Traveling with Diabetes

Getting Ready
Four steps to make sure you’re prepared.

1. See your health care provider.
Make an appointment to see your child’s doctor or a certified diabetes educator (C.D.E.) at least two weeks before you depart. There are some important details that you should share with your doctor or C.D.E., so keep these in mind during your visit:

- Your travel and flight schedules. If there are time zone changes, you and your doctor can discuss how to best keep insulin dosing on schedule. Make a plan. Write it out carefully for each day and then be prepared to test, test, test, and adjust your dosing schedule to make sure your glucose levels are on target.
  - “If there is a time change, there are three things I usually suggest,” says Howard Wolpert, M.D., director of the insulin pump program at Harvard’s Joslin Diabetes Center in Boston. “If you use an insulin pump, you should change its clock by only an hour or two a day until it is in line with the new time zone. And test your glucose levels frequently. You may have to make some corrections and adjustments, but that is a good starting point.” If you take insulin injections you also need to devise a gradual schedule adjustment; talk with your doctor about the smart way for you to proceed.

- A list of diabetes-related supplies. Ask your doctor to help you estimate how much insulin, and how many syringes, test strips, alcohol swabs, sugar tablets and/or other remedies for low blood sugars you will need. Also, try to figure out how many extra batteries you should bring for your monitor and/or pump. Then double it! And remember, never put medicines in checked luggage.
  - “I travel with glucagon kits for lows, ketone testing strips and two back-up glucose meters,” says Tommy, who uses an insulin pump and a continuous glucose monitor. “And of course I always take syringes and long-acting insulin in case of a pump failure. With technology anything can happen. You really have to think ahead. Don’t leave anything to chance.”

- Emergency prescriptions. As an added precaution, Tommy suggests you ask your health care provider about taking antibiotics with you, and stocking up at the drug store with stomach-soothing, over-the-counter medicines such as Pepto-Bismol for an upset stomach and Imodium for diarrhea.

- Vaccinations for international travel. Also make sure to get a flu shot, if you haven’t already. “Everyone with type 1 should have a flu shot every year,” says Tommy.

- Doctor’s note. These days you may not need it, but it’s always good to have one explaining why you or your child need to pass through airport security carrying syringes, multiple vials of insulin, and a host of other supplies, foods, and liquids, and why you
may be wearing a pump and or a continuous glucose monitor. “We have a standard note, but a lot of people don’t use it anymore,” remarks Dr. Wolpert. “So many people are wearing pumps and so many people have diabetes that most airport personnel are very familiar with diabetes supplies. Pumps, insulin, and syringes don’t strike them as out of the ordinary.”

2. Know the locations of hospitals and doctors who speak English (if necessary) at your destinations.
The longer the trip and more exotic the location, the more research and planning you may need to do—especially when it comes to finding out the names, locations, and phone numbers of the nearest hospitals, clinics, and emergency services. For a list of English-speaking doctors and local hospitals in countries around the world, go online and visit http://www.iamat.org or contact the International Association for Medical Assistance to Travelers at 716-754-4883.

3. Research local foods.
Before you leave home, do some research on the local foods at your destination. Then try to figure out how they will influence your carbohydrate intake and how to control it. “In China for instance, it can be pretty difficult to count carbs, especially when you have a lot of rice and noodles,” says Tommy. “You do your best assessment of what you are eating, hoping that you are dosing yourself correctly. And you have to do a lot of monitoring and pay attention to the results.”

4. Pack the right footwear.
Planning to hike the Rocky Mountains or spend the day sightseeing in Rome? You’re bound to have a great time, but don’t leave home without shoes and socks that protect your feet. If you decide to get new shoes for the trip, allow time to break them in and discover any problems with the way they fit. Doctors recommend that you buy walking and hiking shoes at a store that is familiar with people who have diabetes and to bring someone along to help you with the fitting (particularly if you have lost some feeling in your toes or feet). If you are uncertain about whether the shoes you are buying are right for you, don’t hesitate to buy several pairs and take them to the orthopedist for evaluation. Then select what you want and return the others. To find shoe stores in your area that specialize in diabetic footwear, Google “how to find diabetic shoes” followed by your zip code and you should get a pretty good listing of local retailers.

On the Move
Traveling can be very stressful, and stress can affect your blood sugars. Here are some tips for traveling without dialing up the angst.

1. Don’t be shy
As you go through airport security check, you may feel self-conscious or worry that the screeners will take away some supply that you need. That kind of anxiety can make blood sugar levels plummet. “It’s best to just accept that they have a job to do,” says Tommy. “Because I carry liquid glucose with me, I always tell them that I’m diabetic and show them my plastic bag with my different supplies and my insulin. I don’t always mention the pump because sometimes they just let it go through. But if they catch it, they are really very good about it.”
No matter where you are or how you are traveling, don’t hesitate to tell someone that you have diabetes if it will help ensure your safety or well-being.

2. Avoid lows
Long layovers, missed connections or delays on the runway can make it tough to get the food you need when you need it and that can cause both stress and a serious low. “I think these situations are often the biggest travel challenge for people with type 1,” says Dr. Wolpert. “If you are going low, I typically recommend glucose tablets—the type that will dissolve in the mouth. They’re much more rapid-acting than juice. Besides, airports don’t always have a good source of carbohydrates easily available.” Make sure you are well prepared by packing snacks like whole grain and/or peanut butter crackers, granola, or trail mix bars that you can carry with you wherever you go.

At Your Destination
So your bags are unpacked and the hassles of travel are behind you. Now you have to adjust to being in a new location that may be in a new time zone, have unfamiliar customs about eating, offer different kinds of stores where health-care supplies are sold—and may all be in a different language. Let the fun begin!

1. Get your day’s supplies at hand
When you head out to the beach, or for a day of shopping, chances are you will be getting more physical exercise than usual. Increased exercise will burn up more blood glucose, so test after a few hours of activity. In addition, you want to guard against dehydration, so carry plenty of liquid with you and a supply of snacks to protect against lows. Also, carry an extra pair of clean, dry socks with you in case your feet become sore or irritated.

2. Check your feet after every adventure.
Do a thorough check on the bottoms of your feet and between toes for any red or sore spots. If you spot an irritated area, clean it well and apply an antibacterial ointment, if prescribed by your doctor. Plan to take a day off to allow your feet to repair. To avoid hard-to-heal foot sores and infections in the first place, keep feet dry and clean; change shoes to avoid blisters, and never go barefoot. Swim shoes and sandals will protect you on the beach and in the water.

3. Enjoy the local cuisine a bite at a time.
When dining in a foreign country, start with the food groups that you are familiar with—perhaps a grilled or broiled fish and vegetables and then gradually add tapas here and a curried chicken there. Before and after you eat, monitor frequently, and pay attention to the results.

4. If you are traveling with a group, let others know that you have diabetes.
On day trips, tours or cruises, don’t hesitate to let your fellow travelers know you have diabetes, and that you may need to inject yourself with insulin sometime during the day. Ask if any of your companions are doctors or health care providers. Always tell the group leader that you have diabetes, and describe signs of a low.
5. Be wise about alcohol.
A couple of margaritas by the pool may seem like the perfect vacation indulgence. They're cool, tangy, and refreshing...but happy hour can turn pretty unhappy if you throw your glucose levels out of balance. You may not be aware that alcohol can cause low blood glucose levels (hypoglycemia) shortly after you consume it, and then, says the American Diabetes Association, for 8 to 12 hours after you have had a drink. To be safe, check your glucose level before or while you are drinking. Then check again before you go to bed to make sure it is at a safe level—between 100 and 140 mg/dL. If your level is low, eat something to raise it. Two other important issues: If you do happen to go low, the symptoms are similar to being drunk and people around you may not understand what is happening to you and may not offer the help you need to avert a crisis. And drinking can erode your discipline and make it difficult to stick to a healthy eating plan. So in all things, moderation, one more time.

Kids and Camping
Here are some tips for camping and hiking safety from Mary Simon, M.D., who has T1D and is the medical director for the Diabetes Youth Foundation and its Bearskin Meadow Camp in California, and Claudia Retemal, backpacking nurse specialist, who leads teens on backpacking excursions for the camp.

- Always keep water with you. On hikes, carry water purification tablets. Adults and children with diabetes are at extra risk of dehydration.
- Carry your diabetes supplies, particularly insulin, in a cold pack, and place it in the middle of your pack next to your back, so they are somewhat protected from the sun.
- Always carry a spare set of supplies and medication—let your child carry one and you carry the other. Back-ups are always important, but never more so than when you are out in the wilderness.
- Does your child use a pump? Always carry supplies for taking insulin injections in case your pump fails, and make sure to have extra batteries for the pump.
- Bring extra batteries for the glucose monitor as well. (And, yes do bring the monitor, even for short hikes. You never know what you may need to know.)
- After a day of strenuous hiking, always check your child’s glucose levels in the middle of the night to be sure a low isn’t about to happen.

Sleeping out? Keep your child’s glucose meter inside a sleeping bag. The meters won’t work or will provide inaccurate readings if they get too cold.

Be Prepared: At amusement parks
Amusement parks can offer unforgettable trips for families—kids can get close to their favorite ogre at the Shrek 4-D mini-movie and shake paws with the Cat in the Hat. And don’t forget the water slides! But for children with type 1 parks pose particular challenges

- Long lines for rides, lack of healthy food options and baking summer sun. Add to that the excitement kids feel and how much running around they do, and you have a formula for a crashing low. So test often, make sure they drink plenty of water, and bring extra snacks and supplies for handling lows and meals. Also, remember to keep insulin safe in
insulated packs. (If you are an adult with type 1 who takes their child to an amusement park, these same cautions apply!) Fortunately, most parks have guest-relations specialists who will help you plan your day in a way that minimizes the risks to your child. Stop in to see them when you first arrive. Ask for maps of food stands and first aid stations. They may even allow you to go to the head of the lines!

Medical Alert Bracelets
Whether an adult or a child, everyone with type 1 diabetes should get a medic alert bracelet before they head out on a trip. You never know what circumstances you might find yourself in, and it provides extra protection in an emergency.

If you don’t already have one, check out some stylish options at:
www.n-styleid.com
www.fifty50.com
www.petitebaublesboutique.com

Your Child’s Checklist
If you have a child with type 1 diabetes, the same guidelines apply to them as to an adult. You want to talk with your child’s doctor and...

- Review the diabetes care supplies you may need to take for your child
- Receive the prescriptions you want to obtain from the doctor
- Review the adjustments you will make to his or her insulin schedule
- Obtain a doctor’s note to show airport security if necessary, explaining your child’s need for diabetes supplies and food/liquid

Wherever you go, always keep a healthy snack on hand. Bring a cooler bag stocked with familiar and simple foods such as crackers or cheese, peanut butter, fruit, a juice box, and some form of sugar (like hard candy) to treat low blood sugar. You never know when you will be stuck on the tarmac, or in a locale without good food choices.

One tip: If you are headed somewhere that may be a peanut-free zone, find an alternative to PB&J.

Kids On the Go
Here’s how to keep them healthy and happy:

- To keep insulin safe from damage or contamination, check out our tips by typing How to Pack Insulin into your Google search. JDRF’s website is the first on the page.
- Remember kids get stressed too, cautions Tommy. You want to check glucose levels more frequently when traveling and when going to exciting locations such as amusement parks and entertainment venues.
- Build in rest time. Just because you are not at home, that doesn’t mean that younger kids don’t need their naptime. You will have an easier time regulating blood sugar and keeping the grumpies away if you can schedule in a nap as regularly as possible.
Travel Checklist

Source: Diabetes forecast August 2005

☐ Always bring your Diabetes Team contact information!

☐ Take twice the amount you will need of the following items: insulin, syringes, insulin pen and cartridges

☐ Glucose meter – put new batteries in before you go. Take a spare meter if you have one.

☐ Test strips

☐ Extra batteries for meter

☐ Lancing device and lancets

☐ Ketone test strips

☐ Glucagon

☐ Glucose tabs or gel, Lifesavers, or other carbohydrates to treat lows

☐ Medical identification – Wear it!

☐ Prescriptions for insulin, syringes, and other medications

☐ Doctor’s letter

☐ Water – one or two 16-ounce bottles

☐ Meal equivalent – sandwich, fruit, cookie, vegetables. Check with you airline or travel agent to see if there are any restrictions on boarding with fruits and vegetables.

☐ Snacks – Granola bars, pretzels, mini bagels, string cheese, crackers, fruit

☐ Alcohol pads or another cleansing agent

☐ Tissues

☐ Fanny pack of backpack

☐ Comfortable, well – made walking shoes – 2 pairs

☐ First aid supplies – adhesive bandages, gauze, ace bandages, antibiotic ointment, etc.

☐ Sharps container

☐ Anti-nausea and anti-diarrhea pills

☐ Cold pack

☐ Pain medication - aspirin, acetaminophen, ibuprofen

☐ Insect repellent, sunscreen, sunglasses

Pump Users Should Also Carry:

☐ Extra batteries

☐ Extra infusion sets, cartridges, and occlusive dressings

☐ IV Prep or other antibacterial cleanser

☐ Antibiotic Ointment

☐ Alternate basal insulin and syringes – Lantus or Levemir – especially if you do not have a back-up pump.

☐ Extra pump – check with the manufacturer as many will provide a loaner for international travel.
Travel Tips

Whether you're planning short day trips or a journey of several weeks, thinking ahead will alleviate many problems, not to mention a lot of stress. Although type 1 diabetes (T1D) requires extra work, you will find that virtually any trip or event you have planned is doable. So read on and prepare to have a fabulous family vacation.

Put Together a Support Team
Discuss vacation plans with your doctors and other T1D care providers to work out a tailored plan. As you probably know, any change in activity can affect blood sugar levels. For big trips, added excitement may cause lows, so you may want to consult your doctor for help with changing insulin dosage at such times. Also, ask your doctor for a letter explaining your medical condition and treatment needs, and get a prescription for insulin in case of an emergency.

For camp trips or kid-specific events, make any special accommodations for your child with T1D well in advance. Speak to camp counselors, coaches, relatives, friends, etc. ahead of time to be sure you and/or your child will have enough support wherever you go. If you're not comfortable with the level of support, change your plans.

Pack extra supplies of everything you use to treat T1D, and pack them in more than one bag, including a carry-on or purse. Make sure you wear your medical ID bracelet, or other medical identification, and let friends or family members know your itinerary.

Finally, you may also want to make reservations at restaurants to avoid long waits, and ask if they can provide you with nutritional information on their menu items.

Check Blood Sugar Levels More Often
In general, people with T1D should check blood sugars at least six times a day as part of their regular routine, and more whenever their schedule changes. Heat and excitement are two factors that can significantly affect blood sugar levels. The more often you check blood sugars, the more easily you'll be able to anticipate and avoid problems.

The insulin pump provides quite a bit of flexibility in your routine while also eliminating the need for insulin injections. Even kids are becoming "pumpers" at very young ages and immediately after diagnosis as the technology has improved and word has spread. Ask your doctor if the pump is right for you or your child and, if possible, speak to other people about their experiences with the pump.

Beat the Heat
People with T1D may experience more low blood sugars in the heat, so take extra precautions. Dehydration can be a serious problem, whether or not you have T1D, so make sure you carry water with you at all times, even when going to the beach or pool for the day. Most experts recommend drinking at least eight 8-oz. glasses of water a day in order to avoid problems, and even more if you're going to be very active.

Keep meters, test strips, and insulin out of direct sunlight and use insulated containers or ice packs, but be sure insulin doesn't freeze either.
Special Considerations for Amusement Parks
If you are taking a child with T1D to a major amusement park like Disney World/Land, the first thing you should do when you arrive is go to the guest relations office. Explain to the staff that your child has T1D and must eat, check blood sugars, and/or take shots at specific times. Some of them will give you a pass that will get your family in the handicapped line for most rides, which will drastically cut the amount of time you will have to wait in lines. Bring a backpack with snacks, juices, water, and all your T1D supplies. You may also want to pack meters and insulin pumps in waterproof bags so they don't get wet on water rides. If your child is relatively young, you can also rent a stroller for the day and stash supplies in there.

Many parents also suggest making reservations for sit-down meals at amusement park restaurants before leaving for your trip.
Passengers with Diabetes

Diabetes-related supplies, equipment, and medication, including liquids, are allowed through the checkpoint once they have been properly screened by X-ray or hand inspection. Passengers should declare these items and separate them from other belongings before screening begins.

Liquids, gels, and aerosols are screened by X-ray and medically necessary items in excess of 3.4 ounces will receive additional screening. A passenger could be asked to open the liquid or gel for additional screening. TSA will not touch the liquid or gel during this process.

If the passenger does not want a liquid, gel, or aerosol X-rayed or opened for additional screening, he or she should inform the officer before screening begins. Additional screening of the passenger and his or her property may be required, which may include a patdown.

Accessories required to keep medically necessary liquids, gels, and aerosols cool – such as freezer packs or frozen gel packs – are permitted through the screening checkpoint and may be subject to additional screening. These accessories are treated as liquids unless they are frozen solid at the checkpoint. If these accessories are partially frozen or slushy, they are subject to the same screening as other liquids and gels.

If a passenger uses an insulin pump, he or she can be screened without disconnecting from the pump. However, it is important for the passenger to inform the officer conducting the screening about the pump before the screening process begins.

Passengers who have insulin pumps can be screened using imaging technology, metal detector, or a thorough patdown. A passenger can request to be screened by patdown in lieu of imaging technology.

Regardless of whether the passenger is screened using imaging technology or metal detector, the passenger’s insulin pump is subject to additional screening. Under most circumstances, this will include the passenger conducting a self patdown of the insulin pump followed by an explosive trace detection sampling of the hands.

Advanced Imaging Technology and Walk-Through Metal Detector

Passengers can be screened using imaging technology only if they can stand still with their arms above their heads for 5-7 seconds without the support of a person or device. Similarly, passengers can be screened using walk-through metal detectors only if they can walk through on their own. If a passenger cannot do so, he or she should inform a Transportation Security Officer before screening begins.

A passenger can request to be screened by imaging technology if it is available or can request to be screened using a thorough patdown, but cannot request to be screened by a metal detector in lieu of imaging technology or a patdown.
Notification Card

Passengers with disabilities and medical conditions are not required to provide medical documentation to an officer. However, many passengers find it helpful to have medical documentation as a way to discreetly communicate information about their needs to an officer. TSA also has created a Notification Card that passengers can use for discreet communication. Use of this Notification Card, or of medical documentation, does not exempt a passenger from screening, however. To download a copy of the Notification Card visit: http://www.tsa.gov/sites/default/files/publications/disability_notification_cards.pdf

TSA Cares Help Line

TSA Cares is a help line to assist travelers with disabilities and medical conditions. TSA recommends that passengers call 72 hours ahead of travel for information about what to expect during screening.

Travelers may call TSA Cares toll free at 1-855-787-2227 prior to traveling with questions about screening policies, procedures and what to expect at the security checkpoint. TSA Cares will serve as an additional, dedicated resource specifically for passengers with disabilities, medical conditions or other circumstances or their loved ones who want to prepare for the screening process prior to flying. Travelers may also request a Passenger Support Specialist ahead of time by calling the TSA Cares hotline at 1-855-787-2227. The hours of operation for the TSA Cares help line are Monday through Friday 8 a.m. – 11 p.m. EST and weekends and Holidays 9 a.m. – 8 p.m.

TSA Passenger Support Specialist

TSA's Passenger Support Specialists identify and resolve traveler-related screening concerns quickly to enhance the traveler experience. More than 2,600 Passenger Support Specialists at airports across the country assist passengers who require additional assistance with security checkpoint screening.

Passenger Support Specialists receive specialized disability training provided by TSA's Office of Civil Rights and Liberties, Ombudsman and Traveler Engagement. Training for Passenger Support Specialists include how to assist with individuals with special needs, how to communicate with passengers by listening and explaining, and disability etiquette and disability civil rights.
Travelers requiring special accommodations or concerned about checkpoint screening may ask a checkpoint officer or supervisor for a Passenger Support Specialist who will provide on-the-spot assistance. Passengers with special circumstances may include travelers with disabilities or medical conditions, Wounded Warriors, passengers who wear specific religious clothing or head coverings and passengers struggling with understanding checkpoint procedures.

Travelers may also request a Passenger Support specialist ahead of time by calling the TSA Cares hotline at 1-855-787-2227.
Taking Your Insulin

The time you spend en route and the activities you engage in on your trip will affect your insulin needs. There are a few rules of thumb, but always check with your doctor or diabetes educator before making any adjustments and for specific dose instructions.

If you’re traveling over more than 4 or 5 time zones, you’ll probably have to adjust your insulin schedule and doses. (For examples, see “Sample Insulin Adjustments,” below.)

Traveling east. This shortens the day. It is unlikely that you’ll have to adjust your basal insulin. Take your meal insulin when you eat, even if your meal times change during travel.

Traveling west. This lengthens the day. You’ll probably have to adjust your basal insulin. Take your meal insulin when you eat, even if your meal times change during travel.

Frequent travel. If you travel often and you take multiple daily injections, it may help to switch to a pump. Another option is to change your regimen permanently to include rapid-acting insulin for meals and a basal insulin.

Activity changes. If you are less active than usual when you travel, you may need more insulin. If you are more active than usual when you travel, you may need less insulin. Talk with your diabetes educator or care provider about insulin adjustments for your specific circumstances and activities. You’ll probably need to check your blood glucose more often to keep track of your insulin needs.

Planning ahead will help ensure that you get to your destination with minimal delays and spend more time doing what you traveled so far to do.

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PREPARING OUR PATIENTS FOR TRAVEL
Patricia Casey, M.S.N., F.N.P.-B.C., C.D.E.

VITAMIN D DEFICIENCY AND DIABETES
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For our patients, living with Type 1 or Type 2 diabetes is a constant challenge. Traveling only adds to that challenge. Whether they are planning to travel by plane, car, or boat, for a couple of days or a couple of weeks, all patients require knowledge that can be difficult to find in one source. Often individuals with diabetes turn to their health-care providers for answers. This article addresses some important self-management strategies you might discuss with patients who are planning to travel.

A Pre-travel Check-up
Before they take a long trip, advise patients to visit their diabetes team to make sure their diabetes is in good control. They should schedule the exam so that they are seen far enough in advance to work on control before they depart. If necessary, patients should be immunized at least one month before their trip. Many states have travel clinics that will recommend which immunizations are needed to protect from diseases endemic in the area of travel.

A Doctor's Note
If a patient is traveling by plane or cruise, it is a good idea to provide the patient with a letter explaining that he or she has diabetes and detailing the medications he or she uses to treat it. Although the Transportation Security Administration (TSA) rarely asks for this information, patients should be prepared and carry a medical note that lists what medications and supplies they are carrying with them and specifies that they cannot be without them.

Busy practitioners can use electronic medical technology to create a template of this letter. It should allow a patient's name and date of birth, as well as medications, glucose tablets or gel, meter, lancets, syringes, pen needles, insulin pump, continuous glucose monitoring system (CGMS), and food the individual will be carrying to be inserted into a generic form letter. A sample letter is provided in Figure 1.

Packing Supplies
Patients should pack more supplies than they think they will need. This is particularly true with pump supplies, which cannot be readily purchased. All supplies should be in a carry-on bag because packed luggage can get lost and temperature variations in a plane's cargo hold can damage supplies, medications, and insulin. Once opened, insulin is best kept at a temperature of 59° to 86° Fahrenheit.

No matter how patients are traveling, their carry-on bag should be with them at all times. The bag should include all medications, insulin, syringes, pen needles, pump supplies, and testing supplies, as well as extra batteries; a medical ID card; some form of sugar (hard candy or glucose tablets); and an air-tight snack pack of crackers, peanut butter, fruit, and juice.

Patients should write down the names and doses of all medications they take (including over-the-counter medications). This is especially important for individuals who use pumps and may need to have the basal and bolus pump settings available in case of pump failure. Should pump failure occur, patients should notify the insulin pump company. In most instances, the company can express ship a pump to them within 24 hours. Insulin pump companies also have "loaner pump" programs as a back-up for people traveling in remote areas where shipping a replacement pump may not be possible. Patients can contact their pump company for more information about this service.

In addition, patients should carry paper prescriptions for any medications they are taking. These prescriptions may help in case of an emergency, especially in a foreign country. Although prescription rules vary among countries, having the prescription in hand will be helpful.

TSA Regulations
In the past 10 years, flying has become a bit more complicated. The American Diabetes Association and the TSA have developed a protocol for travelers with diabetes. TSA has classified diabetes as a "hidden disability" and agrees that all products listed in the previous section can be carried onto the plane. Still, there are restrictions. All lancets must be capped and accompanied by a blood glucose meter embossed with a brand name. All insulin delivery devices must be accompanied by insulin. And
all insulin must be clearly identifiable as such—this generally means that it should be in its original box with a printed pharmacy label on it. It is also recommended that individuals keep glucagon kits in their original labeled containers. TSA has developed a notification card, available at www.tsa.gov/assets/pdf/disability_notification_cards.pdf, that can be presented at the screening gate to allow individuals to disclose their disability without getting into a lengthy conversation.

None of the information above changes if a patient has an insulin pump or a CGMS. However, the TSA recommends that people wearing an insulin pump inform the security officer that it cannot be removed. Pump and CGMS manufacturers agree that an insulin pump or CGMS can be worn on the plane. However, most agree that the pump or CGMS should not be exposed to x-ray equipment, particularly to the full body scanners. The standard metal detectors do not harm these devices, but people who are concerned or uncomfortable about going through them with their pump or monitor can notify the security officer and request a visual inspection, which may include a hand wand inspection. Other supplies and medicines can safely go through the x-ray machines, although patients wishing a hand inspection of their luggage may request one.

On the Plane
Patients who inject insulin with a syringe while in flight should be advised to be careful not to inject air into the insulin bottle. In the pressurized cabin, pressure differences can cause the syringe plunger to "fight" its user, making it hard to measure insulin accurately. Pen devices used for insulin or other diabetes medications can be used in-flight. When placing the pen tip needle onto the pen, a small spurt of insulin may release. Again, this is caused by the pressurized air cabin.

Patients should be prepared to eat on the plane. If necessary, and if meals are being served, they can request a special meal up to two days before their flight. Nowadays, however, meals are often not served, so individuals with diabetes should be safe and always carry along some food.

If a patient who uses insulin will be crossing time zones, discuss his or her travel itinerary. Patients may have to adjust the timing of their injections. Eastward travel means a shorter day, and patients may need less insulin. Westward travel means a longer day, and more insulin may be needed. To keep track of shots and meals through changing time zones, patients should keep their watches on their home time zones until the morning after arrival.

Other Considerations
Remind patients that checking their blood glucose while traveling is as important, if not more important, as when they are at home. Traveling usually means changes in the daily routine. Different foods, long excursions, and changes in sleeping habits can all affect blood glucose control. Knowing their blood glucose will help patients make informed decisions on medication dosages or the need for a snack. Patients should also check their blood glucose level as soon as possible after landing. Jet lag can make it hard to recognize extremes of blood glucose.

Patients traveling to a much warmer climate should be

FIGURE 1.

SAMPLE LETTER EXPLAINING PATIENT’S DIABETES TO AIRPORT PERSONNEL

[Name of patient and date of birth] is a patient of the [name of practice] and has Type 1 diabetes that is managed by an insulin pump.

The patient must carry the supplies necessary to maintain this insulin therapy. These include vials and pens for insulin, tubing, syringes, a glucose meter and strips, a lancet device and lancets, pen tip needles, glucose tablets, and other food/snacks.

The patient MUST NOT remove the insulin pump.

The patient MAY NOT go through the total body scanner as it interferes with the settings and memory of the pump and may cause the patient to have severe diabetic complications that can be life-threatening.

You are free to contact me with any questions regarding this patient.
warned about the very real danger of dehydration. They should make sure they have water with them at all times. Most experts recommend drinking at least eight 8-ounce glasses of water a day, or more for people who are going to be very active.

Patients should keep meters, test strips, and insulin out of direct sunlight and use insulated containers or ice packs to keep insulin at the proper temperature. When exposed to hotter temperatures, insulin in the pump may lose its effectiveness more quickly than usual. Cool packs specially sized for insulin pumps can keep the pump and insulin at a safe temperature for up to 45 hours.

No matter where individuals go, they should wear a medical ID bracelet or necklace that shows they have diabetes. If leaving the country, they should also learn how to say "I have diabetes" in the local language.

The diabetes team should encourage individuals to go wherever their heart leads them. With careful planning, no destination is too far. But it is also important to remember that there are no vacations from diabetes; patients take their diabetes with them wherever they go. They must take their self-care along as well.

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