

# Vitamins

## Vitamin A (retinol) properties

<b>Good for</b>	Eyesight, growth, appetite and taste.
<b>Signs of deficiency</b>	Night-blindness
<b>RDA</b>	800 micrograms
<b>Good sources</b>	Liver, cod liver oil, carrots, green leafy vegetables, egg yolks, enriched margarine, milk products and yellow fruits.
<b>Poisoning</b>	This vitamin is fat-soluble and so is stored in the body for a long time, especially in pregnancy. An overdose may be dangerous.

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## Vitamin B1 (thiamine) properties

<b>Good for</b>	Nervous system, digestion, muscles, heart, alcohol-damaged nerve tissues.
<b>Signs of deficiency</b>	Tingling in fingers and toes, confusion, difficulties in maintaining balance, loss of appetite, exhaustion and weakened powers of concentration.
<b>RDA</b>	1.4mg
<b>Good sources</b>	Liver, yeast, egg yolk, cereal, red meat, nuts and wheat germ.
<b>Poisoning</b>	No danger. It dissolves in water, so any excess is passed in urine.

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## Vitamin B2 (riboflavin) properties

<b>Good for</b>	Growth, skin, nails, hair, sensitive lips and tongue, eyesight, the breakdown of protein, fat and <u>carbohydrates</u> .
<b>Signs of deficiency</b>	Itchy irritated eyes, itchy mucous membranes (nose, mouth, throat) and cracked corners of lips.
<b>RDA</b>	1.6mg
<b>Good sources</b>	Milk, liver, yeast, cheese, green leafy vegetables, fish.
<b>Poisoning</b>	No danger. It dissolves in water, so any excess is passed in urine.

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## Vitamin B6 (pyridoxine) properties

<b>Good for</b>	Preventing skin conditions, nerve problems, helps the body absorb protein and carbohydrate.
<b>Signs of deficiency</b>	Skin inflammation.
<b>RDA</b>	2mg
<b>Good sources</b>	Fish, bananas, chicken, pork, whole grains and dried beans.
<b>Poisoning</b>	May cause nerve problems in large doses. Evidence is conflicting about the maximum safe dose, so get medical advice before exceeding the RDA.

### **Vitamin B12 (cobalamin) properties**

<b>Good for</b>	Making red blood and the formation of the nerves.
<b>Signs of deficiency</b>	Tiredness and <u>fatigue</u> , tingling and numbness in hands/feet, memory problems
<b>RDA</b>	1 microgram
<b>Good sources</b>	Eggs, shellfish, poultry, meat, liver, milk, cheese and fortified cereal.
<b>Poisoning</b>	No danger. It dissolves in water, so any excess is passed in urine.

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### **Vitamin C (ascorbic acid) properties**

<b>Good for</b>	Immune defense system, protection from viruses and bacteria, healing wounds, reducing cholesterol, cell lifespan
<b>Signs of deficiency</b>	Tiredness, bleeding gums and slow-healing wounds.
<b>RDA</b>	60mg
<b>Good sources</b>	Citrus fruits, kiwi fruit, berries, tomatoes, cauliflower, potatoes, green leafy vegetables and peppers.
<b>Poisoning</b>	Large doses can cause diarrhea and nausea, eg 2g/day . Some scientists have argued that 1000-5000mg per day may damage your DNA.

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### **Vitamin D properties**

<b>Good for</b>	Strong bones and teeth.
<b>Signs of deficiency</b>	Unhealthy teeth, weakening of bones.
<b>RDA</b>	5 micrograms
<b>Good sources</b>	Sunlight (the action of sunlight on the skin allows our bodies to manufacture <u>vitamin D</u> ), cod liver oil, sardines, herring, salmon, tuna, milk and milk products.
<b>Poisoning</b>	This vitamin is fat-soluble so can accumulate in the body. Overdoses are dangerous, but there is wide variability in the toxic level, eg 400IU for children.

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### **Vitamin E (tocopherol) properties**

<b>Good for</b>	Fighting toxins – vitamin E is a powerful antioxidant.
<b>Signs of deficiency</b>	Weak muscles and fertility problems.
<b>RDA</b>	10mg
<b>Good sources</b>	Nuts, soya beans, vegetable oil, broccoli, sprouts, spinach, whole meal products and eggs.
<b>Poisoning</b>	Increase risk of bleeding, more than 400IU/day can increase risk of <u>heart failure</u> and death in long term illness.

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### **Folic Acid properties**

<b>Good for</b>	Production of red blood cells.
<b>Signs of deficiency</b>	Tiredness and red tongue.
<b>RDA</b>	200 micrograms.

<b>Good sources</b>	Carrots, yeast, liver, egg, yolks, melon, apricots, pumpkin, avocado, beans, rye and whole wheat and green leafy vegetables.
<b>Poisoning</b>	No danger. It dissolves in water, so any excess is passed in urine.

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## Minerals

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### Calcium

<b>Good for</b>	Strong bones and teeth, nerve function, muscle contraction, blood clotting.
<b>Signs of deficiency</b>	Poor teeth and brittle bones.
<b>RDA</b>	800mg
<b>Good sources</b>	Milk, cheese, butter, yoghurt and green leafy vegetables.
<b>Poisoning</b>	High doses can lead to <u>headaches</u> , stomach pain, <u>high blood pressure</u> and <u>diarrhea</u> . Excess calcium can be deposited as kidney and gall bladder stones. It has been linked to an increased risk for heart attack in recent research.

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### Iron

<b>Good for</b>	Red blood cells and muscle function, white blood cells and the immune system.
<b>Signs of deficiency</b>	Tiredness, irritability, difficulties concentrating.
<b>RDA</b>	14mg
<b>Good sources</b>	Lean red meat, oily fish, egg yolks, green leafy vegetables, nuts, whole grains and whole wheat.
<b>Poisoning</b>	Iron is stored in the body and high doses (over 17mg) can lead to constipation, vomiting, nausea and diarrhea. Very high doses can be fatal.

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### Magnesium

<b>Good for</b>	Converting energy from food, cell repair, building strong bones, teeth and muscles and regulating body temperature.
<b>Signs of deficiency</b>	Muscle spasms, and has been associated with heart disease, diabetes, high blood pressure and weak bones.
<b>RDA</b>	300mg
<b>Good sources</b>	Green leafy vegetables, whole grains and nuts.
<b>Poisoning</b>	High doses can cause diarrhea.

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### Zinc

<b>Good for</b>	Immune system, the breakdown of protein, fat and carbohydrate.
<b>Signs of deficiency</b>	Lesions on skin, eyes and in throat, loss of taste and smell, hair loss, diarrhea, slow healing of wounds and growth problems in children.
<b>RDA</b>	15mg
<b>Good sources</b>	Meat, shellfish, milk brown rice and whole grains.
<b>Poisoning</b>	High doses can lead to stomach cramps, nausea and vomiting, 100mg a day is the current advised maximum daily limit

