



# FACTS ABOUT VITAMINS

Everything you need to  
know about vitamins

# WHAT CAN VITAMINS DO FOR YOU?

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## 1. SUPPORT IMMUNITY

Good nutrition makes for a durable immune system. Your immune system relies on what you put into your body, and certain nutrients are known for their immune-supporting benefits. Vitamin C is considered one of the biggest immune supporters. It's an antioxidant that protects your cells from damage caused by oxidative stress from free radicals, which are unstable molecules.

Zinc is also critical for immune cell development and communication and studies indicate that it may promote immune health.

## 2. SUPPORT A HEALTHY METABOLISM

B-complex vitamins, like thiamin, riboflavin, folate, biotin, and vitamins B6 and B12 collaborate with other enzymes in your body to metabolize energy from protein, fats, and carbohydrates. Staying physically active and eating a healthy diet also help to maintain a healthy metabolism—factors that are important for healthy aging and your overall health.

## 3. MAINTAIN STRONG BONES

You probably already know that calcium is critical for healthy bones. But did you know that calcium needs vitamin D to successfully fulfil its job of helping to build healthy bones?

The skin produces vitamin D following direct exposure to sunlight, but the necessary use of sunscreen, weak winter sunlight, and poor skin absorption all work against production of this vital nutrient. And though vitamin D is added to milk, many people don't drink enough dairy products to benefit.

## WHY ARE VITAMINS IMPORTANT?

Living a healthy lifestyle means staying in tune with your body and listening to what it tells you. When it comes to nutrition, you do your best to get all the right nutrients to stay energized and nourished. Vitamins supplements are there to complement the nutrients you get from food and bring you one step closer to your health and wellness goals.

# 3 GOOD REASONS TO HAVE THE CORRECT BALANCE OF VITAMINS

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## 1. KEEP OUR BODIES IN GOOD WORKING ORDER

Vitamins work hard to keep our bodies functioning properly and they help drive essential processes needed in our everyday lives. Each nutrient is on a mission to deliver health benefits that help you reach your wellness goals.

## 2. HEALTHY AGING

Our cells experience wear and tear as time passes, but proper nutrition can slow down this process. Vitamins, like antioxidants, function to protect cells from environmental stressors, helping to support healthy aging.

## 3. COVER YOUR NUTRITIONAL BASES

We do our best to eat healthy, but some nutrients are hard to get from food alone. A multivitamin can ensure you meet your regular daily requirements for all the essential vitamins.

The 13 known vitamins are divided into 2 categories — fat-soluble and water-soluble



## WATER-SOLUBLE VITAMINS

Water-soluble vitamins are readily excreted from the body and not easily stored in tissues. There are more water-soluble vitamins than there are fat-soluble ones.

Water-soluble vitamins include vitamin C, plus eight B vitamins:

- Vitamin B1 (thiamine)
- Vitamin B2 (riboflavin)
- Vitamin B3 (niacin)
- Vitamin B5 (pantothenic acid)
- Vitamin B6 (pyridoxine)
- Vitamin B7 (biotin)
- Vitamin B9 (folate)
- Vitamin B12 (cobalamin)

Because water-soluble vitamins aren't stored but rather excreted through urine, they're less likely to cause issues even when taken in high doses.

## FAT-SOLUBLE VITAMINS

Unlike water-soluble vitamins, fat-soluble vitamins do not dissolve in water and are easily stored in your body's tissues.

There are four fat-soluble vitamins:

- Vitamin A (Retinol)
- Vitamin D (Calciferol)
- Vitamin E (Alpha-tocopherol)
- Vitamin K (Phytonadione)

Given that fat-soluble vitamins can accumulate in the body, these nutrients are more likely to lead to toxicity than water-soluble vitamins.

## POTENTIAL RISKS OF TAKING TOO MANY VITAMINS

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When consumed naturally through foods, these nutrients are unlikely to cause harm, even when consumed in large amounts.

Yet, when taken in concentrated doses in supplement form, it's easy to take too much, and doing so can lead to negative health outcomes.

## HOW TO SAFELY TAKE VITAMINS

The best way to get the nutrients you need is by consuming a well-rounded diet. However, many people need to supplement with vitamins for a variety of reasons.

Age, genetic disorders, medical conditions, and diet are all factors that can increase the need for certain nutrients. Fortunately, vitamins are typically safe to take as long as they are used responsibly.

The following chart outlines both the recommended daily intake (RDI) and tolerable upper intake levels (UL) for fat-soluble and water-soluble vitamins

Due to potential toxicity, it's not recommended to consume more than the tolerable upper intake levels set.

Keep in mind that in certain circumstances, your healthcare provider may recommend that you take more than the UL for certain nutrients to correct a deficiency.

For example, vitamin D deficiencies are often treated with high-dose vitamin D injections or supplements that deliver over 50,000 IU of vitamin D, which is much more than the UL.



VITAMIN	USES IN THE BODY	SOURCES	RDI (ADULT MALE)	RDI (ADULT FEMALE)	UL
<b>Vitamin A</b> (Retinol)	<ul style="list-style-type: none"> <li>Helping your body's natural defence against illness and infection (the immune system) work properly.</li> <li>Helping vision in dim light.</li> <li>Keeping skin and the lining of some parts of the body, such as the nose, healthy.</li> </ul>	<p>Cheese, Eggs, Oily fish, Low-fat spreads, Milk, Yoghurt, Liver, and Liver products like pate (if you're pregnant you should avoid eating liver or liver products).</p> <p>You can also get vitamin A by including good sources of beta-carotene in your diet.</p>	900 mcg RAE	700 mcg RAE	3,000 mcg RAE
<b>Vitamin B1</b> (Thiamine)	<ul style="list-style-type: none"> <li>Helps the body break down and release energy from food.</li> <li>Helps to keep the nervous system healthy.</li> </ul>	Peas, some fresh fruits (such as bananas and oranges), Nuts, Wholegrain breads, some fortified breakfast cereals, Liver.	1.2 mg	1.1 mg	No UL established
<b>Vitamin B2</b> (Riboflavin)	<ul style="list-style-type: none"> <li>Helps to keep skin, eyes, and the nervous system healthy.</li> <li>Helps the body release energy from food.</li> </ul>	<p>Milk, Eggs, Fortified breakfast cereals, Mushrooms, Plain yoghurt (UV light can destroy riboflavin, so ideally these foods should be kept out of direct sunlight)</p>	1.3 mg	1.1 mg	No UL established
<b>Vitamin B3</b> (Niacin)	<ul style="list-style-type: none"> <li>Helps the body release energy from food.</li> <li>Helps to keep the nervous system and skin healthy.</li> </ul>	Meat, Fish, Wheat flour, Eggs	16 mg NE	14 mg NE	35 mg
<b>Vitamin B5</b> (Pantothenic acid)	<ul style="list-style-type: none"> <li>Pantothenic acid has all the functions of the B vitamins, such as helping the body to release energy from food.</li> </ul>	<p>Chicken, Beef, Liver and Kidneys, Eggs, Mushrooms, Avocado</p> <p>Breakfast cereals are also a good source if they have been fortified with pantothenic acid.</p>	5 mg	5 mg	No UL established
<b>Vitamin B6</b> (Pyridoxine)	<ul style="list-style-type: none"> <li>Helps the body to use and store energy from protein and carbohydrates in food.</li> <li>Helps the body form haemoglobin, the substance in red blood cells that carries oxygen around the body.</li> </ul>	Pork, Poultry, such as chicken or turkey, Some fish, Peanuts, Soya beans, Wheatgerm, Oats, Bananas, Milk, Some fortified breakfast cereals.	1.3 mg	1.3 mg	100 mg
<b>Vitamin B7</b> (Biotin)	<ul style="list-style-type: none"> <li>Biotin is needed in very small amounts to help the body make fatty acids.</li> </ul>	<p>The bacteria that live naturally in your bowel can make biotin, so it's not clear if you need any additional biotin from the diet.</p> <p>It is also found in a wide range of foods, but only at very low levels.</p>	30 mcg	30 mcg	No UL established



<b>Vitamin B9</b> (Folate)	<ul style="list-style-type: none"> <li>Helps the body form healthy red blood cells.</li> <li>Helps to reduce the risk of birth defects called neural tube defects, such as spina bifida, in unborn babies.</li> </ul>	Broccoli, Brussels sprouts, Leafy green vegetables, such as cabbage, kale, spring greens and spinach, Peas, Chickpeas and kidney beans, Liver (but avoid this during pregnancy), Breakfast cereals fortified with folic acid.	400 mcg DFE	400 mcg DFE	1,000 mcg
<b>Vitamin B12</b> (Cobalamin)	<ul style="list-style-type: none"> <li>Helps to make red blood cells and keeping the nervous system healthy.</li> <li>Helps to release energy from food.</li> <li>Helps to use folate.</li> </ul>	Meat, Fish, Milk, Cheese, Eggs, Some fortified breakfast cereals	2.4 mcg	2.4 mcg	No UL established
<b>Vitamin C</b> (Ascorbic acid)	<ul style="list-style-type: none"> <li>Helping to protect cells and keeping them healthy.</li> <li>Maintaining healthy skin, blood vessels, bones, and cartilage.</li> <li>Helping with wound healing.</li> </ul>	Citrus fruit, Peppers, Strawberries, Blackcurrants, Broccoli, Brussels sprouts, Potatoes	90 mg	75 mg	2,000 mg
<b>Vitamin D</b> (Calciferol)	<ul style="list-style-type: none"> <li>These nutrients are needed to keep bones, teeth, and muscles healthy.</li> </ul>	The body creates vitamin D from direct sunlight on the skin when outdoors.  Food sources Oily fish, Red meat, Liver, Egg yolks, Fortified foods – such as some fat spreads and breakfast cereals	600 IU	600 IU	4,000 IU
<b>Vitamin E</b> (Alpha-tocopherol)	<ul style="list-style-type: none"> <li>Helps maintain healthy skin and eyes, and strengthen the body's natural defence against illness and infection (the immune system).</li> </ul>	Plant oils – such as rapeseed (vegetable oil), sunflower, soya, corn, and olive oil, Nuts, and seeds, Wheatgerm – found in cereals and cereal product	15 mg	15 mg	1,000 mg
<b>Vitamin K</b>	<ul style="list-style-type: none"> <li>Is a group of vitamins that the body needs for blood clotting, which helps to heal cuts and wounds.</li> </ul>	Green leafy vegetables – such as broccoli and spinach, Vegetable oils, Cereal grain. Small amounts can also be found in meat and dairy foods.	120 mcg	90 mcg	No UL established

- \*RDI – Recommended Daily Intake
- \*UL – Upper Intake Levels
- \*RAE – Retinol Activity Equivalent
- \*NE – Niacin Equivalent
- \*DFE – Dietary folate equivalent



