

Pediatric/Adolescent Activity Challenge ANSWERS - CURRENT PUMPER



1. **D (All of the above)**

For planned activity, insulin adjustment is the preferred method for preventing hypoglycemia. Whether the basal or the bolus is adjusted often depends on the timing of the meal/snack in relation to the activity. For example, lowering the bolus for an activity happening in the next 1 to 2 hours is recommended. A basal adjustment is helpful when the activity is outside of this time frame (2 hours after bolus) or the activity is of long duration (e.g., 1.5 to 2 hours or more).

2. **D (A and C)**

Because the activity is for an hour, testing before and during the activity is recommended. Carb may be needed up front (depends on blood glucose value) and carb half way through, if necessary.

3. **D (B and C)**

Temp basal to prevent low and blood glucose checks to ensure the adjustment was adequate/appropriate.

4. **D (None of the above)**

We don't want him to have to eat extra for activity and the basal adjustment wouldn't really help during the run (i.e., the effects of a basal adjustment take 1.5 to 2 hours to "show up").

5. **D (A or B)**

Connor needs more insulin during soccer. He could either keep his pump on while playing or bolus part (or all) of the missed basal before disconnecting. A bigger bolus at lunch would likely make him low before soccer.

6. **E (B or D)**

Having a 20 to 30 g carb shake will provide fuel for the practice without having Abby feel too full. Reducing the bolus will lower her risk of a low during the practice. A temporary basal rate could also be used to help prevent low blood glucose during or after the practice.

7. **D (B and C)**

Decreasing breakfast bolus isn't the best choice because it's 3 hours prior to activity - most of its action would be gone by the start of swimming. By using a reduced temp basal 90 minutes before the activity, Alex will have less insulin circulating at the start of swimming and lower his risk of lows. He should check his blood glucose half way through to see if carb is needed for the second half.

8. **B (Disconnect, check blood glucose every 1 to 2 hours, and reconnect to bolus for food and missed basal)**

It is not recommended to disconnect the pump for more than 1 to 2 hours because rapid-acting insulin has a short action time and ketones may develop quickly. Replacing the missed basal (some or all) and bolusing for food or highs is necessary to prevent ketosis.