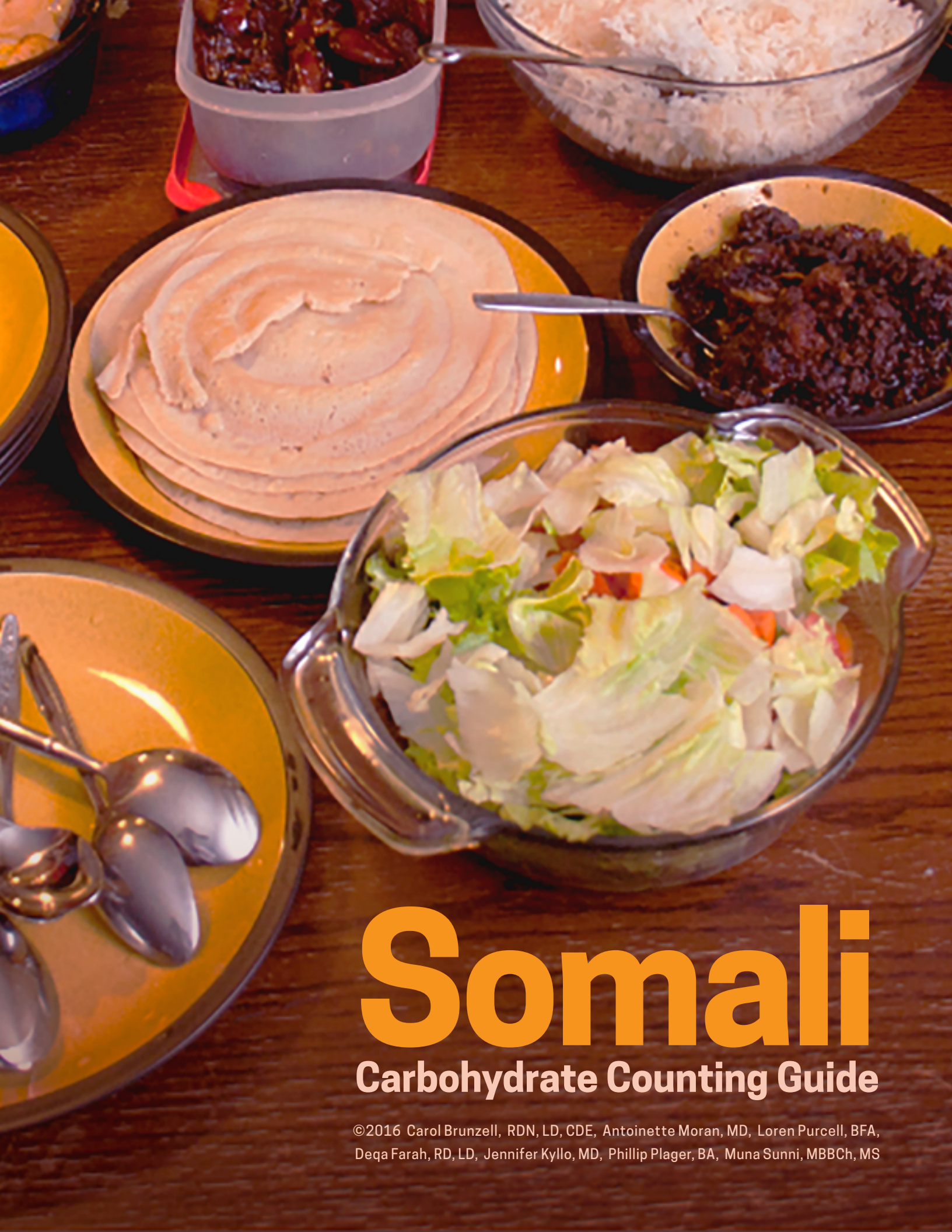


Somali

Carbohydrate Counting Guide

Eating a well-balanced diet is an important part of keeping your child healthy and controlling your child's blood sugars. A healthy diet contains foods from the following food groups:

— Starches and Grains

— Vegetables

— Fruit

— Dairy

— Meats, Chicken, Fish, Eggs, Beans, Nuts and Seeds

— Fats

For a Healthy Diet:

Make half your plate fruits and vegetables.

- Eat red, orange and dark-green vegetables, such as tomatoes, carrots, and leafy green vegetables such as spinach and lettuce with meals and for snacks.
- Choose fresh or canned fruit packed in its own juice more often than fruit juice.

Drink skim or 1% milk.

- They have the same amount of calcium as whole milk, but less fat.
- Try calcium-fortified soy milk instead of dairy if you cannot drink milk from cows.

Eat more whole grains.

- Check the ingredients on food packages. Choose 100% whole-grains, flours, cereals, breads, rice, and spaghetti.

Choose healthy sources of protein.

- Twice a week, eat fish or seafood.
- Eat beans, a natural source of protein and fiber.
- Keep meat and chicken low in fat. Trim away any fat on meat and take the skin off chicken.

Choose mostly heart healthy fats.

- Healthy fats are in vegetable oils, nuts, seeds, avocados, and fat from fish and seafood.
- Less healthy fats are fats from fatty meats, fatty dairy products, ghee, butter, and stick margarine.

Choose sweets and sweet drinks less often.

- Drink more water instead of sweet drinks.
- Eat desserts and sweet treats less often.
- Do not add extra sugar to juice and other foods.

Not All Foods Affect Blood Sugar the Same Way

There are six different nutrients in foods:
Carbohydrate, protein, fat, vitamins, minerals, and water.

All of these nutrients are found in healthy foods and give your child the energy he/she needs to grow normally. Of these nutrients, carbohydrates have the greatest effect on blood sugar.

Carbohydrates in Foods

The two main types of carbohydrates found in foods are starches and sugars. Both types affect blood sugar equally when eaten in similar amounts.

Foods that contain healthy carbohydrates include all types of grains and grain products (bread, rice, pasta, and cereal-100% whole grains are best), fruits (fresh fruit, canned and dried fruit, and fruit juice), vegetables, but starchy vegetables have the most carbohydrate (white potatoes, sweet potatoes and yams, corn, green peas, and winter squash), milk and yogurt, and beans, peas, and legumes (red beans, cow peas, mung beans, lentils etc).

Foods that contain less healthy carbohydrates are candy, desserts, salty and fatty snack foods, and sweet beverages.

Insulin

The body needs insulin in order to use the energy from carbohydrates in foods, and keep blood sugars in a healthy range. The amount of insulin your child needs depends on the amount of carbohydrate that is in the food or beverage. The more carbohydrate that is consumed, the more insulin will be needed.

If your child receives rapid-acting analog insulin such as Humalog (Lispro), Novolog (Aspart) or Apidra (Glulisine), or if your child receives short-acting insulin (Actrapid, Soluble/Regular), the amount of insulin he or she needs will be based on an "insulin-to-carbohydrate ratio" which will be determined by your child's doctor. This is usually prescribed as the number of grams of carbohydrate that require 1 unit of insulin.

In some cases, if rapid-acting or short-acting insulin is not available and your child is receiving intermediate-acting insulin (Mixtard; NPH; Novomix), you will not be able to adjust the insulin based on the number of carbohydrates your child takes, and instead you must give your child the number of grams of carbohydrate at each meal that your doctor prescribes. Good diabetes control is possible with both methods.

Calculating Carbohydrates and Reading Food Labels

In order for you to calculate how much insulin to give your child for meals and snacks, you will need to count the amount of carbohydrates in the food your child eats. Reading food labels on packages, cans, and bags is one way to find out how much carbohydrate is in a food item:

Nutrition Facts

Serving Size 1 cup (249g)
Servings Per Container 8

Amount Per Serving

Calories 170	Calories from Fat 60
	% Daily Value*
Total Fat 7g	**11%**
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 15g	**5%**
Sodium 360g	**19%**
Total Carbohydrate 17g	**6%**
Dietary Fiber 4g	**16%**
Sugars 9g	
Protein 11g	

Vitamin A 15%	• Vitamin C 25%
Calcium 4%	• Iron 15%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Trans Fat	Less than	56g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram
Fat 9 • Carbohydrate 4 • Protein 4

First:

Look at the "Serving Size" for the amount of food that equals one serving. This example says a serving is 1 cup. The weight of the food is 249 grams. You can ignore the weight.

Second:

Look at the "Total Carbohydrate". This example says there is 17 grams of total carbohydrate. You can ignore the dietary fiber and dietary sugar. They are included in the Total Carbohydrate amount of 17 grams.

If your child is going to eat more than one serving, for example 2 cups, then you need to multiply 17 grams x 2 which equals 34 grams of carbohydrate.

Insulin Calculation Example

If your child is going to eat 2 cups of this food above, and needs 1 unit of rapid-acting insulin for every 15 grams of carbohydrate, you can round the 34 grams down to 30 grams (it's close enough), and give your child 2 units of rapid-acting insulin for this food. Remember that the dose of rapid-acting insulin depends on your child's insulin-to-carbohydrate ratio.

Measuring Cups, Spoons, and Food Scale

Grains, Beans, Sauce, Potato and Bread

Bariis
½ Cup = 22 g carbohydrate

Bariis
1 Cup = 44 g carbohydrate

Baasto
½ Cup = 22 g carbohydrate

Baasto
1 Cup = 44 g carbohydrate

Soor/ Shuuro
½ Cup = 19 g carbohydrate

Soor/ Shuuro
1 Cup = 38 g carbohydrate

Qamadi/ Sareen
½ Cup = 22 g carbohydrate

Qamadi/ Sareen
1 Cup = 44 g carbohydrate

Mushaari
½ Cup = 14 g carbohydrate

Grains, Beans, Sauce, Potato and Bread

Mushaari
1 Cup = 27 g carbohydrate

Ambuulo Sareen
½ Cup = 15 g carbohydrate

Ambuulo Sareen
1 Cup = 30 g carbohydrate

Ambuulo Galey
½ Cup = 15 g carbohydrate

Ambuulo Galey
1 Cup = 30 g carbohydrate

Ambuulo Bariis
½ Cup = 15 g carbohydrate

Ambuulo Bariis
1 Cup = 30 g carbohydrate

Maraq Digir
½ Cup = 15 g carbohydrate

Maraq Digir
1 Cup = 30 g carbohydrate

Grains, Beans, Sauce, Potato and Bread

Digir

½ Cup = 15-20 g carbohydrate

Maraq Bilaash

½ Cup = 5 g carbohydrate

Spaghetti Sauce (Jar)

½ Cup = 12 g carbohydrate

Spaghetti Sauce (Home)

½ Cup = 6 g carbohydrate

Baradho

1 (5½ oz) = 34 g carbohydrate

Anjeero/ Lahooh

1 (2 oz.) = 14 g carbohydrate

Malawah

1 (2 oz.) = 18 g carbohydrate

Muufo Baraawe

1 (1.8 oz.) = 26 g carbohydrate

Muufo

1 (3 oz.) = 34 g carbohydrate

Grains, Beans, Sauce, Potato and Bread

Sabaayadi/ Burkaaki
1 = 37 g carbohydrate

Pocket Bread
½ Pocket = 15 g carbohydrate

Hambasha
½ Slice = 28 g carbohydrate

Rooti Somali
½ Rooti = 30 g carbohydrate

Whole Wheat Bread
1 Slice = 11 g carbohydrate

Whole Wheat Bread
1 Slice = 14 g carbohydrate

Breakfast Cereal
Carbs will vary. Check label.

Fruit and Fruit Juice

Sm/ Md/ Lg Banana
Sm: 23 g / Md: 27 g / Lg: 30g

Medium Apple
19 g carbohydrate

Medium Pear
25 g carbohydrate

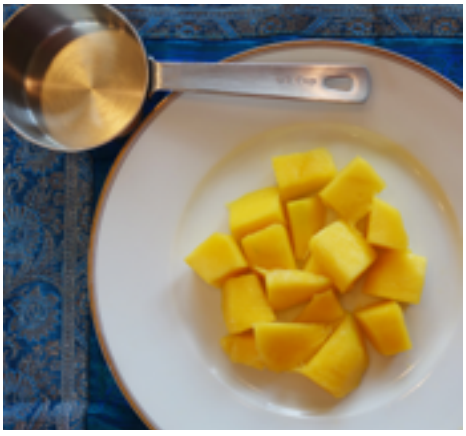
Medium Orange
21 g carbohydrate

Clementine
9 g carbohydrate

Medium Peach
14 g carbohydrate

Kiwi
11 g carbohydrate

Strawberries
½ Cup = 6 g carbohydrate



Mango
½ Cup = 12 g carbohydrate

Fruit and Fruit Juice

Watermelon
½ Cup = 6 g carbohydrate

Papaya
½ Cup = 8 g carbohydrate

Pinneapple
½ Cup = 11 g carbohydrate

Grapes
17 = 15 g carbohydrate

Unsweetened Applesauce
½ Cup = 14 g carbohydrate

Unsweetened Canned Fruit
1 Container = 17 g carbohydrate

Dates
2 = 15 g carbohydrate

Apple Juice
½ Cup = 14 g carbohydrate

Apple Juice
1 Cup = 28 g carbohydrate

Fruit and Fruit Juice

Orange Juice

½ Cup = 13 g carbohydrate

Orange Juice

1 Cup = 26 g carbohydrate

Mango Juice

½ Cup = 16 g carbohydrate

Juice Boxes

1 = 24 g carbohydrate

Milk, Yogurt and Cheese

Lowfat Milk

1 Cup = 13 g carbohydrates

Buttermilk

1 Cup = 13 g carbohydrate

Plain Yogurt

1 Cup = 19 g carbohydrate

Flavored Yogurts

Carbs will vary. Check label.

Yogurt Drink

1 bottle = 36 g carbohydrate

Cheese

0 g carbohydrate

Vegetables

Isbinaasha

½ Cup = 4 g carbohydrate

Cabbage

½ Cup = 4 g carbohydrate

Ansalaato/ Saladh

½ Cup = 1 g carbohydrate

Ansalaato/ Saladh

½ Cup = 1 g carbohydrate

Vegetables

½ Cup = 2-6 g carbohydrate

Frozen Vegetables

Carbs will vary. Check label.

Meat, Chicken, Fish, Eggs

Beef
0 grams carbohydrate

Goat
0 grams carbohydrate

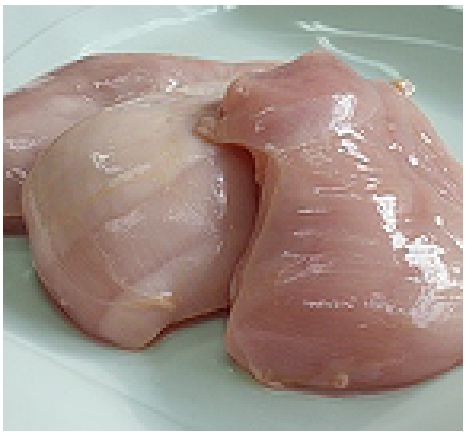
Goat Liver
0 grams carbohydrate

Goat Kidney
0 grams carbohydrate

Lamb
0 grams carbohydrate

Camel
0 grams carbohydrate

Fish/ Seafood
0 grams carbohydrate



Chicken
0 grams carbohydrate

Eggs
0 grams carbohydrate

Fats and Oils

Ghee

0 g carbohydrate

Oil

0 g carbohydrate

Butter

0 g carbohydrate

Tub Margarine

0 g carbohydrate

Salad Dressing

2 Tablespoons =
0-8 g carbohydrate

Mayonnaise

0 g carbohydrate

Meat, Chicken, Fish, with Sauces

Oodkac
0 g carbohydrate

Suqaar
½ Cup = 5 g carbohydrate

Suqaar
1 Cup = 10 g carbohydrate

Mallaay/Kalluun Yuumbi
1 serving = 2 g carbohydrate

Hilib Digaag
½ Cup Sauce = 8 g carbohydrate

Maraq/ Fahfah
1 Cup = 18 g carbohydrate

Appetizers and Snacks

Bajiya

1 = 9 grams carbohydrate

Sambuusi

1 = 15 grams carbohydrate

Nafago

1 = 15 grams carbohydrate

Bur Mandhasi

1 = 28 grams carbohydrate

Bur Katuunboow

1 = 11 grams carbohydrate

Bur Macsharo

1 = 86 grams carbohydrate

Bur Macsharo

¼ = 22 g carbohydrate

Spreads, Condiments and Spices

Peanut Butter
1 Tablespoon = 3 g carbohydrate

Nutella
1 Tablespoon = 12 g carbohydrate

Jam
1 Teaspoon = 4 g carbohydrate

Jam
1 Tablespoon = 13 g carbohydrate

Sugar-Free Jam
1 Tablespoon = 5 g carbohydrate

Honey
1 Teaspoon = 6 g carbohydrate

Honey
1 Tablespoon = 17 g carbohydrate

Regular Maple Syrup
1 Tablespoon = 15 g carbohydrate

Light Maple Syrup
1 Tablespoon = 8 g carbohydrate

Spreads, Condiments and Spices

Sugar-Free Maple Syrup
1 Tablespoon = 3 g carbohydrate

White Sugar
1 Teaspoon = 4 g carbohydrate

White Sugar
1 Tablespoon = 12 g carbohydrate

Brown Sugar
1 Teaspoon = 4 g carbohydrate

Brown Sugar
1 Tablespoon = 12 g carbohydrate

Artificial Sweetener
0 g carbohydrate

Spices
0 g carbohydrate

Desserts and Sweets

Doolsho Subuq

1⁄16 = 24 g carbohydrate

Doolsho Soomaali

1⁄12 = 25 g carbohydrate

Halwa

1 (1 oz.) = 24 g carbohydrate

Buskut Eid

1 (0.4 oz.) = 6 g carbohydrate

Qumbe Macaan

1 (1 oz.) = 18 g carbohydrate

Sisin

1 (1 oz.) = 18 g carbohydrate

Sisin Laduubay

2 (0.6 oz.) = 5 g carbohydrate

Shuushuumoow

1 (0.8 oz.) = 12 g carbohydrate

Loos Malabis

1 (1 oz.) = 16 g carbohydrate

Beverages

Shaah Soomaali

with 1 teaspoon sugar =
4 g carbohydrate

Shaah Soomaali

with 1 tablespoon sugar =
12 g carbohydrate

Shaah Soomaali

with artificial sweetener =
0 g carbohydrate

Vimto

1 Can = 46 g carbohydrate

Diet Soda

0 g carbohydrate

Regular Soda

Carbs will vary. Check label.

References:

1. US Department of Agriculture, Agricultural Research Service, Nutrient Data Laboratory. USDA National Nutrient Database for Standard Reference, Release 28. Version Current: September 2015. http://www.ars.usda.gov/nea/bhnrc/ndl
2. Barlin Ali. Somali Cuisine. *AuthorHouse*, Bloomington, IN 2007