

Diabetic Travelers

Traveler Summary

Summary

Travelers with diabetes should plan ahead when considering international travel. Start by visiting a health care provider to make sure the diabetes is well controlled. It may be prudent to avoid travel to developing countries if it is not well controlled or there are complications that are unstable (e.g., coronary artery disease, serious kidney disease, foot ulcers, or advancing eye disease). Discuss changes that might be needed to frequency of blood testing and insulin needs during travel, especially those travelers who plan to be more active than usual. Changes in meal patterns and time zones can also affect blood sugar levels, and meals may be delayed or unavailable. Travelers will also want to obtain prescriptions for all medications and a letter documenting the need to carry medications, needles, and syringes (*see below*).

Consult with a travel medicine specialist as well, ideally about 2 months before departure date. Some vaccines and preventive medications need to be started well in advance of travel in order to be fully effective before reaching the destination. Those who aren't able to plan that far ahead should schedule the appointment as soon as possible. The travel medicine specialist will discuss recommended vaccines and medications (e.g., antimalarials, antibiotics, anti-diarrheal) and destination-specific risks. He or she will offer prevention measures to take before, during, and after travel to stay safe and healthy.

Pre-Travel Planning Tips

Medications and Other Supplies

Obtain from a physician a letter on office letterhead stationary documenting medical history and the need to carry diabetes medications and other drugs, as well as needles, syringes, and other necessary equipment. Keep all medications in the original containers.

Carry all prescriptions for all medications, in case drugs are misplaced or lost. Be sure to request the prescriptions be written using generic names, since trade names vary in different parts of the world.

Carry twice as much medication as normally needed (preferably in 2 different bags in case one is lost), as well as extra testing strips, extra batteries for the glucose meter, and a first aid kit. A traveling companion could potentially carry half of the supplies.

- In addition, always carry a supply of glucose tablets or gel (or other sugar source) in the event of a low blood sugar reaction and a supply of non-perishable snacks such as boxed juices, peanut butter, fruit trail mix, crackers, etc.
- Those who experience frequent low blood sugar should carry a glucagon kit.
- Contact airlines and hotels to notify them of any specific dietary requirements; airlines generally require 48 hours' notice. Because airlines' "diabetic meals" are often low in carbohydrates, a regular meal may be a better option.

Carry medicines, insulin, and supplies rather than packing them in luggage, as the ever-present problem of misplaced baggage may become much more serious if the lost baggage contains urgently needed medications. In addition, luggage stored in cargo holds may be subject to extreme temperatures that can alter the potency of your insulin.

Insulin pump users who plan to participate in water activities may consider obtaining a special water-proof box for the pump so it will not be damaged.

Identification, Insurance, Medical Care Abroad

Wear a Medical Alert wristband containing the diagnosis of diabetes.

Always tell a travel companion about the diabetes and make sure they know how to deal with an emergency (especially low blood sugar) and how to give glucagon. If traveling alone, one can inform the stewardess (or other appropriate person).

Carry travel insurance that covers overseas medical care and evacuation. Read the policy carefully so for coverage and what is excluded (e.g., a preexisting condition such as diabetes).

Bring a physician's phone number and keep it close at all times. In addition, obtain names of physicians and/or hospitals in the cities to be visited, in case complications should arise during travel. The International Association for Medical Assistance of Travelers (IAMAT) or the International Diabetes Federation may be able to help in this regard.

Traveling with Insulin

Be sure to bring sufficient insulin and needles/syringes for the entire trip, perhaps up to twice the normal amount. In North America, insulin syringes are designed to be used with u100 insulin; u40 insulin, which is available in other countries requires u40 syringes in order to get the correct dose. Many countries do not have 70/30 or 50/50 insulin or insulin pens.

Insulin is stable under normal conditions at airport terminals and security check points and when going through scanning x-ray machines. If there is any concern, have carry-on bags be hand checked.

Insulin stored at temperatures below 33-36°F or above about 77-80°F will deteriorate. Keep insulin cool (about 33-77°F)—but not frozen—by packing it in an insulated bag with refrigerated gel packs. Do not pack insulin on ice. Never store insulin on the dashboard or in the trunk of a car or in direct sunlight. Depending on the manufacturer, opened vials of insulin can be stored for 30 days at room temperature or for up to 32 to 90 days when refrigerated. When traveling, carry insulin in a pre-cooled wide-necked flask (just be sure to take the ice out before putting in the insulin) or an insulated container or wallet made especially for carrying insulin. Insulin can be stored in hotel refrigerators.

To keep track of shots and meals through changing time zones, set a watch to the home time zone.

Test blood sugar more often than usual when traveling and adjust insulin, fluid, and food intake as necessary for changes in activity level or increased heat, which can also affect blood glucose levels and increase the absorption of some fast-acting insulin.

Air Travel

Notify the screening/security officer of a medical condition that requires traveling with equipment. All prescriptions (and equipment) being carried on to the plane must be in the original packaging with the original pharmacy label affixed. Be sure to carry the physician letter stating the need to carry these medications.

Non-medical gels and liquids are allowed if they are less than 3.4 ounces and placed in a quart-sized baggie. Although TSA does allow multiple containers of liquid or gel to treat hypoglycemia, as a practical matter travelers may want to consider alternative forms of carbohydrates, including glucose tablets, hard candy, or raisins.

Medications can be carried through check points but they must be in the original containers with a prescription label on them.

- Medical liquids (e.g., insulin and Glucagon) are allowed in containers larger than 3.4 ounces but they must be removed from carry-on luggage and declared to TSA personnel. They should not be placed in the quart-sized zip-top bag used for non-medical liquids.

- If wearing an insulin pump, be sure to notify security and request that it not be removed.

Aircraft cabin pressure is often lower than that in the insulin vial; when withdrawing insulin, insert the syringe into the vial without the plunger in order to equalize the pressure. Air should not be injected into the vial.

Some glucose meters might underestimate blood glucose at the lower air pressure and oxygen levels found in aircraft, so be sure to check with the customer service representative of the meter manufacturer before travel.

There are no simple sets of rules to deal with the problem of glucose control through many time zones, as happens when flying. The key is to avoid hypoglycemia.

- Traveling east shortens the day and therefore may lower insulin requirements.
- Traveling west lengthens the day, requiring additional insulin and snacks.
- No matter which direction traveled, test blood sugar more often.
- Check blood glucose levels as soon as possible after landing, as jet lag can make it hard to tell if there is very low or very high blood glucose.

On an aircraft, don't take pre-meal insulin until the meal is actually on the tray, in case turbulence interrupts the meal service. Also, be prepared for flight delays and lost luggage. Keep medications and snacks and do not place them in an overhead bin.

Drink enough water to remain well hydrated while flying, since the aircraft often has low humidity.

On long flights, exercise your legs every 2 hours if possible and walk in the aircraft to prevent a clot developing in your legs.

Staying Healthy Abroad

Pay particular attention to food and water precautions to avoid traveler's diarrhea and its adverse effect on diabetic control. Carry loperamide and an antibiotic (e.g., ciprofloxacin, azithromycin) for self-treatment of traveler's diarrhea and consider carrying oral rehydration salts. Persons with type 1 or difficult-to-control type 2 diabetes may want to consider taking an antibiotic to prevent traveler's diarrhea for trips of less than 4 weeks.

Some oral hypoglycemic agents may increase sun sensitivity, and additional sun protection may be necessary.

Foot care is especially important. Carry a spare pair of comfortable shoes (and extra socks) so they can be changed often. This will help prevent blisters. Don't break in a new pair of shoes while traveling. Don't go barefoot or wear open-toed shoes, sandals, or flip flops; if on the beach, wear shoes specifically made for beach walking. Inspect feet daily for cuts, redness, scratches, or blisters, and carry a first aid kit to treat minor foot injuries. Seek medical care if there is any sign of infection or inflammation.

Acclimatization to hot climates may be impaired with diabetes. Frequent rest stops, adequate hydration with extra salt, and a reasonable pace of activity are important to prevent dehydration and heat illness.

Exposure to air pollution can harm diabetic individuals, including increasing the risk of heart attack or stroke. Be aware of air quality standards and alerts and alter plans as necessary, including limiting exercise.

Urinary tract infections can be reduced by staying well hydrated, and yeast infections of the skin can be prevented by frequent bathing and keeping the skin dry.

Resources

American Diabetes Association: www.diabetes.org

Canadian Diabetes Association: www.diabetes.ca/diabetes-and-you/living/guidelines/travel/

International diabetes organizations: www.medicalwatches.com/organizations.html

TSA:

- www.tsa.gov/assets/pdf/special_needs_memo.pdf

Other resources:

- www.diabetes.co.uk/travel.html
- www.medicalert.org/
- www.iamat.org
- www.internationalsos.com/en/
- <http://coolerconcept.com/>

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