



Exercise & Type 1 Diabetes

(ANAEROBIC ACTIVITIES)

- *In general, “anaerobic” activities (weight lifting) will **increase** your blood sugars during the activity and decrease your blood sugars 1-4 hours after the activity*
- *Exercise is important for people with diabetes, because it **improves your insulin sensitivity!***
- *The recommendation is a minimum of **30 minutes** of exercise at least **5 days** per week*
- ***Experience is the best teacher!** To figure out how your blood sugar will respond to different activities, it is important to check your blood sugars before, during and after activities!*

BEFORE ANAEROBIC EXERCISE:

- If your blood sugar is **less than 80**:
 - Correct your blood sugar using the Rule of 15’s
 - Once your blood sugar is above 80, eat a snack with carbs and protein and use your normal carb ratio to cover with insulin in order to replace the blood sugar stored in your muscles (glycogen)
 - Wait 15-30 minutes before starting to lift weights, otherwise you will feel weak and not benefit from the lifting
- If your blood sugar is **80-150**:
 - Eat a meal/snack with carbs and use your normal carb ratio to cover with insulin. Limiting carbs at this time is ok if you eat enough protein, as some of the protein will be converted to sugar for fuel
 - If you use an insulin pump, do not disconnect for this type of activity! Insulin helps this type of activity work correctly in your body!
 - Do not weight lift for more than 45 minutes at a time – doing so will increase unwanted stress hormones in the body
- If your blood sugar is **150-250**:
 - Correct your blood sugar using your normal correction factor
 - Then follow the guidelines for when your blood sugar is 80-150
- If your blood sugar is **greater than 250**:
 - Test for ketones:
 - **If you have ketones, DO NOT exercise!** Correct your blood sugar with insulin and take lots of water to get rid of the ketones. You should not exercise until your ketones are completely gone
 - If you don’t have ketones, correct your blood sugar with insulin and follow the guidelines for when your blood sugar is 80-150

DURING ANAEROBIC EXERCISE:

- This type of exercise benefits from having enough insulin on board. Do NOT cut back on insulin during weight lifting – insulin helps this exercise work correctly!

- If you feel low while lifting weights:
 - Check your blood sugar to confirm that it really is low. Sometimes working hard with weights can make you feel shaky and lightheaded even when your blood sugar is normal
 - If your blood sugar is low, use the Rule of 15s to correct your blood sugar to above 100
 - Wait 15-30 minutes after your blood sugar is normal to restart weight lifting

AFTER ANAEROBIC EXERCISE:

- This type of exercise benefits from when you eat carbs with insulin immediately after the activity to replenish the stored sugar in your muscles (glycogen)
- After this type of exercise, your body will be more sensitive to insulin after the activity. For this reason, you may need to decrease the amount of insulin you give to cover carbs in the one to four hours following the activity. You can do this by *increasing* your carb ratio
- If your blood sugar is **greater than 180** after weight lifting:
 - Correct your blood sugar with insulin
 - This may be an indication that you did not receive enough insulin prior to weight lifting. Consider giving more insulin to cover your food before weight lifting in the future
- If your blood sugar is **less than 80** after weight lifting:
 - Correct your blood sugar using the Rule of 15's
 - This may be an indication that you received too much insulin prior to weight lifting. Consider giving less insulin to cover your food before weight lifting in the future