

QUICK REFERENCE GUIDE TO DIABETES FOR HEALTH CARE PROVIDERS

A special project of the Michigan Diabetes Outreach Network

Chapter 15 Sick Day Management

Knowing how to manage illness is important for person with diabetes in order to avoid hospitalization. Guidelines for sick day management should be developed by the healthcare team and shared with all persons with diabetes before they get sick. The following are general guidelines and may not be appropriate for everyone.

Sick Day Guidelines:

1. Test blood glucose often All persons with diabetes should self-monitor their blood glucose when ill.
For those with type 1, check at least every 4 hours.
For those with type 2, check at least 2-4 times/day
2. Always take insulin or diabetes medication (often extra insulin is required).
 - A. Less insulin may be needed if person is vomiting or has diarrhea.
 - B. Omission of insulin is a common cause of ketosis.
3. Hypoglycemia is rare, yet may occur with nausea and vomiting of short duration without fever.
4. Over the counter (OTC) and prescription medicines, along with herbal therapies, can contribute to hyperglycemia and hypoglycemia.
5. Record weight changes (loss may signal dehydration) and breathing difficulties.
6. Test urine ketones if blood sugars are over 250 mg/dl. If moderate or large ketones are present, contact your health care provider, as these may make nausea and vomiting worse.

Adjusting Insulin for Illness (no nausea/vomiting)

- Continue usual dose of intermediate-acting (NPH) or long-acting insulin (Lantus®, Levemir®)
- Supplemental doses of rapid-acting (Humalog®, Novolog®, Apidra™) or short-acting (Regular) insulin may be needed due to elevated BG levels or the presence of large or persistent ketones.
 - Rapid-acting or short-acting insulin may be given every 1-4 hours.
 - Dose is dependent on severity of illness.
 - During most illnesses, 10% of total daily insulin dose can be safely given as a supplemental dose.
 - If BG is greater than 300 mg/dl with large ketones, 20% of total daily dose can be given as a supplemental dose.
- Adjustments need to be individualized for each person

What to Eat and Drink When You are Sick?

Drink 4 to 8 ounces (½ - 1 cup) of fluid every one to two hours.

- * Drink extra liquid to prevent dehydration.
- * Calorie-free, caffeine-free liquids are best (water, diet pop, broth).
- * If unable to eat, drink 1/3 to ½ cup of juice or regular pop.
- * Drink liquids that contain salt and electrolytes (sports drinks) every 3 hours to prevent persistent ketoacidosis.

Try to eat your regular meals. If blood glucose is high, eat slightly smaller meals.

- * If having difficulty eating, eat or drink 15 grams of carbohydrate every hour or 45 grams carbohydrate every 3 to 4 hours.

- * Soft foods (soup, pudding, regular gelatin) may be easier to eat. The following foods contain about 15 grams of carbohydrate:

1 slice toast	3 squares graham crackers	1 cup milk
1/3 cup rice	½ cup mashed potatoes	½ cup cereal
5 vanilla wafers	½ cup applesauce	½ cup juice
½ cup SF pudding	½ cup ice cream	1 cup soup
8 oz Gatorade®	½ cup canned fruit	6 saltines
1 popsicle	½ cup regular gelatin	¼ cup sherbet

Tips for Nausea/Vomiting

Blood glucose	Action
over 250 mg/dl	Drink calorie-free, caffeine-free liquids in place of meal.
180-250 mg/dl	Drink/eat 15 grams of carbohydrate in place of meal. Also, probably need additional liquid from water or calorie-free caffeine source.
under 180 mg/dl	Try to drink or eat usual mealtime carbohydrate amount. If vomiting occurs after insulin administration, may need to sip sugar water every 20-30 minutes to maintain BG levels between 100-180 mg/dl.
under 100 mg/dl and vomiting persists	May require hospitalization.

When to Call Physician

1. Fever greater than 100 degrees for 24 hours.
2. High blood glucose (over 250 mg/dl) that will not respond to additional insulin.
3. Moderate to large ketones in the urine.
4. Frequent diarrhea (more than 8 hours).
5. Vomiting and unable to keep fluid down for more than 4 hours.
6. Illness more than 24 hours.
7. Severe abdominal pain, difficulty breathing,
8. Other unexplained symptoms. If in doubt, call your doctor.

Preventing Illness

- Get influenza vaccination yearly.
- Get pneumococcal vaccination. If receive first dose prior to age 65, give another single re-vaccination after age 65 (if 5 or more years have lapsed since the previous dose).
- Practice good hygiene and hand washing.
- Eat a healthful diet.
- Get plenty of rest.
- Stay hydrated.
- Don't smoke.

References:

American Diabetes Association (2008). Clinical Practice Recommendations. *Diabetes Care*, Vol 31 (1).

Franz MJ et al. A Core Curriculum for Diabetes Education, American Association of Diabetes Educators, 5th Edition, 2003.