

Diabetic Bedtime



Low blood sugar during the night can be a concern for people with diabetes, especially those on insulin. A study published in "Diabetes Care" investigated the impact of snack composition on nightly blood sugars with Type 1 diabetes. The researchers concluded that bedtime snacks consisting of a carbohydrate/protein/fat worked best in preventing low blood sugars when the bedtime blood sugar was less than 130 mg/dL. All snacks throughout the day do not need to have added fat and protein. Keep in mind that some individual are fine with carbs alone as a bedtime snack and do not go low at night.

High Quality Cereal and Milk

A bowl of high quality cereal contains both protein and complex carbohydrate making it an ideal bedtime snack. Aim for a bedtime snacks containing about 15 to 30 g of carbohydrate, or one to two servings of a carbohydrate-containing food and a serving of protein. It is not quite understood why protein helps to prevent nightly hypoglycemia, according to the authors of the "Diabetes Care" study, but it is believed to be related to the way protein is metabolized. Cereal and milk provides both carbohydrate and protein with a little fat. See examples below and during cold months, you can try 1/2 cup of hot cereal with 2 tbsp. of raisins and 1 cup of 1% milk as a cereal bedtime snack.

Examples of high quality cereals: (Higher protein cereals have 5-8 grams of protein or more per servings and high fiber should be above 3-5 grams of fiber).

- Granola ¼ cup=15 grams of carb with 4 ounces of soy or cow milk (1/2 cup)=8
 grams: Total Carb=15-20 grams
- Kashi Cinnamon Harvest Shredded Wheat Biscuits: (5 biscuits=8 grams) + 4
 ounces (1/2 cup) of soy milk = 15 grams: Total 15-20 grams
- Trader Joes Organic High Fiber O's: (1/4 cup = 8 grams) over 4 ounces= (1/2)
 cup vanilla yogurt=10 grams: Total Carb= 18-20 grams

<u>Crackers and Peanut Butter or any Nut Butter: Almond Butter, Sunflower</u> <u>Seed or Cashew Butter</u>

Crackers provide the carbohydrate and peanut butter provides the protein/fat.

- 6 whole-grain crackers with 3 tsp. of peanut butter or you can also try
- 3 whole-grain crackers with 1-2 tsp. of peanut butter and ½ cup of skim milk.
 - > Each snack example contains 15-20 g of carbohydrate.



Sandwiches

Sandwiches also make a good bedtime snack for diabetics. Choose lean sources of meat to decrease your intake of saturated fat or try hummus. Too much saturated fat in the diet increases blood cholesterol levels, another risk factor for heart disease.

- Bedtime sandwich ideas include one slice of whole wheat bread with 1 oz. of turkey,
 1 oz. of lean ham, 1oz. of low-fat cheese or 1 oz. of canned tuna packed in water
 mixed with 1 tsp. of low-fat mayonnaise. Total Carb = 15-20 grams
- For a lighter snack, you can also try half of a sandwich with half a piece of fresh fruit. Total Carb=15-20 grams
- A toasted cheese sandwich with one slice of toasted bread and one slice of low-fat cheese also makes a healthy snack with a calcium boost. Total Carb=15-20 grams

Other Protein/Fat/Carbohydrate Combinations

- 1/2 fruited yogurt with one-two graham cracker squares=15-20 grams
- 1 oz. of low-fat cheese with 4 Kashi Crackers (Check Label)= 15-20 grams
- (1 oz.) whole wheat bagel with peanut butter/nut butter=15-20 grams
- 4 cup hummus with half pita = 15-20 grams
- 1/4 cup of nonfat cottage cheese with a ½ banana = 15-20 grams
- Luna Peanut Butter Cookie Bar= 23 grams (You can try half a bar



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