

# Travel Guidelines



## Insulin Adjustments Through Time Zones

While talking to patients about travel it is extremely important that travel is well understood by the educator first. Planning adjustments for travel through time zones is designed to avoid both hyper- and hypoglycemia. There are many ways to help patients with insulin adjustments for travel however, the key is finding a system that is simple for the educator to communicate and therefore easy for the patient to understand and apply.

### Travelling East

When travelling east you lose hours and the day becomes shorter. Patients will usually need less intermediate or long acting insulin and less sleep on the travel day. For example, a patient travelling east from Canada to Europe will lose 5-7 hours on their travel day. It is usually best to reduce the bedtime dose of basal insulin by 1/3 on the travel day (5-7 hours is about 1/3 less of the day).

### Travelling West

When travelling west you gain hours and the day becomes longer. Patients will usually need more insulin and extra meals on the travel day. For example, a patient travelling west from Europe to Canada will gain 5-7 hours on their travel day. When they arrive in Canada they should have an extra meal and will then require an extra dose of rapid or short acting insulin. The dose will last for about 4-6 hours assisting blood sugar control for the remainder of that day. Then they will return with their usual routine.

# World Time Zones



## Using Time Zones

On the map above, time is labeled along the bottom edge. Every time zone represents 1 hour. Document the time zone the patient is departing from and the time zone they will be arriving in. The difference between these two is the time change (the numbers of hours that will be lost or gained on the travel day). Please note that if the patient crosses the International Date Line (this is the bright bold red line on the far left and right of the map) the patient will lose time if travelling west (ie. Travelling from Vancouver to China) and gain time if travelling east (from China to Vancouver), normally it is the opposite. This is accounted for by counting time zones from west to east (envison the map as circular and you are counting around). This is often only the case for patients travelling to or from North America, China and Australia.

## Calculating Insulin Adjustment

The insulin dose change required will be based on the total difference in hours between local time and destination time. For example, if the patient is flying east taking 1/3 of the day (ie. 5-7 hours in duration), total basal insulin for the day should be reduce by 1/3 or 33%. If the time difference were greater, the reduction would be greater.

## Be Prepared – Expect the Unexpected

Patients should:

- Have an adequate supply of food and fluid on the plane and allow for unexpected delays and stop overs
- Carry all insulin and monitoring supplies with them not leave it in their checked baggage
- Carry a letter on them from their physician stating that they have diabetes and require insulin
- Know where to seek medical help at their destination if required
- Take supplies for treating hypoglycemic episodes and sick days

## Insulin Dose Adjustments for Travel

Caitlin is travelling to China this summer to meet her old university room-mate, Cheng. Caitlin has Type 1 Diabetes and has never flown outside of North America. She has made an appointment to see you today for help preparing for her travels. She is current on a QID insulin regimen taking 40 units Lantus insulin at bedtime (around 10pm each night) and takes 15 units Humalog before each meal. What would you recommend she do about her insulin doses when she is travelling to China? What should she do coming home?

Caitlin is going to visit her sister in Barcelona for Christmas. She has Type 2 Diabetes and has never flown outside of North America. She has made an appointment to see you for help in preparing to travel. She is currently on basal insulin and oral medications. She takes 55 units of Lantus at bedtime (around 10pm each night) and gluconorm 2mg before each meal. What would you recommend she do about her insulin and oral medication dose travelling to Barcelona? What would you recommend she do travelling home?