

# Nutrition Education

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# Objectives

**At the end of the lecture you should gain the ability to:**

- **Define nutrition education.**
- **Recognize the importance of nutrition education.**
- **Understand methods used in nutrition education.**

# EATING TO LIVE....



***Not Living to Eat***

# Definition of Nutrition Education

It is the science of teaching the individual how to practice proper and correct nutrition in terms of:

1-Knowing the **proper** nutrition rules.

2-Knowing **benefit** of each nutrient.

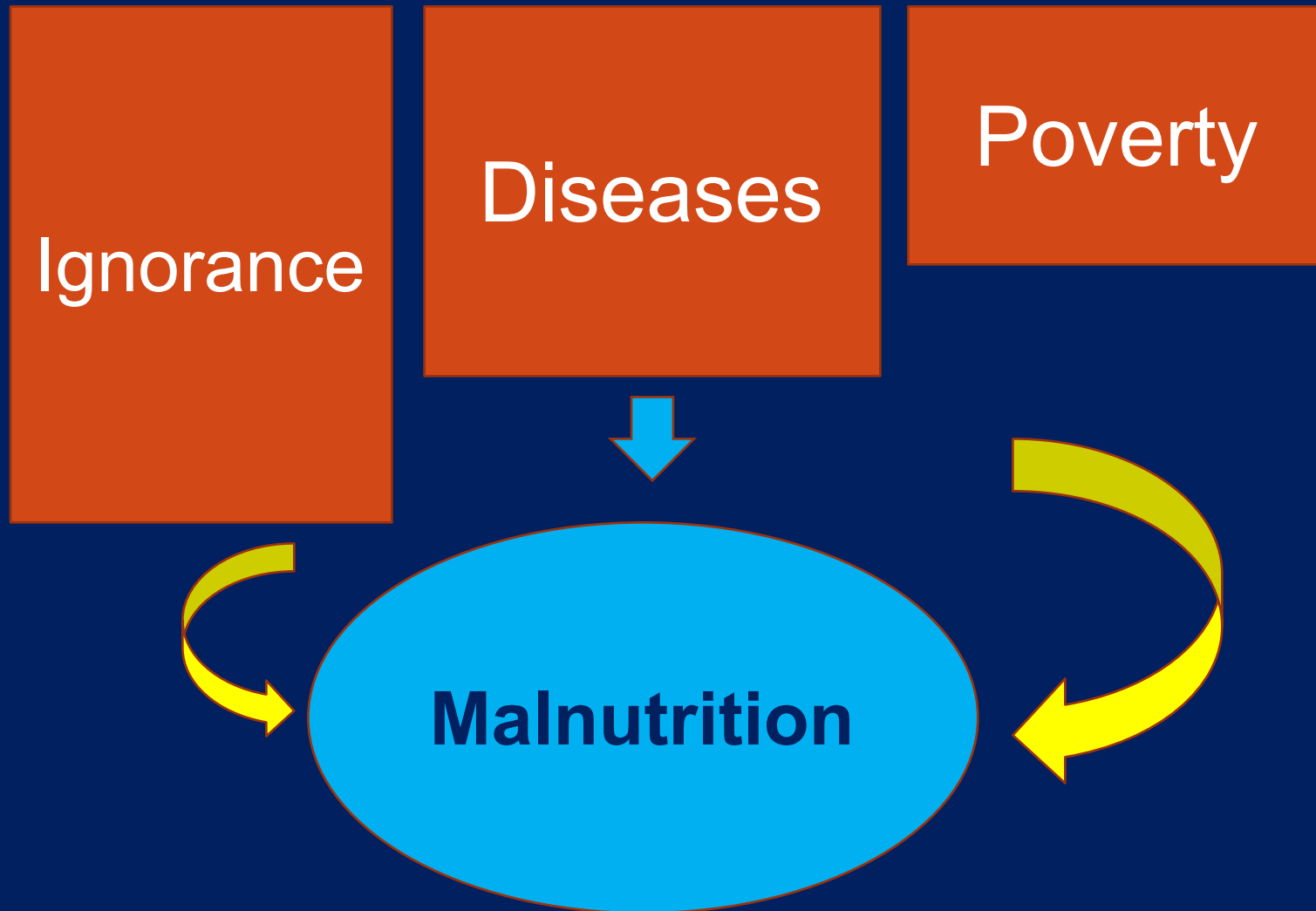
3-More attention to **quality** and **quantity** of foods.



# Definitions

- **Nutrition:** The process by which the human intakes food for **growth, energy, and replacement of tissues**.  
It is successive stages include digestion, absorption, metabolism, and excretion.
- **Nutrition requirements:** The quantities of each nutrient which met the human body needs to prevent nutrients deficiency diseases.

- **Contribution differs between countries**



# Prevention is better than Cure



Don't  
smoke



Limit sugar and  
salt intake



Eat five portions  
of fruit and veg  
a day



Eat plenty of  
high-fibre foods

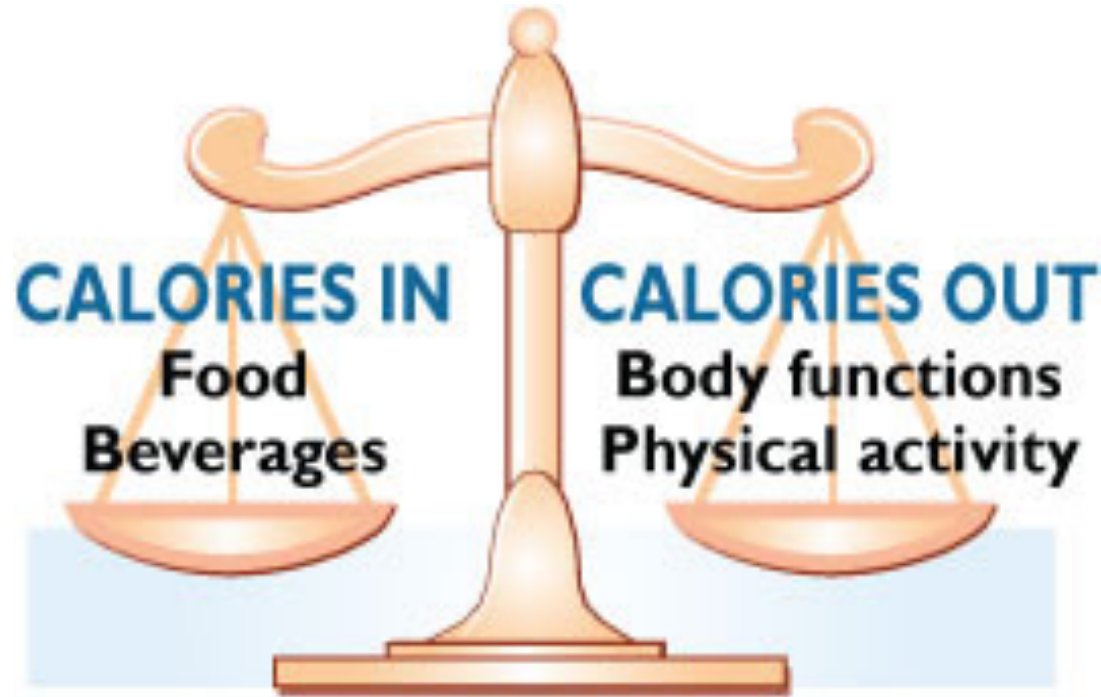


Get regular  
exercise



Limit alcohol  
intake

# Energy Balance



*CDC (2011)*

**Obesity is the result of chronic energy imbalance (input calories > output calories)**



# BURGER

20 Years  
Ago



333  
calories

Today



How many  
calories are in  
today's burger?



# BURGER

20 Years  
Ago



333  
calories

Today

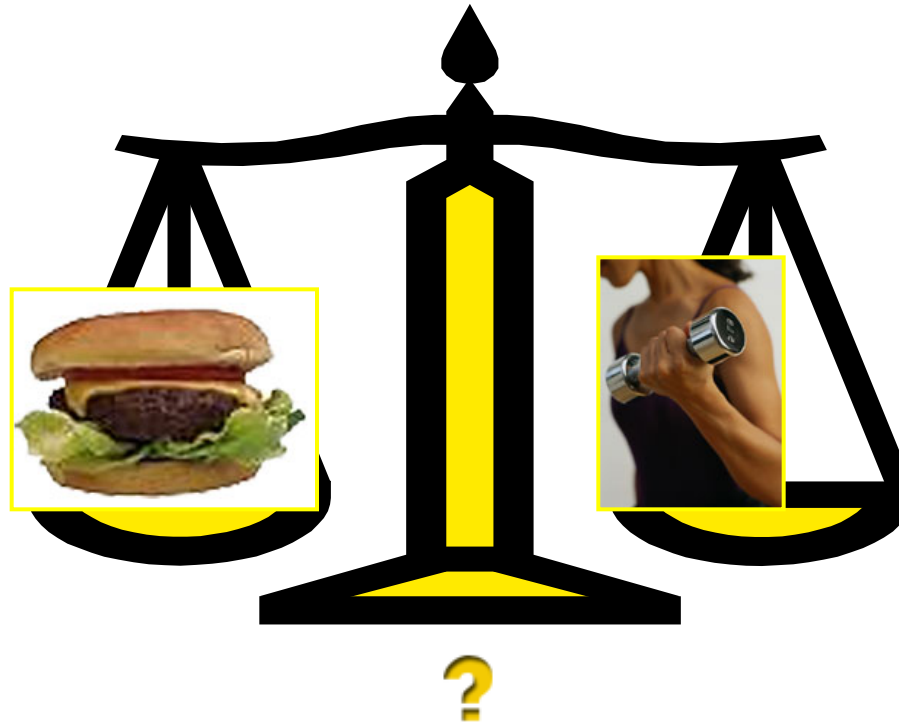


590  
calories



Extra 257 calories

# Maintaining a Healthy Weight is a Balancing Act



**How long will you have to lift weights in order to burn the extra 257 calories?**

**\*Based on a 60kg person**



# Calories In = Calories Out



**1 hour and 30 minutes**



# **Who are in need for Nutrition Education?**

- **Every Person what ever his culture, lifestyle, educational level, income, health status.**
- **In hospitals, education is usually directed to people with health problems; like DM, Obesity, Celiac disease, Hypertension, .....**

# Importance of Nutrition Education

- Man doesn't have instinct nor inherit knowledge that leads him to know the effect of different foods on health.
- There is consensus that **food choices, dietary practices, and physical activities** influence health.
- Increases the **motivation, skills, and opportunities** for people to engage in health.

# Aims of Nutrition Education

**To increase people's ability to know the following facts:**

- ❑ The relationship between the body growth, appearance, qualities and the types of food they eat.**
- ❑ Increased diversification in the food they eat, and enjoy its taste.**
- ❑ Planning and preparing of meals rich in nutrients.**

# **Aims of Nutrition Education**

- ❑ The natural resources of food.**
- ❑ Assessment of their nutritional behaviors and beliefs.**
- ❑ Appreciating the importance of the standard of living improving programs.**



**Malnutrition**

**Developing countries**

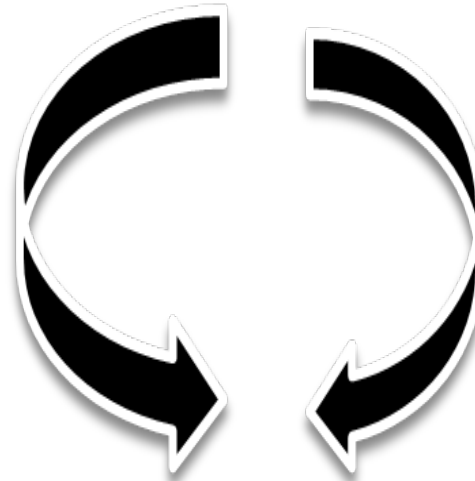


Nutrients Deficiency  
disease

**Developed countries**



Obesity  
Heart disease  
Diabetes  
Hyper tension



# **Factors Affect Human's Food Consumptions:**

**1-The healthy body and disease.**

**2-Psychological factors.**

**3-Food habits.**

**4-Economic levels.**

**5-Education level.**

**6-Religious beliefs**

# **Factors Affect Human's Food Consumptions:**

**7-Political conditions**

**8-Social conditions**

**9-Media**

**10-Travel & Tourism**

**11-Geographical characteristics**

# Nutrition Education strategy

Encouraging the targeted categories to consume **Balanced Diets** according to the:

- Available resources
- Renew the dishes
- Local food and eating habits
- The presenting ways
- The best preparing Methods
- Suitable food
- To Meet the needs



# 1 Healthy Eating Patterns



# Foods and food components to reduce

- Sodium intake (Hypertension and Heart failure)
- Saturated fatty acids (For All)
- Dietary cholesterol (For All)
- Trans-fatty acids (For All, more atherogenic)
- Calories from solid fats and added sugars.
- Refined grains that contain solid fats, added sugars and sodium. (For All)

# A Healthy Eating Pattern of Food

## **Less**

**Saturated fats,**

**Trans Fats,**

**Added Sugars,**

**and Sodium**

# Meats and Poultry Meat

- Also known as **Red Meat**, includes all forms of beef, lamb, veal, goat. **Poultry** includes all forms of chicken, turkey, duck.
- **Lean meats** and **poultry** contain less fat and cholesterol.
- **Processed meats** and **processed poultry** (e.g., sausages, luncheon meats) are products preserved by smoking, salting, ....
- **Strong evidence** from mostly prospective cohort studies but also randomized controlled trials has shown that eating patterns that include **lower intake of meats as well as processed meats and processed poultry** are associated with **reduced risk of CVD in adults**.
- **Moderate evidence** indicates that these eating patterns are associated with reduced risk of **obesity, type 2 diabetes**, and some types of **cancer** in adults.



# Seafoods

- **Seafood** provides the most **vitamin B12** and **vitamin D**, in addition to almost all of the **polyunsaturated** like omega-3 fatty acids, ....
- The recommendation to consume **TWO** servings or more per **week**.
- **Strong evidence** from mostly prospective cohort studies but also randomized controlled trials has shown that eating patterns that include seafood are associated with **reduced risk of CVD**, and **moderate evidence** indicates that these eating patterns are associated with **reduced risk of obesity**.

# Soft Drinks Industry Levy in UK

## The Government's ambition on Childhood Obesity

- **Levy:** The amount of money has to be paid and collected by government.
- From April 2018, millions of children across the UK had benefit from the government's key milestone in tackling childhood obesity.
- That means over **45 million kg of sugar a year** being removed from soft drinks through reformulation. In England, the revenue from the levy is invested in programmes supporting pupil health and wellbeing.
- The rates companies will need to pay are as follows:
  - ❑ **24p** per litre of drink if it contains **8** grams of sugar per 100 millilitres
  - ❑ **18p** per litre of drink if it contains between **5 – <8** grams of sugar per 100 millilitres.

# MyPyramid

STEPS TO A HEALTHIER YOU

MyPyramid.gov



## GRAINS

Make half your grains whole

Eat at least 3 oz. of whole-grain cereals, breads, crackers, rice, or pasta every day

1 oz. is about 1 slice of bread, about 1 cup of breakfast cereal, or 1/2 cup of cooked rice, cereal, or pasta

## VEGETABLES

Vary your veggies

Eat more dark-green veggies like broccoli, spinach, and other dark leafy greens

Eat more orange vegetables like carrots and sweet-potatoes

Eat more dry beans and peas like pinto beans, kidney beans, and lentils

## FRUITS

Focus on fruits

Eat a variety of fruit

Choose fresh, frozen, canned, or dried fruit

Go easy on fruit juices

## MILK

Get your calcium-rich foods

Go low-fat or fat-free when you choose milk, yogurt, and other milk products

If you don't or can't consume milk, choose lactose-free products or other calcium sources such as fortified foods and beverages

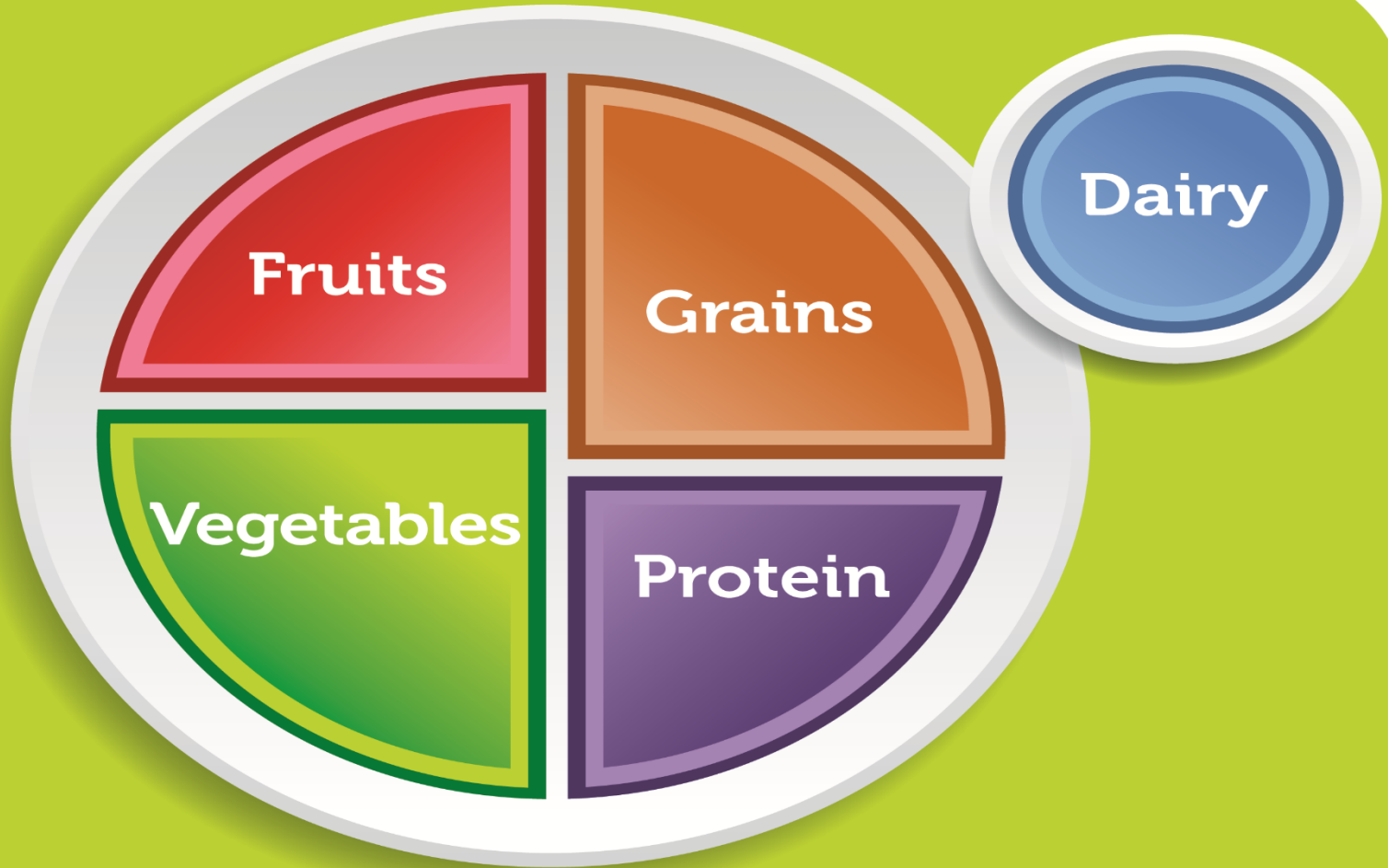
## MEAT & BEANS

Go lean with protein

Choose low-fat or lean meats and poultry

Bake it, broil it, or grill it

Vary your protein routine—choose more fish, beans, peas, nuts, and seeds



Choose **MyPlate**.gov

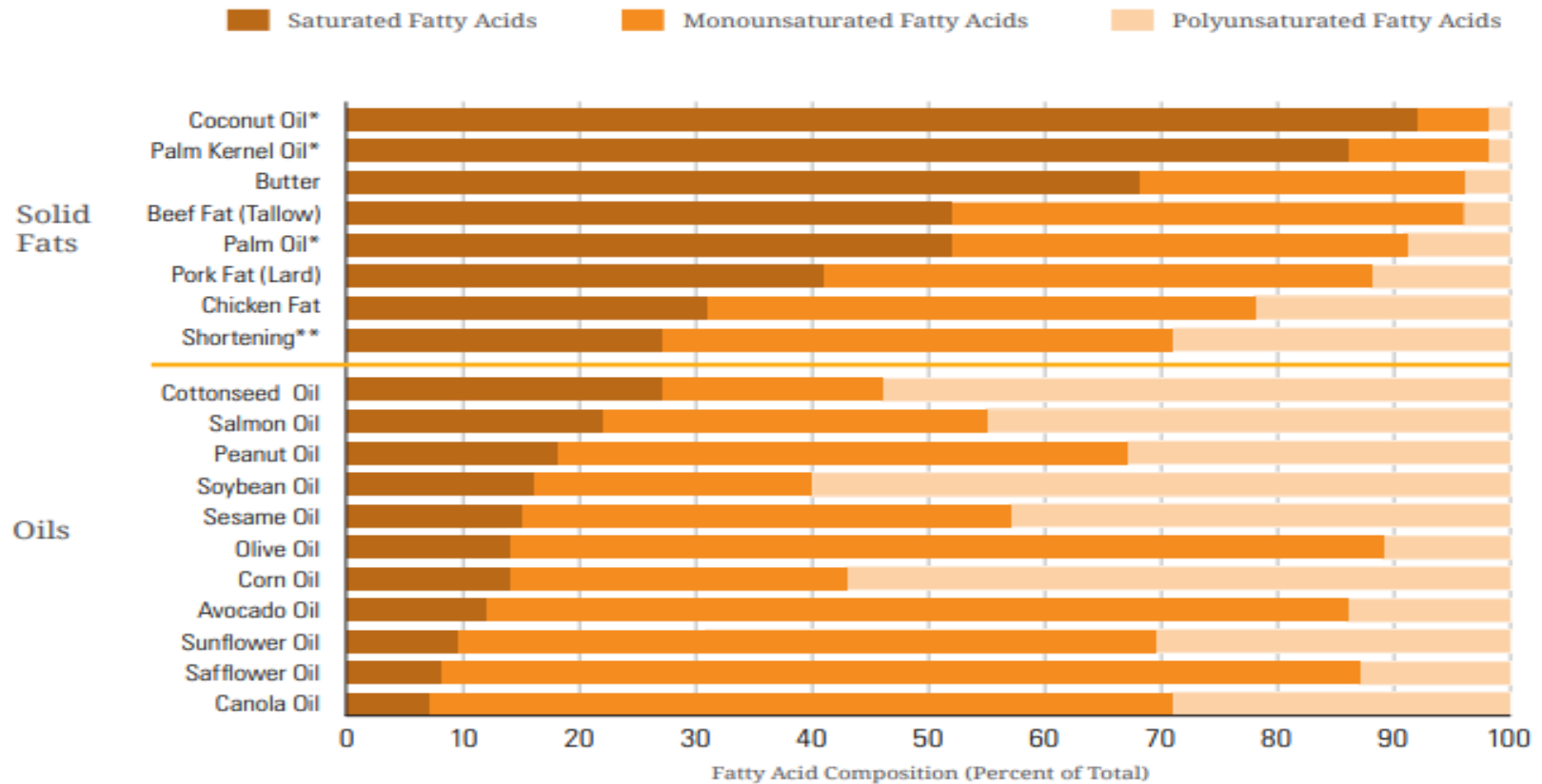


- **Vegetables** are naturally low in fat and calories and provide dietary fiber, potassium, Vitamin A, Vitamin C
- **Fruits** are sources of many essential nutrients including: potassium; dietary fiber, vitamin C, and folate.
- **Whole grain** are sources of Dietary fiber, B vitamins and Minerals – iron, magnesium and selenium.
- **Proteins** are sources of B vitamins, vitamin E, iron, zinc, and magnesium and Omega-3 fatty acids which are found in seafood.
- **Oils** are sources of energy and improve brain function like olive oil, corn oil, ...

# A Healthy Eating Pattern Includes

- **Vegetables** from all of the subgroups—dark green, red and orange, legumes (beans and peas), starchy, and others.
- **Fruits**, especially whole fruits.
- **Grains**, at least half of which are whole grains
- **Fat-free or low-fat dairy**, including milk, yogurt, cheese, and/or fortified soy beverages.
- **Protein foods**, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products.
- **Oils**

# Fatty Acid Profiles of Common Fats & Oils

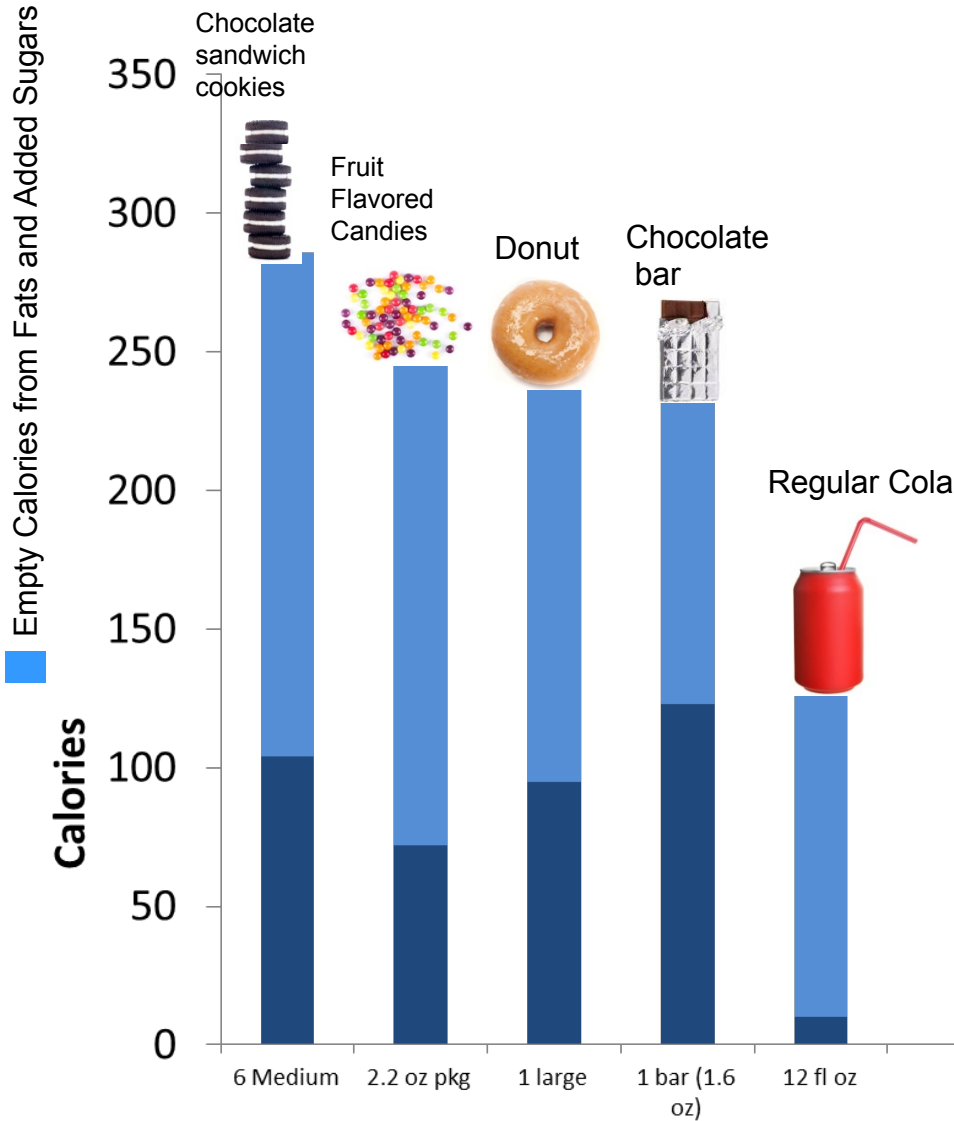


\* Coconut, palm kernel, and palm oil are called oils because they come from plants. However, they are solid or semi-solid at room temperature due to their high content of short-chain saturated fatty acids. They are considered solid fats for nutritional purposes.

\*\* Shortening may be made from partially hydrogenated vegetable oil, which contains *trans* fatty acids.

**DATA SOURCES:** U.S. Department of Agriculture, Agricultural Research Service, Nutrient Data Laboratory. USDA National Nutrient Database for Standard Reference. Release 27, 2015. Available at: <http://ndb.nal.usda.gov/>. Accessed August 31, 2015.

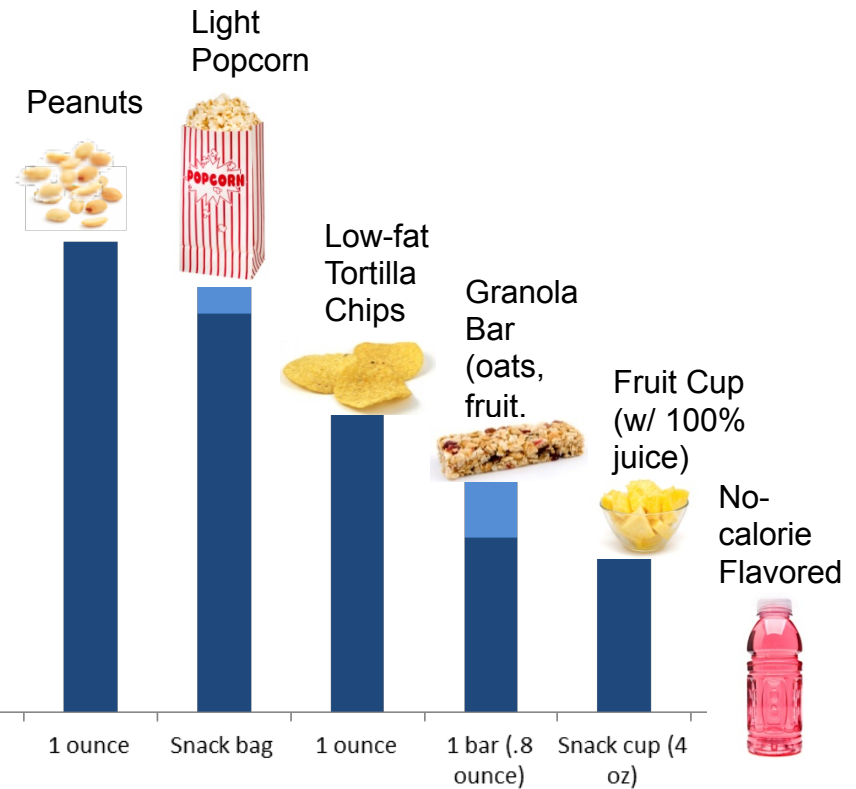
# Snacks Not Meeting Standards



# Snacks Under New Standards

\*There are existing products meeting standards

**Fewer empty calories from fats and added sugars**





# You've Got the Power!

Want to get your engine going?  
Eat your colors!

Make half your plate  
fruits and veggies.



Explore a world of possibilities in the garden and on your plate.



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# SANDWICH

20 Years Ago



**320  
calories**

Today



**How many calories  
are in today's  
sandwich?**



# SANDWICH

20 Years Ago



320  
calories

Today

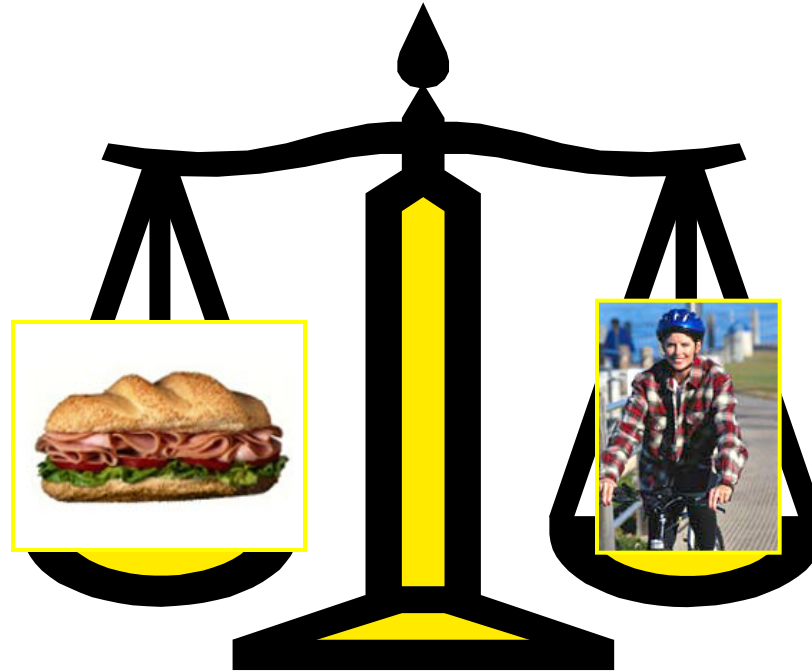


820  
calories

**Calorie Difference: 500 calories**



# Maintaining a Healthy Weight is a Balancing Act



How long will you have to ride a bike in order to burn those extra calories?\*

\*Based on A 72kg person



**Calories In = Calories Out**



**1 hour and 25 minutes**



- Is it healthier to---  
(a) eat then exercise?  
(b) exercise then eat?

**Answer**

**b**

# Interactive Nutrition Education

- Engages the client.
- Provides opportunity for questions and feedback.
- May be individual or group sessions.
- Helps client identify individual goals or important issues.



# Group Nutrition Education Techniques

## Facilitated Discussion

- Discuss a specific topic, to be interactive, share questions and knowledge with others
- Focuses on client's needs
- Develops relationships between clients
- Clients learn from one another
- Requires members to be familiar with topic
- Requires skill development of staff



# **Choosing the Channels of Nutrition Education**

- 1. Newspapers and Publications.**
- 2. Internet**
- 3. Radio**
- 4. Television / Satellites**

# Conclusion

- ❑ **Nutrition Education is a requirement in health system as well as among all public.**
- ❑ **Messages should be simple and to the level and culture of the audients.**
- ❑ **Limit intake of saturated fats, trans fat, added sugars and sodium.**
- ❑ **You can participate in education through; Lectures, Seminars, Group discussion, Media, Day Activities in hospitals, ...**

A scenic landscape featuring a river flowing over large, dark rocks. The water is clear and creates white foam as it cascades over the rocks. The surrounding area is lush with autumn foliage in shades of orange, yellow, and green. In the background, a wooden fence runs along the riverbank, and the sky is filled with soft, grey clouds. The overall atmosphere is peaceful and natural.

**THANK YOU**