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women's health Datuk Dr Nor Ashikin Mokhtar

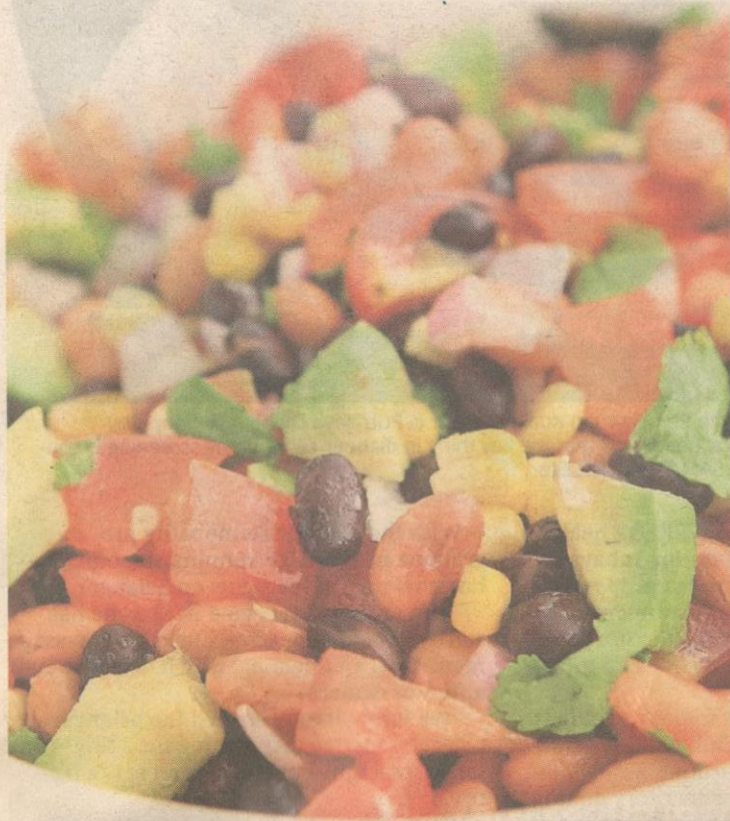


Vitamin B12 is vital

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Why we tend to forget this important vitamin, and what happens when you don't take enough.



Vegetarians and vegans are particularly at risk of not getting enough vitamin B12 from their food, as true vitamin B12 needed for your body's processes can only be found in animal products. — Filepic

The lack of vitamin B12 causes our body to lose the ability to replicate new cells normally. A body that is vitamin B12-deficient will imitate the effects of an ageing body. — TNS

SUPPLEMENT fads often tend to come and go in waves. One moment, everyone is talking about the benefits of a new miracle extract, and eight months later, a new one comes along, touting even better benefits.

Although there is no harm in taking these supplements, it should be kept in mind that there are some types of nutrients we should not neglect. Amongst many others, vitamin B12 is one of those key supplements needed to keep us functioning efficiently.

The importance of vitamin B12 is something we hear the professionals say all the time, but what exactly is it, and how does it work?

Part of the B vitamin category, vitamin B12 is a water-soluble vitamin called cyanocobalamin. Some key purposes of the vitamin are:

- Replication of DNA: the lack of vitamin B12 causes our body to lose the ability to replicate new cells normally. A body that is vitamin B12-deficient will imitate the effects of an ageing body.

- Producing red blood cells: not enough vitamin B12 leads to symptoms similar to anaemia.

Vitamin B12 is needed to support the normal function of nerve cells, and to manufacture myelin, the insulating material that surrounds some of our nerve cells and speeds neural transmission.

- As an organic compound, vitamin B12 also works to improve the metabolic system; manage and keep our nervous system healthy; and support adrenal function.

The National Institutes of Health (NIH) in the United States recommends the following daily dosage for the following groups: 2.4 microgrammes for those aged 14 and older; 2.6 microgrammes for adult and adolescent pregnant women; and 2.8 microgrammes for adult and adolescent lactating women.

Adults who are 50 and up should adopt a diet rich in vitamin B12 foods, or consume supplements to maintain healthy amounts of B12 in their bodies.

Some might also opt for a B-complex supplement, which provides a complete range of

the B vitamins and other essential vitamins like biotin, thiamin, riboflavin and niacin. We rarely discuss the consequences of vitamin B12 deficiency, but it is more commonly suffered than we think.

Symptoms include weakness, numbness and tingling, fatigue, dizziness, swelling and irritation of the mouth and tongue, and irritability.

Anaemia can also develop, but consuming high amounts of folate, also known as folic acid, can act as a stand-in for vitamin B12 and prevent anaemia from developing.

Deficiency of vitamin B12 is primarily due to the unusual way it is absorbed in the bloodstream.

The vitamin has to be paired with intrinsic factor, a type of glycoprotein produced in the stomach, but stomach conditions like gastritis can cause pernicious anaemia, a condition that interferes with the process of producing intrinsic factor.

Medications like aspirin and antacids can upset the stomach and cause B12 deficiency.

Diabetic patients who use metformin will also develop lowered levels of B12 and will need supplements.

If the reason for your vitamin B12 deficiency is because you are not getting enough from food intake, the problem is easily fixed by taking oral supplements.

But pernicious anaemia or vitamin B12 deficiency anaemia, will not be fixed with oral supplements because the lack of intrinsic factor causes poor absorption.

You need to seek out your doctor to provide B12 injections.

Some rare scenarios see genetic mutations limiting the metabolism of vitamin B12. In such cases, the active form of vitamin B12, known as methylcobalamin, is needed.

Patients over 50 should always be on the lookout for suggestive signs or symptoms.

Vegetarians and vegans are particularly at risk of not getting enough vitamin B12 from their food, as true vitamin B12 needed for your body's processes can only be found in animal products.

Vitamin B12 from animal products is the only way to get the trace element cobalamin (cobalt), as it is produced in the gut of animals.

Do not think that humans (as mammals) produce usable forms of vitamin B12 in our gut – we do not.

Plants do not require vitamin B12 to survive; that is why we do not derive the needed benefit of vitamin B12 from plant products.

Those who follow a vegetarian diet frequently have the misconception that consuming foods like seaweed, *tempeh*, spirulina and brewer's yeast will solve the problem of getting vitamin B12 from animal sources.

Such plant foods that contain high amounts of vitamin B12 are fortified (not naturally occurring) and actually contain B12 cobamides that inhibit the intake of true vitamin B12.

While this is not a judgment on the life choices of those who prefer long term, meat-free diets, it explains why research consistently shows that vegans and vegetarians are consistently the highest group with vitamin B12 deficiency.

If children follow an animal-free diet, the consequences can be quite serious – in fact, an early deficiency of vitamin B12 causes vegan children to continue being deficient for years after they start eating animal products.

A 2000 study published in the *American Journal of Clinical Nutrition* found “a significant association between cobalamin (vitamin B12) status and performance on tests measuring fluid intelligence, spatial ability and short-term memory, with formerly vegan kids scoring lower than omnivorous kids in each case”.

What the researchers found disturbing was the lack of fluid intelligence, as “it involves reasoning, the capacity to solve complex problems, abstract thinking ability and the ability to learn. Any defect in this area may have far-reaching consequences for individual functioning”.

Parents who choose a meat-free diet for their children must understand that health-care and nutrition professionals are on the parents' side and share the same concern for the healthy and full development of their children.

This is why it is key for vegetarian and vegan parents to know that vitamin B12 from plant sources is not enough for growing children.

That is a fact that we have to accept. Let your children grow up strong, and then make their own decisions on the type of diet they want to follow as adults.

Vitamin B12 deficiency, as we have discussed, can have a serious, long-term consequence of damaged brain function.

Given that it is not the most difficult thing to supplement via animal protein, many problems related to vitamin B12 deficiency in old age can be prevented or postponed.

Severe vitamin B12 deficiency leads to dementia. Only true vitamin B12 itself can help.

If you believe that you or a loved one may be suffering from deficiency, do not wait. Seek advice early, and protect yourself from experiencing the debilitating effects that come with vitamin B12 deficiency.

Datuk Dr Nor Ashikin Mokhtar is a consultant obstetrician and gynaecologist. For further information, visit www.primanora.com. The information provided is for educational and communication purposes only and it should not be construed as personal medical advice. Information published in this article is not intended to replace, supplant or augment a consultation with a health professional regarding the reader's own medical care. The Star does not give any warranty on accuracy, completeness, functionality, usefulness or other assurances as to the content appearing in this column. The Star disclaims all responsibility for any losses, damage to property or personal injury suffered directly or indirectly from reliance on such information.



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The health benefits associated with a high dietary fibre intake have long been heralded for their role in reducing the risk factors that lead to a stroke. — Filepic

To minimise the risk of stroke, eat a balanced diet that is low in fat and salt, and increase your intake of fruits and vegetables. — AFP

Don't forget your fibre!

The importance of good nutrition in managing those who have suffered a stroke.

DID you know that every hour, six Malaysians suffer a stroke?

Stroke is a devastating illness that affects a staggering 15 million people globally, and an estimated 40,000 Malaysians each year.

It is the third leading cause of death in Malaysia and the leading cause of disability, often severely impacting the quality of life of the people it touches.

Two-thirds will suffer from a disability, such as language, cognitive function or motor skills impairment. The type of disability corresponds to area of the brain that has been damaged.

Perhaps one of the most concerning aspects about a stroke is that it can happen to anyone, anywhere and at anytime, and often without warning.

Mark, fit, active and in his late 20s, was arguably enjoying his prime years when he collapsed whilst jogging at his local park.

Luckily for him, the first responder was the jogger behind him, a cardiologist, who performed CPR and saved his life.

When Mark finally woke from his coma, he was diagnosed as having suffered a massive stroke, which left him with a severe speech impediment and extensive memory loss.

No longer able to function independently, Mark faced a long rehabilitation.

As with 80% of stroke patients, he had suffered from an ischaemic stroke, which occurs as a result of

a blockage within a blood vessel that cuts off vital blood flow to the brain.

Diet and nutrition play a crucial role not only in preventing the risk factors that could lead to a stroke, but also in supporting a patient's recovery. Good nutrition provides essential nutrients and assists the body's recovery from the negative effects of a stroke.

A lack of good nourishment can lead to further health complications and greater incidences of infection, pressure sores, malnutrition, dehydration, urinary and respiratory tract infections.

Such conditions may ultimately result in a longer hospital stay for patients, and in some instances, an elevated risk of death.

Dysphagia, a condition where patients are unable to adequately consume food due to difficulty in chewing and swallowing, is a major risk for malnourished patients.

In fact, malnutrition affects as many as three in five stroke patients,

The condition creates challenges in ensuring that patients are able to maintain a healthy diet and

weight range.

Stroke patients suffering from dysphagia are 2.4 times more likely to experience malnourishment. As a result, a dysphagic patient's total nutritional requirements is substantially reduced.

As a caregiver, it is important to be aware of the adverse effects of dysphagia and provide the necessary support and care to ensure stroke patients eat a nutritious healthy diet and regain any weight loss incurred during the critical rehabilitation period.

Malnutrition is a crucial factor in stroke patient management and can be prevented with the right nutritional intervention.

Patients who are unable to swallow may require parenteral feeding, which entails delivery of nutrients into the bloodstream via a drip; or enteral feeding, commonly referred to as tube feeding, where nutrients are supplied via a nasogastric tube to the patient.

These two methods are generally applied in a hospital or institutional setting.

In instances where eating is compromised, a special nutritionally balanced oral formula contain-

ing a blend of high quality protein (e.g. whey protein and a combination of soluble and insoluble dietary fibre with prebiotics) is often used to provide long-term nourishment to help meet the nutritional needs of stroke patients.

If you have previously suffered a stroke, the probability of a recurrent stroke is high. Without treatment, medical intervention and lifestyle adjustments, the risk of suffering another stroke can increase by more than 40% within five years of the first stroke.

Recurrent strokes often have a higher rate of death and disability.

Although a stroke can happen to anyone at any time, certain groups of people are at higher risk: the elderly, people with diabetes, smokers and those with a history of stroke, heart disease and hypertension.

To minimise the risk, eat a balanced diet that is low in fat and salt, and increase your intake of fruits and vegetables.

Importantly, cut back on foods high in saturated fats as they are associated with high cholesterol and an increased risk of cardiovascular disease.

The health benefits associated with a high dietary fibre intake has long been heralded for its role in reducing the risk factors that lead to a stroke.

Soluble fibre has the ability to reduce cholesterol and regulate the body's use of sugar to keep blood sugar levels in check, while insoluble fibre adds bulk and softness to stools, thus, promoting bowel regularity and good gut health.

The best sources of dietary fibre are raw or cooked vegetables such as broccoli, carrots and green leafy vegetables, wholegrain products and legumes (e.g. dried beans, lentils, split peas).

The National Health and Morbidity Survey (NHMS) 2015 by the Health Ministry showed that 94% of Malaysian adults fail to consume enough fresh fruits and vegetables.

For those who lack adequate fibre intake, there are fibre supplements available in many forms that allow them to increase the amount of fibre in their diet.

It all begins with good nutrition.

This article is brought to you by Nutren Fibre.