Diabetes Basic Survival Skills

MemorialCare™
Long Beach Medical Center

562.933.5043
memorialcare.org/LBDiabetes

Table of Contents

Dear Patient

Dear Patient,

There are many teaching “tools” available to assist you with learning more about diabetes and preventing diabetes problems. This manual will provide you with the basics of diabetes self-management skills, and what you can do to take care of yourself.

This manual is only the beginning; there is a lot more to know about diabetes. The more you know, the easier it will be to manage. Learn more about nutrition, exercise and how to get the support you need.

People with diabetes can greatly affect their glucose levels and prevent complications by adopting healthy self-care behaviors. This guide provides you with self-care behaviors to help you manage your diabetes (Ref: 5).

For more information, visit memorialcare.org/diabetes.

Best regards,

Long Beach Medical Center’s Diabetes Education Staff

Outpatient Diabetes Services

General Diabetes Support Group

Join the Diabetes Program for a support group for adults with Type1 and Type 2 diabetes, as well as individuals using insulin pumps. The support group is free, and significant others are welcome to attend.

Meetings held on the 2nd Monday of every Month, from 6 – 7:30 p.m.

Long Beach Medical Center
5th Floor Classroom
2801 Atlantic Ave.
Long Beach, CA 90806

Call 562.933.5043 for more information.

Outpatient Diabetes Self-Management Education Program

This 6-hour program includes an individual assessment plus a two group education classes. Designed to provide ways to achieve better control and a healthier lifestyle. Classes are free and parking validation will be provided.

Topics Include:

- Diabetes medication management
- Blood glucose monitoring
- Meal planning with an introduction to carb counting
- Fitness motivation
- Management of stress and chronic complications

Long Beach Medical Center
2801 Atlantic Ave.
Long Beach, CA 90806

Call 562.933.5043 to RSVP.

Diabetes & You: Ask the Expert

This quarterly class includes a presentation on various diabetes-related topics, along with networking and support from people living with diabetes. Light refreshments will be provided. Walk-ins welcome.

Long Beach Medical Center
2801 Atlantic Ave.
Long Beach, CA 90806

Call 562.933.5043 to RSVP.

Diabetes Patient Education

Through GetWell Network™, free education videos are offered to patients and families while hospitalized at Long Beach Medical Center.

We want to help you learn about your illness and how to care for yourself. Our care team can help you select a video related to managing your condition, or you can try it on your own.

Diabetes education videos are available through GetWell™, on your TV. To access the videos follow these steps:

1. Select “Teach Me” from the main menu
2. Select “Health Video Library”
3. Choose “Diabetes” to see the list of available videos
4. Select the videos which best suit your health care needs

Let your care team know when you have watched a video. They will answer any questions you might have. We have found that patients who have information are confident to care for themselves at the hospital and at home.

What is Diabetes?

Diabetes is a group of conditions in which blood sugar levels are unusually high. The body stops making enough insulin or the body cells have trouble using insulin. Therefore, the cells do not receive enough sugar for energy and the sugar builds up in the blood.

Type 1 Diabetes

Usually occurs in young people under age 30, but can occur at any age. The pancreas no longer makes insulin, so people with Type 1 diabetes must take insulin to live. Symptoms develop quickly. About 10 percent of people with diabetes have Type 1 diabetes (Ref: 1).

Type 2 Diabetes

The pancreas still makes insulin but the body has trouble using it and it can take years before you have symptoms and are diagnosed. Lifestyle changes such as modifying your diet, weight loss and regular exercise can help control your blood sugar levels. Treatment includes pills to help lower blood sugar levels, and some people with Type 2 diabetes may require insulin. About 90 percent of those diagnosed with diabetes have Type 2 diabetes (Ref: 1).

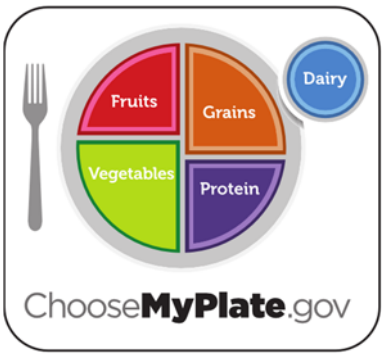
Type 1.5 Diabetes

Referred to as LADA: Latent Autoimmune Diabetes of Adulthood. It is usually diagnosed in adults and often mistaken for Type 2 diabetes. Body weight is normal or low, and usually requires insulin to treat within several months or a few years after diagnosis. Following a healthy meal plan, maintaining a healthy body weight and regular exercise can help control your blood sugar levels (Ref: 28).

Common Symptoms of Diabetes

Self-Care Behavior # 1
Healthy Eating

It is important to keep in mind that everything you eat has an effect on your blood sugar. Learning to eat regular meals, to control the amount you eat and to make healthy food choices can help you manage your diabetes better and prevent other health problems. (Ref: 6)



The chart on the left shows a good balance of food for lunch and dinner.

Nutrition Tips:

1. Establish a routine. Try to have at least three meals a day, at the same time and similar amounts. Do not skip meals.
2. Always eat on time, especially if you take diabetes pills or insulin. If you take insulin, you may require a bedtime snack.
3. Eat a variety of food each day, including fruits, vegetables, and whole grain s or beans. Also, use low-fat dairy products and lean meats if you drink milk, or eat cheese and meat.
4. Try to achieve and maintain a healthy weight
5. Avoid fruit juice as it raises blood sugar rapidly and have a small serving of the whole fruit instead.
6. Try not to eat fried foods. Choose baked, grilled or broiled food instead.
7. If you like to drink soda, drink diet sodas that have no calories or carbohydrates. Water is always the best option.
8. Learn to read food labels and buy a set of measuring cups to measure potions.
9. Try to eat food low in saturated fat, as diabetes can cause heart disease and eating high fat food can make it worse.
10. Limit your salt and sugar intake. If you use table sugar, consider sugar substitutes instead.
11. Whenever possible, request a consult with a Registered Dietitian or Certified Diabetes Educator for instruction on carbohydrate counting.

Self-Care Behavior # 2
Being Active

If you have diabetes, being physically active is important to your plan of care as it can help you keep your blood sugar levels in better control (Ref: 7).

1. Talk to your doctor before you start any exercise program, to make sure it is safe for you. It may be wise to exercise with a friend. Always carry personal ID and Medical Alert information.
2. Exercise each day in some way. Use the stairs instead of the elevators or escalators. Walk to nearby stores. Take short walks during a work break.
3. Regular exercise helps lower the blood sugar and helps insulin work better.
4. Exercise helps with weight loss, decreases stress, improves flow of blood, lowers cholesterol and triglycerides, and helps you feel better.
5. Start slowly and set a pace that is right for you. The goal is to exercise 30 minutes, most days of the week. Gradually increase the time and how hard you work. Remember to warm up before exercise and cool down afterwards.
6. Good examples of exercise include chair exercising, walking, jogging, swimming, biking, dancing and skating. Do something you enjoy!
7. Test your blood sugar before and after exercise. Exercise can lower your blood sugar for up to 24 hours.
8. Always carry a sugar source with you such as hard candy, honey, glucose (sugar) tablets or glucose gel in case your blood sugar goes low. If you often have low blood sugar with exercise, tell your doctor.
9. Always wear loose fitting clothing and good, supportive shoes.
10. Do not exercise if your insulin is over 240 mg/dl and ketones are present in the urine.(Ref: 3)(Ref: 13). Exercise should be avoided until the blood sugar comes down and ketones are negative.
(See Education Tool # 2)

Self-Care Behavior # 3
Self-Monitoring Blood Glucose

Checking your blood sugar levels regularly gives you vital information and provides you with a tool to better make food and activity changes so that your body can perform at its best (Ref: 8). Talk to your doctor about when and how often you should check your blood sugar.

These are some guidelines:

1. You may test your blood sugar before or after meals, before or after exercising, at bedtime or any other time you want to know what your blood sugar level is.
2. Most people test their blood sugar before breakfast, before lunch, before dinner and two hours after the start of a meal.
3. If you test your blood sugar before your meal, test it before taking your insulin shot or diabetes pills.
4. Talk to your doctor about what level your blood sugar should be. Write down all your test results in your logbook.
5. Be sure to follow the testing directions that came with your meter. If there are codes on your test strips, match them to the code on your meter.

6. Keep all unused strips in the original bottle, with the cap on tight. Refer to your package insert, as to how long the strips are good, after opening the bottle (expiration date included).
7. Be sure to clean your meter and change the battery when you need to. Follow the directions that came with your meter.

Blood Glucose Goals	American Diabetes Association
Fasting or before meals	80 to 130 mg/dl
Two hours after the start of a meal	Less than 180 mg/dl

Self-Care Behavior # 4
Taking Medication — Oral

What Are They?

Oral anti-diabetes agents are medications your doctor prescribes to help manage your blood sugar levels. They are NOT insulin. When you have diabetes, you also may be taking other medications to control your blood pressure or cholesterol levels (Ref: 9).

How to Take Oral Anti-Diabetes Agents

- It is important to take the right dose as prescribed, usually before or with a meal.
- Test your blood sugar regularly so that you can see how your diabetes medications affect your body.
- It's important to know the names, doses, instructions and reason why they are recommended.
- It also is helpful to understand how the medication works in your body. You can ask your doctor about this (Ref: 9).

Over-The-Counter Medications

Some over the counter medications and supplements can interfere with how your diabetes medication works and can be harmful. Tell your doctor or health care professional of ANY supplements you are taking.

Side Effects

If any of the following occur, call your doctor:

- Nausea
- Skin rash
- Hives
- Stomach ache
- Vomiting
- Dizziness

Some medications can lower your blood sugar too much. Check for low blood sugar (feeling weak, shaky, sweaty or irritable). Test your blood sugar if you feel any of these symptoms.

Remember

- Diabetes medications are not a substitute for proper nutrition or physical activity.
- Do not take diabetes pills if you are pregnant or breastfeeding unless approved by your doctor. Notify your doctor immediately if you become pregnant.
- Bring a list of your current medication to every doctor's appointment or if hospitalized.
- Alcohol and some medicines may affect the way your diabetes pill works. Talk with your doctor, nurse or pharmacist about this.
- If you have several doctors, be sure they all know about your diabetes and medications.
- Refill your prescriptions. DO NOT stop your medication without talking to your doctor.

Self-Care Behavior # 4
Taking Medication — Insulin

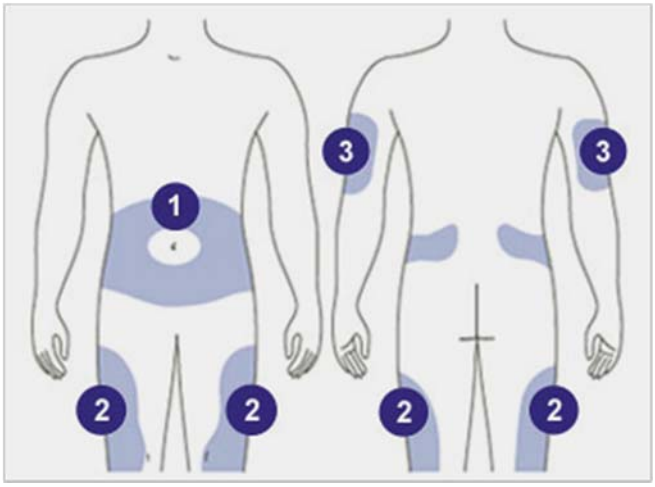
The body makes insulin naturally. Insulin is a hormone made in the pancreas.
People with diabetes may need insulin shots if their body is not making enough insulin.

There are several types of insulin. It is important that you know the following about your insulin: frequency, duration and peak (strongest time). Ask your diabetes educator or health care professional.

	Insulin Type	Onset	Peak Action	Duration
Ultra-Short Acting	Lispro, Aspart Glulisine, Fiasp, Admelog	5 - 15 minutes	1 - 2 hours	3 - 4 hours
Short Acting	Regular	15 - 30 minutes	2 - 4 hours	6 - 8 hours
Intermediate Acting	NPH	2 hours	6 - 10 hours	12 - 16 hours
Long Acting	Glargine, Basaglar, Detemir	2 - 4 hours	Minimal peak	+/- 24 hours (Detemir Low Dose: 6 hours)
Long Acting	Glargine (Toujeo) U300 Degludec (Tresiba) U100/U200	6 hours 1 - 3 hours	Minimal peak	24+ hours 42+ hours
Short Acting	Humalog U200 *Regular U500	15 minutes	1 - 2 hours	3 - 4 hours

Self-Care Behavior # 4
Taking Medication — Insulin

Insulin Injection Sites



Insulin Tips

1. Your doctor will decide how many insulin shots, the amount and when to take them.
2. Take your insulin about the same time(s) each day
   - 15 minutes before a meal for rapid acting (Humalog®, Novolog®, Apidra®);
   - 30 minutes before a meal for Regular and Mixed Insulin.
3. Insulin usually works best when given in the abdomen (or stomach). Each time you take a shot in your stomach, move the spot by one inch. Stay at least one inch away from the belly button (navel). **Never** give the shot in your belly button.
4. If your insulin looks discolored, lumpy or sticks to the sides of the bottle, **do not use it.**
5. Always have an extra bottle of insulin and syringes with you at all times.
6. All insulin bottles have an expiration date. Whether or not a bottle has been opened, do not use after the expiration date. Once a bottle of insulin has been opened, discard after 30 days (strength may be decreased).
7. You may see air bubbles in the syringe of insulin. If there is only one kind of insulin in the syringe, hold the insulin bottle upside down while the needle is still in the bottle. Pull down and push up the plunger several times. Sometimes, just a gentle "snap" with your finger will dislodge the bubbles and send them to the top of the insulin making it easy to push them back into the bottle. Bubbles won't hurt you, but they take up room and you may not get your full dose of insulin. When mixing two kinds of insulins, you usually won't see bubbles when you draw up the second kind of insulin. If you get bubbles when drawing up the second dose of mixed insulin, throw away all of the insulin and start over.

Self-Care Behavior # 4
Taking Medication — Insulin

Insulin Storage

- The bottle in use may be stored at room temperature (less than 86° F) for 30 days once opened.
- The insulin pen may be stored at room temperature for 14 days once opened.
- Refrigerate unopened bottles and pens.
- Avoid direct sunlight and/or freezing.
- Let insulin warm to room temperature (15 minutes) before you use.

Disposal of Used Needles and Syringes

Starting Sept. 1, 2008, it is illegal to dispose hypodermic needles, pen needles, intravenous needles, lancets, and other devices that are used to puncture the skin in the regular trash, recycling or yard waste containers. Used needles need to go in a proper “red sharps” container and should be brought to a facility which accepts hazardous waste.

- Take your sharps to your nearest hazardous waste center.
- Gaffey St. in San Pedro, weekly household hazardous waste roundup events or mailed to a medical waste disposal service.
- The Household Hazardous Waste collection events are scheduled in different areas of the county and usually occur on Saturday from 9 a.m. to 3 p.m.
- If you live in Los Angeles County, the Sheriff’s Department patrol stations also have Safe-Drug Drop-off boxes available 24 hours a day, seven days a week for unused or expired medications, as well as needle disposal.
- Call 1.888.CLEANLA for more information or visit CleanLA.com or calrecycle.ca.gov to view a complete listing of county designated collection and distribution sites.

Self-Care Behavior # 5
Problem Solving (Hypoglycemia)

Everyone can encounter problems with their diabetes control. You cannot always plan for every situation you face, but you can learn the tools that can help you prepare for the unexpected and make a plan for dealing with similar problems in the future.

Hypoglycemia (low blood sugar) can happen when you skip meals, take too much diabetes medications, engage in physical activity or drink too much alcohol (Ref: 10).

Signs of Low Blood Sugar (Hypoglycemia)

- Very hungry
- Headache
- Sweaty
- Nervous
- Shaky
- Sleepy

- Increased heartbeat
- Irritable/moody
- Numb lip or fingers
- Slurred speech
- Confused
- Staggering

What to Do (The Rule of 15)

1. Test your blood sugar and write it down.
2. If it is below 70 or you feel any of the above signs, eat/drink ONE of these 15 gram carb choices:
   - 3 or 4 glucose tablets
   - 1 tube glucose gel (15 gm)
   - 1 cup milk (skim or low-fat)
   - ½ cup juice
   - ½ can regular soda
   - 6 - 7 lifesavers
3. Wait 15 minutes then recheck your blood sugar. If your blood sugar is still below 80 or if you don't feel better, repeat the treatment from #2. Repeat blood sugar check in 15 minutes.
4. When you feel better and/or your blood sugar is above 80, eat ½ sandwich and ½ glass milk or if less than one hour before mealtime, eat your meal.
5. Call your doctor or call 911 if you do not feel better after 30 minutes or if your blood glucose (sugar) stays low (less than 70).
6. Call your doctor if this happens more than once a week.
7. Do not go more than five hours without eating during your waking hours (Ref: 10).
8. Always look back to try to identify the reason for your low blood sugar, it may help you prevent another episode in the future.

Self-Care Behavior # 5
Problem Solving (Hyperglycemia)

What to do when you face a problem like hyperglycemia (high blood sugar).

High blood sugar can happen if you eat too many carbohydrates or foods containing sugar, take too little diabetes medication, exercise less than usual, if you are sick or experiencing high levels of stress (Ref: 10).

Signs of High Blood Sugar (Hyperglycemia)

- Frequent urination
- Increased thirst/dry mouth
- Tired/weak
- Blurred vision
- Muscle cramps/aches
- Itching (vaginal/genital)

- Headache
- Nausea/vomiting
- Trouble breathing
- Ketones in urine
- Flushed skin

What to Do

1. Test blood sugar often. This should be every two hours if blood sugar is high (more than 240 mg/dl).
2. If the blood sugar is over 240 mg/dl or if you are sick, test your urine for ketones. (See Education Tool #2)
3. Check your blood sugar meter with control solution if you have it. Also check the expiration date on your blood glucose meter strips.
4. Drink plenty of water. If you are on a fluid restriction, then check with your doctor.
5. Continue following your usual meal plan as closely as you can.
6. Continue taking your usual insulin shot or pills. **Do not stop your insulin.**
7. Call your doctor if your blood sugar remains high or if you have moderate to large ketones in your urine.

Self-Care Behavior # 6
Reducing Risks

When you have diabetes, it puts you at higher risk for developing other health problems.

If you understand these risks, you can take steps now to lower your chance of diabetes - related complications. (Ref: 11)

Talk to you doctor or diabetes educator about potential health issues like kidney damage, nerve damage and vision loss. They can explain why these complications happen and how you can avoid them.

Remember that it is you that needs to identify your areas of risk, do not rely on your health care team for this. Learn about complications and be consistent about tracking your overall health. These are some precautions you can take that can help you reduce risks. (Ref: 11)

- Be sensitive to your body — recognize when you are not feeling well and contact your doctor. Checking your blood sugar is an important part of your diabetes self-care plan, but monitoring your overall health includes other things.
- Schedule regular medical checkups and medical tests (see page 23 for a list of tests and exams)

You and your health care team will also need to monitor the following (Ref: 8):

- Hemoglobin A1C level, eAG (Average blood sugar). This level shows your long term blood sugar. Ask your doctor what your A1C result is. The recommended level by the American Diabetes Association is less than 7 percent. This means that your diabetes is in good control. If your score is 8 percent or higher, it's recommended that you talk with your doctor about changing your diabetes plan.

- Heart health — blood pressure, weight and cholesterol levels
- Kidney health — urine and blood testing
- Eye health — dilated eye exams; see an eye doctor at least once a year
- Foot health
  - Foot exams and sensory testing; keep your feet dry and clean
  - Report redness or sores to your health care professional immediately
  - See Education Tool #3 on page 20 for more information on foot care.
  - Don't smoke.

Self-Care Behavior # 7
Healthy Coping

Diabetes can affect you physically and emotionally. Living with it every day can make you feel discouraged, stressed or even depressed. It is natural to have mixed feelings about your diabetes management and experience highs and lows. It is important to recognize these emotions as normal and take steps to reduce the negative impact they could have on your self-care.

The way you deal with your emotions is called “coping.” There are lots of ways to cope with the upsets in your life, and not all of them are good for your health (smoking, overeating, not finding time for activity or avoiding people and social situations) (Ref: 12)

There are healthy coping methods that you can use to get you through tough times:

- Faith based activities
- Exercise
- Meditation/yoga
- Enjoyable hobbies
- Joining a support group

Having a support network (connections) is key to healthy coping. Develop healthy bonds with your friends and family. Go to group educational sessions where you can meet other people who are going through similar experiences.

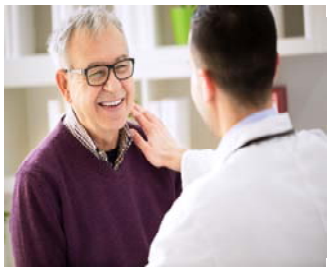
Sometimes, emotional lows can be long and have a more serious impact on your life, health and relationships. This can be a sign of depression.

Tell your diabetes educator or health care professional if you:

- Do not enjoy or have interest in your daily activities
- Avoid discussing your diabetes with family and friends
- Sleep most of the day
- Don’t see the benefit of taking care of yourself
- Feel like diabetes is getting the best of you
- Feel like you can’t take care of yourself (Ref: 12)

Educational Tool #1
Sick Day Guidelines





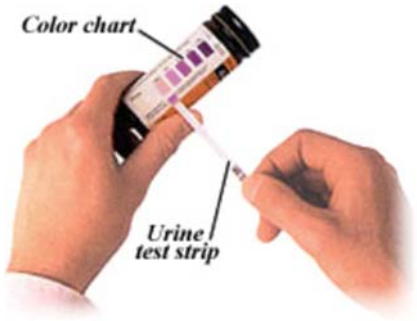

What to Do When You are Sick

1. Test your blood sugar every four hours.
2. Drink plenty of sugar-free liquids like water, broth or chew on ice chips (at least 8 ounces per hour).
3. Get plenty of rest.
4. If you cannot eat solid food, replace food with fruit juice, broth, Jell-O®, popsicles, regular soda, dry toast or crackers. Test your blood sugar frequently to be sure it doesn't increase. **Call your doctor** if it is over 240 mg/dl.
5. It is important to take your insulin or pills even if you are sick. When you are sick, if after six hours you cannot eat, **call your doctor**. He/she may need to adjust your insulin dosage.
6. Test your urine for ketones, especially if you have Type I diabetes (See Education Tool #2).

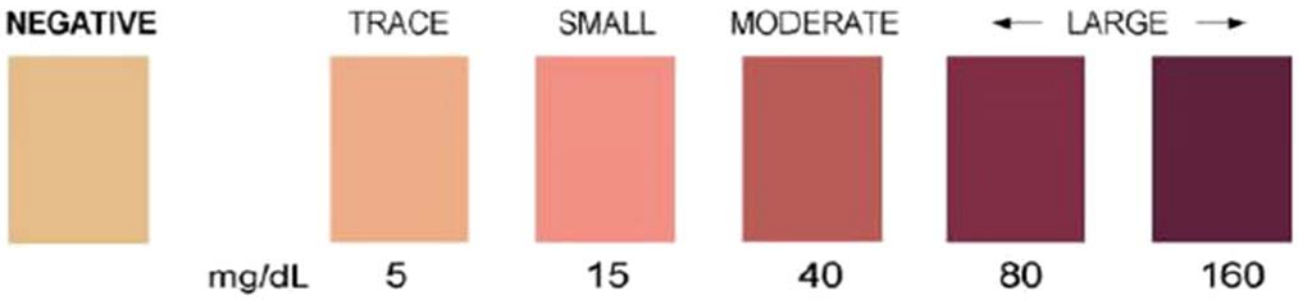
Educational Tool # 2
Ketone Testing

For People Who are Pregnant or Have Type I Diabetes

1. Testing your urine for Ketones should be done whenever your blood sugar is over 240 mg/dl or when you are sick.
2. Urine Ketones are measured with Ketones strips.
   - Follow package instructions carefully.
   - Dip the strip in your urine or urinate on the strip.
   - Wait the specified amount of time and compare the color change to the chart on the container.



3. Be sure to store all strips in the original container in a cool place and do not use after the expiration date.
4. If you have more than a small amount of Ketones, call your doctor.
5. Your insulin or medication may need to be adjusted based on your blood sugar and Ketone level.



Educational Tool # 3
Foot Care

1. Check your feet daily for redness, corns, calluses, blisters, cuts, cracks, scrapes, bruises or infections. If you have any of these call your doctor/podiatrist right away. Don't treat foot problems by yourself.
2. Gently wash your feet everyday with warm water and mild soap, but **do not soak** your feet in hot water or for more than five minutes.
3. Put a lotion or cream like Vaseline© or A&D Ointment © on your feet every night before going to bed. **Do not** put lotion or cream between the toes unless prescribed by your physician.
4. Wear shoes that support your feet and are comfortable, not tight or worn out shoes.
5. **Do not go barefoot.** Not even in the house.

6. **Do not** use sharp tools on your feet. Do not trim your toenails yourself. Have your doctor/podiatrist show you how to file (with an emery board) or trim your toenails.
7. **Do not** use hot water bottles or heating pads on your feet or legs. Before taking a bath, test water temperature with your elbow.
8. Take your shoes and socks off every time you visit the doctor or diabetes educator so they can check your feet.
9. **Do not smoke.** Smoking damages the blood supply to your feet.

10. If you experience **burning or tingling** of your feet, tell your doctor right away as this can be an indication of nerve damage and poor glucose control.

Educational Tool # 4
Oral Care

There are more bacteria in your mouth right now than there are people on Earth. If those germs settle into your gums, you've got gum disease. Unfortunately, if you have uncontrolled diabetes, you are at higher risk for gum problems. Poor blood sugar control makes gum problems more likely Research shows that there is an increased prevalence of gum disease among those with uncontrolled diabetes (Ref:14).

The most common oral health problems associated with diabetes are:

- Tooth decay or tooth loss
- Periodontal (gum) disease
- Dysfunction of the salivary glands
- Fungal infections
- Infection and delayed healing
- Taste and impairment (Ref: 15)

See your dentist immediately if you notice any of the following:

- Gums that bleed easily
- Red, swollen or tender gums
- Pus between the teeth and gums when the gums are pressed
- Persistent bad breath or bad taste in the mouth
- Permanent teeth are loose or separating
- Any changes in the fit of partial dentures (Ref: 15)

How to prevent oral problems when you have diabetes:

- First and foremost, control your blood sugar level
- Brush your teeth
- Floss your teeth
- See your dentist regularly, at least every six months (Ref: 14)

Educational Tool # 5
Insulin Administration (Continued)

How to Inject Insulin, Step-By-Step

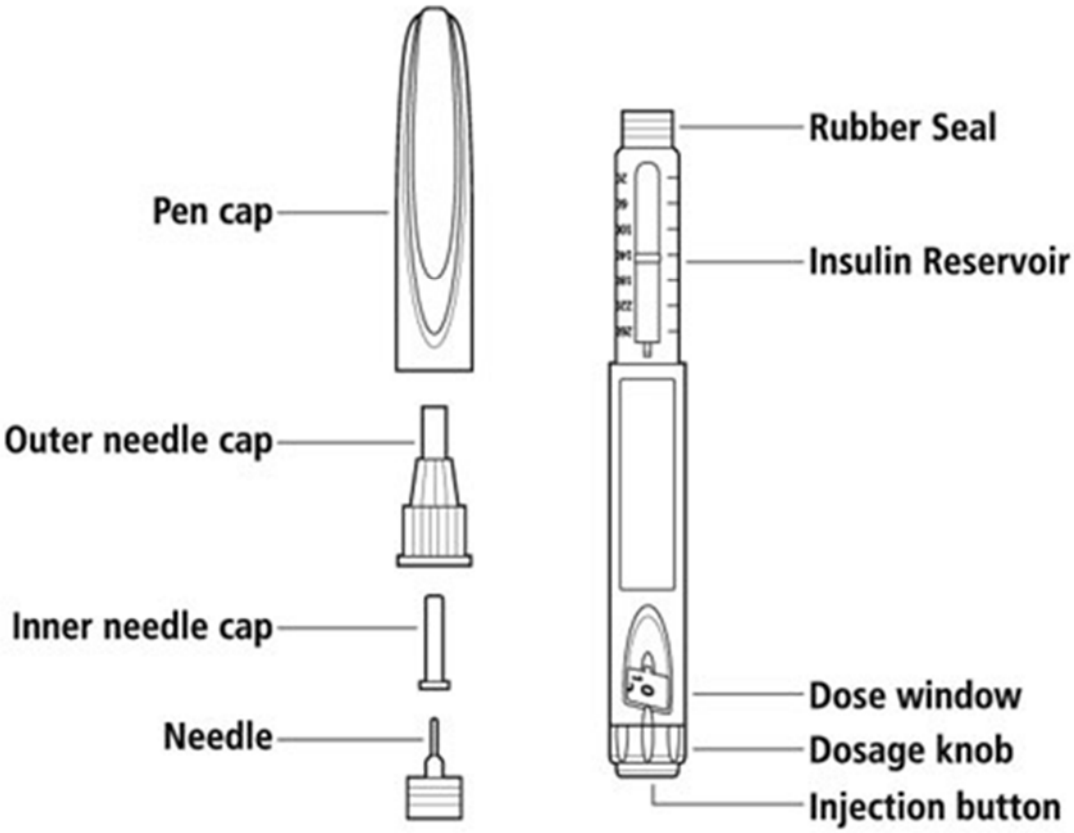
1. Wash hands.
2. Test blood sugar and write down results.
3. If you are using "cloudy" insulin, roll it between your hands to mix well.
4. Wipe top of the bottle with alcohol.
5. Pull plunger down to the number of prescribed units, push the needle into the bottle and push the plunger in. This injects the air.
6. Leave needle in the bottle and turn the bottle upside down.
7. Pull the plunger back until syringe fills with the prescribed units of insulin.
8. Take needle out of the bottle. Check for and remove any air bubbles. Pinch up skin of the abdomen (belly) and give injection at a 90-degree angle (straight in).
9. Do a SLOW count to 4 before pulling the needle out.

How to Draw and Mix Two Insulins

Note: Only mix insulin if instructed by your doctor as they are not all mixable.

1. Wash hands.
2. Test your blood sugar and write down results.
3. Roll the bottle of "cloudy" insulin to mix the insulin well.
4. Wipe the top of both bottles with alcohol.
5. Pull plunger down to the number of prescribed units, then push the needle into the bottle of "cloudy" insulin and push the plunger in to inject the air.
6. Remove the syringe from the bottle, without drawing insulin.
7. Pull syringe down to number of prescribed units, then push the needle into the bottle of clear insulin and push the plunger in to inject the air.
8. Leave needle in the clear bottle and turn the bottle upside down.
9. Pull plunger back until the syringe fills with the number of units prescribed of clear insulin.
10. Remove the syringe from the bottle and put needle into the "cloudy" bottle.
11. Pull plunger back _____more units for a total of _____ units of "cloudy" insulin.
12. Remove the syringe from the bottle. Pinch up skin of the abdomen (belly) and give the injection at a 90-degree angle (straight in).

Educational Tool # 5
Insulin Administration (Continued)



How to Use:

1. Wash your hands.
2. Check the drug label to be sure it is what your doctor prescribed. Check the expiration date on the pen. Do not use a drug that is past the expiration date. Once opened and in use, do not use insulin beyond 30 days.
3. Remove pen cap.
4. Look at the insulin to be sure it is evenly mixed (cloudy white) with no clumping of particles.
5. Wipe the tip of the pen where the needle will attach with an alcohol swab or a cotton ball moistened with alcohol.

(Ref: 29)

Educational Tool # 5
Insulin Administration Continued

How to Use (continued):

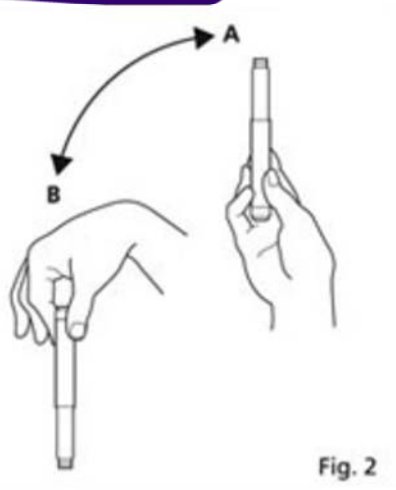
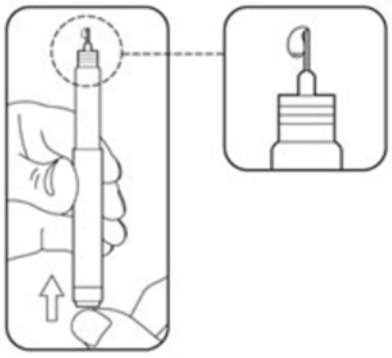


Fig. 2

1. Remove the protective pull tab from the needle and screw it onto the pen until snug (but not too tight).
2. Remove both the plastic outer cap and inner needle cap.
3. Look at the dose window and turn the dosage knob to '2' units.
4. Holding the pen with the needle pointing upwards, press the button until at least a drop of insulin appears. This is the "air shot" or safety shot. Repeat this step if needed until a drop appears (see figure at right).
5. Dial the number of units you need to take.
6. To hold the pen, wrap your fingers around the pen with your thumb free to reach the dosing knob.



7. Insert the needle at a 90 degree angle (straight in).
8. While keeping needle under skin, press the button all the way returning to zero, and keep pressing for six to ten seconds (larger doses may require the whole ten seconds). Withdraw from the skin.
9. If you bleed when the needle comes out, place a cotton ball over the skin right away. Press gently on the cotton until bleeding has stopped. Do not rub the skin.
10. Carefully replace outer needle cap over needle and unscrew until loosened (needle should come off pen inside needle cap). Never leave needle on pen when not in use.
11. Put the pen needle in a hard red plastic or metal sharps container. Note: Check your town's guidelines on syringe disposal.

Insulin Storage:

1. Do not freeze insulin. Do not store insulin in sunlight or in a hot car.
2. Take insulin onboard with you when traveling by airplane.
3. Do not put insulin into luggage that will be stored away from you.

(Ref: 29)

Educational Tool #6
Standards of Medical Care

Tests and Exams	Timeframe
Hemoglobin A1c (Measure average blood glucose for past three months) Less than 7%	Every three months. It can be done every six months if sugar is in good control (A1c less than 7%)
Foot inspection by doctor or nurse	Each visit
Annual foot examination by doctor or nurse	One time per year
Blood pressure Less than 140/90	Each visit
Dilated eye exam	One time per year
Lipid profile/cholesterol test (Cholesterol; HDL; LDL; Triglycerides) LDL less than 100	One time per year
Kidney function (Serum Creatinine; Microalbumin – less than 30)	One time per year
Flu shot – vaccine	One time per year
Pneumonia shot – vaccine	One time every five years
See your dentist regularly	Every six months
Talk to Your Doctor About the Following	
Pre-pregnancy – family planning counseling	As needed
Aspirin therapy	Over 40 years of age
How to stop smoking (smokers only)	Each visit
Your health care goals	Each visit

References:

- American Diabetes Association
- Centers for Disease Control
- Diabetes Coalition of California
- American Association of Diabetes Educators

Educational Tool # 6
Standards of Medical Care

Call your doctor if:

- You have a sore on your foot
- You have a fever
- You have nausea, vomiting or abdominal pain
- Your blood sugar is at a level at which your doctor requested to be consulted

Things to Remember

1. Check your blood sugar before you take your diabetes pills or insulin, before meals or at other times in your plan.

2. ALWAYS take your insulin or diabetes pills unless your doctor tells you not to take them (like when you cannot eat or drink before a blood test).

3. ALWAYS eat your meals, if you are taking insulin or diabetes pills.

4. Try to take your insulin or diabetes pills and eat your meals at about the same time every day.

5. Diabetes can damage your eyes and kidneys, even if you don't feel or see any changes. Be sure to have your eyes checked every year, by an ophthalmologist (eye doctor) or optometrist who works with people who have diabetes. If you do have eye problems from diabetes, an eye doctor can treat many of these problems. Also, talk to your doctor about having your kidneys checked every year (for protein or Microalbumin).

6. Many people with diabetes have high blood pressure. Ask your doctor about your blood pressure. If you have high blood pressure, be sure to take your blood pressure pills every day or as your doctor prescribes. A blood pressure below 140/80 is acceptable for people with diabetes (Ref: 4).

7. Stress or emotional problems can affect your blood glucose level – usually, your blood glucose (sugar) may be higher when you are under stress or upset. Also, people with diabetes sometimes need help in coping with stress or depression. Talk to your doctor, nurse or social worker if you feel you need help in this way.

Health On-The-Go Diabetes Tools/Apps

Long Beach Medical Center does not necessarily endorse or promote any specific companies, their applications for smart phones or software. However, you may find this information helpful in keeping track or your diabetes plan and glucose levels on the go. These applications should be free of charge.

Diabetes Management


Diabetes Pal


Carb Counting with Lenny


Glucose Buddy


GoMeals

MedSimple


Glucagon App

Blue Loop

Sleep Time


Charity Miles


Zombies, Run!


Calorie King


Lose It


Calorie Counter


Livestrong.com


MapMyWalk


Healthy Out

Websites

- Academy of Nutrition and Dietetics (AND): eatright.org
- My Plate: choosemyplate.gov
- American Diabetes Association (ADA): diabetes.org
- Publications: diabetesselfmanagement.com
- American Association of Diabetes Educators (AADE): diabeteseducator.org
- CalorieKing: calorieking.com

References

1) American Diabetes Associations: Clinical Practice Recommendations. Diabetes Care 36 (Supp. 1): S11, January 2013
2) American Diabetes Associations: Clinical Practice Recommendations. Diabetes Care 36 (Supp. 1): S21, January 2013
3) American Diabetes Associations: Clinical Practice Recommendations. Diabetes Care 36 (Supp. 1): S25, January 2013
4) American Diabetes Associations: Clinical Practice Recommendations. Diabetes Care 36 (Supp. 1): S6, S29, January 2013
5) American Association of Diabetes Educators, 7 Healthy Self-Care Behaviors
6) http://www.diabeteseducator.org/DiabetesEducation/Patient_Resources/AADE7_PatientHandouts.html
7) American Association of Diabetes Educators, 7 Healthy Self-Care Behaviors, Healthy Eating
8) http://www.diabeteseducator.org/export/sites/aade/_resources/pdf/general/AADE7_healthy_eating.pdf
9) American Association of Diabetes Educators, 7 Healthy Self-Care Behaviors, Being Active
10) http://www.diabeteseducator.org/export/sites/aade/_resources/pdf/general/AADE7_being_active.pdf
11) American Association of Diabetes Educators, 7 Healthy Self-Care Behaviors, Monitoring
12) http://www.diabeteseducator.org/export/sites/aade/_resources/pdf/general/AADE7_monitoring.pdf
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14) http://www.diabeteseducator.org/export/sites/aade/_resources/pdf/general/AADE7_taking_medication.pdf
15) American Association of Diabetes Educators, 7 Healthy Self-Care Behaviors, Problem Solving
16) http://www.diabeteseducator.org/export/sites/aade/_resources/pdf/general/AADE7_problem_solving.pdf
17) American Association of Diabetes Educators, 7 Healthy Self-Care Behaviors, Reducing Risks
18) http://www.diabeteseducator.org/export/sites/aade/_resources/pdf/general/AADE7_reducing_risks.pdf
19) American Association of Diabetes Educators, 7 Healthy Self-Care Behaviors, Healthy Coping
20) http://www.diabeteseducator.org/export/sites/aade/_resources/pdf/general/AADE7_healthy_coping.pdf
21) American Diabetes Association, Hyperglycemia
22) http://www.diabetes.org/living-with-diabetes/treatment-and-care/blood-glucose-control/hyperglycemia.html
23) American Diabetes Association, Oral Health and Hygiene
24) http://www.diabetes.org/living-with-diabetes/treatment-and-care/oral-health-and-hygiene/
25) American Dental Association, Diabetes and Oral Health
26) https://www.ada.org/sections/scienceAndResearch/pdfs/patient_18.pdf
27) American Diabetes Associations: Clinical Practice Recommendations. Diabetes Care 36 (Supp. 1): S40, January 2013
28) Appel, S., Wadas, T., Rosenthal, R., Ovalle, F., (2009). Latent autoimmune diabetes of adulthood (LADA): An often misdiagnosed type of diabetes mellitus. *Journal of the American Academy of Nurse Practitioners*, 21, 156-159.
29) http://www.upmc.com/patients-visitors/education/diabetes/pages/insulin-pens-how-to-give-a-shot.aspx