STARCH

How to Read a Food Label

For patients with Congenital Sucrase-Isomaltase Deficiency (CSID)

Search for Starch

If you have CSID, one of your main concerns is figuring out how much starch and sucrose is in the food you like to eat. Reading food labels in general can be difficult; but for those with CSID, trying to find information about starch and sucrose can be a real challenge. The information below focuses on specific parts of the food label that help those with CSID determine which food products may be best in terms of **STARCH** content.

Food label laws are regulated by the United States Food and Drug Administration (FDA). Two sections on a food label may include information about starch and sucrose:

- The ***Nutrition Facts*** label lists the amount of nutrients in a specified serving of the food product.
- The ***Ingredients*** label lists all of the ingredients in the food product. The ingredients are listed in order from most to least.

1.

Start by looking at the *Nutrition Facts* label

1. The **Serving size** is 2/3 cup.
   Is that how much you eat? If not, you need to recalculate the nutrients listed based on how much you eat (see calculation examples below*).

2. The amount of **STARCH** is not included on the Nutrition Facts label. Subtracting the Dietary Fiber and the Total Sugars from the Total Carbohydrate gives an estimate of the amount of starch.

For example, if you eat 2/3 cup of this product:

Total Carbohydrate	37 grams
Subtract Dietary Fiber	- 4 grams
Subtract Total Sugars	- 5 grams
Equals Total Starch	= 28 grams

Is 28 grams of starch a lot?
For some people with CSID, this may be too much starch. It might be best to start with a smaller serving size.

Nutrition Facts

8 servings per container

Serving size **2/3 cup (55g)**

Amount Per Serving

Calories **230**

	% Daily Value*
Total Fat 8g	**10%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 180mg	**7%**
Total Carbohydrate 37g	**13%**
Dietary Fiber 4g	**14%**
Total Sugars 5g	
Includes 4g Added Sugars	**8%**
Protein 3g	**6%**
Vitamin D 0mcg	0%
Calcium 260mg	20%
Iron 8.1mg	45%
Potassium 0mg	0%
Vitamin A	10%
Vitamin C	8%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

*For example, if you only eat a half serving (1/3 cup), you will need to divide everything by 2:

Total Carbohdyrate	(37 ÷ 2 = 18.5)	18.5 grams
Subtract Dietary Fiber	(4 ÷ 2 = 2)	- 2 grams
Subtract Total Sugars	(5 ÷2 = 2.5)	- 2.5 grams
Equals Total Starch	(28 ÷ 2 = 14)	= 14 grams

For some people with CSID, 14 grams of starch may still be too much. Each person with CSID must determine how much starch they can eat without causing gastrointestinal symptoms.

For more help with reading food labels, **call 1-800-705-1962** to speak with a registered dietitian.

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How to Read a Food Label

For patients with Congenital Sucrase-Isomaltase Deficiency (CSID)

2.

Now let's look at the *Ingredients* label

1. The types of starch in the product are highlighted. These starch ingredients may be hard to digest for someone with CSID.

2. Note that the first ingredient is whole grain oats (starch) and that 4 of the 10 ingredients come from starch. These are clues that indicate this food may be high in starch.

Ingredients: Whole Grain Oats, Sugar, Oat Flour, Corn Syrup, Modified Corn Starch, Corn Starch, Dextrose, Salt, Gelatin, and Trisodium Phosphate.

Here are some other **starch** ingredients that you may see on a food product Ingredients label.

+ Limit dextrins
+ Maltodextrin
+ Tapioca starch
+ Glucose polymers

In Summary: From the ***Nutrition Facts*** label, we discovered that 28 grams of starch are in 2/3 cup of this food product. From the ***Ingredients*** label, we learned that the starch comes from whole grain oats, oat flour, modified corn starch, and corn starch. Over time, you will learn the amount of starch you can tolerate per meal or per day and which types of starch may be better tolerated by you.

References

U.S. Food & Drug Administration. How to understand and use the Nutrition Facts label. Last updated March 11, 2020. www.fda.gov/Food/LabelingNutrition/ucm274593.htm#overview

Byrd-Bredbenner C, Moe G, Berning J, Kelley D. Carbohydrates. In: Byrd-Bredbenner C, Moe G, Berning J, Kelley D, eds. *Wardlaw's Perspectives in Nutrition.* 10th ed. McGraw-Hill Education; 2016:154-189.

Barclay A, Sandall P, Shwide-Slavin C, Brand-Miler J. Sweet talk on labels. In: Barclay A, Sandall P, Shwide-Slavin C, eds. *The Ultimate Guide to Sugars and Sweeteners: Discover the Taste, Use, Nutrition, Science, and Lore of Everything from Agave Nectar to Xylitol.* The Experiment; 2014:244-248.

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How to Read a Food Label

For patients with Congenital Sucrase-Isomaltase Deficiency (CSID)

Search for Sucrose

If you have CSID, one of your main concerns is figuring out how much starch and sucrose is in the food you like to eat. Reading food labels in general can be difficult; but for those with CSID, trying to find information about starch and sucrose can be a real challenge. The information below focuses on specific parts of the food label that help those with CSID learn more about the **SUCROSE** content of a food product.

Food label laws are regulated by the United States Food and Drug Administration (FDA). Two sections on a food label may include information about starch and sucrose:

- The ***Nutrition Facts*** label lists the amount of nutrients in a specified serving of the food product.
- The ***Ingredients*** label lists all of the ingredients in the food product. The ingredients are listed in order from most to least.

1.

Start by looking at the *Nutrition Facts* label

1. The **Serving size** is 2/3 cup.
   Is that how much you eat? If not, you need to recalculate the nutrients listed based on how much you eat (see calculation examples below*).

2. The amount of **SUCROSE** is not included on the Nutrition Facts label. Instead, you will find **Total Sugars** that include any and all types of sugar (not just sucrose) found in the food. These sugars can occur naturally in the food or they can be added to the food. For example:
   - Natural sugar may be found in fruit (fructose, sucrose, glucose) or in milk (lactose)
   - Added sugar may include table sugar (sucrose), honey (glucose, fructose), or high fructose corn syrup (fructose, glucose)

3. It is most important to note the Total Sugars listed on the Nutrition Facts label. If you eat 2/3 cup of this food, you will ingest 5 grams of sugar.

Nutrition Facts

8 servings per container

Serving size **2/3 cup (55g)**

Amount Per Serving

Calories **230**

	% Daily Value*
Total Fat 8g	**10%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 37g	**13%**
Dietary Fiber 4g	**14%**
Total Sugars 5g	
Includes 4g Added Sugars	**8%**
Protein 3g	**6%**
Vitamin D 0mcg	0%
Calcium 260mg	20%
Iron 8.1mg	45%
Potassium 0mg	0%
Vitamin A	10%
Vitamin C	8%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Is 5 grams of sugar a lot? It all depends on the type of sugar. For example, if the sugar is from glucose, it is not a problem. If the sugar is from sucrose, it may be a problem for someone with CSID.

***It may be helpful to start with a smaller serving size to see if the food is tolerated.**

IF YOU EAT	CALCULATION	SERVING SIZE	TOTAL SUGARS
1 Serving	Found on food label	2/3 cup	5 grams
½ Serving	Divide by 2	1/3 cup	2.5 grams

BUT, you need to determine the **type of sugar** to know if it is a good choice or not.

How to Read a Food Label

For patients with Congenital Sucrase-Isomaltase Deficiency (CSID)

2.

Now let's look at the *Ingredients* label

1. The types of sugar in the product are highlighted.

2. If you see sugar listed on the Ingredients label, it means sucrose.

3. Sugar (sucrose) and corn syrup (maltose) may be hard to digest for someone with CSID and may cause gastrointestinal symptoms, but dextrose (glucose) is a type of sugar that someone with CSID be able to easily digest.

4. Note the order of the sugars listed on the Ingredients label. Since sugar (sucrose) is listed before dextrose (glucose), there is more sucrose than glucose in this product. Looking back at the Nutrition Facts label, we know there are 5 grams of sugars in 2/3 cup of this food. We don't know exactly how much comes from sucrose; but since sugar (sucrose) is listed first, we know the largest amount of sugar is coming from sucrose.

Ingredients: Whole Grain Oats, **Sugar,** Oat Flour, **Corn Syrup,** Modified Corn Starch, Corn Starch, **Dextrose,** Salt, Gelatin, and Trisodium Phosphate.

The types of **sugars** in this product are:
- sugar (sucrose)
- corn syrup (maltose)
- dextrose (glucose)

Here are some other **sucrose** and **maltose** ingredients that you may see on a food product Ingredients label.

Sucrose	
+ Beet sugar	+ Date sugar
+ Brown sugar	+ Maple syrup
+ Cane juice/sugar	+ Molasses
+ Caramel	+ Raw sugar
+ Coconut sugar	+ Table sugar
+ Confectioner's sugar	+ Turbinado sugar

Maltose
+ Brown rice syrup
+ Corn syrup solids
+ Malt

In Summary: From the ***Nutrition Facts*** label, we discovered that there are 5 grams of total sugars in 2/3 cup of this food product. From the ***Ingredients*** label, we learned that the sugar comes from sugar (sucrose), corn syrup (maltose), and dextrose (glucose). While we do not know exactly how much sucrose and maltose make up the 5 grams of total sugars, we know that these two types of sugars may be problematic for someone with CSID. With careful attention to the amounts and types of sugars you are consuming, you will learn how much sucrose and maltose you can eat and which foods you tolerate best.

References

U.S. Food & Drug Administration. How to understand and use the Nutrition Facts label. Last updated March 11, 2020. www.fda.gov/Food/LabelingNutrition/ucm274593.htm#overview

Byrd-Bredbenner C, Moe G, Berning J, Kelley D. Carbohydrates. In: Byrd-Bredbenner C, Moe G, Berning J, Kelley D, eds. *Wardlaw's Perspectives in Nutrition.* 10th ed. McGraw-Hill Education; 2016:154-189.

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