

DAILY REFERENCE INTAKES OF NUTRIENTS



BARLEY GOLD™

NUTRIENT	RDI RECOMMENDED DAILY INTAKE	SOME BENEFITS (good for)	OVER-DOSAGE	SIGNS OF DEFICIENCY	SOME NATURAL SOURCES	DESTROYED BY (Heavy alcohol use depletes nearly every nutrient.)
<u>Vitamins:</u> Biotin B complex	30-300 mcg	Skin, intestinal tract, nervous system, genetic level in cells, metabolism	Water soluble - dissolves in water so excess is passed in urine.	Rare. The body is able to recycle much of the biotin it has already absorbed.	Found in many foods.	Anti-seizure meds., oral antibiotic use
Folate B complex	400 mcg	Production of red blood cells, protection from heart disease, prevention of birth defects (1 st 3 mo.)	Doses larger than 400 mcg may cause anemia and may mask symptoms of a B12 deficiency.	Depression, anemia, cervical and colon cancer	<u>Barley Gold,</u> Carrots, yeast, liver, egg yolk melon, apricots, pumpkin, avocado, beans, whole grains, gr. leafy vegetables	Water, sunlight, heat, oestrogen (fem. hormone), antacids with alum. hydroxide
Retinol	600 mcg 5 000 IU	(Retinoids have varying degrees of vitamin A activity) eye sight, growth, appetite & taste, antioxidant	Extremely high doses (greater than 9 000 mg/5 0000 IU) can cause dry scaly skin, fatigue, nausea, loss of appetite, bone & joint pain, headache i.e. toxic	Night blindness	Liver, fish liver oil, leafy gr. vegetables, egg yolks, milk prods. yellow fruits, enriched margarine	Fatty acids and some cholesterol lowering drugs. Alcohol depletes in some tissues and increases in others so taking too much can be toxic.
Thiamin B1	1.5 mg	Nervous system, digestion, muscles, heart, alcohol damaged nerve tissue	Water soluble - dissolves in water so excess is passed in urine.	Tingling in finger and toes, confusion, difficulty maintaining balance, loss of appetite, exhaustion, weakened concentration	<u>Barley Gold,</u> Liver yeast, rice, whole food products, peanuts, pork, milk	High temperature, alcohol, coffee
Riboflavin B2	1.7 mg	Growth, skin, nails, hair, eyesight, breakdown of proteins, fats, and carbohydrates, sensitive lips and tongue	Doses larger than 200 mg may cause urine color to alter Water soluble - dissolves in water so excess is passed in urine.	Itchy irritated eyes, itchy nose, throat, mouth, lips and skin	<u>Barley Gold,</u> Milk, liver, yeast cheese, gr. leafy vegetables, fish	Alcohol and light (milk cartons better than bottles)
Niacin B3	20 mg	Nervous and digestive systems, food metabolism, formation of red cells and skin, energy production	Water soluble, but doses larger than 150 mg may cause problems ranging from facial flushing to liver disease	Fatigue, headaches, dry skin., loss of appetite, ulcers, emotional instability	<u>Barley Gold,</u> Meat, fish, bread, yeast, nuts, seeds, soybeans, potatoes, dried fruit, tomatoes, peas, fish, chicken, whole grains	Oestrogen contraceptive, anti-tuberculosis drugs

Pantothenic Acid B5	10 mg	Generation of energy, hemoglobin production, metabolism of toxins by liver	Dose should not exceed 1200 mg as this may cause nausea and heartburn	Fatigue, weakness, numbness, poor coordination, abdominal and muscle cramps, anemia, insomnia, headache, vomiting, depression	Barley Gold, Avocado, mushrooms, seeds, nuts, pumpkin, sweet potatoes, egg yolks, broccoli, dairy products, bananas	Contraceptive pill (oestrogen hormone), Antihypertensive meds.
Pyridoxide B6	1.3 -2 mg Needs greater over 60 yr.	Prevents nerve problems, helps the body absorb proteins and carbohydrates, helps lower blood levels of homocysteine	Doses larger than 100 mg may cause numbness and tingling in hands and feet (nerve problems)	Skin inflammation depression	Barley Gold, Fish, bananas, chicken, pork, whole grains, dried beans	Contraceptive pill (oestrogen hormone), roasted or broiled food, alcohol, some cholesterol lowering drugs (hydralazine)
Cobalamine B12	2.4 – 6 mcg Needs greater over 60 yr.	Making red blood cells and the formation of nerves	Doses larger than 3000 mcg may cause eye conditions	Anemia, tiredness, breathing difficulties, dizziness, abnormalities in nerve tissue function	Barley Gold, Fish, liver, beef, pork, milk, cheese	Water, sunlight, alcohol, oestrogen hormone, sleeping pills, chronic antacid use
Ascorbic Acid Vitamin C	75 mg (females) 90 mg (males) Higher if don't eat a lot of foods rich in vitamin C (200 mg to saturate body tissue) Smokers 35 mg extra	Immune defense system, protection from viruses and bacteria, healing wounds, decreases cholesterol, cell life span, prevention of scurvy, a natural laxative	No major impact of overdose has been proven (nausea, diarrhea) as is water soluble and dissolves in water so excess is passed in urine. Some scientists have argued 1000 - 5000mg/day may damage DNA	Tiredness, bleeding gums, slow healing of wounds	Barley Gold – Level 1, citrus fruits, kiwi, berries, cantaloupe, tomatoes, cauliflower, potatoes, green leafy vegetables, peppers, broccoli	Boiling food, light, heat, smoking
Cholecalciferol Vitamin D	5 mcg 400 IU	Strong bones and teeth, keeps blood pressure and blood fats in check	Large doses (over 50 mcg) obtained from food can cause eating problems and ultimately disorientation, coma and death. Fat soluble so accumulates in body.	Unhealthy teeth, osteomalacia (weakening of bones), rickets in children	Barley Gold, sunlight, cod liver oil, herring, salmon, tuna, milk and milk products	Mineral oil/laxatives, anticonvulsant drugs, antacids with aluminum hydroxide, some cholesterol lowering drugs
Tocopherol Vitamin E	15 mg 30 IU	Fighting toxins as vitamin E is a powerful antioxidant	Doses larger than 1000 mg /1, 500 IU may cause blood clotting, increased likelihood of hemorrhage in some individuals. Fat soluble so accumulates in body.	Weak muscles and fertility problems	Barley Gold, nuts, soya beans, vegetable oil, broccoli, sprouts, spinach, whole food products, eggs	Heat, oxygen, frost, iron, chlorine and mineral oil, some cholesterol lowering drugs

Vitamin K	80 mcg	Blood clotting	Large doses of one form of vitamin K (menadione - K3) May result in liver damage or anemia Fat soluble, but bacteria in intestines synthesize	Bleeding disorders (hemorrhaging), nose bleeds, blood in urine, heavy menstrual bleeding	Barley Gold , cauliflower, soy beans, canola, olives, spinach, Brussels sprouts, potatoes, meats, green leafy vegetables, green tea	Large doses of vitamin A and E, some cholesterol lowering drugs
Minerals:						
Baron	Less than 20 mg	Physiological role in animals is poorly understood	Amounts larger than 20 mg can infect stomach, cause birth defects and delays, damage liver, kidneys and brain and can eventually lead to death	Necessary in such small amounts that no deficiency symptoms in humans are described	Fruits and vegetables	
Calcium	1000 mg 1500 mg for men over 60 and post menopausal women	Strong bones and teeth, nerve function, muscle contraction, blood clotting	Doses larger than 1500 mg may cause stomach problems for sensitive individuals, headaches, high blood pressure, diarrhea, kidney and gall bladder stones	Poor teeth, brittle bones, osteoporosis	Barley Gold , milk (8 oz. glass 300 mg), cheese, butter, yogurt, green leafy vegetables * can't be absorbed without Vitamin D	Laxatives/mineral oil, glucocorticoids decrease calcium
Chlorine	3400 mg in chloride form (gas form is toxic)	Necessary to most forms of life, chloride metabolizes food into energy, acid/base balance	Repeated long exposure in work place, or bleach, pool chemicals can affect immune system, the blood, heart and respiratory system Doesn't remain in body due to reactivity		Plants not likely to store , chlorine is part of common salt	
Chromium	120 mcg	Essential nutrient for human health, proper function of insulin	Doses larger than 200 mcg are toxic and may cause concentration problems and fainting, skin rashes	Heart conditions, disruption of metabolisms, diabetes	Many vegetables and fruits, meats, yeasts and some grains	
Copper	900 mcg – 2 mg	Trace element essential for human health, co-factor in various enzymes, metabolism of iron, bone and heart health, blood sugar regulation	As little as 10 mg of copper can have toxic effects (irritation of nose, mouth, eyes: headaches: kidney damage: stomach ulcers, dizziness: anxiety: vomiting: diarrhea		Barley Gold , Many kinds of foods, some shellfish	Vitamin c can inhibit copper absorption
Fluorine	3.5 mg	Solidity of bones, prevention of dental	If absorbed too frequently it can cause		Small amounts of fluorine are naturally present in	

		decay	tooth decay, osteoporosis and harm to kidneys, bones, nerves and muscles		water, air, plants and animals. Fluorine can be found in any kind of food in relatively small quantities. Larger quantities of fluorine can be found in tea and shellfish.	
Iodine	150 mcg	Building material of thyroid hormones, essential for growth, the nervous system, and the metabolism	Large quantities are dangerous as the thyroid gland will labor too hastily (disturber heart beats and weight loss)	Struma (enlarged thyroid)	Bread, table salt	
Iron	12 mg	Red blood cells, muscle function, white blood cells and the immune system	Doses larger than 20 mg may cause stomach upset, constipation and blackened stool, increased heart attacks and increased cancers. Difficult to overdose through food sources.	Tiredness, irritability, difficulty concentrating, anemia	Barley Gold, Lean red meat, oily fish, egg yolks, green leafy vegetables, nuts, whole grains	
Magnesium	400 mg	Basic to nucleic acid chemistry of life, plays a part in over 25 enzymes and 325 metabolic processes including muscle contraction and heartbeat	Supplement doses larger than 400 mg may cause stomach problems and diarrhea, lethargy, confusion, muscle weakness Difficult to overdose through food sources.	Body recycles what we already have, but deficiencies related to asthma, osteoporosis, ADHD, muscle spasms, heart disease, diabetes, high blood pressure, weak bones, migraines	Barley Gold, spices, nuts, cereals, coffee, tea, whole grains, leafy green vegetables. Refining food reduces magnesium substantially.	Some diuretics
Manganese	2.0 mg	Converting energy from food, cell repair, building strong bones/teeth/muscles, regulates body temperature	Excess manganese may hinder iron absorption.	skeletal deformation, poor wound healing	Barley Gold, green leafy vegetables, whole grains, nuts	
Molybdenum	45 – 75 mcg	Metal hetero-atom at the active site in certain enzymes, prevents decay of tooth enamel	Doses larger than 200 mcg may cause kidney problems and copper deficiencies	Not usually seen in healthy people	Pork lamb, beef liver, green beans, eggs, sunflower seeds, wheat flour, lentils, cereal grains	
Nickel	Less than 1 mg	Present in many enzymes, essential element in living cells, component of DNA, RNA and ATP	Products containing nickel may cause skin rashes in cases of allergies, intake of large quantities related to cancers, lung embolisms, respiratory failure, heart		Chocolate, fats	

			disorders, asthma			
Phosphorus	1000 mg	Essential element for the life of organisms, found in the environments most commonly as phosphates, Phosphates are part of DNA material and take part in energy distribution.	Contradiction: FDA states 250 mg may cause stomach problems for sensitive individuals. Larger amounts may cause diarrhea and hardening of organs and soft tissues	Muscle and neurological dysfunction	Barley Gold, found commonly in plants	Antacids with aluminum hydroxide, mineral oil/laxatives, some diuretics
Potassium	3500 mg	Plays role in physical fluid system, assists nerve function, cardiovascular function, muscle contraction. Potassium has an alkaline property that helps maintain pH level and proper level of water in the body	Large doses may cause stomach upset, intestinal problems or heart rhythm disorder	85-90% excreted naturally from our bowels and kidneys (urine). A deficiency can cause fatigue, muscle weakness, anxiety and hypertension, skin problems, heart related problems, ringing in ears, sleep, depression.	Barley Gold, vegetables, fruits, potatoes, meat, bread, milk, nuts	Diuretics that contain thiazide or furosemide
Selenium	55 – 70 mcg	Essential nutrient, anti oxidant	Doses larger than 200 mcg can be toxic (brittle hair and nails, rashes, swelling, severe pain)	Shortages rarely occur (heart and muscle problems)	Barley Gold, Most foods and sometimes water	
Sodium	2400 mg	Maintaining fluids (tissue-water and acid-base balance), nerve and muscle function	Too much damages kidneys and raises blood pressure. Over 400g gives garlic breath, neurological damage, sloughing of nails, fatigue, irritability, hair loss	Generally the kidneys very efficiently reabsorb sodium when the intake is low. (Leg cramps, dehydration, diarrhea, fever, low blood pressure)	Barley Gold, Many foodstuffs e.g. common salt	
Vanadium	Less than 1.8 mg	Essential component of some enzymes, inhibits cholesterol from forming in blood vessels, reproduction and growth, energy production, building of bones and teeth, blood sugar and fat metabolism	Irritation of lungs, throat, eyes and nasal cavity: other serious health effects	No known deficiency symptoms.	Buckwheat, soy beans, olive oil, sunflower oil, apples, eggs, black pepper, shellfish, mushrooms, dill seed, parsley, soy, corn, olives, and gelatin.	

Zinc	8 -15 mg	Immune system function: breakdown of protein, fat and carbohydrates: wound healing	Doses larger than 25 mg may cause anemia, copper deficiency, suppress immune system, stomach cramps, nausea and vomiting	Zinc deficiency can cause: copper imbalance; lesions on skin, eyes, and throat; loss of taste and smell; diarrhea; slow healing; growth problems in children	Barley Gold, meat, shellfish, brown rice, milk, whole grains	Diuretics that contain thiazide or furosemide
Other Nutrients: Fiber	25 g females 38 g males	Absorbing water and easing defecation: increase bulk, soften stool and shorten transit time through the intestinal tract Reduce blood cholesterol levels, lower risk of onset for some types of cancer		Insufficient fiber in the diet can complicate defecation.	Barley Gold, Sources of insoluble fiber include fruits, whole grains, wheat and corn bran, flax seed lignans and vegetables such as celery, green beans, potato skins and tomato peel. Some sources of soluble fibers are peas, beans, oats, apples and carrots.	
Protein	50 g	Proteins are essential parts of organisms and participate in every process within cells. Many proteins are enzymes that catalyze biochemical reactions and are vital to metabolism. <i>Protein's</i> main function is to build, maintain and repair all your body's tissue, such as muscles, organs, skin and hair.	If you eat more protein than your body needs, it tends to get broken down and stored as fat, not protein.	Protein is made up of building blocks called amino acids. While our bodies can make most of the 20 amino acids we need, some can only come from the food we eat. The body will use protein from the muscle mass to meet its energy needs, leading to muscle wasting over time. If the body does not consume adequate protein in nutrition, then muscle will also waste as more vital cellular processes (e.g. respiration enzymes, blood cells) recycle muscle protein for their own requirements.	Barley Gold, Animal protein and vegetable protein probably have the same effects on health. Lean meat, fish, poultry, beans, nuts, whole grains	

- **The RDI's are based on 200 calorie intake of average healthy people four or more years of age. Nutritional requirements are often slightly different for young children, adolescents, pregnant or breastfeeding adults and elderly adults. There are more involved charts if you want to be more specific.**
- **Where there is a range in this chart it reflects the differences published from The US FDA, Health Canada, The National Academy of Sciences and the United Kingdom. Biotin has a large disagreement by experts in the proper dose.**
- **Elements within the microgram (mcg) range are referred to as trace elements. One microgram is a thousand times smaller than a milligram (mg)**