

# Dietary Guidelines for Population

For people to maintain a healthy and well balanced diet, which conforms to the recommended daily allowances of nutrients, dietary guidelines are used. There following guidelines can be applied to have a well rounded diet:

**1. Maintain an appropriate body weight** – Obesity is associated with some chronic disorders such as hypertension and diabetes. Weight should be maintained by a healthy diet and regular exercise.

- BMI should be 18,5–25,0 kg/m<sup>2</sup>, waist circumference under 94 cm in men and under 80 cm in women.

**2. Body exercise** at least 30 minutes every day (fast walk).

**3. Eat a variety of food divided in 4-5 serving meals, do not forget breakfast** – The human body requires a variety of nutrients ranging from carbohydrates, to vitamins, minerals and trace elements. The is not a single type of food that can supply all the essential nutrients in the amounts that are required by the body (with the exception of breast milk during the first 6 months of age). Therefore the greater the variety of foods used, the less likely a person is to develop a deficiency or excess of any single nutrient.

**4. Eat enough vegetable (raw or boiled) and fruit, at least 500 g every day divided in more serving meals, sometimes eat small serving meal of nuts.**

- eat twice more vegetable than fruit, because vegetable contains (twice) more minerals and twice less energy (kj) than fruit;
- fruit and vegetable contain salicylates, carotenoids, lycopene (these substances are not included in nutrients).

**5. Eat cereal products, especially brown bread, whole-wheat pasta and rice or potatoes (max. 4x per day). Do not forget legumes.**

- People should eat legumes at least once in a week, there is practically no fat and sprouted legumes are source of vitamin C

**6. Eat fish or fish meat products at least twice in a week.**

- It is a source of fatty acids and vitamin A, fat seafood contains a lot of vitamin D, is source of iodine and fluorine. Small seafood with bones are source of calcium.

**7. Drink milk and eat milk products every day.** Prefer sour milk, semi-skimmed and skimmed milk.

**8. Decrease the consumption of fat** – Populations of developed countries have a diet that is rich in fat. A high fat diet can lead to diseases such as atherosclerosis which in turn can lead to IHD (Ischemic heart disease). It is advised to eat small portions of food containing high fat content such as full fat milk, animal meats containing a large amount of fat, fried foods, mayonnaise and salad creams. A healthy way of preparing foods is to steam, boil or grill.

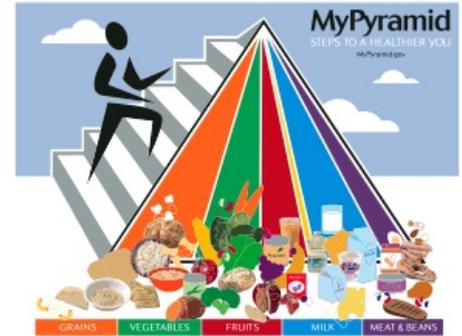
- Intake of fat should not be higher than 30%, maximally 70 g/day.

**9. Avoid too much sugar** – Sugar can be converted to lipids and fat when in excess which leads to an increase in weight. A diet with a high sugar content can also cause dental problems such as caries. The daily consumption of sugar should not exceed 10% of the total energy intake.

- Especially avoid sweetened drinks (10 g/100 ml), sweets, ice cream and compote.

**10. Avoid too much salt** – Excessive salt intake leads to hypertension. Processed foods have a very high salt content and is far more than the amount our body requires.

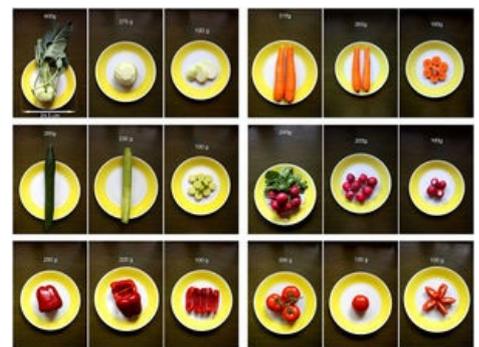
- Recommended amount of salt is 5 g/day, for patient with arterial hypertension or kidney failure is recommended amount even lower (3–5 g/day), but people usually consume even more than 12 g/day.
- **Advice: do not add salt to prepared meal.**



Food Pyramid US Department of Agriculture



Food Pyramid Harvard School of Public Health



100 g of vegetable, just for imagination

**11. Prevent infections and food poisoning from handling food properly for the purchase, storage and food preparation, thermal processing, prefer gentle ways of food preparation, reduce frying and grilling.**

**12. Drink plenty of water** – Having at least 2–3 litres (minimally 1,5 l) of water a day prevents kidney damage and nephrolithiasis. Sweet beverages and fizzy drinks have a high sugar content and should be drunk in moderation.

**13. Drink alcohol in moderation** – Many alcohol beverages have a high sugar content such as wines and beers and when spirits are mixed with juices and fizzy drinks this can lead to damage of the lining of the GIT mucosa and liver parenchymal cells. Excessive alcohol can lead to liver cirrhosis, neurological disorders and pancreatic cancer.

- Consumed amount of alcohol should not cross more than 20 g/day (200 ml of wine or 0,5 l of beer or 50 ml of spirit).

Recommended daily doses of nutrient intake are variety by age, sex and physical activity. They are determined to find the need for essential nutrients, selected vitamins, minerals and trace elements in almost all healthy individuals in a given population group. Real need for an individual may be different. In the past were the recommended doses focused mainly on prevention of nutrient deficiency symptoms (such as rickets, scurvy), today are focused on reducing the risk of chronic non-infectious diseases (eg cardiovascular, certain cancers).

Recommended dose of Vitamin C is:

- 5–10 mg/day to prevent scurvy, **but** vitamin C has antioxidant activity – so recommended dose is higher (different in different countries) e.g.:
- 45 mg/day by WHO
- 100 mg/day in German-speaking countries (DACH 2000)

Proteins intake was tested on rats – results: higher intake of proteins leads to better grow but shorter lifetime.

## Links

### Related articles

- Lipids and Carbohydrates in Human Nutrition
- Protein in Human Nutrition

### Source

- WikiSkripta. *Výživová doporučení* [online]. The last revision 2012-03-29, [cit. 2012-04-24]. <[http://www.wikiskripta.eu/index.php/Výživová\\_doporučen%C3%AD](http://www.wikiskripta.eu/index.php/Výživová_doporučen%C3%AD)>.

### Bibliography

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- KUMAR, – ABBAS,. *Robbins & Cotran Pathologic Basis of Disease*. 8. edition. Saunders and Elsevier, 2010. ISBN 978-1-4160-3121-5.