

Insulin therapy and air travel

Modified with permission from a resource produced by the Diabetes Centre, The Queen Elizabeth Hospital, Woodville, SA.

Guidelines for insulin adjustment during travel

When travelling by air, your place of departure and your destination may be in different time zones. If they are, you may need to adjust your insulin dosage on the day of travel to control your blood glucose levels before you adopt the 'local' time of your destination for meals and insulin injections.

If you are travelling across several time zones, it is advisable to keep following the local time of your place of departure until you arrive at your destination (i.e. don't change your wristwatch until you reach your destination) to keep track of your injections and meals. The length of time the flight takes has no effect on the time difference you will experience between the start and end of your journey because that time passes at both the place of departure and the destination.

The guidelines below will help you to adjust your insulin dosage, if you need to do so. You should discuss these adjustments with your doctor or diabetes nurse before your departure.

The general rule

- If you are travelling to a time zone ahead of your local time, i.e. travelling east, your day of travel will be shorter than 24 hours and less insulin is needed.
- If you are travelling to a time zone behind your local time, i.e. travelling west, your day of travel will be longer than 24 hours and more insulin is needed.

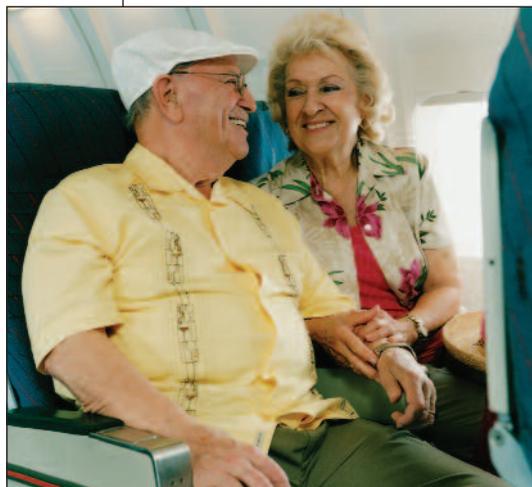
If your day of travel is made shorter:

- by four hours or less (four or fewer time zones crossed), you should not need to make any changes to your insulin dose or food intake
- by more than four hours (more than four time zones crossed), you should reduce your insulin on the day of departure by 20 to 30%.

If your day of travel is made longer:

- by four hours or less (four or fewer time zones crossed), you should not need to make any changes to your insulin dose but you might need to eat extra carbohydrate (about 20 to 30 g, which is the equivalent of one to two slices of bread) to avoid low blood glucose before your next injection at your destination (following the local time at the destination)
- by more than four hours (more than four time zones crossed), you may need extra insulin and food to tide you over. Take your usual insulin on the day of departure up to your departure time and then have doses of quick acting insulin before the extra meals. Use 10% of your usual daily dose as an estimate; you can revise it up or down depending on your blood result at that time.

This handout provides some guidelines for people with type 2 diabetes who are taking insulin and travelling by air.



You may need to adjust your insulin dosages if you are travelling long distances by air.



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Perform extra blood glucose tests

Whether your day is shorter or longer, do not be afraid to perform extra blood tests to keep track of blood glucose levels (every four to six hours is good). Remember that blood glucose measurements during the journey will probably be higher than normal because of your lack of physical activity.

Other travel tips for people with diabetes

- Plan your trip carefully, and find out about airline regulations on the carrying of diabetes supplies in your hand luggage and check-in luggage.
- During the flight, follow as closely as you can your normal insulin injections and meals and snacks, and make time for physical activity.
- Most airlines will make special arrangements for food for people with diabetes (remember to request this when booking your flight). You should, however, carry food with you, just in case. This food is part of the survival kit that you should have with you – the box on this page lists the items to include in this kit.
- Take several copies of a letter from your doctor stating that you:
 - have diabetes
 - take insulin (and other medications)
 - need to do blood tests
 - may need special arrangements for food and activity.
 Carry one copy of this in your hand luggage.
- Carry a full set of diabetes supplies (blood glucose meter and strips, insulin injectors and insulin) in your hand luggage. Also pack extra insulin and, if possible, a spare set of the other equipment in your check-in luggage.



Survival kit – type 2 diabetes

Carbohydrate

- Quick acting (high glycaemic index [GI]): glucose tablets, barley sugar or soft drink (not low calorie)
- Long acting (low GI): biscuits, dried fruit (e.g. sultanas)

Insulin

- Quick acting insulin (neutral) and syringes

Blood glucose testing equipment

- Meter, strips, finger pricker
- Tissues/cotton wool

Medical alert device or identification

Telephone numbers

- General practitioner
- Hospital clinic
- Ambulance

Further information

Diabetes Australia has information sheets on various aspects of living with diabetes, including travelling (*Travel and diabetes*) and coping with hypoglycaemia (*Hypoglycaemia and diabetes*). You can download these from the Diabetes Australia website (www.diabetesaustralia.com.au/education_info/sheets.html).



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