Get off the SoFAS!

Avoiding Solid Fats & Added Sugars

EDUCATOR'S RESOURCE GUIDE

learningseed

Suite 301
641 West Lake Street
Chicago, IL 60661

info@learningseed.com
www.learningseed.com

What's in this Guide...and How to Use It!

Related Learning Seed Programs

- *Nutrition Labels: Reading Between the Lines*
- *Pass (on) the Salt: Shaking the Habit*
- *Eat Smart: MyPlate & 2010 Dietary Guidelines*
- *Personalizing MyPlate: Easy Changes for Eating Habits*

Program Overview

This program defines “solid fats” and “added sugars” and explains why they’re harmful to our health. Viewers learn the difference between solid fats and others fats and how added sugars are different from naturally-occuring sugars. The program shows where solid fats and added sugars hide in our diet and suggests ways to reduce the amount we consume.

Chapter 1 - Introduction

- Solid fats and added sugars make up 1/3 of the total calories in a typical diet. While certain fats and sugars are part of a healthy diet, solid fats and added sugars are not.

Chapter 2 - The Solid Truth About Solid Fat

- Our bodies need fat, but the type of fat is important. Saturated fat, known as “solid fat,” is harmful to our health. Unsaturated fat can be beneficial.
- Extra calories from too much fat is often stored as visceral (belly) fat, which produces hormones that lead to cancer. Visceral fat also causes chronic inflammation.
- Solid fats are dangerous because they raise your level of LDL (bad) cholesterol. *Trans* fats are even worse because they also decrease your level of HDL (good) cholesterol.
- Omega-3 fatty acids are a type of unsaturated fat found in seafood, nuts, and seeds. Omega-3 supports your heart, blood vessels, and immune system.

Chapter 3 - A Healthy Approach to Solid Fats

- Nutrient-dense foods are high in nutrients (20% or more of the daily value) and relatively low in calories. Fill up on nutrient-dense foods to “crowd out” foods high in solid fats.
- Replace solid fats with healthier fats. A good rule of thumb is to use fat from plants instead of fat from animals, such as olive oil instead of butter or avocado slices instead of cheese.
- Reduce the amount of solid fat you consume by choosing lean cuts of meat, eating foods like processed meats less often, and having seafood instead of meat twice a week.
- Eliminate *trans* fats, which can often be found in many snack foods and baked goods, but also in foods with healthy-sounding names.
- Read nutrition facts labels to compare foods based on the number of grams of saturated fat, cholesterol, and *trans* fat per serving. Look for hydrogenated oils in the ingredients list.

Chapter 4 - But Isn't Sugar Natural?

- Plant foods contain simple and complex carbohydrates. Simple carbohydrates are called "simple sugars" and complex carbohydrates are referred to as "starches" and "fiber."
- Our body converts all carbohydrates (except fiber, which is not digested) into glucose, which is the body's main source of energy. Simple sugars convert quickly to glucose.
- Most sugar we eat should come from whole foods like fresh fruit, vegetables, and whole grains, because those foods also provide lots of nutrients, fiber, and relatively few calories.
- Sugar that's added in the processing of food adds extra calories, but little nutrition. Extra calories are converted into fat molecules, which are stored as body fat and which contribute to plaque in the arteries.
- Too much sugar in the bloodstream can lead to insulin resistance and type-2 diabetes. High levels of glucose in the bloodstream can seriously damage your heart, kidneys, and eyes.
- Too much sugar can cause mood swings, sugar cravings, and prematurely age your skin.

Chapter 5 - A Healthy Approach to Sugar

- Most people consume about 22 teaspoons of sugar each day, but experts recommend that women get no more than 6 teaspoons per day (≦100 calories) and men get no more than 9 teaspoons (≦150 calories).
- 96% of the added sugar in our diets comes from processed foods and drinks. Half of the added sugar we consume is in beverages.
- The number one way to reduce added sugar is to cut-back on sugar-loaded drinks (soda, sports drinks, fruit drinks, and sweet teas). Instead, drink water or fat-free milk.
- Reduce your added sugar intake by rethinking dessert. Choose a nutrient-dense dessert like fruit instead of a high-sugar bakery item or ice cream, or have a smaller portion less often.
- Experts question the use of sugar substitutes, maintaining that they keep us hooked on sweetness. Research shows that people who drink diet soda daily have a much greater waist size and have a higher risk for stroke and heart attack than those who don't drink diet soda.

Conclusion

Before and After

Prompts to generate interest, ideas, and inquiry

Before viewing

To spark interest, activate prior knowledge, and set a purpose for viewing

- How do the things you eat and drink benefit or harm your health? How much thought do you put into choosing your meals and snacks?

After viewing

To promote critical thinking

- It's a proven fact that saturated fat, found in animal products, raises bad cholesterol and contributes to heart disease and stroke. Why, then, do so many people continue to consume a great deal of high-fat meat, cheese, and fried foods?
- Which is the best argument for persuading people to consume less added sugar? Is it the fact that it contributes to heart disease? Type-2 diabetes? Sagging skin? Moodiness and sugar crashes? Explain your reasoning.
- The program stated that some cities and countries are banning the use of *trans* fats to protect their citizens' health. What other ways might a government influence people to eat healthy foods and avoid solid fats and added sugars?

After viewing

To extend learning

- If the fat in milk is saturated — or solid — then why don't we see it? Direct students to investigate how milk is processed and what happens to the fat it contains.
- The average weight of Americans — men, women, and children — began to drastically increase in the 1980s. Most health experts attribute this to the invention of high fructose corn syrup and *trans* fats. Direct students to use online resources to research and report on one of these food components. Students' reports should explain how the component was invented, how it changed the business of food manufacturing, and how it has affected the eating habits and health of consumers.
- Using the rule of thumb provided in the program for choosing breakfast cereals (sugar is no more than a quarter of the total carbohydrates), direct students to use online resources, such as the nutrition information provided by manufacturers, to recommend five cereals to their classmates.

Name _____

Date _____ Class Period _____

While You Watch...use the graphic organizer to record key words and information.

The Solid Truth About Solid Fat	
How our bodies use fat	
Types of fats & where they're found	
Why solid fats are harmful	1. 2. 3.
Omega-3	
A Healthy Approach to Solid Fats	
Strategy #1	
Strategy #2	
Strategy #3	
Strategy #4	
Strategy #5	

But Isn't Sugar Natural?	
What sugars are	
Carbohydrates in our diet	
What "added sugars" are	
Why added sugars are harmful	1. 2. 3. 4.
A Healthy Approach to Sugar	
How much do we need?	
Strategy #1	
Strategy #2	
Strategy #3	

Name _____

Date _____ Class Period _____

Solid Fats (Ch. 1 & 2)
Check Your Understanding

Write short answers for the following questions about the *Get off the SoFAS!* video:

1. Why is it important to understand that there are two types of fat?

2. In what foods is unsaturated fat the dominant fat?

3. Name three common sources of saturated fat in our diets.

4. What is one reason it's dangerous to accumulate visceral (belly) fat?

5. If our body needs cholesterol, why shouldn't we eat cholesterol?

Name _____

Date _____ Class Period _____

Solid Fats (Ch. 1 & 2)
Check Your Understanding (continued)

6. What is a nutrient-dense food?

7. How does eating fiber affect your cholesterol level?

8. What are two non-meat foods that are low in saturated fats and high in protein?

9. What is a reasonable, healthy size for a portion of meat?

10. When reading nutrition labels to compare fat, what three types of information do you want to look for?

Name _____

Date _____ Class Period _____

Added Sugars (Ch. 3 & 4)
Check Your Understanding

Write short answers for the following questions about the *Get off the SoFAS!* video:

1. Where do carbohydrates come from?

2. What kind of simple sugar are starches and sugars broken down into during digestion?

3. What is the role of insulin in your body?

4. What happens to insulin and your cells when you eat high-sugar foods all day?

5. How do the products left over from sugar breaking down affect your skin?

Name _____

Date _____ Class Period _____

Added Sugars (Ch. 3 & 4)
Check Your Understanding (continued)

6. Less than 4% of added sugar is from table sugar and honey. What are the two main sources of the rest of the added sugar in our diet?

7. What two beverages don't contain added sugar and are good replacements for sports drinks?

8. What are two ways to "rethink" dessert?

9. On the nutrition facts label, where must you look to tell if a product's sugar is naturally occurring or added?

10. When using the ingredients list to choose a cereal with less added sugar, what should you look for?

Solid Fats (Ch. 1 & 2)
Check Your Understanding *Answer Key*

Write short answers for the following questions about the *Get Off the SoFAS!* video:

1. Why is it important to understand that there are two types of fat?

   Our bodies need fat, but the type of fat is important.
   Saturated fat is harmful, and unsaturated fat can be beneficial.

2. In what foods is unsaturated fat the dominant fat?

   Foods from plants and seafood

3. Name three common sources of saturated fat in our diets:

   Possible answers:
   butter, lard, shortening, milk, fatty meat, fried foods

4. What is one reason it's dangerous to accumulate visceral (belly) fat?

   Possible answers:
   - Visceral fat produces hormones that cause cells to divide more than normal, which can lead to cancer.
   - Visceral fat triggers infection-fighting cells, which cause inflammation.

5. If our body needs cholesterol, why shouldn't we eat cholesterol?

   Our liver makes all the cholesterol we need. Extra cholesterol builds up in our arteries.

Solid Fats
Check Your Understanding *Answer Key (continued)*

6. What is a nutrient-dense food?

   A food that is high in nutrients that has positive health benefits and relatively low in calories.

7. How does eating fiber affect your cholesterol level?

   It removes bad (LDL) cholesterol from your bloodstream.

8. What are two non-meat foods that are low in saturated fats and high in protein?

   Possible answers:
   fish, shellfish, beans, lentils, split peas, tofu

9. What is a reasonable, healthy size for a portion of meat?

   The size of your palm or a deck of cards

10. When reading nutrition labels to compare fat, what three types of information do you want to look for?

    Calories from fat, grams of saturated fat, grams of trans fat

Added Sugars (Ch. 3 & 4)
Check Your Understanding *Answer Key*

Write short answers for the following questions about the *Get Off the SoFAS!* video:

1. Where do carbohydrates come from?

   plants

2. What kind of simple sugar are starches and sugars broken down into during digestion?

   glucose

3. What is the role of insulin in your body?

   It acts like a key to allow glucose to enter your cells.

4. What happens to insulin and your cells when you eat high-sugar foods all day?

   Your insulin levels spike and your cells start to ignore, or resist, the insulin.

5. How do the products left over from sugar breaking down affect your skin?

   They cause your skin to become less firm and elastic; they make your skin age and sag.

Added Sugars (Ch. 3 & 4)
Check Your Understanding *Answer Key (continued)*

6. Less than 4% of added sugar is from table sugar and honey. What are the two main sources of the rest of the added sugar in our diet?

   processed foods and drinks

7. What two beverages don't contain added sugar and are good replacements for sports drinks?

   Water and low-fat or fat-free milk.

8. What are two ways to "rethink dessert"?

   Possible answers:
   - Have fruit instead of pie, cake, cookies, or ice cream.
   - Have sugar-loaded treats once a week instead of once-a-day.
   - Eat a smaller portion when you do have dessert.

9. On the nutrition facts label, where must you look to tell if a product's sugar is naturally occurring or added?

   the ingredients list

10. When using the ingredients list to choose a cereal with less added sugar, what should you look for?

    Look for one that doesn't have sugar -- or any form of sugar--as the first, second, or third ingredient.

Name _____

Date _____ Class Period _____

Solid Fats Quiz - Multiple Choice

Circle the choice that best answers the question.

1. Which is NOT something fat does for our bodies?

a) builds muscle
b) protects DNA
c) supports brain development
d) keeps cell membranes flexible

2. At room temperature, a solid fat _____.

a) can be poured
b) holds its shape
c) is transparent
d) has more calories than oil

3. How does saturated fat affect our health?

a) raises good cholesterol
b) raises bad cholesterol
c) decreases inflammation
d) decreases risk of heart disease

4. Unused fat calories are often stored as _____.

a) cholesterol
b) brain cells
c) muscle tissue
d) visceral fat

5. 80% of *trans* fats in our diet are _____.

a) good for our health
b) from animal products
c) in fruits and vegetables
d) artificially made

6. What happens when you replace saturated fat with unsaturated fat?

a) you lose weight
b) you gain weight
c) your cholesterol level goes up
d) your cholesterol level goes down

7. Nutrient-dense foods are relatively low in:

a) fiber
b) vitamins
c) calories
d) minerals

8. Instead of butter, cook with _____.

a) lard
b) vegetable oil
c) bacon grease
d) stick margarine

9. Which kind of meat should you limit?

a) lean cuts
b) ground turkey
c) skinless poultry
d) processed meat

10. If a nutrition label claims 0 grams of *trans* fat, then the food _____.

a) could contain up to 0.49 grams
b) could contain half a gram
c) may not contain more than 1 gram
d) will not contain any *trans* fat.

Name _____

Date _____ Class Period _____

Added Sugars Quiz - Multiple Choice

Circle the choice that best answers the question.

1. What is another name for simple sugars?

a) insulin
b) triglycerides
c) disaccharides
d) monosaccharides

2. "Blood sugar" refers to which sugar?

a) dextrose
b) galactose
c) glucose
d) lactose

3. Added sugars provide few nutrients, so they are referred to as_____.

a) nutrient-light
b) empty calories
c) artificial sweeteners
d) sugar substitutes

4. Extra calories from added sugar get converted to fat molecules which _____.

a) make you crave sweets
b) cause premature aging
c) disrupt insulin production
d) attach to your artery walls

5. Insulin enables _____ to enter your cells.

a) glucose
b) calories
c) fluid
d) fat

6. Where does most of the added sugar in our diets come from?

a) fresh, whole foods
b) honey we add to drinks
c) sugar we sprinkle on cereal
d) processed foods and drinks

7. Besides being naturally sweet, why is fresh or frozen fruit a good dessert choice?

a) Fruit contains fiber.
b) Fruit contains protein
c) Fruit contains lactose.
d) Fruit contains insulin.

8. On a nutrition label, which part tells if a food's sugar is natural or added?

a) Sugars
b) Calories
c) Total Carbohydrates
d) Ingredients List

9. Which is NOT a sugar substitute?

a) honey
b) stevia
c) sucralose
d) aspartame

10. Research finds that drinking diet soda daily is linked to _____.

a) cancer
b) obesity
c) diabetes
d) depression

Solidi Fats Quiz - *Answer Key*

Correct answers are in bold-face type.

1. Which is NOT something fat does for our bodies?

a) **builds muscle**
b) protects DNA
c) supports brain development
d) keeps cell membranes flexible

2. At room temperature, a solid fat _____.

a) can be poured
b) **holds its shape**
c) is transparent
d) has more calories than oil

3. How does saturated fat affect our health?

a) raises good cholesterol
b) **raises bad cholesterol**
c) decreases inflammation
d) decreases risk of heart disease

4. Unused fat calories are often stored as _____.

a) cholesterol
b) brain cells
c) muscle tissue
d) **visceral fat**

5. 80% of *trans* fats in our diet are _____.

a) good for our health
b) from animal products
c) in fruits and vegetables
d) **artificially made**

6. What happens when you replace saturated fat with unsaturated fat?

a) you lose weight
b) you gain weight
c) your cholesterol level goes up
d) **your cholesterol level goes down**

7. Nutrient-dense foods are relatively low in:

a) fiber
b) vitamins
c) **calories**
d) minerals

8. Instead of butter, cook with _____.

a) lard
b) **vegetable oil**
c) bacon grease
d) stick margarine

9. Which kind of meat should you limit?

a) lean cuts
b) ground turkey
c) skinless poultry
d) **processed meat**

10. If a nutrition label says "0 grams *trans fat"* the food _____.

a) **could contain up to 0.49 grams**
b) could contain half a gram
c) may not contain more than 1 gram
d) will not contain any *trans* fat.

Added Sugars Quiz - *Answer Key*

Correct answers are in bold-face type.

1. What is another name for simple sugars?

a) insulin
b) triglycerides
c) disaccharides
d) **monosaccharides**

2. "Blood sugar" refers to which sugar?

a) dextrose
b) galactose
c) **glucose**
d) lactose

3. Added sugars provide few nutrients, so they are referred to as_____.

a) nutrient-light
b) **empty calories**
c) artificial sweeteners
d) sugar substitutes

4. When extra calories from added sugar get converted to fat molecules, they _____.

a) make you crave sweets
b) cause premature aging
c) disrupt insulin production
d) **attach to your artery walls**

5. Insulin enables _____ to enter your cells.

a) **glucose**
b) calories
c) fluid
d) fat

6. Where does most of the added sugar in our diets come from?

a) fresh, whole foods
b) honey we add to drinks
c) sugar we sprinkle on cereal
d) **processed foods and drinks**

7. Besides being naturally sweet, why is fresh or frozen fruit a good dessert choice?

a) **Fruit contains fiber.**
b) Fruit contains protein
c) Fruit contains lactose.
d) Fruit contains insulin.

8. On a nutrition label, which part tells if a food's sugar is natural or added?

a) Sugars
b) Calories
c) Total Carbohydrates
d) **Ingredients List**

9. Which is NOT a sugar substitute?

a) **honey**
b) stevia
c) sucralose
d) aspartame

10. Research finds that drinking diet soda daily is linked to _____.

a) cancer
b) **obesity**
c) diabetes
d) depression

Glossary

added sugars	Sugars that are extracted from the plants in which they are naturally found and used to sweeten foods.
calorie-dense	Describes a food or beverage that is high in calories while providing relatively few nutrients.
carbohydrate	The nutrient made by plants through the process of photosynthesis. Carbohydrates include simple sugars and complex carbohydrates.
cholesterol	Waxy, fat-like substance produced by the liver. Cholesterol is used by all cells and for vital functions, like making hormones.
disaccharide	Simple sugar that consists of two monosaccharides that are chemically combined.
empty-calorie	Another word for "calorie-dense." Describes a food or beverage that provides a significant number of calories, but few beneficial nutrients.
fat	A major nutrient and a type of lipid (a chemical compound) found in every living cell. Fat is categorized as saturated and unsaturated.
fiber	Part of plant foods that passes through our system without being digested; makes us feel full.
high-density lipoprotein (HDL)	Compound containing lipid and protein that transports excess cholesterol in the bloodstream back to the liver to be excreted.
Insulin	A hormone, produced by the pancreas, that regulates the movement of glucose from the bloodstream into the cells.
insulin resistance	Condition where the body's cells don't respond normally to insulin, so the cells cannot use glucose effectively.
low-density lipoprotein (LDL)	Compound containing lipid and protein that transports cholesterol made by the liver through the bloodstream to the cells.
monosaccharide	A sugar with a single-unit chemical structure.
nutrient-dense	Describes a food or beverage that is high in nutrients and low in calories; the opposite is "empty-calorie" or "energy-dense."
nutrients	The components of foods and beverages that help your body function, grow, and repair itself. The main nutrients are protein, carbohydrates, and fat.

Omega-3 fatty acids	A specific kind of unsaturated fat found in seafood, nuts, seeds, and the oils we get from them. Omega-3 supports the development of the brain, eyes, and nerves and cardiovascular health.
processed food	Food that has been changed from its natural state by a manufacturer and packaged to be sold; processing often involves the addition of sugars, fat, and sodium and the removal of fiber.
saturated fats	Unhealthy fats known to contribute to heart disease. Found mainly in animal products, such as fatty cuts of meat, butter, and lard.
simple sugar	Carbohydrate that has a one- or two-unit chemical structure.
starch	A complex carbohydrate formed from many glucose molecules.
sugar	Any simple sugar, whether found naturally in plants or extracted from the plants and processed. Table sugar is sucrose, typically extracted from sugar cane or sugar beets.
***trans* fats**	Unhealthy fats made when a vegetable oil undergoes a process called “hydrogenation” to make it solid.
triglyceride	A type of a fat molecule derived from glycerol and three fatty acids.
type-2 diabetes	A chronic condition in which your body either doesn’t respond to insulin or does not produce enough insulin to maintain a normal glucose level.
unsaturated fat	Healthy fats from plants, such as olives, nuts, and avocados, often in the form of oils.
visceral fat	Fat around the abdominal organs, also called “belly fat.”
whole food	Food that is unchanged from its natural state.

Resources for Educators

Educational Standards

National Standards for Family and Consumer Sciences

Nutrition and Wellness

14.3.1 Apply various dietary guidelines in planning to meet nutrition and wellness needs.

14.2.1 Analyze the effect of nutrients on health, appearance, and peak performance.

14.2.2 Analyze the relationship of nutrition and wellness to individual and family health throughout the lifespan.

14.1.3 Analyze the governmental, economic, and technological influences on food choices and practices.

National Health Education Standards

Standard 7 for Grades 9 -12: Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

7.12.1 Analyze the role of individual responsibility for enhancing health.

7.12.2 Demonstrate a variety of healthy practices and behaviors that will maintain or improve the health of self and others.

7.12.3 Demonstrate a variety of behaviors to avoid or reduce health risks to self and others.

Useful Internet Resources

- USDA's Food-A-Pediahttps
  choosemyplate.gov/SuperTracker/
  The official site of the USDA's MyPlate offers an interactive tool, the *Food-A-Pedia*, which provides nutritional information on over 8,000 foods and beverages. The tool tells the number

- Active Fat.org
  activefat.org.uk/
  This site uses fun and sophisticated animations to explain the dangers of visceral fat. The cartoons show the villain, "Active Fat" as he unsympathetically wreaks havoc on the human body. Other videos teach related concepts, such as how to correctly measure your waist to gauge your risk for serious health problems. Sponsored by the British Heart Foundation, Cancer Research UK, and Diabetes UK.

- National Diabetes Information Clearinghouse
  http://diabetes.niddk.nih.gov/dm/pubs/insulinresistance/
  This site provides comprehensive information on everything related to the body's inability to respond normally to insulin, including insulin resistance and a common condition known as "metabolic syndrome."

Legal Niceties

WHAT CAN I DO WITH THIS RESOURCE GUIDE?

Resource Guide Credits

Writer: Jodi Libretti
Editor: Kari McCarthy
Copy Editor(s): Jennifer Smith

WHAT CAN I DO WITH THE VIDEO?

DVD LS-1220-12-DVD ISBN 978-1-55740-607-1

Closed Captioning
This program is closed captioned.

Questions, suggestions, or comments?
E-mail us at info@learningseed.com or call 800.634.4941