

- When beginning a period of **vigorous** training, lower the basal rate substantially. For instance, if the basal rate has been correctly set before beginning a vigorous training program, a reduction in the basal rate of 20% to 40% is often needed.
- The normal Carbohydrate Bolus may need to be lowered by 50% or more when taken before or during vigorous exercise or heavy work. For example, if 1 unit is normally taken for each 10 grams of carbohydrate, try taking only 1 unit for every 18 or 20 grams when working or exercising hard. Some vigorous exercise may require the total elimination of a meal bolus.
- The normal High Blood Sugar Bolus may need to be reduced by 40% to 70% when given before or during periods of vigorous exercise.

COMBINED INSULIN AND CARBOHYDRATE ADJUSTMENTS

Table 14.6 gives recommendations about how to adjust carbohydrates, basal rates and boluses to match exercise with various durations and intensities. **Adjustments of insulin and carbohydrate vary greatly from individual to individual.** Some people may lower the basal rate or boluses for exercise only slightly; others may find that a large insulin reduction is the only way to control blood sugars while exercising. The only way to determine this is to **cautiously experiment and discuss your results with your physician/health care team.** Test your blood sugar often while experimenting. The reasons for these variations from one person to the next are complex and not completely understood.

Refer back to Table 14.5 for the number of grams of carbohydrate needed to offset a particular exercise when no adjustment of basal rates or boluses is planned. Once you have determined the number of grams of carbohydrate needed for your exercise, you can choose to offset that amount of carbohydrate by:

- eating that number of grams of carbohydrate,
- reducing meal boluses,

Duration	Intensity								
	Mild			Moderate			Intense		
	CHO	Bolus	Basal	CHO	Bolus	Basal	CHO	Bolus	Basal
15 min.	No Adj.	No Adj.	No Adj.	No Adj.	No Adj.	No Adj.	▲	No Adj.	No Adj.
30 min.	No Adj.	No Adj.	No Adj.	▲	No Adj.	No Adj.	▲	▼	No Adj.
45 min.	▲	No Adj.	No Adj.	▲	▼	No Adj.	▲	▼▼	No Adj.
60 min.	▲	▼	No Adj.	▲	▼	No Adj.	▲▲	▼▼	▼
120 min.	▲	▼	No Adj.	▲▲	▼▼	▼	▲▲	▼▼▼	▼▼
240 min.	▲▲	▼	No Adj.	▲▲	▼▼▼	▼	▲▲▲	▼▼▼	▼▼

Bolus: ▼ = 30% lower ▼▼ = 50% lower

Basal: ▼ = 20% lower ▼▼ = 40% lower

Table 14.6 Suggested Insulin Adjustments for Various Intensities and Durations of Exercise