Disaster and emergency preparedness for people with diabetes

**Diabetes disaster preparedness**

As a person with diabetes, your daily routine involves schedules and planning. An emergency can seriously affect your health. It may be difficult to cope with a disaster when it occurs. You and your family should plan and prepare beforehand even if the event is loss of electricity for a few hours. The first 72 hours following a disaster are the most critical for families. This is the time when you are most likely to be alone. It is essential for you and your family to have a disaster plan and kit which should provide for all your family’s basic needs during these first hours.

**What to do during emergencies for diabetic patients**

- People with diabetes face extra challenges during emergencies and natural disasters such as hurricanes, earthquakes, and tornadoes. If you are evacuating—leaving your home to get away from a threat or staying in an emergency shelter, let others know that you have diabetes so that you can take care of your health. If you have other health problems, such as chronic kidney disease or heart disease, make sure you let others know about those, too.
- Drink plenty of fluids, especially water. Safe drinking water may be hard to find in emergencies, but if you do not take in enough water, you could develop serious medical problems. Heat, stress, high blood sugar, and some diabetes medicines such as metformin can cause you to lose fluid, which increases the chances you will become dehydrated.
- Keep something containing sugar with you at all times, in case you develop dangerously low blood sugar (hypoglycaemia). You may not be able to check blood sugar levels, so know the warning signs of low blood sugar.
- Pay special attention to your feet. Stay out of contaminated water, wear shoes, and examine feet carefully for any sign of infection or injury. Get medical treatment quickly for any injuries.

**Make an emergency plan for you and your family**.

- Always wear identification that says you have diabetes.
- If you take insulin, ask your doctor during a regular visit what to do in an emergency if you do not have your insulin and cannot get more.
If you take other medicines for diabetes, ask your doctor what to do during an emergency if you do not have your medicine.

Prepare an emergency supply of food and water.

Include an adequate supply of medicine and medical supplies in your emergency kit, enough for at least three days and possibly more, depending on your needs. Ask your doctor or pharmacist about storing prescription medicines such as heart and high blood pressure medicine and insulin. Plan how you will handle medicine that normally requires refrigeration, such as insulin.

Make sure you change medicine and medical supplies in your emergency kit regularly, to ensure they stay up to date. Check expiration dates on all medicine and supplies often.

Keep copies of prescriptions and other important medical information, including the phone number for your healthcare provider, in your emergency kit.

Keep a list of the type and model number of medical devices you use, such as an insulin pump, in the emergency kit.

If you have a child with diabetes who is in school or day care, learn the school’s emergency plan. Work with them to ensure your child will have needed diabetes supplies in an emergency.

If you need regular medical treatments, such as dialysis, talk to your service provider about their emergency plans.

**Prepared list**

You should safely store the following medical supplies or have them readily available:

- Copy of your emergency information and medical list
- Extra copies of prescriptions
- Insulin or pills (include all medications that you take daily including over the counter medications)
- Syringes
- Alcohol swabs
- Cotton balls & tissues
- A meter to measure blood sugar
- Blood sugar diary
- Insulin pump supplies (if on insulin pump)
- Strips for your meter
- Urine ketone testing strips
- Lancing device and lancets
- Quick acting carbohydrate (for example, glucose tablets, orange juice, etc.)
- Longer lasting carbohydrate sources (for example, cheese and crackers)
- Glucagon Emergency Kit (if on insulin)
- Empty hard plastic detergent bottle with cap to dispose used lancets and syringes
- Other supplies:
  - Flashlight with extra batteries, pad/pencil, whistle/noisemaker, matches/candles, extra pair of glasses, first-aid kit
  - Female sanitary supplies
  - Copy of health insurance cards
  - Heavy work gloves

Important family documents
Tools Water
Food Clothing and bedding
Radio with extra batteries Cell phone
Make sure you have enough supplies for 2 weeks. These supplies should be checked at least every 2 – 3 months. Watch for expiration dates.

Helpful hints about insulin, pens, and syringes

Insulin may be stored at room temperature (59°C- 86°F) for 28 days. Insulin pens in use can be stored at room temperature according to manufacturer’s directions.
Insulin should not be exposed to excessive light, heat or cold. Regular and Lantus insulins should be clear.
NPH, Lente, Ultra Lente, 75/25, 50/50, and 70/30 insulins should be uniformly cloudy before rotating.
Insulin that clumps or sticks to the sides of the bottle should not be used.
Although reuse of your insulin syringes is not generally recommended, in life and death situations, you have to alter this policy. Do not share your insulin syringes with other people.

Things to be remembered

Stress can cause a rise in your blood sugar.
Erratic mealtimes can cause changes in your blood sugar.
Excessive work to repair damage caused by the disaster (without stopping for snacks) can lower your blood sugar.
Excessive exercise when your blood sugar is over 250mg can cause your blood sugar to go higher.
Wear protective clothing and sturdy shoes
Check your feet daily for an irritation, infection, open sores or blisters. Disaster debris can increase your risk for injury. Heat, cold, excessive dampness and inability to change footwear can lead to infection, especially if your blood sugar is high. Never go without shoes.

Hot weather tips

Stay indoors in air-conditioned or fan cooled comfort. Avoid exercising outside.
Wear light coloured cotton clothing.
Remain well-hydrated (water, diet drinks).
Avoid salt tablets unless prescribed by your physician.
Seek emergency treatment if you feel: fatigue, weakness, abdominal cramps, decreased urination, fever, and confusion.
You should wear diabetes identification AT ALL TIMES

Food items to be stored

1 large box unopened crackers (saltines)
✓ 1 jar peanut butter
✓ 1 small box powdered milk (use within 6 months)
✓ 1 gallon or more of water per day per person for at least one week
✓ 2-6-pack packages cheese and crackers or 1 jar soft cheese
✓ 1 pkg. dry, unsweetened cereal
✓ 6 cans regular soda
✓ 6 cans diet soda
✓ 6-pack canned orange or apple juice
✓ 6 pack parmalat milk
✓ 6 cans “lite” or water packed fruit
✓ 1 spoon, fork and knife per person
✓ Disposable cups
✓ 4 packages of glucose tablets or small hard candies for low blood sugar
✓ 1 can tuna, salmon, chicken, nuts per person
✓ Mechanical can opener
✓ These supplies should be checked and replaced yearly

**Food consideration during a disaster**

1. Food and water supply may be limited and/or contaminated. Do not eat food you think may be contaminated. It may be necessary to boil water for 10 minutes before use.
2. Drink plenty of water.
3. Maintain your meal plan to the best of your ability. Your plan should include a variety of meat/meat substitutes (i.e., peanut butter, dried beans, and eggs), milk/milk products, fruits, vegetables, cereal, grains.
4. Limit sugar/sugar-containing foods. These foods include:
   - Jellies, jams, molasses
   - Honey
   - Syrups (fruits canned in sugar syrup, pancake syrup)
   - Tonic (dietetic tonics with less than one calorie per ounce are allowed)
   - Frosted cake
   - Presweetened or sugar-coated cereals
   - Pie, pastry, Danish pastry, doughnuts
   - Chocolate
   - Custards, pudding, sherbet, ice cream
   - Gelatine
   - Soda
   - Cookies, brownies
5. Monitor your blood sugars frequently and record in diary.
6. When reading labels, limit products with these sugar-containing ingredients:
   - Sugar
   - Corn syrup
   - Dextrose
   - Sucrose
   - Corn sweeteners
• Honey
• Molasses
• Brown sugar
• Fruit syrup

7. Avoid greasy, fried foods

8. Try to eat meals and snacks at the same time every day. Avoid periods of hunger and over indulgence. The quantity and frequency of your food intake should remain similar day-to-day depending upon your activity level.

9. Increase food and water intake during periods of increased exertion or physical activity by either eating between-meal snacks before activity or by eating additional food with meals.

10. Carry a fast source of sugar with you at all times:
   • Glucose tablets
   • 1 small box of raisins
   • 6-7 small hard sugar candies

**Sick day during disaster**

- Always take your insulin or pills on time or close to it. Never omit your insulin unless your doctor has told you otherwise. Insulin is still good if there is no refrigeration. A used or unused bottle of insulin may be kept at room temperature (15°C-30°C) for 28 days. Discard unrefrigerated insulin after 28 days.
- Keep an extra bottle of each type of insulin you use on hand at all times.
- Eat within 15 min. or no later than ½ hour after taking your insulin (depending on insulin type) or diabetes medicine. Try to eat on time.
- Never skip a meal. If you cannot eat solid food because of nausea, vomiting, and/or diarrhea, sip regular coke, eat hard candies, fruit or regular soft drinks instead of following your usual meal plan.
- Most Important:
  - Do not let yourself get dehydrated.
  - Drink plenty of liquids in between meal times, sip diet soda. (This will not replace food, but can help you be hydrated.)
- Rest.
- Check your blood sugar. Notify your doctor if your blood sugar average is over 240mg or if you are ill for 2 days.
- Test your urine for ketones when:
  - Your blood sugar average is over 240mg.
  - You are vomiting
  - You have symptoms of high blood sugar (increased thirst or hunger than usual, quick weight loss, increased urination, very tired, stomach pain, breathing fast or fruity breath smell).
- Call your doctor if your ketone test is moderate or high and/or if you have symptoms of high blood sugar (as listed in number 8). You may need more than your usual amount of insulin on a sick day. Your doctor can guide you in this. If you need medical assistance or are out of all medications, food, and cannot reach your doctor, immediately: Go to the nearest hospital; or Contact the police; or Contact the Red Cross; or Go to an Emergency Medical Center.
Flow diagram for disaster preparation and response at different timelines

For patients with diabetes

**Before disasters**

- Updated lists at all times

**Planning**

- Medications and other major health problems
- Emergency food supply
- Emergency medical supply kit
- Carry a Diabetes ID card

- Create a personal evacuation plan and evacuate early if authorities advise evacuation
- Learn stress-management skills and complete education projects
- Physician and emergency contact information, such as phone number, e-mail address, and name of contact persons

**Response during disaster**

- Adhere to usual medications and recommended diet and lifestyle as much as possible
- Regularly self-monitor blood glucose and blood pressure, and perform other forms of self-management, such as wound care

**Resolution and recovery**

- Ensure that appropriate meals are provided to diabetic patients (meals in shelters can be inappropriate for diabetes patients and impair glucose control)
- Ensure that diabetic patients maintain their daily activities and prevent becoming bedridden, which would reduce quality of life