

USING RAPID-ACTING INSULIN FOR EXTRA SNACKS OR TREATS

Matt is 15 years old, a rep soccer player in the middle of his growth spurt who is hungry all the time! Lately he has been finding that he is especially starving after school, and he wants to eat everything in sight. Consequently, his blood sugar readings at supper are sometimes very high. He has tried to increase his morning intermediate-acting insulin (NPH) to try to cover the extra snack after school, but he found that he was going low around 2:30 PM. He doesn't want to take an extra injection at noon when he is at school, and he feels that his parents are nagging him all the time because his diabetes control is suffering. Matt is getting really frustrated.

During his follow-up appointment, Matt discusses this concern with the diabetes team. Because of his growth spurt, the dietitian recalculates his mealplan to reflect what his body's current caloric needs are. Matt is also shown how to calculate the carbohydrate content of some of his favourite after-school snacks. Matt also agrees to take an extra injection of rapid-acting insulin (Humalog® NovoRapid®, or Apidra®) to cover his huge snack. After some trial and error, Matt discovers that he requires about 1 unit of rapid-acting insulin for every **extra** 15 grams of carbohydrate that he eats **above and beyond his regular mealplan**. This may be different for other kids.

15 grams of carbohydrate is equivalent to **1 starch** or **1 fruit** or **1 sugar** or **1 milk choice** (using the CDA's *Beyond the Basics* choices).

For more help, see our handout entitled [Carbohydrate Counting](#), as well as a number of our handouts listing carb counts for various types of snacks and treats.

Since the Humalog®/NovoRapid®/Apidra® has a short duration (2-3 hours) of action, the effect of the after-school insulin—which Matt takes around 3:00 PM—shouldn't significantly overlap with his dinner insulin, which he usually takes around 6:00 PM. Matt also notes that sometimes after his after-school "mega-snack", he isn't as hungry at supper. He was also given some guidelines about decreasing his pre-dinner rapid-acting insulin accordingly.

This same idea can be used for eating out, unexpected treats/parties, or for fixing a high blood sugar as a result of inadvertently drinking a regular pop instead of a diet pop.

The above suggestions are more specific for teens, but they can be modified for younger children as well. This should be discussed with the diabetes team, for help with estimating the number of grams of carbohydrate covered by 1 unit of insulin. It is important to note that these are general guidelines, and children and teens must be reminded that this does not give them license to eat junk food with abandon. The consequences of undesired weight gain and the health effects of high-fat fast food must be explained to them as well.