

# THE STORY ON SUGAR

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# OBJECTIVES

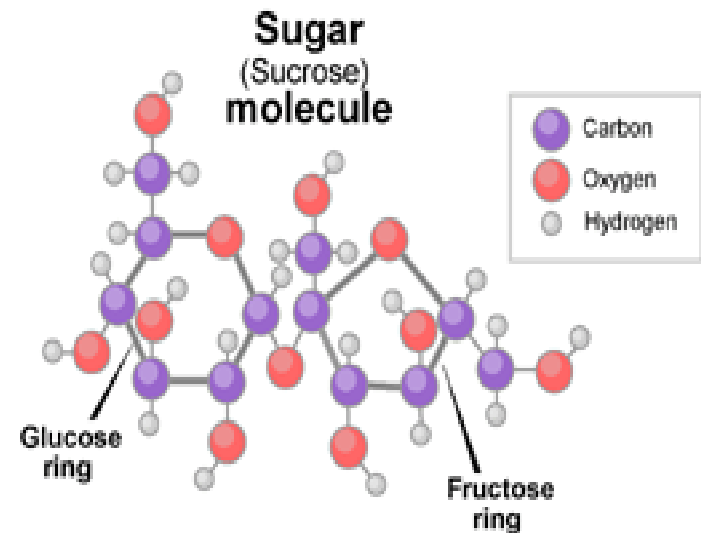
- Explain the need for sugar in our bodies
- The difference between fructose and glucose
- Explain the health effects of excess sugar
- Discuss the current guidelines on sugar intake
- Identify food products that contain too much sugar by using a nutrition fact label
- Understand the pros/cons of artificial sweeteners
- List sugar substitutes to use more often

## *SURAH TAHA (20:81)*

- *“Eat of the good and wholesome things that We have provided for your sustenance, but indulge in no excess therein.”*

# WHAT IS SUGAR

- Table sugar is sucrose, a molecule
- Carbohydrate
- Found naturally in plants, derived from sugarcane and sugar beets
- Sucrose is made up fructose and glucose



# WHY DO WE NEED SUGAR?

- Sugar from carbohydrate is body's most important fuel sources
- Readily accessible by most organs and tissues
- Glucose is preferred fuel source for brain and muscles
- Simple carbs found in fruits and dairy
- Complex carbs found in grains and starches
- Excess glucose in foods stored in tissues and muscles

# FRUCTOSE

- Fructose is one type of sugar molecule
- Naturally in fruits and honey has low glycemic index
- Fructose is very sweet, very low amounts in fruit – so we digest it easily
- Western diet – LOADED with fructose, soda, baked goods, crackers, cookies, canned goods
- When intake is large (agave crystalline fructose, high fructose corn syrup) goes to liver avoiding GI tract. In liver converted to glycerol which can raise TG

# MORE ON FRUCTOSE

- Animal studies
  - alters hormones for satiety
  - increases appetite
- Endocrine Society 2010 kids and fructose intake



# GLUCOSE

- Another type of sugar – most common form of carbohydrate
- Derived from starches
- Metabolized via the intestinal tract and causes a rise in blood sugar – to bring sugar levels back down your body releases hormone insulin – insulin ushers sugar to where it is needed for energy and rest is used for long term storage (fat cells)
- When glucose is always high (processed foods, white flour, white bread, rice, pasta) put a strain on pancreas to the point where insulin secretion is not released properly



# SOURCES OF SUGAR IN COMMON FOODS

## Natural Sources

- Fruits
- Vegetables
- Dried fruit
- Dairy (milk, yogurt)
- Honey
- Maple syrup

## Added Sources

- Sodas
- Candy
- Cookies, cereals
- Baked goods (muffin, cakes)



# HEALTH CONSEQUENCES WITH TOO MUCH SUGAR

- Obesity
- High blood pressure
- Elevated Triglycerides and Heart Disease
- Inflammation
- Insulin resistance – body's cells are not able to respond to insulin
- Premature Aging

# HOW MUCH SUGAR IS TOO MUCH?!?

- Unfortunately, no limit has been set
- Worldwide we are consuming 500 extra calories a day from sugar
- The American Heart Association recommends that women consume less than 100 calories of added sugar per day ( 6 tsp. or 24 grams) and men consume less than 150 per day (9 tsp. or 36 grams)

# HOW TO REDUCE SUGARS

- Diet – choose wisely
  - protein
  - Fiber
  - Omega-3
  - Gradually decrease sugar
  - Less processed foods
- Exercise 30 min 5x/week
- Weight loss

# CEREALS



Cereal  
713484

## Nutrition Facts

Serving Size: 2.08 oz. (59 g)

Servings Per Case:

Amount per Serving

Calories: 190

Calories from Fat: 15

% Daily Value\*

Total Fat: 1.5 g 2 %

Saturated Fat: 0 g 0 %

Trans Fat: 0 g

Cholesterol: 0 mg 0 %

Sodium: 350 mg 15 %

Total Carbohydrate: 45 g 15 %

Dietary Fiber: 7 g 28 %

Sugars: 19 g

Protein: 5 g

Vitamin A: 10 % Vitamin C: 1 %

Calcium: 4 % Iron: 25 %

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



# CEREAL LOW IN SUGAR



<b>Total Fat</b> 1.5 g*	<b>2 %</b>	<b>2 %</b>
Saturated Fat 0g	<b>0 %</b>	<b>0 %</b>
Trans Fat 0 g		
Polyunsaturated 1 g		
Monounsaturated 0 g		
<b>Cholesterol</b> 0 mg	<b>0 %</b>	<b>0 %</b>
<b>Sodium</b> 135 mg	<b>6 %</b>	<b>9 %</b>
<b>Potassium</b> 125 mg	<b>4 %</b>	<b>10 %</b>
<b>Total Carbohydrate</b> 23 g	<b>8 %</b>	<b>10 %</b>
Dietary Fiber 5 g	<b>20 %</b>	<b>20 %</b>
Sugars 4 g		
<b>Protein</b> 4 g		
Vitamin A	0%	4%
Vitamin C	0%	0%
Calcium	2%	15%
Iron	10%	10%

# JUICES



Serving Size 8 fl oz (240ml)	
Amount Per Serving	
Calories 110	Calories from Fat 0
% Daily Values*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 15mg	1%
Total Carbohydrate 25g	8%
Dietary Fiber 1g	4%
Sugars 23g	
Protein 1g	
Vitamin A 15%	• Vitamin C 120%
Calcium 4%	• Iron 2%
* Percent Daily Values are based on a 2000 calorie diet.	



# LOW SUGAR DRINK



# YOGURT



Amount Per Serving	
Calories 110	Calories from Fat 15
% Daily Value*	
Total Fat 2g	3%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 5mg	2%
Sodium 60mg	3%
Potassium 160mg	5%
Total Carbohydrate 20g	7%
Sugars 17g	
Protein 4g	8%

TURBO GRADE A REDUCED FAT MILK, SUGAR, PEACHES, WATER, FRUCTOSE, LESS THAN 1% OF MILK PROTEIN CONCENTRATE, MODIFIED CORN STARCH, NATURAL FLAVOR, LACTIC ACID, CARRAGEENAN, CALCIUM LACTATE, SODIUM CITRATE, AGAR AGAR, LACTIC ACID, CARROT JUICE CONCENTRATE (FOR COLOR), VITAMIN D3, AND BLACK CARROT JUICE CONCENTRATE (FOR COLOR). WHEAT.

# YOGURT LOW IN SUGAR



**Cholestérol / Cholesterol** 0mg

**Sodium / Sodium** 70mg 3 %

**Glucides / Carbohydrates** 6g 2 %

Fibres / Fibre 1g 4 %

Sucres / Sugars 5g

**Protéines / Protein** 18g

Vitamine A / Vitamin A 0 %

Vitamine C / Vitamin C 0 %

Calcium / Calcium 15%

Fer / Iron 0 %

Lait écrémé, cultures bactériennes.  
Skim milk, bacterial cultures.





# NEED TO LOOK AT INGREDIENT LIST

## Nutrition Facts

Serving Size 1 cup (59g)

Servings Per Container about 10

Amount Per Serving	Cereal	Cereal with 1/2 cup Skim Milk
<b>Calories</b>	190	230
Calories from Fat	10	15

	% Daily Value**	
<b>Total Fat</b> 1g*	2%	2%
Saturated Fat 0g	1%	2%
Trans Fat 0g		
Polyunsaturated Fat 0g		
Monounsaturated Fat 0g		
<b>Cholesterol</b> 0mg	0%	1%
<b>Sodium</b> 230mg	10%	13%
<b>Potassium</b> 320mg	9%	15%
<b>Total</b>		
<b>Carbohydrate</b> 46g	15%	17%
Dietary Fiber 7g	28%	28%
Soluble Fiber 1g		
Insoluble Fiber 6g		
Sugars 17g		
Other Carbohydrate 22g		

## Protein 4g

Vitamin A	25%	30%
Vitamin C	0%	2%
Calcium	2%	15%
Iron	25%	25%
Vitamin D	25%	35%
Thiamin	25%	30%
Riboflavin	25%	35%
Niacin	25%	25%
Vitamin B6	25%	25%
Folate	50%	50%
Vitamin B12	25%	35%
Phosphorus	20%	30%
Magnesium	20%	25%
Zinc	25%	30%
Copper	10%	10%

**INGREDIENTS:** WHOLE GRAIN WHEAT, RAISINS, WHEAT BRAN, SUGAR, CORN SYRUP, SALT, MALT FLAVORING.

**VITAMINS AND MINERALS:** VITAMIN B3 (NIACINAMIDE), ZINC OXIDE, REDUCED IRON, VITAMIN A PALMITATE, VITAMIN B6 (PYRIDOXINE HYDROCHLORIDE), VITAMIN B2 (RIBOFLAVIN), VITAMIN B1 (THIAMIN MONONITRATE), FOLIC ACID, VITAMIN D, VITAMIN B12.

**CONTAINS WHEAT.**

**INGREDIENTES:** TRIGO INTEGRAL, PASAS, SALVADO DE TRIGO, AZÚCAR, JARABE DE MAÍZ, SAL, SABOR DE MALTA.

**VITAMINAS Y MINERALES** VITAMINA B3 (NIACINAMIDA), ÓXIDO DE ZINC, HIERRO REDUCIDO, PALMITATO DE VITAMINA A, VITAMINA B6 (CLORHIDRATO DE PIRIDOXINA), VITAMINA B2 (RIBOFLAVINA), VITAMINA B1

# INGREDIENT LIST FOR ACTIVIA

- **INGREDIENTS**

Skim milk, cream, fructose, strawberries, sugar, milk and whey protein concentrate, modified corn starch, active probiotic culture (bifidobacterium lactis DN-173 010), active bacterial cultures, gelatin, natural flavour, natural colour, pectin, vitamin D3. **Made with vitamin D fortified skim milk.**

# OTHER NAMES FOR SUGAR

- Agave nectar
- Brown sugar
- Cane crystals
- Cane sugar
- Corn sweetener
- Corn syrup
- Crystalline fructose
- Dextrose
- Evaporated cane juice
- Syrup
- Fructose
- Fruit juice concentrate
- Glucose
- HFCS
- Honey
- Invert Sugar
- Maltose
- Malt syrup
- Molasses
- Raw Sugar
- Sucrose

# WHAT ABOUT ARTIFICIAL SWEETENERS??

- Not a good idea
- Sucralose and aspartame are artificial chemicals
- Found in many diet foods (baked goods, dairy, jams, beverages)
- Can lead to eating more sweet foods/drinks
- Sugar Alcohols - can lead to GI issues
- Stevia – from plant in South America 200x sweeter than sugar- look for all natural leaf stevia as main ingredient – not truvia



# TOP SWEETENER PICKS

- Maple Syrup
- Honey
- Regular sugar
- Stevia – pure leaf (Sweet leaf in the US)

# QUESTIONS?

- For more info, please visit [www.anarallidina.com](http://www.anarallidina.com)
- Email [nutrition@anarallidina.com](mailto:nutrition@anarallidina.com)