 each	240
Peanuts, salted	1 oz.	230
Peas, green, canned	1/2 cup	215
Potato chips	1 oz.	190
Potatoes, mashed, prepared from dry mix	1/2 cup	170
Pudding, ready-to-eat	1/2 cup	160
Pudding, vanilla, from mix	1/2 cup	225
Roll, hot dog or hamburger	1 each	205
Salad dressing	2 tbsp.	200-300
Salsa	2 tbsp.	195
Sausage, pork	1 oz.	200
Tomatoes, canned	1/2 cup	170
Tomatoes, stewed, canned	1/2 cup	280
Tortilla, flour, 6"	1 each	205
Tuna, canned in water	3 oz.	290
Yogurt, fruited or plain	8 oz.	100-175

SODIUM CONTENT OF FOODS (cont.)

Low Sodium (less than 140 mg)		
Food	Serving	mg
Beets, canned	1/2 cup	115
Bread, Italian	1 slice	120
Bread, wheat	1 slice	130
Butter, salted	1 tbsp.	80
Cereal, breakfast: corn, bran, or wheat	1/2 cup	100-150
Cheese, Swiss	1 oz.	55
Egg substitute, liquid	1/4 cup	110
Egg, whole	1 large	70
Fish: Pollock, swordfish, perch, cod, halibut, roughy, salmon	3 oz.	60-100
Frozen yogurt	1/2 cup	65
Gelatin, prepared from mix	1/2 cup	100
Ice cream	1/2 cup	55
Margarine, regular	1 tbsp.	135
Milk, all types	1 cup	100
Milk, evaporated, canned	1/2 cup	135
Mustard	1 tsp.	55
Peanut butter	1 tbsp.	75
Peas, green, frozen	1/2 cup	60
Seeds, sunflower	1 oz.	115
Soy milk	1 cup	125
Spinach	1/2 cup	65
Spinach, frozen	1/2 cup	90
Sweet potato, baked in skin	1 medium	40
Turkey, light or dark meat	3 oz.	60
Yogurt, plain and fruited	8 oz.	100-175

Very Low Sodium (less than 35 mg)		
Food	Serving	mg
Apricots, canned	1/2 cup	5
Beans, white, canned	1/2 cup	10
Beef, ground	1 oz.	20
Beer, regular	12 oz.	15
Broccoli	1/2 cup	30
Broccoli, raw	1/2 cup	15
Brussels sprouts	1/2 cup	15
Cabbage, raw or cooked	1/2 cup	5
Carbonated beverages	12 oz.	20-40
Cauliflower	1/2 cup	10
Cauliflower, raw	1/2 cup	15
Dried beans and peas	1/2 cup	5-20
Greens: beet, collard, mustard	1/2 cup	10-20
Honeydew	1/2 cup	30
Lettuce leaf	1 cup	15
Noodles	1/2 cup	10
Oatmeal	1/2 cup	5
Peaches, canned	1/2 cup	5
Pears, canned	1/2 cup	5
Pork	1 oz.	25
Potato, baked w/skin	1 medium	20
Rice, brown or wild	1/2 cup	5
Sherbet	1/2 cup	35
Soybeans	1/2 cup	15
Spinach, canned, drained	1/2 cup	30
Spinach, raw	1 cup	25
Tofu, firm	1/4 cup	10
Wine, table, all types	5 oz.	10

Free (less than 5 mg)	
Food	Serving
Avocado	1 oz.
Beans: navy, black, pinto	1/2 cup
Fruit and juices not previously listed	1 piece or 1/2 cup
Nuts: almonds, pecans, or walnuts, unsalted	1 oz.
Oil, all types	1 tbsp.
Popcorn, air popped	1 cup
Raisins, seedless	1/4 cup
Rice, white	1/2 cup
Tomato, raw	1 medium
Vegetables not previously listed	1/2 cup

KEY:

High Sodium = 300 mg or more per serving

Low Sodium = 140 mg or less per serving

Very Low Sodium = 35 mg sodium or less

Sodium Free < 5 mg sodium

FIBER CONTENT OF FOOD

Fruit	Serving Size	Dietary Fiber (grams)
Apple, canned peeled	½ cup	2.1
Apple, raw with skins	1 large	4.0
Apple juice	½ cup	0.0
Apricots, canned	½ cup	2.1
Apricots, with skins	2	1.4
Bananas	1 medium	3.0
Blackberries, raw	½ cup	5.0
Cherries, raw	10 large	1.1
Cherries, cooked	½ cup	1.0
Cranberries, raw	½ cup	4.0
Dates, dried	2	1.6
Figs, dried	1 medium	3.7
Grapefruit, raw	½	0.8
Grapes, purple	15	0.1
Melon	1 cup	1.5
Nectarine, raw with skin	1 small	1.5
Orange, raw	1 small	1.5
Peach, canned	½ cup	1.8
Peach, raw with skin	1 medium	2.3
Pear, canned	½ cup	2.0
Pear, raw with skin	1 medium	4.0
Pineapple, raw	½ cup	0.8
Plums, canned	4 small	1.9
Prunes, dried	2	2.4
Raisins	2 Tbsp	1.5
Raspberries, raw	½ cup	4.6
Strawberries, raw	½ cup	1.6
Tangerine, raw	1 large	2.0

Vegetables	Serving Size	Dietary Fiber (grams)
Asparagus	1/2 cup	3.5
Bean sprouts, raw	1/2 cup	1.5
Beans, green, cooked	1/2 cup	2.1
Beets, cooked	1/2 cup	2.1
Broccoli, cooked	1/2 cup	3.5
Brussels sprouts, cooked	1/2 cup	2.3
Cabbage, cooked	1/2 cup	2.1
Carrots, raw	1/2 cup	1.8
Cauliflower, cooked	1/2 cup	1.6
Celery, raw	1/2 cup	1.1
Corn, fresh	1 med. ear	5.2
Cucumber, raw	1/2 cup	1.1
Kale, cooked	1/2 cup	1.3
Lettuce	1/2 cup	0.8
Mushrooms, raw	1/2 cup	0.9
Mustard greens, raw	1/2 cup	1.0
Okra, raw	1/2 cup	1.6
Onion, raw	1/2 cup	1.2
Peas, canned	1/2 cup	6.7
Pepper, green, raw	1/2 cup	1.1
Potato, baked with skin	1 medium	3.8
Radishes, raw	1/2 cup	1.3
Spinach, cooked	1/2 cup	6.5
Squash, summer, cooked	1/2 cup	3.5
Sweet potatoes, cooked	1/2 cup	2.1
Tomato, cooked	1/2 cup	1.5
Tomato, raw	1 small	1.5
	1/2 cup	2.0
Yam, cooked	1/2 cup	3.9
Zucchini, raw	1/2 cup	2.0

	Breads & Grains	Serving Size	Dietary Fiber (grams)
BREADS	Corn Bread	1 square	1.1
	French	1 slice	0.7
	Pumpernickel	1 slice	1.9
	Rye	1 slice	0.8
	White	1 slice	0.7
	Whole grain	1 slice	2.1
	Whole wheat	1 slice	1.3
	ROLLS	Dinner, white	1
Whole wheat		1	1.6
PASTA	Macaroni, cooked	½ cup	0.6
	Spaghetti, cooked	½ cup	0.8
	Rice, brown, cooked	½ cup	2.4
	Rice, white, cooked	½ cup	0.8
CEREALS	100% Bran Flakes	1/3 cup	8.4
	40% Bran Flakes	1 cup	6.0
	Bran Chex	1 cup	8.2
	Cheerios	1 cup	1.6
	Corn Bran	1 cup	8.8
	Corn Chex	1 cup	3.5
	Cornflakes	1 cup	3.5
	Grapenuts	1 cup	5.4
	Oatmeal, instant, dry	1 package	3.3
	Oats, whole, dry	¼ cup	2.9
	Puffed Wheat	1 cup	4.5
	Shredded Wheat	1 biscuit	2.8
	Total	1 cup	3.3
	Unprocessed Bran	1 tsp	2.0
	Wheat Chex	1 cup	3.0
	Wheaties	1 cup	3.5
	LEGUMES, COOKED	Beans, brown	½ cup
Beans, kidney		½ cup	9.7
Beans, lima		½ cup	8.3
Beans, pinto		½ cup	8.9
Beans, white		½ cup	7.9
Lentils, cooked	½ cup	3.7	
NUTS	Almonds	1 Tbsp	1.1
	Chestnuts	3	1.8
	Peanut, roasted	1 Tbsp	0.8
	Pecans	1 Tbsp	0.5
Walnuts	1 Tbsp	0.4	
SNACK FOODS	Cracker, graham	2 squares	1.4
	Cracker, rye wafer	3 wafers	2.3
	Cracker, saline	6 crackers	0.8
	Popcorn, popped	3 cups	3.0

EARLY LAB DRAWS/PROCEDURES REQUIRING NO EATING/DRINKING

There are no set rules for what to do when you have diabetes and need to have labs drawn. However, a couple of helpful hints can help you avoid some unpleasant situations.

First, always ask if you have to fast for the lab (nothing to eat or drink). If the answer is yes, then for how long do you have to fast?

Ask to have your labs scheduled first thing in the morning so that you can get it out of the way.

If you take oral diabetes medications, wait until after your labs are drawn before taking. You increase your risk of having a low blood sugar if you take your medication before.

If you are going to an appointment after your labs or if it is going to be awhile before you can get home to eat, bring a snack with you that you can eat after you have your labs drawn.

If you take insulin the night before, ask your doctor or health care provider if you should take your full dose or a partial dose.



SURGERY / HOSPITALIZATIONS

Surgery is always stressful physically and mentally no matter who is being operated on or the type of surgery. The physical invasion of the body, anesthesia, whether local or general, all have inherent risks. However, to the person with diabetes even minor surgery can be life-threatening.

The main risks to the diabetic are:

- Loss of control over blood sugar
- Ketoacidosis
- Dehydration
- Decreased capacity to heal
- Increased risk of infection

There are many other considerations including high blood pressure, kidney damage, increased risk of urinary tract infections, hypoglycemia, to name a few, which are associated with emergency or even elective surgery.



Surgery can cause a sudden rise in blood sugar levels even in individuals who have been extremely careful about controlling their blood sugar levels in the past.

- To make sure that surgery and recovery are successful, careful regulation and control of blood sugar, usually with insulin, is essential for several days or several weeks before and after any elective surgery. Careful control makes it possible for the person with diabetes to have surgery with little or no more risk than the non-diabetic person.
- To plan a safe and successful surgery, the surgeon and attending physicians must know that the person they're treating has diabetes.
- While tests done before surgery can detect diabetes, the patient should inform the doctor of his or her condition.
- A surgical team also will evaluate the possible effect of complications of diabetes, such as heart or kidney problems.

TRAVELING WITH DIABETES

TRAVEL TIPS

Taking a trip can be stressful due to the changes you will make in your daily routine. Some tips to help you include:

1. Stick to your meal plan when away from home.
2. Plan to exercise when you travel.
3. Take special care of your diabetes medications and supplies. Keep them in the original container/vial that you got from the pharmacy with your name and your MD name on them.
4. Bring your blood glucose meter and supplies.
5. Be prepared to treat low blood glucose when traveling.
6. Know what to do if your blood glucose goes too high.
7. Plan for any unintended illness.
8. Protect your feet during your trip.
9. Plan for time zone changes (especially if you take insulin).
10. Know the airport security rules for diabetes supplies.
11. Understand your health insurance.
12. Inform airport security you have diabetes – put diabetes supplies in a quart size plastic container separate for other non diabetes liquids. Keep your diabetes medications and testing supplies in your carry-on bag.
13. If you use an insulin pump, know how flying and change of altitude will affect your pump.
14. Check with the insulin pump company to determine the safety of your insulin pump with metal detectors.



TRAVEL CHECKLIST

- Important phone numbers of your diabetes care team
- Medical insurance card or travel insurance
- Names of local medical facilities and resources during your travel
- If you are flying with needles, get a doctor letter of medical necessity to aid with screening.
- Clothing that can be worn in layers for comfort and protection
- Medical identification
- Comfortable shoes
- Necessary medications with prescription labels
- Make sure your travel companion, or flight attendant if you do not have a travel companion when flying, is familiar with your diabetes management and location of supplies and phone numbers.
- Diabetes supplies
- Insulin pump identification card
- Low blood glucose treatment (see page 13 of Class 1)
- Snacks that are stable at room temperature (see list below)

SNACKS THAT DON'T NEED A COOLER

- granola or cereal bar
- dry cereal
- trail mix
- peanut butter crackers
- rice cakes

DIABETES AND PREGNANCY

It is best to PLAN your pregnancy if you have diabetes. The early weeks of pregnancy are a very important for the baby. The first trimester is the time when your baby's organs are forming. Babies born to women with poor diabetes during the first trimester increase the risk of birth defects and miscarriage. If you blood sugar levels are not in the target range, work to bring you diabetes under control BEFORE getting pregnant. Some experts even recommended, it is a good idea to have your blood sugar levels under good control 3-6 months before you plan to get pregnant.

TARGET BLOOD SUGAR LEVELS BEFORE PREGNANCY

Blood sugar level before meals	60-99 mg/dL
Blood sugar level 1-2 hours after meals	≤140 mg/dL
HgbA1c	≤6.0%



Once a woman is pregnant, there are changes in hormone levels that will affect blood sugar levels. The way a woman controlled her blood sugar prior to getting pregnant may change after she is pregnant. This may also require more work to keep blood sugar levels within target range. Targets for blood sugar levels, medications, meal planning, and exercise all may need to be changed during your pregnancy in efforts to prevent complications.

COMPLICATIONS THAT COULD OCCUR:

MOM

1. Worsening of existing diabetes complications such as eye, kidney, nerve, and heart problems
2. Pre-term labor
3. High blood pressure
4. Pre-eclampsia (high blood pressure + protein in urine)
5. Gum disease
6. Injury from delivery large baby
7. Increase risk of cesarean section

BABY

1. Still birth, or miscarriage
2. Born very large (over 9 pounds)
 - a. Injury to nerves in the shoulder
 - b. Possible broken collar bone
3. Birth defects
 - a. Some heart defects
 - b. Some major defects of the brain spinal cord
4. Low blood sugar after birth
5. Jaundice
6. Obesity later in life

SIMPLE STEPS FOR MINDFUL EATING

Try the following strategies for mindful eating to help you identify your body's signals and truly enjoy your food:

- **Start by recognizing whether you're hungry before you begin eating.** If you aren't hungry, you won't be as interested so it will be harder to stay focused. Besides, if a craving doesn't come from hunger, eating will never satisfy it.
- **Don't wait until you're famished.** One of the keys to conscious eating is to keep your body adequately fed to avoid becoming overly hungry which increases the chance that you'll overeat.
- **Next, decide how full you want to be when you're finished eating.** When you eat with the intention of feeling better when you're done eating, you're less likely to keep eating until the food is gone.
- **Choose food that will satisfy both your body and your mind.** Our society is so obsessed with eating right that we sometimes eat things we don't even like. However, satisfaction comes not just from fullness but from enjoying the taste of your food - without guilt. Feeling guilty about eating certain foods actually causes more overeating, not less.
- **Set the table in a pleasant manner.** Creating a pleasant ambience adds to the enjoyment of eating and to your level of satisfaction. Besides, you deserve it.
- **Eat without distractions.** If you eat while you're distracted by watching television, driving, or talking on the telephone, you won't be giving your food or your body's signals your full attention. As a result, you may feel full but not satisfied.
- **Eat when you're sitting down.** Choose one or two particular areas at home and at work that are only used for eating and eat only there. For example, do not eat while standing over the sink, peering into the refrigerator or sitting in bed.
- **Appreciate the occasion.** Appreciate the atmosphere, the company, or simply the act that you're giving yourself the opportunity to sit down and enjoy your meal.
- **Take a few breaths and center yourself before you begin eating.** This will help you slow down and give eating your full attention.
- **Appreciate the aroma and the appearance of your food.** Notice the colors, textures, and smells of the food and imagine what it will taste like.
- **Decide which food looks the most appetizing and start eating that food first.** If you save the best until last, you may want to eat it even if you are full.
- **Savor the aromas and tastes of your food as you eat it.** Put your fork down between bites and be conscious of all the different sensations you are experiencing.
- **If you notice that you're not enjoying what you chose, choose something else if possible.** Eating food you don't enjoy will leave you feeling dissatisfied.
- **Pause in the middle of eating for at least two full minutes.** Estimate how much more food it will take to fill you to comfortable satiety.
- **Push your plate forward or get up from the table as soon as you feel satisfied.** The desire to keep eating will pass quickly. Keep in mind that you'll eat again when you're hungry.
- **Notice how you feel when you're finished eating.** If you overate, don't punish yourself. Instead, be aware of the physical and/or emotional discomfort that often accompanies being overly full and create a plan to decrease the likelihood that you'll overeat next time.

Once you've experienced the increased peace from mindful eating, you may be motivated to become more mindful during other activities too. Living "in the moment" and becoming more aware can increase your enjoyment and effectiveness in everything you do.

WHAT ARE NET CARBS?

Some packaged foods contain the term “net carbs” or “impact carbohydrate” or “digestible carbohydrate.” None of those terms have a legal definition from the Food and Drug Administration (FDA) and they are not used by the American Diabetes Association (ADA), these terms have been created to make their products appealing to people following low carbohydrate fad diets such as Atkins, Keto, South Beach, Paleo, Whole 30, etc. To get these numbers, manufacturers usually subtract the grams of fiber and sugar alcohols from the total carbohydrate which could ultimately affect people with diabetes who follow a carbohydrate controlled meal plan. The ADA nutrition recommendations state: “There is no evidence that the amounts likely to be consumed in a meal or day will result in significant reduction in total daily energy intake or improvement in long-term glycemia.”

The following general guidelines are frequently used for counseling individuals with diabetes in carbohydrate counting:

- If the sugar alcohol amount is over 5 grams, take the remaining amount over 5 grams and divide it in half. Then subtract this number from the Total Carbohydrate per serving.
- If the fiber amount is over 5 grams, then subtract half of the grams of fiber listed over 5 grams from the total carbohydrate per serving.

**Calculation for People following a weight loss diet

The image shows the Atkins Advantage nutrition label and a side panel. The nutrition label lists: Total Carb 22g, Dietary Fiber 10g, Sugars 1g, and Sugar Alcohols 10g. The side panel states: 22 Total Carbs - 10 grams of Fiber - 10 grams of Sugar Alcohols = 2 Net Carbs. A red box highlights the 'Total Carb' and 'Sugar Alcohols' values on the label, with arrows pointing to the calculation on the side panel.

**Calculation for People with diabetes

The image shows a Nutrition Facts label for 1 cup (100g) serving size. The label lists: Total Fat 7g, Saturated Fat 2.5g, Trans Fat 0g, Cholesterol 0mg, Sodium 0mg, Total Carbohydrate 16g, Dietary Fiber 2g, Total Sugars 12g (including 2g Added Sugars), Sugar Alcohol 10g, and Protein 2g. Red arrows point from the 'Total Sugars 12g' and 'Sugar Alcohol 10g' values to a calculation box below. The calculation box contains: 1 cup = 16 grams Total Carbs - 0 grams fiber - 5 grams Sugar Alcohol (10÷2) = 11 grams.

ONLINE RESOURCES

- www.diabetes.org
American Diabetes Association
- www.eatright.org
Academy of Nutrition and Dietetics
- www.americanheart.org
American Heart Association
- www.ChooseMyPlate.gov
- www.supermarketsavvy.com
info on food products, shopping and coupons
- www.diabetesmonitor.com - good compilation of diabetes info, news and links
- www.joslin.org - national research and diabetes care center
- www.calorieking.com - good to look up carbohydrates, calories, etc.
- www.dietfacts.com
- www.nih.gov - National Institutes of Health
- www.lilly.com - insulin website
- www.novonordisk.com - insulin website
- www.sanofiaventis.com - insulin website
- www.sparkpeople.com - info on how you can live healthier
- www.sparkteens.com - healthy lifestyle planner and community just for teens
- www.eatbetteramerica.com - tips to eat better
- www.eatingwell.com - information on healthy eating, includes recipes
- www.myfitnesspal.com - provides tools and support you need to achieve weight loss goals
- www.healthiergeneration.org - empower kids to make healthy lifestyle choices
- www.fitky.org - promotes good nutrition and physically active communities
- www.kidnetic.com - tells kids about how their body works and how staying active is lots of fun
- www.bam.gov - info about fitness, nutrition, peer pressure and other topics for children and adolescents
- www.SuperTracker.usda.gov
- www.diatrube.org
- www.dlife.com
- www.diabeticconnect.com (social media for diabetics)
- www.diabetesdaily.com
- www.myglu.org (for T1DM)
- www.parks.ky.gov – list of Kentucky state parks for walking and hiking trails



OTHER RESOURCES

JOURNALS

- *Diabetes Interview* - monthly newspaper
- *Diabetes Self-Management* - bi-monthly; order address is P.O. Box 51125, Boulder, Colorado 80323-1125
- *Diabetic Living* - monthly; by Better Homes & Garden



DIABETES APPS

- **Calorie King** – Diet and calorie tracker.
- **Glucose-Blood Sugar Tracker** – A diabetes manager that focuses on organizing your diabetes data such as meal planning, blood sugar levels, medications.
- **Glucose Buddy** – Records your blood glucose level with time of day and graphs trends. Your phone can be synched to an online account to manage your data on the website.
- **Lose It** – Track your weight loss, daily food intake, and exercise. Get reminders and share your progress on Facebook and Twitter.
- **MyFitnessPal** – Track calories, exercise, and weight loss.
- **Nutrition Info** – Look up general nutrition information.
- **Pacer** – Pedometer that tracks your steps all day long without any additional hardware required. Also tracks weight and BMI over time.
- **My Life Medication** – Check in with yourself, then listen to a tuned meditation to improve your day.
- **Dailyburn - workout**
- **Diabetes Forecast**
- **Diabetes Lite** - water, meds, exercise, meals with carb counting and goal setting
- **Glucose monitor**
- **Healthy Out** - Find nutrition facts of food items from many popular fast food restaurant franchises
- **BD Briight: Diabetes Expert** - help get encouragement and keep track of your blood sugar and medications
- **DiabetesPal** - diabetes management to help see trends related to food, medication, stress, and exercise
- **Autosleep Tracker** - track your sleep patterns
- **Beddit Sleep Monitor** - track sleep patterns
- **Sleeptracker** - sleep monitor to track sleep patterns
- **MANGO Health** – helps manage medications and create healthy habits
- **DailyWorkoutApps** – Individualized daily workouts, that users can do wherever they are
- **BitGym** – Interactive cardio app for phones and tablets
- **Sugar Cube** - diabetes management app to help with day to day decisions
- **Diabetes Pal**- diabetes management software
- **mySugr Diabetes Tracker Log**- get help with managing your diabetes, diabetes logbook
- **Glooko**- understand how food, activity, and medication affect your glucose levels
- **Fooducate**- track calories, macros, exercise, and more
- **BEAT Diabetes**- learn how your diet, exercise & lifestyle can help you cope with condition, has info on support groups
- **Glucose Tracker**- track blood sugar, A1c, medications, and more
- **Insight Timer Meditation App**- guided meditations and talks



HOME DELIVERY MEAL KITS FOR PEOPLE WITH DIABETES

- Balance by BistroMD
- Home Bistro
- Diet to go
- BalanceMD
- Nutrisystem D
- Sunbasket
- Snap Kitchen
- Freshly
- Hello Fresh
- Blue Apron

FACEBOOK SUPPORT GROUPS

- Life with diabetes
- Got the sugar
- Diabesties

BREAKFAST OPTIONS (45 grams)

Sample Breakfast #1

Item	Carb Choice(s)	Carbs
2 slices french toast (use low calorie / low carb bread)	1	15
1/4 c. sugar-free syrup	1	15
1 c. skim milk	1	15
Tub margarine	0	0
Totals:	3	45

Sample Breakfast #2

Item	Carb Choice(s)	Carbs
1 c. Cheerios	1 1/2	22
1/2 c. skim milk	1/2	7
1/2 banana	1	15
Totals:	3	44

Sample Breakfast #3

Item	Carb Choice(s)	Carbs
1 whole English muffin	2	30
1 boiled egg	0	0
1/2 c. mandarin oranges (in light syrup)	1	15
Tub margarine	0	0
Totals:	3	45

Sample Breakfast #4

Item	Carb Choice(s)	Carbs
1 low fat yogurt (sweetened with Splenda)	1	15
1 slice whole wheat toast	1	15
Tub margarine	0	0
12-15 grapes	1	15
Totals:	3	45

Sample Breakfast #5

Item	Carb Choice(s)	Carbs
1 c. cooked oatmeal	2	30
1/2 c. skim milk	1/2	7
1/2 c. fresh blueberries	1/2	7
Totals:	3	44

BREAKFAST OPTIONS (60 grams)

Sample Breakfast #1

Item	Carb Choice(s)	Carbs
1 cup oatmeal	2	30
4 oz. skim milk	1/2	15
1/2 small bagel	1	15
1 tbsp. raisins	1	15
1 tsp. low fat margarine	0	0
Totals:	4 1/2	66

Sample Breakfast #2

Item	Carb Choice(s)	Carbs
3 pancakes (4 inch diameter)	3	45
Sugar free syrup	0	0
1 small orange	1	15
1 tsp. low fat margarine	0	0
Totals:	4	60

Sample Breakfast #3

Item	Carb Choice(s)	Carbs
One 4 oz. bagel	4	60
1 tbsp. low fat cream cheese	0	0
1/4 cup egg substitute	0	0
Totals:	4	60

Sample Breakfast #4

Item	Carb Choice(s)	Carbs
1 1/2 cups Cheerios	2	30
8 oz. skim milk	1	12
1/2 banana	1	15
Totals:	4	57

Sample Breakfast #5

Item	Carb Choice(s)	Carbs
1 packet instant breakfast drink	2	30
8 oz. skim milk	1	12
1/2 banana	1	15
Totals:	4	57

BREAKFAST OPTIONS (60 grams)

Sample Breakfast #6

Item	Carb Choice(s)	Carbs
3 slices toast	3	45
4 oz. juice	1	15
1 egg	0	0
1 tbsp. low fat margarine	0	0
Totals:	4	60

Sample Breakfast #7

MIX IN BLENDER:	Carb Choice(s)	Carbs
8 oz. skim/soy milk	1	12
1/2 cup plain yogurt	1	15
1 tbsp. peanut butter	0	0
1 banana	2	30
1/4 cup wheat germ	1/2	7
Totals:	3 1/2	64

LUNCH OPTIONS (45 grams)

Sample Lunch #1

Item	Carb Choice(s)	Carbs
3-4 oz. hamburger patty on bun	2	30
Raw vegetables	0	0
Small apple	1	15
Totals:	3	45

Sample Lunch #2

Item	Carb Choice(s)	Carbs
Ham & cheese sandwich	1	15
(use low carb, low calorie bread)	1	15
Small fruit cup (in light syrup)	1	15
1 c. skim milk	1	15
Totals:	3	42

Sample Lunch #3

Item	Carb Choice(s)	Carbs
1 c. vegetable soup	1	15
6 saltine crackers	1	15
15-17 grapes	1	15
Totals:	3	45

Sample Lunch #4

Item	Carb Choice(s)	Carbs
1 large salad	1	15
Grilled chicken breast	0	0
Small roll	1	15
1 c. skim milk	1	15
Totals:	3	45

LUNCH OPTIONS (60 grams)

Sample Lunch #1

Item	Carb Choice(s)	Carbs
2 slices whole grain bread	2	30
Lettuce, tomato	0	0
1 small apple	1	15
3 small gingersnaps	1	15
2-3 slices lean luncheon meat	0	0
1 tbsp. reduced fat mayonnaise	0	0
Totals:	4	60

Sample Lunch #2

Item	Carb Choice(s)	Carbs
2 cups salad	0	0
1/2 cup chick peas	1	15
1/2 cup tuna, plain	0	0
1/2 medium pita	1	15
1 cup fruit salad	2	30
2 tbsp. light dressing	0	0
Totals:	4	60

Sample Lunch #3

Item	Carb Choice(s)	Carbs
2 cups vegetable soup	2	30
6 saltines	1	15
17 grapes	1	15
1-2 oz low fat cheese	0	0
Totals:	4	60

Sample Lunch #4

Item	Carb Choice(s)	Carbs
1 fast food broiled chicken sandwich (no sauce)	3	45
1/2 cup frozen yogurt	1	15
Totals:	4	60

LUNCH OPTIONS (60 grams)

Sample Lunch #5

Item	Carb Choice(s)	Carbs
1 cup pasta	3	45
1/2 cup tomato sauce	1	15
Garden salad	0	0
2-3 oz. ground turkey	0	0
2 tbsp. light dressing	0	0
Totals:	4	60

Sample Lunch #6

Item	Carb Choice(s)	Carbs
1 low fat frozen entrée	3	45
Garden salad	0	0
2 tbsp. light dressing	0	0
1/2 cup sugar free pudding	1	15
Totals:	4	60

Sample Lunch #7

Item	Carb Choice(s)	Carbs
2 slices "35 Calorie" bread	1	15
Lettuce, tomato	0	0
1/2 large pear	1	15
10 baked chips	1	15
2 small sandwich cookies	1	15
2-3 oz. lean ham	0	0
1 tbsp. reduced fat mayonnaise	0	0
Totals:	4	60

DINNER OPTIONS (45 grams)

Sample Dinner #1

Item	Carb Choice(s)	Carbs
3-4 oz. grilled chicken breast	0	0
1 c. mashed potatoes	2	30
1/2 c. green beans	0	0
1/2 c. unsweetened applesauce	1	15
Totals:	3	45

Sample Dinner #2

Item	Carb Choice(s)	Carbs
3-4 oz. grilled pork chop	0	0
1/2 c. corn	1	15
1/2 c. broccoli	0	0
1 dinner roll	1	15
1/2 c. canned pears (canned in light syrup)	1	15
Totals:	3	45

Sample Dinner #3

Item	Carb Choice(s)	Carbs
3-4 oz. grilled salmon	0	0
6 oz. sweet potato	2	30
1/2 c. cooked kale	1/2	5
1 c. tossed green salad	1/3	5
1/2 c. cooked carrots	1/3	5
Totals:	3	45

Sample Dinner #4

Item	Carb Choice(s)	Carbs
3-4 oz. ground beef patty	0	0
2/3 c. rice	2	30
1/2 c. asparagus	1/3	5
Sliced tomatoes	1/3	5
1/2 c. carrots, cauliflower and broccoli blend	1/3	5
Totals:	3	45

DINNER OPTIONS (60 grams)

Sample Dinner #1

Item	Carb Choice(s)	Carbs
1 cup cooked rice	3	45
1 cup broccoli	1/3	5
3-4 oz. baked chicken	0	0
1 small apple	1	15
1 tbsp. low fat margarine	0	0
Totals:	4	65

Sample Dinner #2

Item	Carb Choice(s)	Carbs
1 cup mashed potatoes	2	30
1/2 cup corn	1	15
1/2 cup carrots	1/3	5
1 small roll	1	15
3-4 oz. turkey	0	0
2 tbsp. gravy	0	0
Totals:	4	65

Sample Dinner #3

Item	Carb Choice(s)	Carbs
1 hamburger bun	2	30
3-4 oz. lean hamburger patty	0	0
Lettuce, tomato	0	0
10 baked french fries	1	15
1/2 cup pineapple	1	15
Totals:	4	60

Sample Dinner #4

Item	Carb Choice(s)	Carbs
1 (4 oz.) sweet potato	2	30
1 cup green beans	1/3	5
3-4 oz. broiled fish	0	0
1/2 cup applesauce	1	15
8 oz. skim milk	0	12
Totals:	4	62

DINNER OPTIONS (60 grams)

Sample Dinner #5

Item	Carb Choice(s)	Carbs
2 small tortillas	2	30
1/2 cup refried beans	1	15
1/3 cup rice	1	15
1/2 cup salsa	0	0
Lettuce, tomato	0	0
2 tbsp. light sour cream	0	0
Totals:	4	62

Sample Dinner #6

Item	Carb Choice(s)	Carbs
1 cup light brown rice	3	45
1 cup stir-fry vegetables	1/3	5
3-4 oz. light tofu	0	0
1/2 cup light ice cream	1	15
Totals:	4	65

RECIPE IDEAS *(with a health twist)*

These recipes have been developed over the years and are based on the recipes our mothers and grandmothers prepared. The recipes show cooking methods that lower added fat, sugar, and salt.

These recipes were analyzed for total calories, carbohydrates, dietary fiber, total fat, protein, and sodium.



RECIPE IDEAS *(with a health twist)*

BAKED TO TASTE LIKE SOUTHERN FRIED CHICKEN

Serves: 4 **Serving Size:** 5 ounces **Recipe from:** Mechelle Coble

Ingredients:

- 1 1/2 cups skinless, boneless chicken breasts
- 1 cup crushed corn flakes
- 1/2 cup skim milk
- 1/4 teaspoon salt
- 1 teaspoon pepper
- 1 teaspoon garlic powder
- 1 teaspoon onion powder



Directions:

1. Combine all dry ingredients into a ziplock bag.
2. Combine egg white and skim milk into a shallow bowl and dip chicken breasts into the wet mixture.
3. Place chicken breasts one at a time into the dry mixture and shake to coat well.
4. Remove chicken from the zip bag and lay in a baking dish.
5. Bake at 375 degrees for 35 minutes.

*Adapted from Kroger Corn Flakes Recipe

Nutrition Facts per Serving:

Total Calories247	Total Fat 5 g	Saturated Fat 1 g
Carbohydrate 9 g	Polyunsaturated Fat 1 g	Dietary Fibertrace
Carbohydrate Choices ...1/2	Monounsaturated Fat ... 2 g	Sodium 328 mg
Protein 40 g	Cholesterol 10 mg	

RECIPE IDEAS *(with a health twist)*

BEAN SOUP

Serves: 10 Serving Size: 1 cup Recipe from: Paula White

Ingredients:

- 1 pound dry beans (pinto, navy, or great northern)
- 4 quarts water
- 1/2 pound lean ham, chopped fine
- 1/4 teaspoon salt
- 1 teaspoon black pepper



Directions:

1. Begin by removing any foreign objects from the dry beans. Rinse the beans and place them into a 5 quart stock pot. Cover the beans with water and allow them to soak overnight.
2. Pour off the soaking water and cover beans with fresh water, about 4 quarts.
3. Do not salt the beans until they are nearly done. Salting beans at the beginning of the cook time will result in tough beans.
4. Allow the beans to come up to a boil, reduce the heat to simmer. Cover the pot with a lid and simmer until they are tender, about 4 hours.
5. About 30-45 minutes before the end of the cook time, season the beans with the chopped ham, salt, and pepper.
6. Continue to simmer the beans without the lid until cooked to desired tenderness. Adjust seasoning if necessary.

Nutrition Facts per Serving:

Total Calories	185	Total Fat	2 g	Saturated Fat	trace
Carbohydrate	29 g	Polyunsaturated Fat...	trace	Dietary Fiber	11 g
Carbohydrate Choices	2	Monounsaturated Fat	1 g	Sodium	394 mg
Protein	14 g	Cholesterol	11 mg		

RECIPE IDEAS *(with a health twist)*

VEGETABLE BEEF SOUP

Serves: 8 Serving Size: 2 cups Recipe from: Paula White

Ingredients:

- 1 pound beef tenderloin roast
- 1 1/2 pounds potatoes
- 1 small head cabbage
- 1 medium onion
- 1 quart diced tomatoes
- 2 pounds mixed vegetables, frozen
- 32 ounces of beef broth
- 1/4 teaspoon salt
- 1/2 teaspoon black pepper
- 2 bay leaves



Directions:

1. Combine the beef tenderloin with about 16 ounces of water and simmer in a covered pan until very tender. (I like to use a pressure cooker and cook for 45-50 minutes). When the beef is done, remove from the pan and allow it to cool. Shred the beef. Save the cooking liquid, place it in the refrigerator to allow the fat to come to the top. Discard the fat.
2. Clean the potatoes, onion, and cabbage. Cut the potatoes and onion into a large dice and shred the cabbage. Combine all into a large stock pot along with 16 ounces of the beef broth and 1/4 teaspoon salt. When the vegetables are crisp tender, add the frozen mixed vegetables, the shredded beef, the de-fatted beef cooking liquid, the tomatoes, black pepper, the remaining beef broth and bay leaves to the stock pot.
3. Bring all of the ingredients up to a gentle boil and boil for two minutes. Reduce the heat, allowing the soup to simmer until all vegetables are tender, add more liquid if needed. You can use water, beef broth, or tomato juice. Adjust seasonings if needed.

Nutrition Facts per Serving:

Total Calories	366	Total Fat	14 g	Saturated Fat	5 g
Carbohydrate	41 g	Polyunsaturated Fat	1 g	Dietary Fiber	8 g
Carbohydrate Choices	3	Monounsaturated Fat	6 g	Sodium	761 mg
Protein	22 g	Cholesterol	40 mg		

RECIPE IDEAS *(with a health twist)*

ALMOST FRIED POTATOES

Serves: 4 Serving Size: 1/2 cup Recipe from: Paula White

Ingredients:

- 2 whole potatoes (about 1-1/4 pounds), cleaned and sliced
- 1 whole onion, cleaned and sliced
- 1 tablespoon canola oil
- 1/2 teaspoon salt
- 1/2 teaspoon black pepper



Directions:

1. Heat electric skillet to 300 degrees and pour in canola oil. If you do not have an electric skillet use a heavy skillet with a tight fitting lid over medium low heat.
2. Place the potatoes and onions into the hot skillet and season the salt and pepper. Place lid onto skillet, allow the potatoes and onions to steam until tender.
3. Increase heat to 350 degrees, or medium high if using a heavy skillet. When the vegetables are nearly done, remove the lid and allow the potatoes to brown and crisp. You have to watch the vegetables closely, do not let them scorch.
4. Remove potatoes to a warmed serving bowl and enjoy.

Nutrition Facts per Serving:

Total Calories163	Total Fat 4 g	Saturated Fattrace
Carbohydrate 30 g	Polyunsaturated Fat 1 g	Dietary Fiber 3 g
Carbohydrate Choices2	Monounsaturated Fat 2 g	Sodium 277mg
Protein 4 g	Cholesterol 0 mg	

RECIPE IDEAS *(with a health twist)*

SEASONED GREEN BEANS

Serves: 8 Serving Size: 1/2 cup Recipe from: Paula White

Ingredients:

- 1 quart green beans
- 1 whole onion, peeled and halved
- 2 cloves garlic, peeled
- 1 teaspoon olive oil



Directions:

1. Place all ingredients into a two quart pot. If you are using frozen green beans add about 1 cup water.
2. Allow the beans to come up to a boil and then turn heat to simmer.
3. Simmer the beans, onion and garlic until all are tender and the onion and garlic have infused their flavors into the beans.
4. Pour into a warmed serving bowl and enjoy.

Nutrition Facts per Serving:

Total Calories28	Total Fat 1 g	Saturated Fattrace
Carbohydrate 5 g	Polyunsaturated Fat ..trace	Dietary Fiber 2 g
Carbohydrate Choices0	Monounsaturated Fat...trace	Sodium 4 mg
Protein1 g	Cholesterol 0 mg	

RECIPE IDEAS *(with a health twist)*

TOMATO, CUCUMBER, AND ONION SALAD

Serves: 8 **Serving Size:** 1/2 cup **Recipe from:** Mechelle Coble

Salad Ingredients:

3 whole ripe tomatoes (about 2 1/2 to 3 pounds)
2 - 3 medium cucumbers
1 large onion

Dressing Ingredients:

2 tablespoons olive oil
2 tablespoons vinegar
1/2 cup water
3 packets artificial sweetener
1/4 teaspoon salt
1/2 teaspoon black pepper



Directions:

1. Clean and slice the vegetables, layer them onto a serving platter.
2. Combine all ingredients for the dressing and pour over the vegetables.
3. Allow the salad to marinate for at least 2 hours before serving.

Nutrition Facts per Serving:

Total Calories55	Total Fat 4 g	Saturated Fat 1 g
Carbohydrate 6 g	Polyunsaturated Fat ..trace	Dietary Fiber 1 g
Carbohydrate Choices0	Monounsaturated Fat ... 3 g	Sodium 140 mg
Protein 1 g	Cholesterol 0 mg	

RECIPE IDEAS *(with a health twist)*

LOWER FAT AND SUGAR PUDDING PIE

Serves: 8 Serving Size: 1/8 pie Recipe from: Mechelle Coble

Ingredients:

- 1 reduced fat graham cracker pie crust
- 1 box sugar free instant pudding mix
- 1 1/2 cups skim milk
- 8 tablespoons fat free whipped topping as garnish

Directions:

1. Combine pudding with milk and stir until thickened.
2. Pour the pudding mixture into the graham cracker pie crust.
3. Chill thoroughly before slicing to serve.
4. Garnish each slice with fat free whipping topping.



Nutrition Facts per Serving:

Total Calories237	Total Fat 10 g	Saturated Fat 3 g
Carbohydrate 34 g	Polyunsaturated Fat 2 g	Dietary Fibertrace
Carbohydrate Choices2	Monounsaturated Fat 0 g	Sodium 382 mg
Protein 3 g	Cholesterol 11 mg	

RECIPE IDEAS *(with a health twist)*

HEALTHIER SAUSAGE GRAVY

Serves: 8 **Serving Size:** 1/2 cup **Recipe from:** Janelle Schnake RD, CDE

Ingredients:

- 1 pound turkey breakfast sausage
- 3 Tbsp. flour
- ¼ tsp. salt
- 1 tsp. black pepper
- 1 cup skim milk
- 1 cup water



Directions:

1. Brown sausage over medium heat. Breaking it into small pieces as it browns. When sausage is cooked and no longer pink, place in a bowl.
2. Add flour, salt, and pepper to the drippings. Stir on medium heat for 1-2 minutes. Add the water and milk, stir well with a whisk to prevent lumps.
3. Continue to stir until the mixture begins to thicken, then add the sausage back.
4. Cook until it reaches your desired thickness.

Nutrition Facts per Serving:

Total Calories	136	Total Fat	6.7 g	Saturated Fat	2 g
Dietary Fiber	0 g	Sodium	585 mg	Protein	13.7 g
Cholesterol	41 mg	Total Carbohydrate	5 g		

RECIPE IDEAS *(with a health twist)*

STRAWBERRY FREEZER JAM

Serving Size: 1 Tbsp. **Recipe from:** Truvia website

Ingredients:

- 2 cups crushed strawberries
- 2/3 cup zero-calorie Truvia®
- ½ packet (25 g) pectin for no-sugar-needed recipes
- ½ cup water



Directions:

1. Wash and rinse plastic containers with tight-fitting lids.
2. Wash and hull strawberries. Crush 1 cup of berries at a time using a potato masher, leaving some bits of fruit. (Do not purée)
3. Measure 2 cups of crushed fruit and place in large bowl.
4. Blend together Truvia® Natural Sweetener and pectin until thoroughly mixed in a large saucepan.
5. Stir in water and bring Truvia® Natural Sweetener, pectin, water mixture to a boil on medium-high heat, stirring constantly. Boil and stir for 1 minute. Remove from heat.
6. Add fruit into hot pectin mixture and stir for 1 minute until thoroughly mixed.
7. Pour jam into prepared containers, leaving 1/2 inch of space at the top to allow for expansion during freezing, and cover.
8. Let stand at room temperature for 24 hours until set.
9. Store jam in freezer for up to 1 year. Thaw each jar in the refrigerator before using. May be stored in the refrigerator for up to 3 weeks.

Nutrition Facts per Serving:

Total Calories5	Total Fat 0 g	Saturated Fat 0 g
Carbohydrate 3 g	Polyunsaturated Fat 0 g	Dietary Fiber0 g
Monounsaturated Fat 0 g	Sodium 0 mg	Protein 0 g
Cholesterol 0 mg		

RECIPE IDEAS *(with a health twist)*

BAKED ZITI

Serves: 12 **Serving size:** 3/4 cup **Recipe from:** American Diabetes Association

Ingredients:

Cooking spray
2 teaspoons olive oil
1 medium onion, diced
2 garlic cloves, peeled and minced
1 Tablespoon Italian seasoning
5 ounces spicy turkey sausage, diced
1/4 cup dry red wine
1 (28-ounce) can whole plum tomatoes with juices
2 Tablespoons fresh minced oregano (or 2 teaspoons dry oregano)
8 ounces whole-wheat ziti
1/2 cup nonfat ricotta cheese
1/4 cup grated fresh Romano cheese, divided use
Pinch grated fresh nutmeg
3 ounces part-skim mozzarella cheese, cubes



Directions:

1. Preheat the oven to 425°F. Coat a shallow baking dish, preferably a long oval dish that is no more than 2 inches deep, with cooking spray. Set aside.
2. Heat the olive oil in a large skillet over medium heat. Add the onion and sauté for 3 minutes. Add the garlic, Italian seasoning, and sausage and sauté for 3–4 minutes until sausage is browned. Bring a 3-quart pot of lightly salted water to a boil.
3. Add the red wine to the skillet and continue to cook until the wine evaporates. Add the tomatoes to a deep bowl. Crush the tomatoes with your hands and add them to the pan with all their juices. Cook uncovered on medium-low heat for 20 minutes until thickened. Add in the oregano.
4. Meanwhile, add the ziti to the boiling pot of water and cook for about 8–10 minutes or until just al dente. Mix together the ricotta cheese, half the Romano cheese and nutmeg in a large bowl. Add the cooked ziti and mix well. Add the sausage tomato sauce and the mozzarella. Mix gently. Pour into the prepared baking dish and sprinkle with the remaining Romano cheese. Bake, uncovered, for 20 minutes until lightly browned. Serve immediately.

Nutrition Facts per Serving:

Total Calories	140	Total Fat	4 g	Saturated Fat	1.5 g
Carbohydrate	20 g	Cholesterol.....	15 mg	Dietary Fiber	2 g
Sodium	440 mg	Protein	9 g		

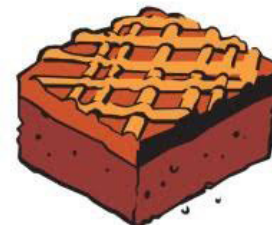
RECIPE IDEAS *(with a health twist)*

BLACK BEAN BROWNIES

Serves: 9 **Serving size:** 1 brownie **Recipe from:** Mr. Food Test Kitchen

Ingredients:

- 1 (15-ounce) can low-sodium black beans, rinsed and drained
- 2 large eggs
- 1/2 cup cocoa powder
- 3/4 cup sugar
- 1/2 teaspoon canola oil
- 1 Tablespoon fat-free milk
- 1 teaspoon balsamic vinegar
- 1/2 teaspoon baking powder
- 1/2 teaspoon baking soda
- 1/2 cup sugar-free semisweet chocolate chips



Directions:

1. Preheat oven to 350 degrees F. Coat a 9-inch square baking dish with cooking spray and line with parchment paper.
2. In a blender, combine all ingredients except chocolate chips; blend until smooth. Stir in chocolate chips until combined. Pour batter into prepared baking dish.
3. Bake 25 to 30 minutes, or until a toothpick inserted in center comes out clean. Allow brownies to cool completely before cutting into squares.

Nutrition Facts per Serving:

Total Calories77	Total Fat 1.2 g	Saturated Fat 0.5 g
Carbohydrate 16 g	Cholesterol.....23 mg	Dietary Fiber2.7 g
Sodium 87 mg	Protein 3 g	

RECIPE IDEAS *(with a health twist)*

SPINACH AND BERRY SMOOTHIE

Serves: 2 **Serving size:** 1 cup **Recipe from:** Truvia website

Ingredients:

- 1 cup fresh strawberries
- 1 whole 6-inch banana
- 1 cup orange juice
- 1 cup almond milk, unsweetened
- 2 cups fresh baby spinach, cleaned
- 1 cup ice
- 4-8 packets zero-calorie Truvia Sweetener (or other Stevia type sweetener)



Directions:

1. Add water and spinach to a blender and blend for 30 seconds, or until spinach is blended up.
2. Add the rest of the ingredients and blend on high until smooth.

Nutrition Facts per Serving:

Total Calories90	Total Fat 0.5 g	Saturated Fat 0 g
Carbohydrate 25 g	Cholesterol.....0 mg	Dietary Fiber2 g
Sodium 15 mg	Protein 2g	

RECIPE IDEAS *(with a health twist)*

SKINNY PUMPKIN SPICE LATTE

Serves: 1 Serving size: 1 Recipe from: Eat What You Love: Quick and Easy

Ingredients:

- ¼ cup low-fat milk
- 2 tablespoons canned pumpkin ¼ teaspoon pumpkin pie spice
- 4 teaspoons granulated sweetener (or 2 packets sweetner)*
- 1/2 cup freshly brewed coffee
- 2 tablespoons light whipped cream



Directions:

1. Whisk together the milk, pumpkin, pumpkin pie spice, and sweetener in a microwave-safe mug. Microwave on high for 1½ minutes or until warmed through (do not boil).
2. Remove mug from the microwave and add the coffee. Top with whipped cream and enjoy!

Nutrition Facts per Serving:

Total Calories	120	Total Fat	3.5 g	Saturated Fat	2 g
Carbohydrate	14 g	Cholesterol.....	15 mg	Fiber	1 g
Sugar	12 g	Sodium	115 mg	Protein	115 mg

BASIC SUBSTITUTIONS:

REPLACE	WITH
1 large egg	2 egg whites ¼ cup egg substitute 1 Tablespoon Milled Flax seed mixed with 3 Tablespoons Water
Nuts	Toast them and use ½ the amount in the recipe
Chocolate Chips	Replace with mini chips and use ½ the amount
Whole, or 2% milk	Skim or 1% milk
Oil	Cooking spray
Bacon for seasoning	Lean ham
Mayonnaise	Light, or fat-free Plain Greek yogurt
Salt	Vinegar, lemon juice, herbs, or spices

MEASUREMENT BASICS:

MEASUREMENT	ABBREVIATION	EQUIVALENT
1 Cup	1 c	8 ounces, or 16 Tablespoons
1 Tablespoon	1 T or Tbsp	3 teaspoons
1 Teaspoon	1 t or tsp	The amount in a regular spoon size
1 Ounce	1 oz	28 grams, or 3 Tbsp



ALTERNATIVE SEASONINGS

HERBS / SPICES	WAYS TO USE THEM
Basil	Egg, fish, tomato sauce, and vegetables
Bay leaves	Soups, stews, and boiled beef or pork
Caraway seeds	Roast pork, vegetables of the cabbage family, carrots, onions, and celery
Celery powder	Soups, salads, and deviled eggs
Curry powder	Chicken, lamb, eggs, and rice
Dill	Salads, deviled eggs, chicken, and fish
Fennel	Pork, poultry, and seafood dishes
Garlic	Meats, stews, soups, and salads
Nutmeg	Apple dishes and vegetables
Onion powder	Meat, soups, stews, and casseroles
Oregano	Italian dishes, stews, and soups
Paprika	For color; also aids browning of roasted chicken and turkey
Parsley	Eggs, soups, stews, and vegetables
Pepper, black	Salads, fish, meat, eggs, and vegetables
Pepper, red	Meats, sauces, gravies, eggs, fish, vegetables dishes, and stews (this is a strong spice)
Rosemary	Potatoes, peas, squash, lamb, veal, duck, pork stews, and salmon
Sage	Stuffing, poultry, pork, lamb, and veal
Thyme	Italian dishes, meat, and vegetables
Mrs. Dash	For most any food



CHI Saint Joseph Health Partners

Information for this booklet came from:

American Association of Diabetes Educators

American Diabetes Association

"Life with Diabetes: A series of teaching outlines

by the Michigan Diabetes Research and Training Center." 4th Edition. American Diabetes Association. 2009. NovoNordisk.com

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