

# WELCOME TO THE EXTRAORDINARY EGG SERIES

## **C**HOLESTEROL PERCEPTIONS & FACTS

*An exploration of:*

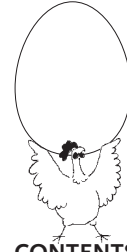
- how advertising and packaging affects consumer perceptions about a food product
- health issues around fat and cholesterol consumption and how they are portrayed in the promotion of food products

Eggs are an excellent source of complete protein, as well as providing many essential vitamins and minerals. They are also low in calories and fat. Eggs are a nutrient-dense food that play an important part in a healthy diet.

### **SUGGESTED SUBJECT AREA & GRADE LEVEL**

**Science:** Consumer Product Testing, Grade 8

**Language Arts/Advertising:** Grades 8/9



### **CONTENTS:**

#### **UNIT PLAN**

Provides an overview of the lessons and identifies learner expectations.

#### **LESSON PLANS**

Objectives and suggestions for teaching activities are provided. The activities are designed to provide opportunities for students to:

- discover their own perceptions and predict solutions
- learn new concepts
- apply the concepts to practical situations/problems

#### **RESOURCES**

Masters for student worksheets and teacher reference materials that pertain to this unit.

This module is one in a series of five that has been developed by the Canadian Egg Marketing Agency and the Provincial Egg Boards.

- THE NUTRITIVE VALUE OF EGGS
- COOKING WITH EGGS
- TECHNOLOGY AND EGG PRODUCTION
- CHOLESTEROL PERCEPTIONS AND FACTS
- MICROORGANISMS AND OUR FOOD

For more information contact your Provincial Egg Board or visit our WEB site: [WWW.CanadaEgg.ca](http://WWW.CanadaEgg.ca)

# **C** **HOLESTEROL** **PERCEPTIONS & FACTS**

## **UNIT PLAN**

Our perception of how healthy or not a particular food is, is greatly influenced by advertising and packaging.

This unit is divided into two lessons:

### **FOOD PERCEPTIONS – HOW ARE THEY CREATED?**

Through matching attributes with common food items, students discover their perceptions about the healthiness of different foods. Discussion questions assist students in recognizing the influence advertising or packaging has on their perceptions, and the various communication elements used in advertising to create the desired impression.

### **PERCEPTION VERSUS FACT**

The issue of heart health and the role of fat and cholesterol in a healthy diet are used as the basis for analysing food advertisements and packaging. Students explore the perception created versus the scientific facts.

Students demonstrate their understanding by creating their own advertisement or packaging.

## **LEARNER EXPECTATIONS**

Students will:

- discover ways that food advertisements and packaging influence their perceptions of the healthiness of food
- identify the health issues around cholesterol and analyse advertising and packaging claims and perceptions against the facts
- create an advertisement or packaging that educates the public on fat and cholesterol consumption and heart health

## FOOD PERCEPTIONS – HOW ARE THEY CREATED?

An advertisement can create an image for a product by using many different forms of communication elements. Words are one way of communicating, but there are also pictures, music and even smell (through fragrance strips).

Through exercises, students identify their perceptions about the healthiness of different foods and the influence advertising or packaging has on their perceptions.

### RESOURCES REQUIRED:

Student Worksheet: Food Perceptions

### ACTIVITIES:

Students are given a list of foods (or food models) and are asked to list the attributes they associate with each food. This activity can be done on an individual or group basis. A list of some of the possible attributes is provided. Students should be encouraged to develop their own list. Have students record their answers on the “Food Perceptions” activity sheet.

#### Possible Food Attributes:

*fattening, diet food, healthy or nutritious, high cholesterol, low cholesterol, high salt, low salt, low or no nutritional value, high in calories, should be avoided by heart patients, gives you energy, fun to eat/drink, party food, etc.*

Discuss reasons why they chose those attributes and what might have influenced them – advertising, packaging, school, friends, family, books, or magazines. Have students recall any advertising or packaging claims that they associate with these foods.

#### Discussion questions:

*Why do you feel the food has that particular attribute?*

*What information did you base your decision on?*

*What sources of information influenced your thoughts?*

*– advertising, packaging, school, friends, family, books, or magazines*

*Do you think you are susceptible to advertising about food in general? Have you ever been prompted to buy a certain food product because of an advertisement or packaging? If so, why do you think you responded (advertisement claims, music, cool image, etc)?*

An advertisement or packaging can create an image for a product by using many different forms of communication elements. Words are one way of communicating, but there are also pictures, music and even smell (through fragrance strips). Brainstorm ways that advertisements and packaging convey messages.

## CREATING PERCEPTIONS

The overall impression of an advertisement can sometimes lead consumers to a conclusion that may not be true. By analysing a food advertisement or packaging, students learn how various communication elements combine to create a product impression.

One of the most frequently talked about and highly advertised health concerns these days is heart health and cholesterol. By comparing advertising impressions to scientific facts about cholesterol and fat consumption and their impact on heart health, students learn to question claims and general impressions created by advertisements.

### RESOURCES

**Student Worksheets:** Creating Perceptions  
Facts Versus Perceptions

**Brochures:** Cholesterol and You  
Using Food Labels (available from Health Canada)

### ACTIVITIES

Working in pairs or small groups, have students analyse either an advertisement or packaging for a food that they consider to be either a good or poor choice for heart health. Students record their findings on the “Creating Perceptions” worksheet.

Possible sources for advertisements include television, magazines, newspapers or flyers.

Possible sources for packaging include school cafeteria or food labs, local grocery store and the students own home.

Suggested foods for analysis include: eggs, dairy products, snack foods, frozen entrees, “lite” foods/ diet foods. Many of these foods provide detailed nutritional information on the packaging.

#### Discussion Questions:

*Describe your overall impression of this food based on the advertisement or packaging.*

- *Who eats it?*
- *Why do they eat it?*

*What does the food product do for you (Based on the overall impression of the advertisement or packaging)?*

*Is the product portrayed as a good or poor heart healthy choice?*

*Is a health claim actually presented or is it left to the consumer to draw a conclusion from the information provided? Is the claim based on scientific truth?*

*Who is promoting the product?*

*What elements are used to help portray the producer’s message? (type of photography, music, illustrations, people, statement claims, use of celebrities)*

Students then research the factors that contribute to heart health and the role of fat and cholesterol in a healthy diet, by reading the “Cholesterol And You” brochure. A student worksheet, “Facts Versus Perceptions”, is provided to help students identify the key factors.

Using this information students evaluate their chosen food product by comparing the scientific nutrient analysis to the overall advertising or packaging impression. Students present their findings and recommendations to the class.

**Tip:**

*The “Using Food Labels” brochure, by Health Canada, is a useful reference for learning how to interpret food labels and terms such as “light” or “lite” claims that are used on food products.*

Have students develop their own advertisement or packaging design that informs the consumer about how their food product fits into a heart healthy eating pattern.

## FOOD PERCEPTIONS

Following is a list of foods. Brainstorm/identify the attributes you identify with each food. List as many attributes as you like.

FOODS	ATTRIBUTES
chips	
pretzels	
yogourt	
omelette	
pizza	
bran muffin	
cereal	
hamburger	
pasta with tomato sauce	
bagel	
Caesar salad	
French toast	
grilled cheese sandwich	
fruit punch	
orange juice	

## FOOD PERCEPTIONS

Following is a list of foods. Brainstorm/identify the attributes you identify with each food. List as many attributes as you like.

### POSSIBLE FOOD ATTRIBUTES

*fattening*

*diet food*

*healthy, nutritious or good for you*

*high cholesterol*

*low cholesterol*

*high salt*

*low salt*

*low or no nutritional value*

*bad for you*

*high in calories*

*should be avoided by heart patients*

*gives you energy*

*fun to eat/drink*

*party or celebration food*

*cool people eat it*

*nerds eat it*

## CREATING PERCEPTIONS

FOOD PRODUCT REVIEWED: \_\_\_\_\_

1. Describe your overall impression of this food based on the advertisement or packaging. Include answers to the following questions.

Who eats it?

Why do they eat it?

What does the food product do for you (Based on the overall impression of the advertisement or packaging)?

Is the product portrayed as a good or poor heart healthy choice?

### OTHER OBSERVATIONS

2. Is a health claim actually stated or is it left to the consumer to draw a conclusion from the information provided?
3. Is the claim based on scientific truth?
4. Who is promoting the product?
5. What elements are used to help portray the producer's message? (type of activity, photography, music, illustrations, people, statement claims, use of celebrities)
6. Based on the advertisement/packaging, would you recommend this food for heart healthy eating?



## **FACT VERSUS PERCEPTION (CON'T)**

PART C: Evaluate and Compare

10. List the fats your food product contains? Does the product contain more “good fats” than “bad fats”?

11. What other nutrients does your product contain?

12. Do any of these nutrients help to reduce cholesterol levels?

Yes  No

13. Would you recommend this product for heart healthy eating?

Yes  No

Explain why or why not.

14. Does the nutrient analysis you just completed agree with the perception created in the product advertising or packaging?

15. Suggest ways to improve the product advertisement or packaging to help consumers understand the nutritive value of this product.

## FACT VERSUS PERCEPTION

### IDENTIFY THE FACTS

#### PART A: True or False

1. You cannot live without cholesterol.  True  False

*True* Cholesterol is fundamental for life and occurs naturally in your body. It is not an illness.

*Cholesterol forms a basic part of all our cells. We need it to help digest food and to produce hormones and vitamin D.*

2. The cholesterol in foods is called dietary cholesterol. It has little affect on most people's blood cholesterol levels.  True  False

*True* The cholesterol in foods has little affect on blood cholesterol levels for most people. About 80% of the cholesterol in your blood is there because your body produced it in your liver. Only about 20% of your blood cholesterol is influenced by what you eat. If you eat more cholesterol than you need, your body maintains a balance by producing less. And when it comes to diet, research indicates that it is the excess fat and not dietary cholesterol that has the greatest impact on your blood cholesterol levels. (Nutrition Recommendations. The report of the Scientific Review Committee, Health Canada, Ottawa. 1990)

3. Foods labelled "Cholesterol Free" are always a healthier choice.  True  False

*False* Not necessarily. It's the total amount of fat in food, not cholesterol, that should be your main concern.

4. Always select a food marked "light" or "lite", as it will have less fat and fewer calories.  True  False

*False* Not necessarily. When foods are described as light or lite, read the label to find out what is light about them. Foods may be light in texture or taste and not reduced in calories or fat at all.

## FACT VERSUS PERCEPTION (CON'T)

### PART B: Explain and Define

5. Name the seven key risk factors that influence your cholesterol level.

*Family History, Disease, Age & Gender, Smoking, Lack of Exercise, Excess Body Weight, High Fat Diet*

6. Which factor is considered to be the single most important risk factor to influence your blood cholesterol levels?

*Family History The health history of your parents and grandparents is the main factor in determining your blood cholesterol levels. A history of high blood cholesterol in your family means that you may be more at risk for heart disease.*

7. Why is HDL “good” cholesterol actually healthy for you?

*HDL attaches to cholesterol and takes it to the liver for removal from the body.*

8. Different types of fat affect your blood cholesterol levels in different ways. From the following list, identify which fats are considered to be “good”, and which are “bad”.

Polyunsaturated     Good     Bad

– tends to lower overall cholesterol levels

– found in oils that are liquid at room temperature such as corn, safflower, sunflower and soybean oils

Monounsaturated     Good     Bad

– helps to lower LDL “bad” and increase HDL “good” cholesterol levels

– found in olive, canola and peanut oils contain monounsaturated fats

Saturated     Good     Bad

– increases LDL “bad” cholesterol levels and lowers HDL “good” cholesterol levels

– found in meats, dairy products and many processed foods made with lard or palm or coconut oils

Trans-fatty acids     Good     Bad

– increases LDL “bad” cholesterol levels and lowers HDL “good” cholesterol

– found in foods containing hydrogenated oils

9. Many foods that contain cholesterol, such as eggs, can be part of a healthy diet. Why?

*Dairy products, meat and eggs all contain cholesterol, yet they are all included in Canada’s Food Guide to Healthy Eating as part of a balanced and healthy diet.*

*Research has shown that your total fat intake is the single most important factor when it comes to diet and lowering your blood cholesterol. Eat a variety of foods from each food group every day, while choosing lower-fat foods more often.*

## YOUR OPINION IS IMPORTANT TO US

We are interested in learning about your experience in using the CHOLESTEROL PERCEPTIONS & FACTS teaching module.

How did you hear about the module? Check all those which apply –

- Received Educating Egg Resource Guide and order form in the mail
- Received information at a Teacher’s Convention or workshop
- Received information while at a farm or consumer exhibit
- Received information through Agriculture in the Classroom
- Materials were recommended by a colleague

Please list other sources \_\_\_\_\_

How did you use the materials?

Grade(s): \_\_\_\_\_

Subject or Curriculum area: \_\_\_\_\_

If applicable, how did you modify or adapt any of the materials? \_\_\_\_\_

If applicable, how did you supplement the module? \_\_\_\_\_

What were your teaching objectives for using this material? \_\_\_\_\_

\_\_\_\_\_

	unsuccessfully			successfully	
Module helped to meet objectives?	1	2	3	4	5

Please comment: \_\_\_\_\_

\_\_\_\_\_

The module lists the following learner expectations.

Students will

- discover ways that food advertisements and packaging influence their perceptions of the healthiness of food
- identify the health issues around cholesterol and analyse advertising and packaging claims and perceptions against the facts
- create an advertisement or packaging that educates the public on fat and cholesterol consumption and heart health

	very appropriate			not appropriate	
Were the learning expectations appropriate?	1	2	3	4	5

What do you consider to be the key learning or messages from this module? \_\_\_\_\_

\_\_\_\_\_

	poorly			extremely well received	
	1	2	3	4	5
Food Perceptions (student worksheet)	1	2	3	4	5
Creating Perceptions (student worksheet)	1	2	3	4	5
Fact Versus Perceptions (student worksheet)	1	2	3	4	5
Cholesterol and You (brochure)	1	2	3	4	5

Did the module:	unsuccessfully			successfully	
Provide new information?	1	2	3	4	5
Provide new learning?	1	2	3	4	5
Reinforce previous knowledge?	1	2	3	4	5

Were there any controversial issues brought forward as a result of using this module? \_\_\_\_\_

What were the issues? \_\_\_\_\_

Was there sufficient information and support materials in the module to handle the issue?

Yes                       No                       Partially

If no, what would be sufficient to address this issue? \_\_\_\_\_

Which part(s) of the module will you continue to use? Check all that apply –

- Lesson A: Food Perceptions – how are they created
- Lesson B: Creating Perceptions
- Student worksheet: Food Perceptions
- Student worksheet: Creating Perceptions
- Student worksheet/Teacher worksheet: Fact Versus Perceptions
- Brochure: Cholesterol and You

Would you recommend this module to other teachers?     Yes     No

In producing these resource materials The Canadian Egg Marketing Agency has the following objectives. In your opinion did the materials meet these objectives:

	failed to meet			met objective entirely	
Provide materials which assist students to learn about how eggs are produced and marketed.	1	2	3	4	5
Develop positive attitudes towards eggs.	1	2	3	4	5
Provide materials which support curriculum objectives.	1	2	3	4	5
Provide materials which are credible	1	2	3	4	5
Provide materials which are accurate	1	2	3	4	5
Provide materials which are of excellent quality.	1	2	3	4	5

*Please return to:* Canadian Egg Marketing Agency

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