

Hyperglycemia

Managing High Blood Sugar

Hyperglycemia is a condition in which the amount of sugar in the blood is too high. The body needs some sugar in the bloodstream. This feeds the cell of the body and supports brain activity. If sugar levels are too high in the body, problems can occur. Hyperglycemia is defined as a blood sugar level greater than or equal to 180 mg/dL.

Causes

Reasons for high blood sugar may include:

- Taking medicines such as steroids (prednisone, dexamethasone or cortisone)
- Having surgery or medical condition such as diabetes or infection
- Having enteral and parenteral nutrition treatments (tube feedings and IV nutrition).
- Eating foods, especially high in carbohydrates (fried foods, sugar-sweetened beverages, desserts and sweets)

Symptoms of Hyperglycemia

It is important for you and anyone close to you to know the warning signs of hyperglycemia. It is important to act quickly to treat high blood sugar. Symptoms of hyperglycemia include:

- Hot, dry warm skin
- Thirsty (cotton mouth feeling)
- Frequent need to urinate, especially during the night
- Headache
- Blurred vision
- Muscle aches
- Nausea
- Excessive hunger
- Abdominal pain
- Fruity smelling breath
- Bad odor to urine
- Yeast or urinary tract infections

Lifestyle Changes

Take these actions to control your blood sugar levels and stay in your goal range.

Make Healthy Food Choices

- Include non-starchy vegetables, fruits, whole grains and other minimally processed foods.
- Choose foods that are low in sugar and avoid refined carbohydrates.

- Read the nutrition label on all packaged foods to check grams of carbohydrates.

Eat Healthy Carbohydrates

- Choose complex instead of simple carbohydrates.
- Complex carbohydrates are foods such as beans, whole grains and non-starchy vegetables. Their sugars are strung together in longer chains. Because these sugar structures must be broken, blood sugar rises slower.
- Limit simple carbohydrates (sugar-containing foods) such as sweets, desserts, candy, cookies, sodas, etc. These foods have fewer chains and break down quickly. Therefore, blood sugar rises rapidly and can be harder to control.

Control Serving Sizes

- Keep a journal of the foods you eat with portion sizes ($\frac{1}{2}$ cup, 1 cup or ounces). Share the journal with your dietician or nurse.
- Weigh or measure foods to become familiar with serving sizes and learn how to estimate $\frac{1}{2}$ cup portions for most foods.
- To visually estimate the portion sizes of foods, 1 cup is approximately the size of a tennis ball and 3 ounces is the size of a standard deck of playing cards.

Eat Less Fat and Fewer Calories

- Eating less fat and fewer calories may not directly lower blood sugar, but it is important for staying healthy.
- Choose lean meats and protein.
- Eat protein alternatives such as beans, tofu and eggs. Egg yolks are high in fat so eat these less often. Try using egg substitutes without fat. Less fat equals fewer calories. Bake, broil, roast, grill or boil meats instead of frying.
- Bake, broil, roast, grill or boil meats instead of frying.
- Limit eating meats dipped in batter or breading and those cooked in a sweet sauce or marinade (BBQ, honey, molasses, fruit juice, etc.) as these will cause your blood sugar to rise.
- Choose non-fat or reduced-fat dairy products.
- Eat a meatless meal once or twice a week.

Avoid Skipping Meals

- Long periods between meals can lead to an unsafe drop in blood sugar.
- Low blood sugar can cause some people to consume unhealthy, sugary food that can lead to more instances of high blood sugar.
- Skipping meals can also lead to overeating.

Maintain a Healthy Weight

- Talk to your dietitian or doctor to determine a healthy weight for you.
- Discuss weight control with your dietitian and doctor.
- Avoid extra calories. Ask for help to learn about your calorie needs.
- Be active every day.
- Consult with your doctor before you begin an exercise program.

- Find activities that you enjoy and do them regularly.
- Activities such as walking and gardening are simple ways to burn calories.

Medicines

Your doctor may give you a pill or shot to keep your blood sugar under control. You may need this only for a short time. This may happen if a treatment is causing your hyperglycemia. Once the treatment is stopped, your blood sugar may return to normal. Or, you may have a medical condition like diabetes that requires continued medical care. Talk with your doctor to understand more.

If you have diabetes or prediabetes, learn to check your blood sugar levels at home. This will help you understand what your symptoms and blood sugar levels are. Treatment depends on the amount of sugar in your blood.

Food Recommendations

This chart of food recommendations eliminates foods that contain high amounts of simple carbohydrates. Simple carbohydrates are sugars found in desserts, beverages, candy, sweets and syrups. These foods usually have low nutritional value and can cause your blood sugar to be high. Choose foods with little or no added sugar. Other names for sugar to watch for include corn syrup, and words that end in “ose” such as dextrose, fructose, sucrose and maltose. This diet is best for people who have elevated blood sugar levels and/or need a basic plan for diabetes management.

Food Group	Choose	Limit or Do Not Eat
Beverages	Sugar-free drinks, sugar-free carbonated beverages, sugar-free instant breakfast, plain tea, plain coffee or seltzer These beverages may be sweetened with sugar substitutes.	<ul style="list-style-type: none"> • Do not eat more than ½ cup of fruit juice each day. • Do not drink sugar-sweetened carbonated beverages including natural flavored drinks, drinks sweetened with sugar, milkshakes and sports drinks.
Breads and Cereals	Whole grain breads and cereals	<ul style="list-style-type: none"> • Do not eat sweetened cereals, granola and granola-type bars, breakfast bars, pastries and donuts. • Limit portions of rice and pasta.
Fruits	Fruits canned in water or their own juice, fruits sweetened with sugar substitute, and fresh or frozen fruits without added sugar	<ul style="list-style-type: none"> • Do not eat fruits canned in syrup or sweetened with sugar. • Limit 100% fruit juice to ½ cup each day.
Vegetables	Fresh or frozen non-starchy vegetables	<ul style="list-style-type: none"> • Limit portions of starchy vegetables such as potatoes, corn, beans and peas.
Meat and	Beef, pork, chicken, fish, eggs,	<ul style="list-style-type: none"> • Do not eat meats that are high in

Meat Substitutes	beans, shellfish, cheese, tofu	sodium or fat such as cold cuts, hot dogs, bacon, sausage and any meat that has been fried.
Milk	Low fat milk, plain or light yogurts, soymilk	<ul style="list-style-type: none"> • Do not eat or drink flavored or sweetened milk and yogurt.
Desserts and Snacks	Sugar-free versions of syrup, jelly, jam, gelatins, puddings, ice cream, angel food cake, plain graham crackers and vanilla wafer, sugar substitutes such as NutraSweet [®] , Splenda [®] , Sugar Twin [®] , Equal [®] , Aspartame [®] and Acesulfame-K [®] .	<ul style="list-style-type: none"> • Do not eat sugar (brown, white, powdered, natural, raw), honey, syrup, candies, molasses, frosting, marmalade, jam, jelly, cookies, marshmallows, ice cream, cakes, pies, gelatin, pudding, custard, condensed milk, sherbet, sorbet and fruit bars.