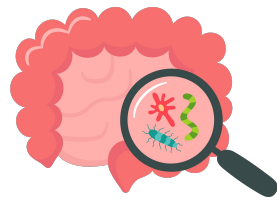




Family medicine
443



GNT443

Nutrition Education

Note

This lecture was explained to females by the male doctor and the male doctor's slides, but the female doctor's slides were added because they were sent to the drive, **but female doctor said "Study the male doctor's slides", so study the black and blue text.**

Editing File

Color index:

Main text (Black)

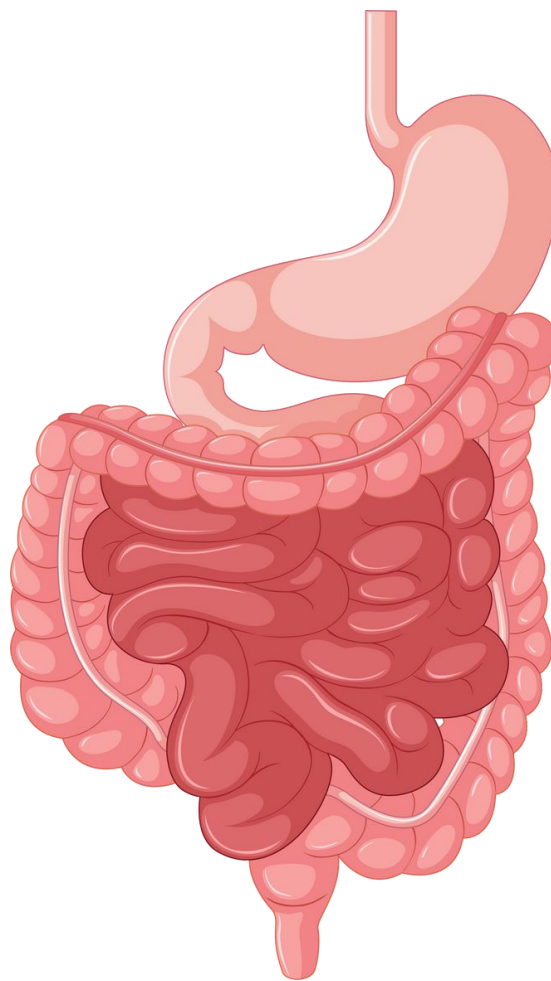
Female slides (Pink)

Male slides (Blue)

Important things (Red)

Dr's notes (Green)

Extra information (Grey)



OBJECTIVES



Define nutrition education.



Recognize the importance of nutrition education.



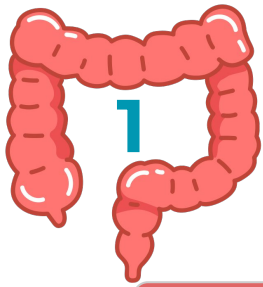
Understand methods used in nutrition education.



Recognize the Saudi healthy plate guide.



Understanding nutrition labels.



Nutrition education

Definition

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.

Quality and quantity are both important, but quality is more important

Malnutrition

The contribution differs between countries & we have several causes can lead to malnutrition like: ignorance, diseases & poverty.

- Developing countries Nutrients deficiency disease.

-Developed countries /Obesity, Heart disease, diabetes, hypertension.

Prevention is better than cure, **to prevent malnutrition.**

Related terms

Nutrition:

- 1-The process by which the human **intakes food for growth, energy, & replacement of tissues**; its successive stages include: digestion, absorption, metabolism, and excretion.
- 2-are the components of food, for example, carbohydrates (starches), proteins, fats, vitamins, minerals, water and others.

Food:

Any **substance** taken into the body that will help to meet the body needs for energy, maintenance & growth.

Calories:

the amount of energy food provides us to carry out vital body functions.

A food ration:

a specific and calculated amount of food recommended to be consumed and measured in cups, grams, pieces, or slices, depending on the type and nature of the food.

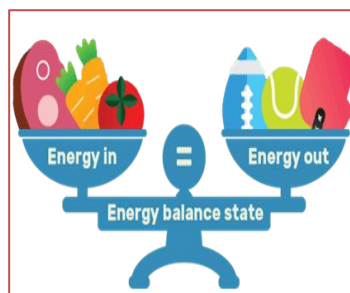
Medical nutrition therapy (mean in hospital):

- 1-is an evidence-based approach used in the nutrition care process of treating and/or managing chronic diseases, often used in clinical and community settings, focusing on nutrition assessment, diagnostics, therapy and counselling.
- 2-It is often implemented and monitored by a registered dietitian and/or in collaboration with physicians.

Nutritional requirements:

The quantities of each nutrient which meet the human body needs to **prevent** nutritional **deficiency** diseases.

Energy balance

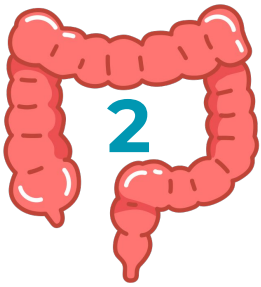


Obesity is the result of chronic energy imbalance input calories > output calories

Prevention is better than Cure

Dietary choices are made regularly from a person's pattern of eating. Over time, eating patterns can lead to better or worse health outcomes.

- | | | | |
|----------|--|----------|---------------------------------|
| 1 | Do not smoke 🚭 | 4 | Eat plenty of high-fiber food 🌿 |
| 2 | Limit sugar and salt intake 🍷 | 5 | Get regular exercise 🏃 |
| 3 | Eat five portions of fruits and vegetables a day 🍎 | 6 | Limit Alcohol (never) 🍷 |



Nutrition balance

Optimal nutrition status

Nutrition Intake

Food intake, absorption, liver physiologic stress, infection, psychological stress, environment disease, mechanical problems.



Nutrition requirements

Nutrition requirements, growth, psychological stress, body maintenance and well-being.

Importance of nutrition education

- 1- Man doesn't have instinct nor inherit **knowledge** that leads him to know the **effect** of different **foods on health**.
- 2- Increased risk of chronic diseases.
- 3- There is consensus that people's food choices, dietary practices, & physical activities behaviors influence health.
- 4- Nutrition education can increase the motivation, skills, and opportunities for people to **engage** in **health promoting actions**.



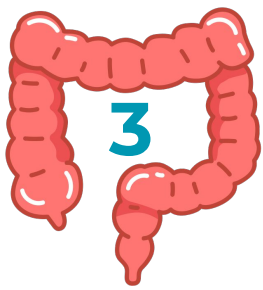
Who are the people in need for nutritional education?

- 1-**Every Person** whatever his culture, lifestyle, educational level, income, health status.
- 2-In **hospitals**, education is usually directed to **people with health problems**: like diabetes mellitus(DM), **Obesity**, **Celiac** disease, Hypertension(HTN), and others.

Aims of nutrition education:

increase people's ability to know the following facts:

- 1-Increased **diversification** تنوع in the food they eat, and enjoy its taste.
- 2-Planning and preparing of meals **rich** in nutrients.
- 3-The **relationship between the body growth, qualities, appearance, & types of food they eat**.
- 4-The **natural** resources of food.
- 5-Assessment of their nutritional behaviors and beliefs.
- 6-Appreciating the importance of the standard of living improving programs.
- 7-The relationship between dietary habits and health.



Factors affect on humans food consumption

- 1-The healthy body and disease 🏥
- 2- Psychological factors, Food habits 🎭
- 3- Education level 📖, Media 📺
- 4-Political conditions 🗳️
- 5-Form and offering way of food 🍽️
- 6-Travel & Tourism 🗺️
- 7-Labor Migration 🧑
- 8-Economic levels 💰
- 9- Religious beliefs 🕌
- 10-Social conditions 👥
- 11-Geographical characteristics 🌍

Malnutrition

Developing countries
: nutrients deficiency disease.

Developed countries
: obesity, heart disease, diabetes and hypertension.

1 Nutritional education strategy

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

- 1-Available resources
- 2-Renew the dishes
- 3-Local food and eating habits
- 4-The presenting ways
- 5-The best preparing Methods
- 6-Suitable food to meet their needs

2 Foods & food components to reduce

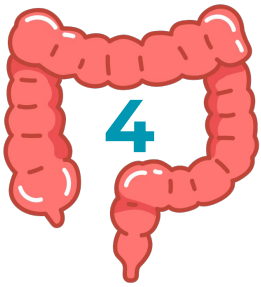
- **Sodium intake for hypertension & heart failure**
- **Saturated fatty acids** (For all; either healthy or diseased person)
- Dietary cholesterol (For all)
- **Trans-fatty acids** (For all, more atherogenic)
- Refined grains that contain solids fats, **added sugars and sodium** (For all)
- Calories from solid fats and added sugars.

3 A Healthy Eating Pattern Of Food

- Less for everyone: Saturated & Trans Fats 🍔
- Added Sugars -Sodium 🍰

4 Choosing channels of nutrition education

- Newspaper & publications 📰
- Internet 🌐
- Telephone and fax 📞
- Radio 📻
- Television / Space stations 📺



Meats and Poultry meat

- 1** 🐔 Poultry meats includes: all forms of chicken, turkey, duck, 🦆 Also known as red meat, includes: all forms of beef, lamb, veal, goat.
- 2** 🍖 Lean meats and poultry contain less fat and cholesterol.
- 3** 🥓 Processed meats and processed poultry (e.g. sausages, luncheon meats) are products preserved by smoking & salting.
- 4** ❤️ 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 & processed poultry are associated with **reduced risk of CVD** in adult.
- 5** 🍖 Moderate evidence indicates that these eating patterns are associated with **reduced** risk of **obesity**, type 2 diabetes, & some types of **cancer** (WHICH TYPE? COLON) in adults.

Seafood

- 1-Seafood provides the most vitamin B12 and vitamin D, in addition to almost all of the polyunsaturated fatty acids; like **Omega-3 fatty acids**.
- 2-Strong evidence indicates that eating patterns that include seafood are associated with **reduced risk of CVD**, & moderate evidence indicates that these eating patterns are associated with **reduced** risk of **obesity**.
- 3-The recommendation to consume **two** servings or more **per week**.

Varied:
to eat many different types of foods each day

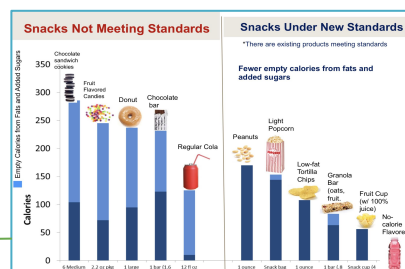
Adequate:
provides enough energy, nutrients, fiber & vitamins to support a person's health.

Healthier Diet IS (Extra)

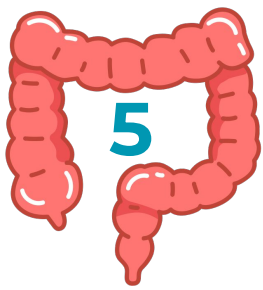
Moderate:
contains the right amounts of foods (Calories) for maintaining proper weight – neither too much nor too little food.

Balanced:
contains the right combinations of foods to provide the proper balance of nutrients.

Empty calories:
These are snacks don't give you the calories and energy you need in your day and also don't make you full.



These are good as snacks due to fewer empty calories



Sources of healthy food

Vegetables

from all of the subgroups dark green, red and orange, legumes (beans and peas), starchy & are naturally low in fat and calories and provide dietary fiber, potassium, vitamin A and vitamin C (1).

Fruits (2)

especially whole fruits & are sources of many essential nutrients including: dietary fiber, potassium, vitamin C and folate.

Whole grain

at least half of which are whole grains. are sources of dietary fiber, B vitamins and Minerals (iron, calcium, magnesium & selenium).

Proteins

including seafood, lean meats and poultry (3), eggs, legumes (beans and peas), nuts (4), seeds, soy products & are sources of B vitamins, vitamin E, iron, zinc, magnesium & ω -3 fatty acids which are found in seafood.

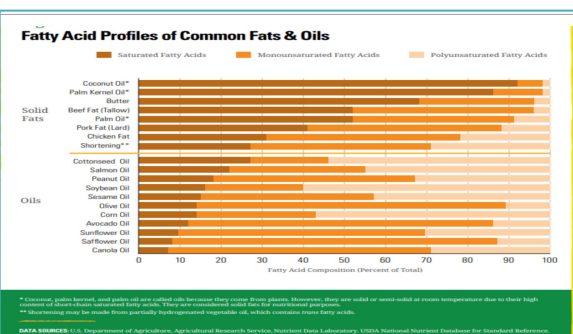
Fat-free or low-fat dairy

including milk, yogurt, cheese, and/or fortified soy beverages.

Oils (5)

are sources of energy & improve brain function like olive oil, corn oil.

1. Vitamin A & C are antioxidants that has beneficial effects on CVS & maybe cancer.
2. Juice VS fruit, if you eat fruits rather than drink juice you take advantage of the fibers.
3. Lean meat If you'll eat meat, poultry is better than red meat.
4. Nuts are healthy as they have Omega 3.
5. The picture: (Monounsaturated fatty acids & Coconut oil are the most highly atherogenic, palm kernel oil is considered high) (canola, sunflower, corn, olive, sesame, soybean is considered good, even cottonseed oil & salmon.



Group Nutrition Education Techniques Uses Facilitated Discussion by:

- 1- Discuss a specific topic, to be interactive, share questions & knowledge with others.
- 2- Develops relationships between clients.
- 3- Focuses on clients needs.
- 4- Clients learn from one another.
- 5- Requires members to be familiar with topic.
- 6- Requires skill development of staff.

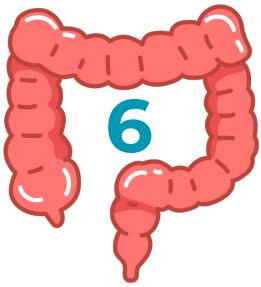
Engages the client.

Provides opportunity for questions & feedback.

Interactive Nutrition Education:

May be individual or group sessions.

Helps client identify individual goals or important issues.



Levy

Soft Drinks Industry Levy in UK The Government's ambition on Childhood Obesity

(ضريبة قيمة مضافة على المشروبات المحلاة)

Definition:

The amount of money has to be paid & is 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 programs supporting people health and well-being.

❖ The rates companies will need to pay are as follows:

➤ 24 pounds per liter of drink if it contains 8 grams of sugar per 100 ml.

➤ 18 pound per liter of drink if it contains between 5-8 grams of sugar per 100 ml.

يعني كل ما زاد السكر بتزيد الضريبة

Changing the eating habits through nutrition education:

- Food habits affect food consumption pattern.

Requirements:

- Diffusion of innovations: Spread of innovations(new ideas).

- Communication process: Methods of conveying thought & feeling, it describes interactions between individuals & groups as well on between various media & people.

- Source : nutrition educator

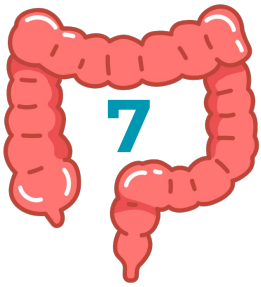
- Channel: presentations, lectures media.

- Message: simple (eat more vegetables and fruits), complex (how to get your child to eat healthful).

- audience: individual group or public.

What is the best nutrition approach?

First	the best nutrition approach is one an individual can maintain long-term to achieve long-term health-related and/or weight-related outcomes.
Second	There is no one-size-fits-all eating pattern for obesity management. Adults living with obesity may consider various nutrition intervention options that are client-centred and flexible.
Third	Evidence suggests this approach will better facilitate long-term adherence.
Fourth	Nutrition recommendations for adults of all body sizes should be personalized to meet individual values, preferences and treatment goals to support a dietary approach that is safe, effective, nutritionally adequate, culturally acceptable and affordable for long-term adherence



Steps of social change

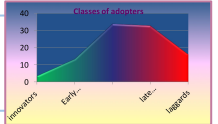


Adoption of Idea Steps

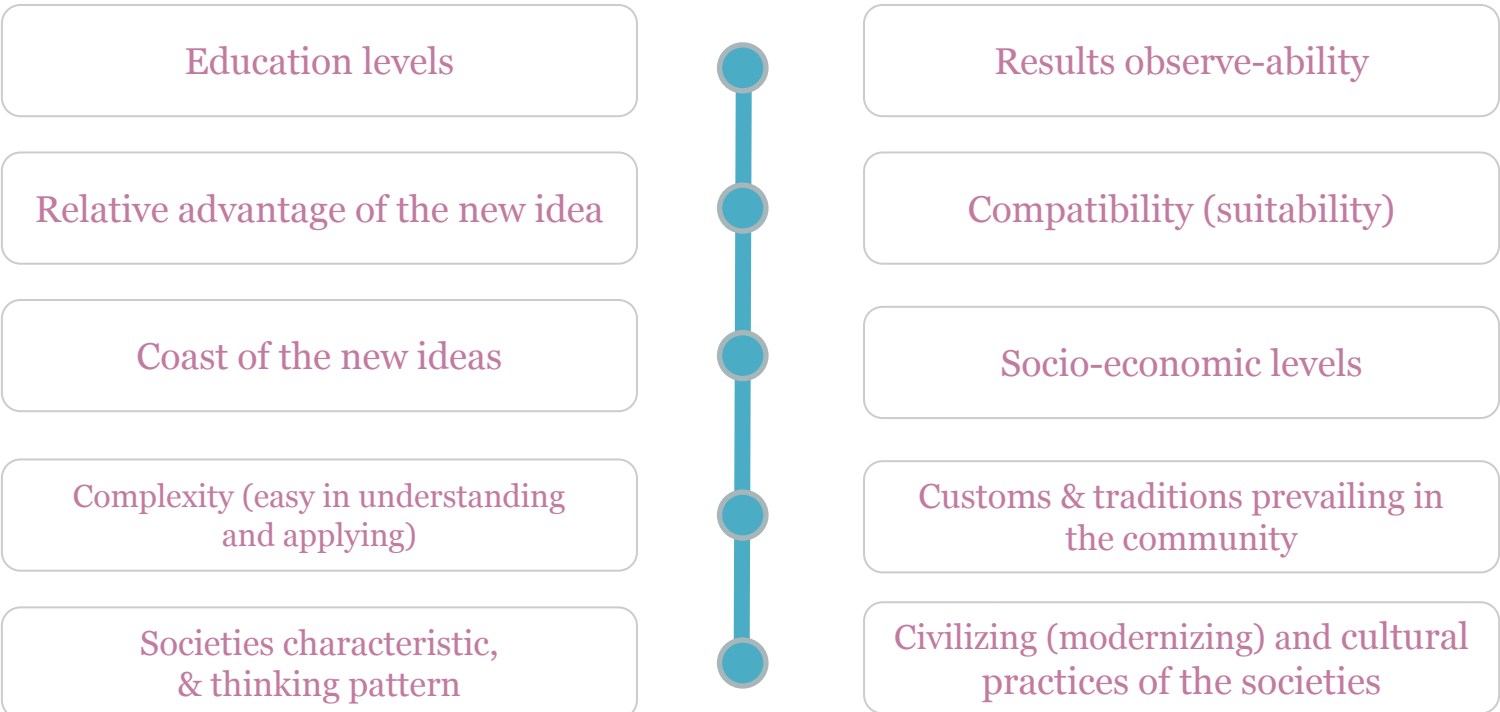
- **Awareness:** Recognizing innovative for the first time.
- **Interest:** Collection of information available about the idea as much as possible, & more knowledge about characteristic, as a result of generating motivation to learn more about this new idea.
- **Decision & evaluation:** The adopter take decision continuing to collect more information about the idea or to quit, as well as begin to assess the information which obtained according to the present situation & future prospects for decision to adopt it, or leave it.
- **Trial:** In this stage the individual try to apply the new ideas in small area, to esteem the benefits of this new ideas.
- **Adoption:** After recognizing and after convicting the benefits of the new ideas, the person will adopt these new ideas.

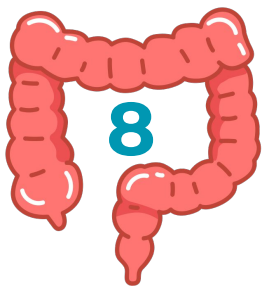
Classes of adopters

1-Innovators 2-early adopters 3- early majority
4- late majority 5-laggards.



Criteria which affect on diffusion of innovation





Techniques

Ways in which educators could deliver the message to the receivers (target groups):

1. lecture. 2. seminar. 3. symposium. 4. role play. 5. discussion groups.

Maintaining a healthy weight is a balance act

Burger

Burger 20 years ago was = 333 calories

- How many calories are in a burger today?

590 Calories Which is extra 257 calories

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

Based on 60kg person. Answer: 1 hour and 30 minutes



Calories in = Calories out

20 years ago



333 calories

today



590 calories

Extra 257 calories

20 years ago



320 calories

today



820 calories

Calorie difference : 500 calories

Sandwich

Sandwich 20 years ago was = 320 calories

- How many calories are in a burger today?

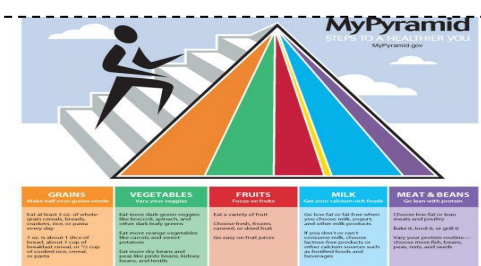
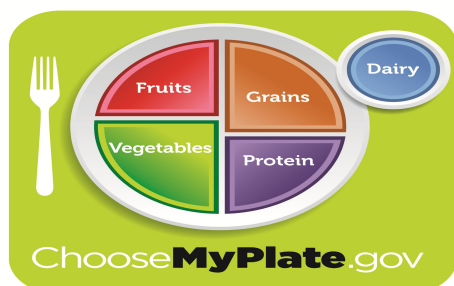
820 Calories
Calories difference = 500
Calories

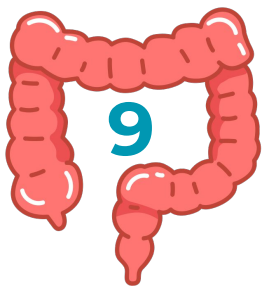
Q1: How long will you have to ride a bike in order to burn those extra calories?

based on a 72 kg person
Answer: 1 hour and 25 minute

Q2: is it healthier to
A) Eat then exercise?
B) Exercise then eat?

Answer: B





Saudi healthy plate guide

Saudi healthy plate guide

The guide explains the quantity and quality of foods and drinks recommended to obtain a balanced and complete diet.

Eat at least five servings of a variety of fruits and vegetables every day.

Eat whole grains such as wheat or oats.

Eat dairy products low in fat, sugar, and salt.

Eat legumes, fish, eggs, meat, poultry, and other proteins (make sure to eat two servings of fish a week, one of which should be fatty fish).

Reduce fats in general and choose unsaturated oils in small quantities.

Make sure to drink six to eight cups of fluids daily.

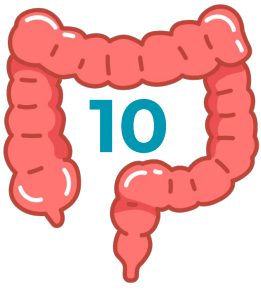
Reduce your intake of foods high in fat, salt, or sugar.

Note :

1-This dish does not apply to children under two because they have different nutritional needs. Children between the ages of two and five years gradually start with the same foods as the rest of the family.

2-Patients should consult their doctor or dietician if they have special or medical needs.





★ Nutritional label

1

Many food products contain a nutritional label that shows, for example, the product's name, expiry date, a list of educational facts, allergens, and other information

2

The nutrition facts list helps you know the daily allowance for one product serving based on the recommended daily reference amounts for nutrients.

3

The list of educational facts also helps you choose food products that are lower in calories, fat, sugar, and salt.

4

Make sure to read the list of educational facts to help you choose your food in a balanced way.

الخصائص التغذوية	خطوات سهلة لقراءة البطاقة الغذائية	5	البطاقة الغذائية	
حجم الحصة الغذائية كوب (228 جم) عدد الحصص في المنتج (2)	تعلم طريقة سريعة لتقييم أي منتج تقوم بشرائه عن طريق اتباع الخطوات التالية عند قراءة البطاقة الغذائية			
الكمية لكل حصة غذائية السعرات الحرارية (250)				
القيمة الغذائية اليومية				
الدهون الكلية 12 جم % 18				
دهون مشبعة 3 جم % 15				
دهون متحولة 30 جم				
كوليسترول 30 ملجم % 10				
صوديوم 470 ملجم % 20				
الكربوهيدرات 31 جم % 10				
الألياف الغذائية 0 جم % 0				
سكر 5 جم % 20				
السكر المضاف 10 جم				
بروتين 5 جم				
فيتامين (أ) 4 %				
فيتامين (ج) 2 %				
حديد 20 %				
كالسيوم 4 %				
النسبة المئوية للقيمة الغذائية اليومية تحدد كمية العناصر الغذائية في الحصة الواحدة من مجموع احتياك اليومي و2000 سعرة حرارية في اليوم تستخدم عامة للنصائح الغذائية				
	3	السعرات الحرارية	1	حجم الحصة الغذائية
	4	قلل من	2	القيمة الغذائية اليومية
	5	احرص على		

تأكد من السعرات الحرارية في الحصة الواحدة. وقاعدة عامة لتقدير السعرات الحرارية في أي منتج 40 سعرة حرارية منخفضة. 100 سعرة حرارية متوسطة. 400 سعرة حرارية أو أكثر مرتفعة.

قلل من هذه العناصر فهي من أخطر العناصر التي تؤدي إلى الإصابة بالأمراض المزمنة والتي يجب الحد منها.

احرص على تناول كميات كافية من هذه العناصر الغذائية لتحسين الصحة

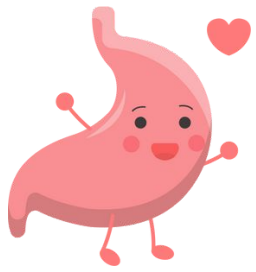
ابدأ بقراءة الحصة اليومية والتي تكون بالأكواب أو بالحبات أو بالقطعة ومحسوبة بالجرامات أو بالملجرام فجميع بيانات البطاقة منطبقة على الحصة الواحدة وليس على كامل العبوة أو المنتج فقد تتناول أكثر أو أقل.

انتبه لنسبة القيمة الغذائية اليومية التي تحدد نسبة احتواء هذا المنتج من العناصر الغذائية في الحصة الواحدة بحيث يعتبر 5% أو أقل منخفض و 20% أو أكثر مرتفع

طابق الألوان مع الجدول

Conclusion:

- 1-Nutrition Education is a requirement in health system as well as among all public.
- 2-Messages should be simple and to the level and culture of the audience.
- 3-Limit intake of saturated fats, trans fat, added sugars and sodium.
- 4-You can participate in education through; Lectures, Seminars, Group discussion, Media, Day Activities in hospitals.
- 5-The Saudi Healthy Plate Guide could be utilized in our community.
- 6-Understanding nutrition labels is an important life skill.



MCQ

Q1

If you were to give a lectures about nutrition which group of people would you like to target?

A- A high risk group of developing diabetes.

B- Young and educated people.

C- All people must be targeted no matter what is their nutritional status.

D- People reluctant to quit smoking.

Q2

A 58-Years old hypertensive patient on medications, was referred to you regarding nutrition education. What is the best advice would you give him?

A- Reduce protein and fat intake.

B- Reduce Na, K and Ca intake.

C- Reduce sodium, trans fat intake, and added sugars.

D- Eat more saturated fats.

Q3

A 24-Years old female was diagnosed recently with celiac disease. Which of the following food elements is mostly affected regarding its absorption?

A- B1 and B6.

B- Iron and calcium.

C- Vit E and K.

D- Vit A and D.

Q4

Which of the following is source of ω -3 fatty acid?

A- Camel.

B- Fruits.

C- Beef.

D- Fish.



1-C

2-C

3-B

4-D

FAMILY MEDICINE TEAM

Leader

عبدالعزيز أباحسين



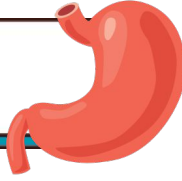
Leader

رغد المصلح



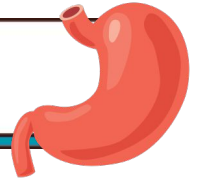
Member

أحمد الناخبي



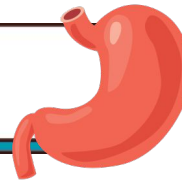
Member

غيداء الدوسري



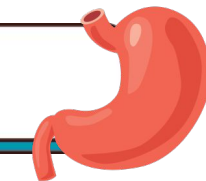
Member

عمر بنجر



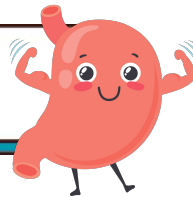
Member

ساره الشهراني



Member

عبدالعزيز الحميدي



Member

جوان آل مصمع

