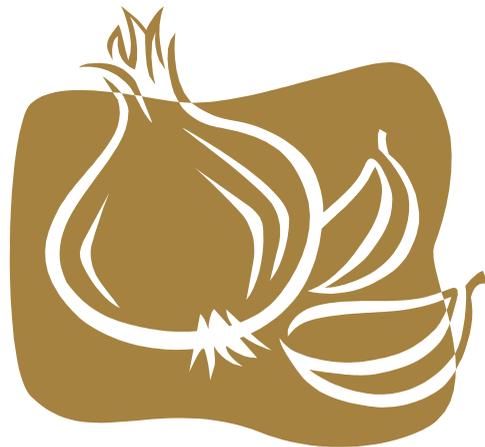


Carbohydrate Counting for Traditional Indian & Pakistani Foods



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Carbohydrate Counting

Some Facts about Carbohydrates (also called carbs or CHO)

Carbohydrates are the body's main source of fuel. Carbohydrates are found in grains, fruits and vegetables and milk and provide energy, vitamins, minerals and fiber.

Carbohydrates raise your blood sugar more than any other nutrient. When you eat any type of carbohydrates, they are broken down into glucose and it enters your bloodstream. The hormone insulin helps the cells in your body to take up this glucose and use it for energy.

If carbohydrates raise blood glucose does that mean that as a diabetic, you should stay away from them? The low-carb diets that are popular today would make you think they are ideal for diabetics. The fact is that current scientific knowledge does not support the long term use of low-carb diets especially in type 2 diabetics. Carbohydrates from fruits, vegetables, whole grains, and low-fat dairy foods are a part of a healthy diet.

What about Sugar?

In the past, people with diabetes were told to 'hold the sugar'. Current scientific literature has found little truth in the notion that sugars raise blood glucose any more than other carbohydrates. The most important factor in controlling blood sugar is the amount of carbohydrates eaten in a meal and not the type. What that means is not that you can eat sweets and sugars liberally, but that an occasional sweet treat may be okay as long as you make adjustments in the total amount of carbohydrate eaten in that meal.

Carbohydrate Counting

Carbohydrate counting is not a diet, it is a way of planning your carbohydrate intake to manage your blood sugar levels. It places importance in keeping the carbohydrate content of your meals and snacks consistent from day to day. Eating the same amount of carbohydrate for your meals and snacks everyday ensures better blood glucose control. The American Diabetes Association and many health professionals use carbohydrate counting to teach patients how to control their blood glucose. Carbohydrate counting ensures that you can have variety and flexibility in your diet and most importantly can follow your traditional diet.

How many Carbs am I allowed to eat?

You can consult a registered dietitian for an individualized diet plan that fits your needs like weight loss etc. Most men however, need about 4-5 carbs(60-75gms) at each meal. Most women generally need about 3-4 CHO choices (45-60gms) at each meal. If you eat snacks, 1-2 CHO choices (15-30g) is adequate.

What is a Carbohydrate serving?

A carbohydrate choice is a serving of food which contains 15 grams of carbohydrate. Look at the food label and measure how much you will be eating. There are 3 things to locate on the food label; the serving size, the number of grams of carbohydrate per serving and calculating the number of carbohydrate choices in the amount you are eating. Look at the food label. If you were to eat 2 cups of cereal, which means you had two servings, you will be consuming double the total carbohydrate listed which would come up to be 86 gms of carbohydrates.

Nutrition Facts	
Serving Size 1 cup (50g)	
Amount Per Serving	
Calories 182	Calories from Fat 6
% Daily Value*	
Total Fat 1g	1%
Saturated Fat 0g	1%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 275mg	11%
Total Carbohydrate 43g	14%
Dietary Fiber 3g	11%
Sugars 14g	
Protein 4g	
Vitamin A 25%	Vitamin C 25%
Calcium 2%	Iron 100%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	
NutritionData.com	

How to Count CHO Servings	
0-5gms	free food (do not count)
6-10gms	½
11-20gms	1
21-25gm	1 ½
26-35gms	2
45gms	3
60gms	4

What will I need to get started?

You will need a set of measuring cups and spoons plus a food scale. When you are just beginning to count carbs, you may not be able to accurately estimate a serving size. Try this; scoop out one serving of rice which should be about 1/3 cup. Now do the same thing using a 1/3rd cup measure and see the difference. Once you have been doing it for a few days you will become better at it and will no longer need the measuring cups. You can also invest in the carbohydrate counting resource books given at the end.

What about proteins and fats?

Foods in the fat and protein category do not affect blood glucose directly. Foods in this category include meat, poultry, eggs, tofu, peanut butter, most cheeses and fats such as butter, margarine and oils. These foods contain negligible amounts of carbohydrate, thus you do not need to worry about them. That does not mean that you can eat as much fat or protein as you like. Keep in mind that most adults need only about 6oz of meat or meat alternatives each day. A 3 oz serving of meat is the size of a deck of cards. Make heart healthy choices whenever possible. Healthy eating involves more than just carbohydrate counting. The next section will help you make the right choices.

Some tips and suggestions

- Eat a variety of foods. Try to include 5 servings of fruits and vegetables, 6 servings of grains (3 whole grains) and 3 servings of low fat dairy daily.
- Substitute brown rice for white rice. Generally people with diabetes are told to avoid rice altogether. This is a misconception. You can eat rice in reasonable quantities as long as the total carbohydrate for that meal does not exceed your limit.
- Instead of eating only rice, try other grains such as cracked wheat, barley and quinoa (available in most stores and very high in protein). Use them like you would use rice in pulaos etc.
- Avoid starchy vegetables. When using potatoes, yams or other starchy vegetable, always remember to cut down on the amount of rice/roti eaten at that meal. Better still select green vegetables in place of starchy ones.
- Use green vegetables freely and prepare them in a small amount of oil.
- Avoid frying as a cooking method; learn to use other methods such as dry roasting, baking etc.
- Try to cook with a minimum amount of oil. Use olive or canola oils as they are high in monounsaturated fats which are good for your heart. Avoid ghee, butter and cream in cooking.
- Switch to skim or 1% milk and yogurt. When making desserts like kheer, use 1% milk or evaporated skim milk and use artificial sweeteners. Whole milk and yogurt and products made with them like paneer are high in saturated fats, which raise cholesterol in your blood. Try making your own paneer, chenna with low fat milk.
- Tofu is a good source of high-quality protein especially for vegetarians. Try using it in place of paneer for making dishes like palak paneer.
- Avoid coconut milk/cream or use less than called for in the recipe. Coconut milk is high in saturated fat.
- Use 100% whole wheat chapatti flour for making rotis/phulkas. Avoid putting any ghee/oil when making rotis.

How will I know how much Carbohydrate is in a food?

For packaged foods, you can look at the food label and find out how much carbohydrate is in the food.

Information about carbohydrate content of popular American foods can be easily found in carb counting books and pamphlets. Nutritional information about foods common to the South Asian diet is hard to come by. The following list will help you get started.

Carb Counting Food List **(Remember 1 Carb choice =15 gms carb)** (Foods marked with an asterisk* contain fat)

Breads: 15 g Carb(1 carb)

1 slice bread, white, wheat or whole grain
1 small Pau/dinner roll
½ roti (bajra, makai, jowar)
1 Chapati, 6" diameter
¾ paratha or thepla, 6"*
½ paneer paratha
¾ potato paratha, 6"*
¼th of 8"x 2" naan
½ of a pita bread
2 puris 5"
½ hamburger/hot dog bun
½ of a 2oz bagel
1 small croissant*
½ English muffin
1 small muffin*
1 dosa approx 10" diameter
1 small idli
2 mini rava idlis
25g/3tbsp atta(whole wheat)
25 g/ 3tbsp maida (all-purpose flour)
1 small croissant*

Starchy Vegetables: 15 g carb

1/3 C plantain green
1 C winter squash
½ C potato sabji*
1 small potato boiled or baked
½ potatoes mashed
½ C sweet potatoes
½ C peas
½ C corn
½ C yam
French fries*
½ C hash browns*
1C mixed veg(corn,peas)

Cereals/grains: 15g Carb(1 carb)

½ C poha
½ C Dalia(cooked)
½ C upma (cooked)
½ C pasta(cooked)
½ C cooked hot cereal
1/3 C white rice cooked
1/3 C brown rice cooked
1/3 C tamarind rice
1/3 C bisi bhela Bhath
½ C biryani/pulao*meat
½ C khichadi/khichri cooked
1 square dhokla
½ C matki usal
½ C dhansak*
½ C aviyal
1/3 C uppuma
½ uttapam vegetable(small) or
1 mini uttapam, 4"
2 tbsp tapioca uncooked
½ C wheat sprouted

Pulses/dals/beans: 15 g Carb

½ C lentils cooked
½ C toor dal cooked
½ C tomato dhal
½ C mung dal cooked
1C thin mixed dal cooked
½ C kidney beans cooked
½ C chickpeas cooked
½ C lobia(black-eyed peas) cooked
1/3 C besan
1 C rasam
½ C sambar
1/3 C hummus

½ C vegetable korma
1 ¼ vegetable tofu stir fry
1 C aloo gobi

½ C dhansak*
¾ C spinach and garbanzo beans curry
½ C tomato herb soup
1 C sprouted moong salad
¾ C chicken noodle soup
1 ¼ C chicken curry
1 ¼ C chicken chettinad curry

Sweets: 15 g carb(limit to 10% of diet)

5 vanilla wafers
2 nankhatai, small*
1 small ghulab jaman*
1/3 C carrot halwa*
¼ C sooji halwa*
1 handava*
6 pcs khandavi*
½ C kulfi*
½ small laddoo
1 magas, 1 ½" x 1 ½" pc
2 thin mathias
1 pc mohanthal, 1 ½" x 1 ½"
1 med rasgollah
1 small rasmalai
¼ C shrikand
½ C ice cream*
¾ of a granola bar*
½ of a 2 oz glazed doughnut*
1 (3 oz) frozen fruit juice bar(100%fruit)
1 small brownie(2 inch)unfrosted*
1 small cupcake unfrosted*
½ slice cake, frosted(2 inch square)*
2 small cookies, plain or sandwich with
crème filling*
1 roll fruit snacks, chewy
½ C sugar free pudding*
¼ C pudding regular*
1 tbsp honey
2 tbsp light maple syrup
1 tbsp maple syrup, regular
½ C frozen yogurt*
1 C(8oz) sport drinks(Gatorade)
1 tbsp sugar
½ C chocolate milk

Milk/yogurt: 15g Carb

1 C skim, 1% milk
1 C 2%, whole milk*

Fruits/Juices: 15g Carbs

1 small Apple
4 whole apricots (fresh)
8 halves dried apricots
½ C canned apricots
1 small banana (4oz) or ½ medium
¾ C blueberries
1 C cantaloupe/honeydew melon cubes
1 med. Chiku(sapota)
12 sweet cherries
3 dates
2 med figs fresh
1 ½ dried figs
½ C fruit cocktail
½ grapefruit
17 grapes
6 jambu
4 loquat
1 kiwi
¾ C mandarin oranges
½ small mango(½ C)
1 small nectarine
½ C canned peaches/pears
1 small orange
1 C papaya cubes
½ med passion fruit
½ large pear or 1 small
1 med peach
¾ C fresh pineapple
½ C canned pineapple
2 small plums
3 dried plums(prunes)
3 tbsp raisins
1 C raspberries
1 ¼ C strawberries
1 med seetaphal
2 small tangerines
1 ¼ C watermelon cubes
½ C apple juice

1C buttermilk
½ C evaporated skim milk
1/3 C nonfat dry milk powder
1 C plain yogurt, nonfat
1 C plain yogurt, regular*
1 C fruit flavor yogurt, artificial sweetener
1 C lassi*, artificial sweetener
1C masala chai made with 1% milk

Snack foods: 15g carb(1carb choice)

1oz. bhel puri
1oz chevda
½ C namkeen/nimco*
6 pani puri
2 papad
¾ veg samosa (1samosa=21g CHO)*
1 med vegetable cutlet*
3 pcs pakoda spinach*
1 kachori(veg)*
1 kachori(mung dal*)
2 pcs cauliflower bhajia
2pcs dahi vada*
1oz. Banana chips
3 squares graham crackers
4-6 round crackers(Ritz type)*
6 saltine crackers
3 C popcorn
2 rice cakes 4”
1 ½ C mumbra(puffed rice)
¾ oz(9-13) snack chips, potato or tortilla*
10 French Fries*

Vegetables: 5 g Carb (Count if serving size more than 15 g)

½ C cooked vegetables (asparagus, green beans, bean sprouts, beets, broccoli, cabbage, carrots, cauliflower, eggplant, okra, onions, spinach, tomato, turnips, and zucchini etc.)
1 C raw vegetable
½ C tomato or vegetable juice
¼ C tomato puree
½ C tomato sauce
½ C pasta/spaghetti sauce

1/3 C grape juice
½ C grapefruit juice
1/3 C mango juice
½ C guava juice
½ C orange juice
½ C pineapple juice
1/3 C prune juice

Combination foods/Misc: 30g Carbs(2 CHO servings)

1 C meat & potato salan/curry*
1 C Haleem(made with wheat,lentils, meat)*
1 C dal gosht*
1 C kadhi* made with besan
1 meat burrito*
12 chicken nuggets*
1 C macaroni & cheese*
1(3”x4”) piece of lasagna*
¼ of 10 inch pizza*
1 C ravioli*
2 soft tacos*
1 tostada with beans*

Free Foods: < 5g carbs and 20 calories

Foods like sugar free sodas and beverages, artificial sweeteners, spices and seasonings fall into this category.

Carbohydrate Counting Resources

- ADA Complete Guide to Carb Counting (Paperback) Available from Amazon.com for about \$12.00
- THE DIABETES CARBOHYDRATE AND FAT GRAM GUIDE, 2nd Ed.
Lea Ann Holzmeister, R.D. Available from the American Dietetic Association(eatright.org)