

Macros and Micros



of a Healthy Diet

Macronutrients

- Nutrients needed in large amounts in the body that provide energy
- Includes protein, carbohydrates, and fats

Proteins

- **Roles in the body:** Develops, maintains, and repairs hair, skin, eyes, muscles, and organs
- **Sources:** lean meats, beans, nuts, seeds, eggs, low fat yogurt, nut butters





Carbohydrates

➤ Roles in the body:

- Provides energy for the whole body
- Enables fat metabolism and prevents protein from being used as energy

➤ **Sources:** whole grain bread, whole grain pasta, whole grain cereal, oats, rice, quinoa, fruits, low fat yogurt

Fats

➤ Roles in the body:

- a source of backup energy when carbohydrates are not available
- helps absorb vitamins
- surrounds and protects organs
- maintains core body temperature
- maintains healthy hair and skin
- helps cell and nerve function
- regulates the production of hormones

➤ **NOTE:** The body needs healthy fats. Unhealthy fats that should be avoided include foods like fatty meats, fried foods, sweets, and pastries

➤ **Sources:** Healthy fats are in avocados, eggs, olive oil, seeds, nuts, nut butters (peanut, almond, cashew), and fatty fish



Micronutrients

- Nutrients required in small amounts in the body for healthy functioning
- Includes vitamins and minerals

VITAMINS

- ESSENTIAL ORGANIC NUTRIENTS THAT ARE VITAL TO THE HEALTH AND FUNCTIONING OF THE BODY
- MOSTLY OBTAINED THROUGH THE FOOD WE EAT
- IMPORTANT VITAMINS: VITAMIN A, VITAMIN D, VITAMIN E, VITAMIN K, VITAMIN C, VITAMIN B COMPLEXES (THERE ARE 8 B VITAMINS)
- ROLES AND SOURCES OF VITAMINS:



Vitamin A

- **Roles:**
 - Plays a key role in immunity, reproductive behaviors, and especially vision
- **Sources:**
 - Milk, eggs, liver, fortified cereals, darkly colored orange or green vegetables (such as carrots, sweet potatoes, and kale), and orange fruits such as cantaloupe, apricots, peaches, pumpkin, papayas, and mangos

Vitamin D

- **Roles:**
 - Helps calcium absorption and bone growth
 - Important for cell growth, immunity, and the reduction of inflammation
- **Sources:**
 - Fortified foods such as milk, breakfast cereals, yogurt, and orange juice and also in swordfish, salmon, mackerel, beef liver, cheese, egg yolks

Vitamin E

- **Roles:**

- Protects cells from free radicals
- Important in immunity
- Aids in healthy blood vessel function and blood clotting

➤ **Sources:**

- Vegetable oils (such as wheat germ, sunflower, safflower, corn, and soybean oils), nuts (such as almonds, peanuts, and hazelnuts/filberts), and seeds (such as sunflower seeds)

Vitamin K

➤ **Roles:**

- Aids in blood clotting
- Plays a role in bone health

➤ **Sources:**

- Green leafy vegetables, such as kale, spinach, turnip greens, collards, Swiss chard, mustard greens, parsley, romaine, and green leaf lettuce, vegetables such as brussel sprouts, broccoli, cauliflower, and cabbage.
- Fish, liver, meat, eggs, and cereals (contain smaller amounts)

Vitamin C

➤ **Roles:**

- Helps the growth and repair of tissues in all parts of your body
- Helps the body make collagen, an important protein used to make skin, cartilage, tendons, ligaments, and blood vessels
- Needed for healing wounds
- Repairs and maintains bones and teeth

➤ **Sources:**

- Found in many fresh fruits like the oranges, lemons, limes, grapefruit, cantaloupes, mangoes, papayas, and their juices.
- Vegetables such as bean sprouts, green peppers, plantains, broccoli and greens like kale and poke greens

Vitamin B complexes

➤ Roles

- Play a role in converting nutrients into energy
- Support your cellular metabolism, nervous system function, red blood cell production, cancer prevention, healthy hormone balance

➤ Sources:

- Enriched foods like cereal grains and breads, as well as other foods such as meat, poultry, eggs, fish milk, legumes, and fresh vegetables

MINERALS

- INORGANIC NUTRIENTS
- MOSTLY OBTAINED THROUGH THE FOODS WE EAT
- MAJOR MINERALS: CALCIUM, IRON, ZINC, SODIUM, POTASSIUM, PHOSPHORUS, MAGNESIUM
- ROLE AND SOURCES OF MINERALS



Calcium

➤ Roles:

- Keeps bones and teeth strong, thereby supporting skeletal structure and function
- Play key roles in cell signaling, blood clotting, muscle contraction and nerve function

➤ Sources:

- Milk, yogurt, and cheese
- Greens, seafood, legumes, and fruit

Iron

➤ Roles:

- Needed for blood production
- Plays a role in transferring oxygen in your blood from the lungs to the tissues

➤ **Sources:**

- Red meat, pork, poultry, seafood, beans
- Dark green leafy vegetables, such as spinach
- Dried fruit, such as raisins and apricots,
- Iron-fortified cereals, breads and pastas, peas

Zinc

➤ **Roles:**

- Helps in immunity
- Needed for the senses of smell and taste
- Plays a role in cell division, cell growth, wound healing, and the breakdown of carbohydrates

➤ **Sources:**

- Spinach, beef, flax seeds, kidney beans, pumpkin seeds, oysters, watermelon seeds, garlic, lima beans, peanuts, egg yolks, turkey, salmon, lobster, pork, dark chocolate, chickpeas, beef liver, brown rice, peas, sesame seeds, lamb, cashews, crab, mushrooms

Sodium

➤ **Roles:**

- Maintains normal fluid levels in the body
- This helps control blood volume and blood pressure

➤ **Sources:**

- Beets, celery, carrots, meats, spinach, chard

Potassium

➤ **Roles:**

- crucial to heart function
- plays a key role in skeletal and smooth muscle contraction making it important for normal digestive and muscular function

➤ **Sources:**

- beans, dark leafy greens, potatoes, squash, yogurt, fish, avocados, mushrooms, and bananas

Phosphorus

➤ **Roles:**

- Growth and repair of body cells
- Helps build strong bones and teeth

➤ **Sources:**

- Pumpkin seeds, squash seeds, cheese, salmon, shellfish, Brazil nuts, lean pork, lean beef and veal, low fat dairy, tofu, beans and lentils

Magnesium

➤ **Roles:**

- Needed for more than 300 biochemical reactions in the body
- Helps maintain normal nerve and muscle function
- Supports a healthy immune system
- Keeps the heart beat steady
- Helps bones remain strong
- Helps regulate blood glucose levels
- Aids in the production of energy and protein.

➤ **Sources:**

- Avocado, spinach, chard, pumpkin seeds, yogurt, almonds, black beans, figs, dark chocolate, bananas