

NMS Nutrition Notes

Know Your Nutrients

The human body must have these six essential nutrients daily to function properly: water, protein, carbohydrates, vitamins, minerals and fat. Below is a chart listing each nutrient and what its functions are, as well as examples of food sources in which they are found.

Nutrient	Functions	Food Source Examples
WATER	<ul style="list-style-type: none">• transports other nutrients to cells, carries wastes away, aids digestion and more• it makes up more than half your weight	<ul style="list-style-type: none">• water, juices, other beverages, soups• many "solid" foods, such as fruits, vegetables, breads, etc. also contain water
PROTEIN	<ul style="list-style-type: none">• builds and repairs body tissues• builds antibodies, the blood components that fight infection• made up of amino acids• "Complete" proteins contain all nine essential amino acids in adequate proportions• "Incomplete" proteins do not contain all nine amino acids	<ul style="list-style-type: none">• Complete Proteins: meat, poultry, fish, eggs, milk, cheese• Incomplete Proteins: cereals, legumes, nuts, grains
CARBOHYDRATES	<ul style="list-style-type: none">• energy (calories) for muscles, nerves, and the brain• made up of dietary fibre, starch and sugars• dietary fibre is essential for digestion and the prevention of disease	<ul style="list-style-type: none">• Dietary Fibre: whole grain cereals, fruits, vegetables, nuts, seeds, legumes• Starch: bread, pasta, rice, potatoes, cereals• Sugars: sugar, honey, brown sugar, molasses, fruits, syrups, sucrose, glucose, fructose• choose whole grain products , fruits, vegetables and legumes more often• stay away from sugary or highly processed items such as white breads, white rice, and anything with added sugar



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Nutrient

Functions

Food Source Examples

VITAMINS

Thiamin (Vitamin B1)

- releases energy from carbohydrates
- promotes normal growth and appetite

- pork, organ meats, enriched and whole grain bread and cereals, nuts, seeds, legumes

Riboflavin (Vitamin B2)

- maintains healthy skin and eyes
- maintains a normal nervous system
- releases energy to body cells during metabolism

- organ meats, white flour, whole grain flour, breads, milk

Niacin

- helps growth and development
- maintains nervous system and gastrointestinal tract

- organ meats, poultry, peanut butter, milk, eggs, poultry, fish, beef, legumes

Folacin (Folic Acid)

- builds red blood cells

- organ meats, nuts, legumes, eggs, green leafy vegetables, oranges, bananas, mushrooms

Vitamin B12 (Cobalamin)

- helps form red blood cells
- maintains nerve and gastrointestinal tissues

- organ meats, beef, pork, fish, shell fish, milk and milk products, eggs

Vitamin C (Ascorbic Acid)

- builds healthy teeth and gums
- maintains strong blood vessel walls

- citrus fruits, broccoli, cauliflower, green pepper, strawberries, potatoes, fortified juices

Vitamin B6

- promotes production of antibodies and red blood cells

- organ meats, bananas, beef, ham, egg yolk, fish, cabbage, spinach

Vitamin A

- helps bone and tooth development
- promotes good night vision
- maintains healthy skin and membranes

- organ meats, egg yolk, dark green leafy or yellow vegetables, apricots, peaches, tomatoes, milk

Vitamin D

- enhances calcium and phosphorous use to maintain healthy bones and teeth

- milk and margarine fortified with vitamin D, organ meats, salmon, tuna, eggs

Vitamin E (Tocopherol)

- protects fat in body tissues from oxidation

- vegetable oil, margarine, salad dressing, egg yolk



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MINERALS

Calcium

- maintains strong bones and teeth
- promotes healthy nerve function and normal blood clotting
- milk and milk products, sardines, salmon with bones, mackerel, oysters, soybeans, tofu, nuts, seeds, some green vegetables

Iron

- combines with protein to form hemoglobin, the red blood cell constituent that transports oxygen and carbon dioxide
- organ meats, red meats, shellfish, enriched breads and cereals, legumes, dried fruits, dark leafy vegetables, egg yolks

Zinc

- helps energy metabolism and tissue formation
- shellfish, meat, fish, poultry, nuts, eggs, legumes, soy products, whole grains, seeds and sprouts

Selenium

- prevents breakdown of fats and other body chemicals
- seafood, whole-grain cereals, meat, egg yolk, chicken, milk, garlic

Copper

- helps build red blood cells
- oysters, nuts, liver, kidneys, legumes, corn oil, margarine

Magnesium

- builds and maintains strong bones and teeth
- helps energy metabolism and tissue formation
- nuts, soy beans, whole grains, molasses, shellfish, spinach, liver, beef

Iodine

- helps in function of thyroid gland
- iodized salt, shrimp, oysters, lobster

FAT

- supplies energy and "fatty acids"
- helps in absorption of fat-soluble vitamins
- helps digestion and brain function
- "Good" fats are those that are liquid at room temperature, and they come from nuts and seeds or fish
- "Bad" fats are those that originate from animal sources and are high in saturated or trans fats; they accumulate in your blood and cause artery clogging
- milk, margarine, butter, oils, salad dressings, nuts, cheese, meats
- choose reduced fat items more often to keep a well balanced diet



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