

Health

# The vitamin Verdict

Are supplements *really* necessary?  
We speak to the experts about  
which are worth taking.

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**We** need vitamins. Our very existence depends on them.

While science says that most of us can get what we need from a healthy wholefood diet, statistics show that few of us are convinced that's actually true: three-quarters of Australians take supplements, spending just shy of \$2 billion on vitamins and minerals each year. But are they really worth it? Or are we handing over our hard-earned moolah for the privilege of generating brightly coloured pee?

**“You can get by without phytonutrients but, if your body was a car, it would be like missing a spark plug. It will run but it won't purr.” - Professor Collins**

“In theory we should be getting everything we need from eating a healthy varied ‘real food’ diet,” says Dr Clare Bailey, co-founder of The Fast 800 online program, “but this is difficult for many of us to achieve.”

Clare Collins, Laureate Professor in Nutrition and Dietetics at the University of Newcastle and leading researcher at Hunter Medical Research Institute, says the latest national nutrition survey proves just how tough we find a rainbow diet to be.

“On average, we don't eat that great. About one-third of what Australians eat comes from ultra-processed foods and two-thirds is something your grandparents would remember from the basic five food groups,” says Professor Collins, who recommends a free personalised diet report (visit [nomoneynotime.com.au](http://nomoneynotime.com.au)) as a way to identify your vitamin and mineral intake. “We reach for supplements as an insurance policy because the harder thing is to make day-to-day nutritional changes.”

Even those on a ‘healthy’ diet might be surprised to know they're at risk

of nutritional deficiencies. Dr Bailey says women over 50 are at higher risk of a B6, B12 and calcium deficiency, while vegetarians, vegans and anyone reducing their meat or dairy intake could be low in iron or B12.

“A surprising number of people who are overweight or obese are also deficient in certain vitamins and essential minerals,” says Dr Bailey. “A recent Curtin University study tested the blood of 127 overweight or obese individuals with an average age of 49. They found most were deficient in vitamin D, A and E, folic acid, potassium, zinc, calcium and magnesium.”

If you are pregnant, elderly, or suffer from a chronic condition that causes malabsorption (such as cystic fibrosis, coeliac disease or Crohn's disease) you too are at higher risk of deficiencies, according to Professor Collins, because your body is probably not absorbing all the nutrients that you eat.

“There are also times, when you have surgery or are undergoing intensive treatments, that you may need to supplement,” she says.

Some health experts go further, arguing that we're all deficient to some degree.

“Due to over-farming our foods simply don't contain the same nutritional value as they once did,” says clinical nutritionist and naturopath Dr Simoné Laubscher PhD,

formulator of WelleCo's The Super Elixir™ daily greens.

“If your food has been on a truck or plane to get to you it's likely to be compromised and to not contain the nutrition you need. Add to that living in the city with increased toxic load and you'll need to supplement with wholefood plant-based – but not synthetic – supplements.”

Nutritionist and functional medicine practitioner Jackie Bowker, who works alongside Melrose Health, says we need to look beyond what we eat to address any deficiencies.

“We're 99 per cent genetically the same as we were when we were homo sapiens 180,000 years ago and we simply weren't designed to live in our modern world,” she says. “What we eat, drink, the clothes we wear, the air we breathe, the skin and cleaning products we use, our relationships, sleep, movement, our belief system, all contribute to our overall health.”

And what does science say? There's no straightforward answer because, despite billions spent on testing, the evidence for whether supplements can significantly alter your health is unclear, even conflicting. What we do know is that too much, even of a good thing, is not beneficial – water soluble vitamins are excreted in urine and fat-soluble vitamins are stored in your liver or adipose tissue (which in

excessive amounts can cause harm).

“We're always in a rush to put things in a bottle when something's identified as having benefit but we should be in a rush to eat more of those foods so that you get the other nutrients they come with,” says Professor Collins.

“You can get by without those phytonutrients but, if your body was a car, it would be like missing a spark plug. It will run but it won't purr.”

#### **Add to FOOD**

### **Turmeric**

Rich in curcumin, “turmeric has superpowers,” says Jackie Bowker. “It's anti-inflammatory, an antioxidant, and can even boost brain function. It is beneficial for chronic inflammatory conditions like arthritis, asthma, heart disease, type 2 diabetes, respiratory symptoms and pain.” Dr Bailey is also a big fan. “I add this to nourishing curries,” she says. “It has best impact when taken with fatty food and black pepper.”

## Folate

Professor Collins recommends taking a folate supplement if you're trying to become pregnant or are in the first trimester as it lowers the risk of a neural tube defect.

"This is supplemented at a population level in bread because the consequences of a deficiency are so dire," says Professor Collins. "People who are on self-imposed restrictions of carbs may not be getting enough folate."

**FOOD SOURCE:** Bread.

## Iron

Iron is vital for oxygen transportation in the body but pharmacist Samantha Light recommends a blood test before taking a supplement. "Symptoms for low iron, such as fatigue, weakness and lethargy, are also symptoms for high iron," says Samantha, who says iron in oral ferrous sulphate form is the gold standard but, if it causes an upset stomach and constipation, a glycinate or maltose form is an option. "It is best taken on an empty stomach as compounds from food, tea and coffee can reduce absorption."

**FOOD SOURCE:** Weet-Bix, meat (particularly red meat), eggs, oats, tofu and nuts.

## Vitamin B

B group vitamins are vital for ensuring the body's cells function properly. "B vitamins are interesting because you need them for brain function and to release energy in your muscles," says Professor Collins. "Essentially, they are a box of matches to a bonfire."

### Herbs & PROTEIN

## Adaptogens

Jackie Bowker says adaptogen herbs are useful if we're stressed or feeling depleted. "They 'adapt' to our needs," she says. "Adaptogens can be helpful when people are anxious or irritated, to give the stress glands support."

However, Dr Bailey recommends them as a whole food. "Like many foods they're certainly more powerful whole rather than in the extracted ingredients," she says.

**FOOD SOURCE:** Mushroom, basil, aloe vera, ginseng and milk thistle.

## Pea protein

Dr Bailey says protein is integral to a healthy lifestyle. "Protein aids weight loss, keeps you feeling full, maintains muscle and provides a steady release of energy. Unlike carbohydrates and fats, your body can't store protein, which is why a daily intake is important."

She says vegetarians, vegans, the elderly and athletes may benefit from protein supplements if their diet is lacking.

**FOOD SOURCE:** Eggs, dairy, meat, edamame, peas, nuts, tofu and lentils.

**FOOD SOURCE:** Whole grains, eggs, dairy and meat.

## Vitamin C

While there is doubt as to whether vitamin C can help reduce symptoms of the common cold, a daily dose is vital for general health. "Vitamin C is an excellent antioxidant, helping protect from heart disease, cancer and

B vitamins are also essential for healthy skin and hair and, as they are water soluble, you need a daily dose. Researchers at Duke-NUS Medical School in Singapore recently discovered that vitamin B12 (and folic acid) supplements may also reverse fatty liver disease.

stroke and supporting the immune system," says Dr Bailey. "Most people are deficient but the best way to up your levels is through food. There is strong evidence that taking a vitamin C supplement containing up to 500mg daily is safe too." Dr Laubscher recommends a plant-based vitamin C supplement. "It is bioavailable at a cellular level while synthetic vitamin C gets flushed out by the kidneys," she says.

**FOOD SOURCE:** Strawberries, kiwifruit, citrus, papaya, tomatoes and cabbage.

## Vitamin D

"Despite the name vitamin, there is little vitamin D in most foods," says Professor Rebecca Mason, from the School of Life and Environmental Sciences at The University of Sydney. "The thing that vitamin D is most important for is to help you absorb more of the





## Probiotics

“The health of your body is rooted in the health of your gut. We’re more bacteria than human!” says Jackie Bowker.

“Feeling irritated, tired, forgetful, and ‘puffy’, is tied to gut health, as is weight gain, brain fog and hormonal, sleep or skin imbalances.” She recommends speaking to a professional to find the right strain and dose, and to boost your intake of prebiotics, which ‘feed’ the good bacteria.

**FOOD SOURCE:** Coconut yoghurt, dairy yoghurt, sauerkraut, kimchi for probiotics, and fibrous root vegetables; onion and garlic to boost the gut microbiome with prebiotics.

## Fish oil

“The most recent research showed that a low dose was not really effective in reducing the risk of heart disease,” says Professor Collins, who adds that some rheumatoid arthritis sufferers do notice small improvements on a

very high dose. “But the omega-3 content of fish oil is highly variable.”

Dr Bailey says fish oils lose their impact when they oxidise so it’s best to eat oily fish or “eat what the fish eat [seaweed and algae].”

“Trials at the University of Wollongong demonstrated that consuming a seaweed extract can be good for your heart as well as your gut,” she says.

“In one double-blind, placebo-controlled trial, overweight patients who took seaweed extract saw a 10 per cent improvement in their cholesterol levels and a 27 per cent reduction in markers of chronic inflammation.”

**FOOD SOURCE:** Salmon, mackerel, nuts and seeds. **AWW**

## Heart & BRAIN

## Essential minerals

Macro minerals, such as calcium and magnesium, and trace minerals, such as zinc, iron and selenium, are vital for heart and brain function.

### MAGNESIUM

According to Samantha Light, taking magnesium in glycinate form helps improve activity-induced muscle pain, period cramps and sleep.

“Magnesium is also required for the conversion of vitamin D and to enhance calcium absorption,” says Samantha.

Professor Collins recommends getting magnesium from a food source, such as pumpkin and chia seeds, almonds and green leafy vegetables.

“You can jump out of the frying pan and into the fire because, if you take huge amounts, you can precipitate a copper deficiency,” she says.

### ZINC

Professor Collins says there is some evidence that taking zinc can be beneficial in fighting a common cold. Zinc is found naturally in oysters, shellfish, nuts, dairy and legumes.

### SELENIUM

“If you are looking for a worthwhile supplement that many of us are deficient in, that would be selenium, also found in Brazil nuts,” says Dr Bailey. “It is a powerful antioxidant and can also be beneficial as a supplement.”

**“It’s better to spend your money on healthy food because that reduces the risk of lifestyle diseases, such as heart disease and diabetes.” – Professor Collins**

calcium you eat. Vitamin D and calcium are particularly important to help keep bones and muscles strong.” Our bodies need sunlight to make vitamin D but small amounts suffice. “If you keep exposing skin to sunlight for too long, you start to break down vitamin D before it can be absorbed into the body.” Dr Mason says a vitamin D deficiency puts you at higher risk of falls and fractures and it is vital in pregnancy. “There is also some evidence to suggest that adequate vitamin D may help people fight infections more efficiently and that it protects to a small extent against inflammation and some auto-immune diseases.”

**SOURCE:** Sunlight.