



ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΙΑΣ
Σχολή Επιστήμης Φυσικής
Αγωγής & Αθλητισμού

ΞΕΝΗ ΓΛΩΣΣΑ & ΑΘΛΗΤΙΚΗ
ΟΡΟΛΟΓΙΑ ΜΕ0153

Διδάσκουσα στο ΤΕΦΑΑ ΠΘ: Κυριακή Σπανού

NUTRITION FOR THE ATHLETE

Introductory Activities

- Name any healthy or unhealthy kinds of food?
- What is your favorite dish?
- What is junk food?
- Do you know if foods can cause any diseases?



Healthy Eating & Sports Nutrition



NUTRITION FOR THE ATHLETE 1

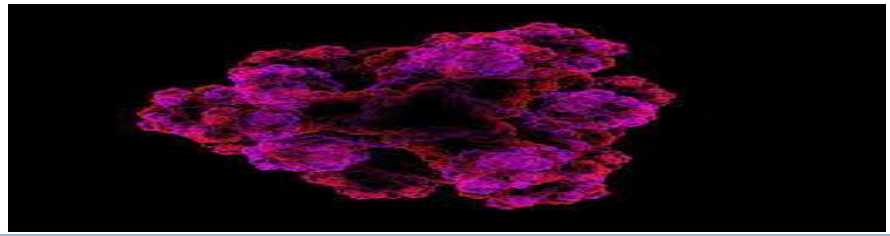
NUTRIENT CLASSES

- Athletes have turned to nutrition to improve athletic performance.
- Fortunately, the basic principle of nutrition for athletes is simple.
- The proper diet for an athlete is a normal diet with increased calories to cover added physical activity.
- A balanced diet consisting of selections from the basic 4 food groups should be eaten daily.
- This diet assures the athlete of a proper intake of nutrient classes such as **proteins, carbohydrates, fat, vitamins, minerals** (μεταλλικά στοιχεία) and **water**.

NUTRITION FOR THE ATHLETE 2

- ❑ The athlete should obtain 15% of his or her calories from protein, 50% from carbohydrates and 35% from fat.
- ❑ Since protein is the building block for muscle, the more protein eaten, the more muscle may be developed. Actually, a muscle=22% protein.
- ❑ Generally speaking, the ideal body fat content should be 5 to 10% of body weight for men and 15 to 20% for women.

PROTEINS



- ❑ Proteins are large, complex molecules.
- ❑ They do most of the work in cells and are required for the structure, function, and regulation of the body's tissues and organs.
- ❑ Proteins are made up of hundreds or thousands of smaller units called amino acids, which are attached to one another in long chains.
- ❑ There are 20 different types of amino acids that can be combined to make a protein.

Animal – Plant Proteins

Animal Proteins

- ❑ Fish
- ❑ Eggs
- ❑ Dairy products
- ❑ Red meat
- ❑ poultry



Plant Proteins

- ❑ Grains (δημητριακά)
- ❑ Lentils (φακές)
- ❑ Legumes (όσπριο)
- ❑ Certain fruits (avocados)
- ❑ Soy, Kale (λαχανίδα)
- ❑ Beans
- ❑ Nuts
- ❑ Hemp
- ❑ Rice
- ❑ peas

GOOD SOURCES OF PLANT PROTEIN



CARBOHYDRATES

- They are the sugars (σάκχαρα), starches (άμυλο) and fibers (ίνες) found in fruits, grains, vegetables and milk products.
- They help the body obtains energy, or calories.
- They are the body's main source of energy.
- They are called carbohydrates because, at the chemical level, they contain carbon, hydrogen and oxygen.

CARBOHYDRATES

Healthy Sources

- unprocessed or minimally processed whole grains
- vegetables
- fruits
- beans

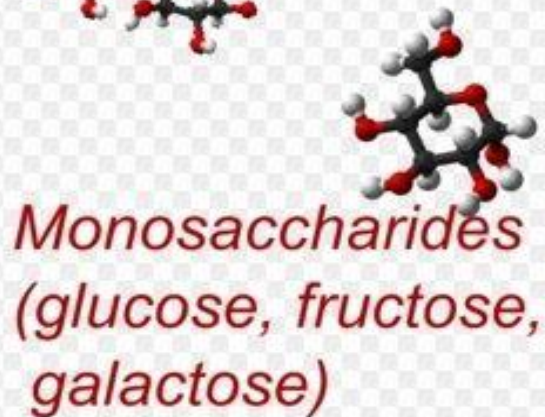
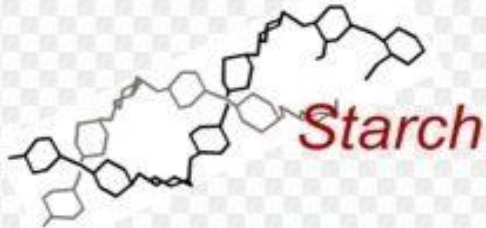
Unhealthy Sources

- white bread
- Pastries (αρτοσκευάσματα)
- Sodas
- other highly processed or refined foods

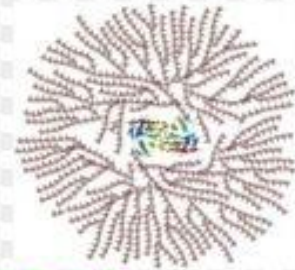


Glucose metabolism

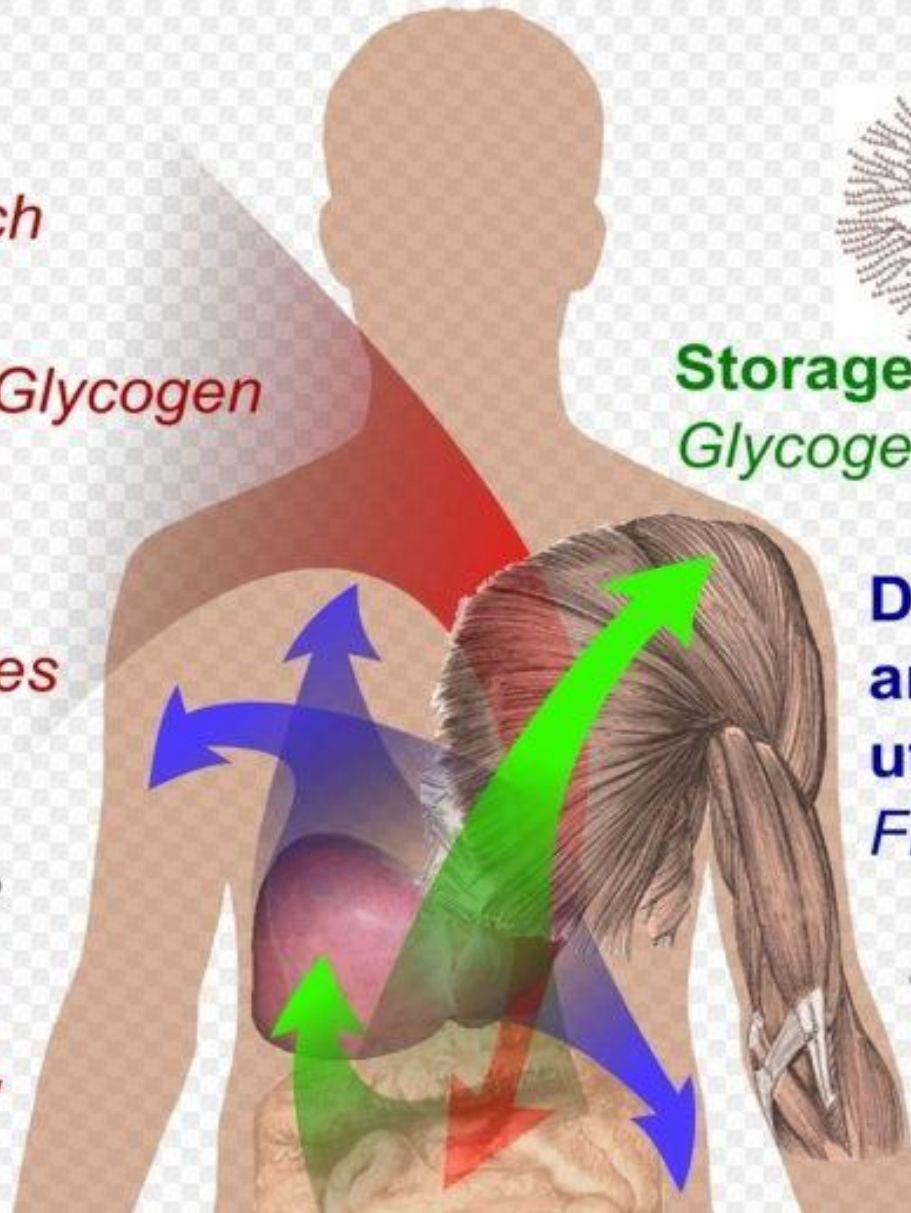
Intake:



Storage: *Glycogen*



Distribution and utilization: *Free glucose*



NUTRITION



- Nutrition is an important component of an athlete's overall performance.
- By using nutrients the body absorbs through food and obtains energy.
- Mitochondria are the 'furnaces' (φούρνοι/κλίβανοι), responsible for producing this energy.
- They are the powerhouses located within cells and convert glucose (a sugar molecule derived from carbohydrates) to adenosine triphosphate/αδενοσινωτριφωσφατάση (**ATP**).
- Often called the "molecular unit of currency" of intracellular (ενδοκυτταρική) energy transfer.
- **ATP** is a coenzyme that enables our cells to perform a spectrum of functions, and is the main source of energy that allows the body to generate movement.

Michael Phelps, Swimmer

Diet Type: Tons of calories

Breakfast

- Fruit
- Coffee
- Large bowl of oatmeal
- Big ham and cheese omelet



Lunch

- Meatball sub



Dinner

- Whole grains
- Lean meats
- Veggies



SOURCE: Men's Health

TECH INSIDER

VOCABULARY -SYNONYMS

1. Ingest
 2. Attain
 3. Sufficient
 4. Devoid
 5. Deficient
 6. Optimal
 7. Provision
 8. Satisfy
- a. Meet a need
 - b. Adequate, enough
 - c. Without, empty of
 - d. Not enough of
 - e. Best
 - f. Take in food, swallow
 - g. Succeed in doing or getting
 - h. Food supplies

VOCABULARY -SYNONYMS

1. Ingest **f**
 2. Attain **g**
 3. Sufficient **b**
 4. Devoid **c**
 5. Deficient **d**
 6. Optimal **e**
 7. Provision **h**
 8. Satisfy **a**
- a. Meet a need
 - b. Adequate, enough
 - c. Without, empty of
 - d. Not enough of
 - e. Best
 - f. Take in food, swallow
 - g. Succeed in doing or getting
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NUTRITION

Introductory Activities (True-False)

- ❑ Chocolate makes us feel depressed.
- ❑ Sugar causes tooth decay.
- ❑ Cheese and cream are rich in calcium.
- ❑ Tea helps you sleep well.



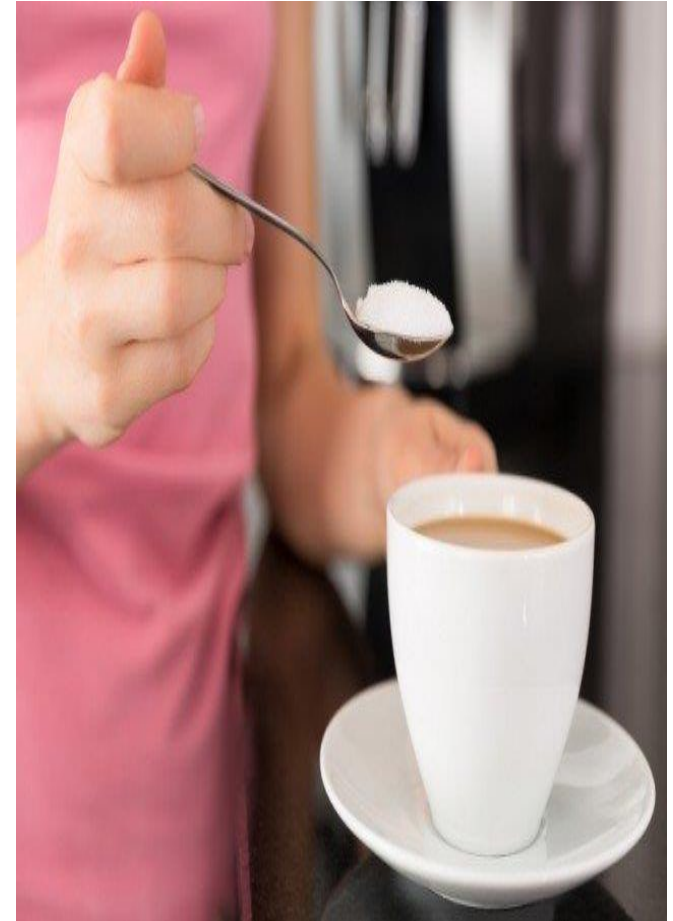
NUTRITION

- How damaging are all those “harmful” foods we find so tempting?
- CHOCOLATE contains mild stimulants which help concentration and boost the brain’s level of seretonin, a chemical that makes us feel good.
- CHOCOLATE is rich in iron, magnesium and potassium.
- ON THE DOWN SIDE, it is high in fat and calories and can interrupt sleep if eaten in the evenings.



NUTRITION

- ❑ SUGAR is converted into energy more quickly than any other food, so it is hard for the body to store it as fat.
- ❑ Eating SUGAR at breakfast time improves concentration and memory in the morning.
- ❑ THE BAD NEWS is that sugar causes tooth decay and contains no useful nutrients.
- ❑ COFFEE and TEA contain caffeine, which increases alertness.
- ❑ TEA contains tannin and flavanoids (φλαβανοειδή) which help prevent heart disease.
- ❑ ON THE OTHER HAND, since they are stimulants (διεγερτικές ουσίες) they can interrupt (διακόπτω) sleep and relaxation.



NUTRITION

- MEAT is an important food as it is a major source of protein, vitamin B and essential minerals.
- HOWEVER, it contributes a quarter of our daily fat intake. A high intake of red meat can lead to serious illnesses such as cancer.
- CHEESE & CREAM are rich in calcium and vitamin D, which help protect the system against osteoporosis, a bone disease affecting a third of all European women over 60.



**Sugar and sugar-rich
foods and drinks**



EAT VERY LITTLE

**Fats and oils including fat-containing
foods such as cookies and chips**



EAT SPARSELY

**Protein-rich foods such as fish, meat,
dairy products, beans, peas, and nuts**



EAT MODERATELY

Vegetables and fruit



**EAT SEVERAL
PORTIONS A DAY**

**Carbohydrate-rich
foods such as bread,
cereals, and pasta**



EAT PLENTY

DOPING

- is the use of banned athletic performance-enhancing drugs by athletic competitors.
- The term *doping* is widely used by organizations that regulate sporting competitions such as the International Olympic Committee.
- It is unethical and therefore, prohibited.
- Historically speaking, the origins of doping in sports go back to the ancient usage of substances in chariot racing (herbal infusions/αφεψήματα βοτάνων).
- The reasons for the ban are mainly the health risks of these drugs, the equality of opportunity for athletes, and the exemplary effect of drug-free sport for the public.
- Anti-doping authorities state that using performance-enhancing drugs goes against the "spirit of sport".



ANABOLIC STEROIDS

- Anabolic-androgenic steroids (AAS) were first isolated, identified and synthesized in the 1930s.
- They are synthetic variations of the male sex hormone testosterone.
- "Anabolic" refers to muscle building, and "androgenic" refers to increased male sex characteristics.
- Anabolic steroids also increase muscle mass and physical strength, and are therefore used in sports and bodybuilding to enhance strength or physique.
- They are also used therapeutically in medicine and treat chronic wasting conditions, such as cancer and AIDS.

HARMFUL EFFECTS

- While anabolic steroids can make some people look stronger on the outside, they may create weaknesses on the inside.
- For example, anabolic steroids are bad for the heart—they can increase fat deposits in blood vessels, which can cause heart attacks and strokes.
- They may also damage the liver. Steroids can halt bone growth—which means that a teenage steroid user may not grow to his/her full adult height.
- Research has shown that anabolic steroids may trigger aggressive behavior in some people.



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Thanks for your attention