The Mediterranean Nutrition Model

Whole Grains

Legumes
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WHOLE GRAINS

LEGUMES
**Mediterranean Nutrition Model**

**Health Value**

**What is it?**
It is a food style originating in the Mediterranean countries characterized by high quantities of fruits, vegetables, whole grains, legumes, fish, dried fruits and a reduced amount of animal fat.

**Key nutrients and their sources:**

- **MONOUNSATURATED FATS**
  - Extra-virgin olive oil

- **OMEGA 3**
  - Fish and nuts

- **FIBERS and MINERALS**
  - Whole-grain cereals and legumes

- **VITAMINS and ANTIOXIDANTS**
  - Fruit and vegetables

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![Mediterranean Nutrition Model Pyramid](image)

**Exercise, meals at home with family or friends.**
(Adapted from Oldways Preservation and Exchange Trust)

**The Food Guide Pyramid is a graphical representation of the Mediterranean Nutrition Model consumption guidelines. It is a truly helpful orientation for your every day food choices.**

In the pyramid, foods are placed according to their nutritional content. It is recommended to reduce frequency and quantity of foods when climbing up to the top of the pyramid.
Why?
Scientific studies show the Mediterranean Nutrition Model is one of the best food styles for people’s wellness. It’s a balanced and correct food model that ensures a variety of foods and nutritional sources in adequate proportions.

Main benefits for health:
· Longer life
· Reduced risk of heart disease and cancer
· Protection against diabetes
· Prevention of obesity

Consistently following the Mediterranean Nutrition Model prolongs life.*

Balanced Nutrition for a Mediterranean Lifestyle:
FRUITS AND VEGETABLES: at least 5 servings per day
CEREAL: whole grains preferred (i.e. whole-grain bread, pasta, and rice), at least 3 servings per day
CONDIMENTS: extra-virgin olive oil preferred to animal fats
BEANS AND LEGUMES: at least twice a week
FISH AND SHELLFISH: at least twice a week
EGGS AND CHEESE: not more than 3 times a week
MEAT: 2-3 times a week, lean and white preferred
DRIED FRUITS AND SEEDS: everyday in small quantities
SALT: reduced amounts, to minimize hypertension risk
ALCOHOL: moderate consumption, red wine preferred

APPROPRIATE CALORIES: remember that an adult male with moderate physical activity needs about 2000 calories a day.

* Data refers to a sample of Greek women, adapted by G. Welch et al. CMAJ 2005.

Don’t forget:
Every day have 5 meals (breakfast, snack, lunch, snack and dinner) and exercise for at least 30 minutes!

Weight watcher!
If you have some extra pounds, reduce servings and cut down the most caloric foods (cheese, condiments, sweets and sugary drinks).
The Double Pyramid
Environmental Value

What we eat and the footprint we leave:
While the relationship between diet and health is clear, the link between nutrition and environmental impact is not always known. Human activities do make an impact on the environment, but most people don’t know that our diets represent about 25% of the total impact that everyone has on Earth.

How is the environmental impact of food calculated?
In 2010, the Barilla Center for Food and Nutrition (BCFN) conducted research supporting that every food is associated with a specific environmental impact, estimated through the Life Cycle Assessment (LCA). This evaluation analyzes the whole life of food, from cultivation of raw materials to use. The main environmental impacts are greenhouse effect gases (carbon footprint), water use (water footprint), and land resources use (ecological footprint).

ENVIRONMENTAL IMPACT OF SOME FOOD

<table>
<thead>
<tr>
<th></th>
<th>Carbon Footprint (g CO₂/kg)</th>
<th>Water Footprint (l/kg)</th>
<th>Ecological Footprint (m²/kg)</th>
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<tbody>
<tr>
<td>BEEF</td>
<td>109</td>
<td>15.500</td>
<td>26.000</td>
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<tr>
<td>CHEESE</td>
<td>93</td>
<td>5.000</td>
<td>9.500</td>
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<tr>
<td>LEGUMES</td>
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<td>3.160</td>
<td>1.600</td>
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<tr>
<td>PASTA</td>
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<td>1.775</td>
<td>2.300</td>
</tr>
<tr>
<td>VEGETABLES</td>
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<td>240</td>
<td>665</td>
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</tbody>
</table>

FOOTPRINT: WHAT IS IT?
A footprint is the impact that food and each one of us leave on the environment. If we adopt responsible and nutritionally balanced food choices, we can reduce our impact, then our footprint on the environment!

ECOLOGICAL FOOTPRINT:
Represents the quantity of land or sea surfaces needed to provide resources and absorb emissions and is measured in square meters (m²).

WATER FOOTPRINT:
Quantifies water resources use and is measured in liters.

CARBON FOOTPRINT:
Represents the general quantity of gas emission responsible for the greenhouse effect, and it is measured in grams of equivalent CO₂ (g CO₂ - eq).
After completing measurements of environmental impacts, researchers of BCFN classified foods in the pyramid in regards to their ecological footprint. Every food category was placed in the corresponding environmental level of the pyramid. The higher the impact, the larger the level in the pyramid and vice versa. **Comparing the environmental and the food pyramids we obtain an upside-down double pyramid that shows how “nature does things well”**. Indeed, the smallest footprint, the lesser environmental impact, is left by the most used foods in the Mediterranean Nutrition Model, as fruits, vegetables and pasta. **Then a single food model matches two objectives: people’s health and safeguarding nature.**

To learn more visit www.barillacfn.com/it/overview
Whole Grains
Whole Grains
An Insight

What are they?
Whole grains have all the components of the grain seed:
- **Endosperm** (the largest part)
- **Bran** (the external protective layer)
- **Germ**

What are the main types of cereal?
Wheat, rice, rye, barley, corn, and oat

Why?
Whole grains are a “true treasure” of very useful substances for our health. Unlike refined grains, their processing preserves higher quantities of fibers, mineral salts (iron, magnesium, and zinc), and vitamins (B group and E) in bran and in the germ. This is the reason why whole grains are a precious ally for our wellness. If they are consumed in the right quantities replacing refined cereals they:

- Help reduce the risk of cardiovascular diseases and diabetes
- Help fight **overweight** and **obesity**
- Help increase gastrointestinal wellness
- Have **antioxidant** and **anti-inflammatory** effects

How much?
U.S. dietary guidelines recommend making half your grains whole. For an adult male this means 3 1/2-ounce equivalents of whole grains each day (one ounce equivalent = one ounce dry pasta, 1/3 cup uncooked oatmeal, one slice bread). Visit myplate.gov for more information on whole grain servings.

A simple tip:
Have whole-grain baked products for breakfast (i.e. oatmeal, bread, breakfast cereals, etc.) and whole-grain pasta, bread, and rice for main meals.

How to distinguish them?
Read food labels:
Check for **WHOLE GRAINS** on top of the ingredients list!
Legumes
Legumes
An Insight

What are they?
Legumes are a type of vegetable including chickpeas, beans, broad beans, peas, lentils, and soybeans. Traditionally used in the Mediterranean Nutrition Model, thanks to their high protein level and low cost, legumes are a very good energy source.

Why?
Recently, many studies have shown that the regular consumption of legumes, rich in fibers, B group vitamins, minerals - as iron, zinc - and antioxidants, protects from the outcome of many Western diseases.

In particular:
· They help fight obesity
· They help prevent diabetes
· They help keep blood pressure and blood sugar levels under control
· They help improve intestinal flora

How much?
At least 2 servings of 1/2 cup of cooked legumes a week

A simple tip:
Legumes are a perfect dressing for pasta: fiber, vegetable proteins and a low-fat content.

Another advantage:
· They have a satiety effect, thanks to their high fiber content
· They are gluten-free, which is good for people with celiac disease
· They are a very good protein source for vegetarians
· They have low-fat content

Legumes are good for the environment!
Their cultivation has a low impact on greenhouse gases and it employs a reduced quantity of fertilizers.
si.mediterraneo
Live the Mediterranean Lifestyle with Barilla
Have a Mediterranean day with a nutritionally balanced menu and with low environmental impact

**BREAKFAST**
8oz low fat milk
1 cup whole grain cereal
1 piece fruit

**SNACK**
8oz low-fat yogurt

**LUNCH**
Turkey and cheese open face Wasa Crispbread sandwich
(3oz turkey, 1 ounce cheese, 3 slices Wasa Crispbread)
1 cup mixed raw vegetables (i.e. baby carrots) with 3 tablespoons low-fat dressing (ranch dip or other)
1 piece fruit

**SNACK**
1 fruit smoothie – 16oz

**DINNER**
1 portion Barilla Whole Grain spaghetti with fresh vegetables
2 oz sautéed shrimp (sautéed in olive oil, about 2 tsp)
1 slice whole grain bread
1 cup mixed berries

**Total Calories: 2,050**

APPROPRIATE CALORIES: remember that an adult male with moderate physical activity needs about 2000 calories a day

To learn more visit www.barillacfn.com