Dear Alice,

What are the benefits of taking vitamin B6?

Answer

Dear Reader,

Vitamin B6 is involved in a number of body functions – in fact, this versatile vitamin plays a significant role in more than 100 metabolic reactions and also aids in brain development! Lucky for you, there are many delicious and nutritious foods that contain this essential nutrient. Beyond the vital need for B6, your submission suggests the question of what benefits can be reaped by taking it as a supplement. The answer to your question is two-fold: there is some evidence that B6 may positively impact a few health conditions, but the jury is still out on others (more on that in a bit). And although supplements do exist, it’s recommended that you get the B6 you need from the food you eat. For some folks who are at risk for too little B6, supplements may be advised by health care provider. For others, having too much of the vitamin from supplements could result in some undesirable side effects.

In the world of vitamins, B6 is definitely a heavy-hitter. More specifically, this vitamin aids in cognitive development and metabolism of amino acids, glucose, and lipids in the liver. It’s also crucial to the synthesis of neurotransmitters, hemoglobin, and histamine, as well as proper gene expression. Beyond supporting these essential functions, research into how B6 may benefit a number of health conditions found the following:

- **Morning sickness** [2]: A number of studies found that taking 30milligrams (mg) daily dose reduced nausea and vomiting related to pregnancy in study participants. But, other studies investigating the same potential found no benefit.
- **Premenstrual syndrome (PMS)** [3]: Of the studies that did find a reduction in PMS symptoms due to the use of B6, it has been noted that these were poorly designed. Other studies found no benefit.
- **Carpal tunnel syndrome** [4]: Earlier studies had found that B6 could reduce inflammation associated with this condition, but later studies did not have the same findings.
- **Age-related macular degeneration (AMD)**: Female participants in one large study were instructed to take B6 in combination with vitamin B12 and folic acid. Researchers subsequently observed that their risk of developing AMD was reduced.
Tardive dyskinesia: This condition is associated with long-term use of anti-psychotic medications and results in involuntary movement of muscles. Taking B6 was found to improve symptoms (as compared to a placebo) in a number of small studies.

The impact of vitamin B6 on a few other conditions are also being investigated, including heart disease, depression, and rheumatoid arthritis. With these, and some of the conditions outlined above, more research is needed to confirm what (if any) benefit B6 may impart.

That being said, it's good to know how much of this nutrient is advised in order to support body functions? and there isn't just one amount for all. The recommended dietary intake (RDI) of vitamin B6 depends on factors such as an individual's age, gender, and pregnancy status. The U.S. Food and Drug Administration (FDA) established guidelines for vitamin B6 intake, which range from .5 milligrams (mg) a day for children 1 to 3 years of age and 2 mg a day for breastfeeding women. Adults, between the ages of 19 to 50, fall in the middle with an RDI of 1.3 mg. There are a lot of great dietary sources of vitamin B6, making it easy to reach your RDI. It can be found in meat, poultry, fish, eggs, whole grains, legumes, potatoes, bananas, corn, cabbage, yams, prunes, watermelon, and avocado, to name a few.

As vitamin B6 does a lot to keep the body up and running, it may not come as a shock that a B6 deficiency, though rare, can have harmful effects. Those who are at particular risk for this type of deficiency include people undergoing dialysis or those diagnosed with arthritis, liver disease, ulcerative colitis, Crohn's disease, or HIV. Other at-risk groups include individuals coping with alcoholism and those who take certain medications like penicillamine or hydrocortisone. On the flip side, taking B6 supplements (when they aren't indicated) in high levels can result in some negative health consequences. These consequences may include sun sensitivity, nausea, heartburn, patchy and painful skin irritation, and even nerve damage. The good news is that these symptoms tend to cease after a person stops taking the supplements. It's also worth mentioning that B6 supplements may interact with a number of other prescription medications, particularly cycloserrine (an antibiotic used to treat tuberculosis), certain drugs used to treat epilepsy, and theophylline (used to treat asthma).

Concerned about whether you're getting enough beneficial B6? You may consider making an appointment with your health care provider to assess your individualized risk for deficiency. S/he can also advise you regarding the use of B6 supplements, as it's recommended that you do so under medical supervision. You could also make time to speak with a registered dietitian to see where you could beef up your diet and boost your B6 intake. Lastly, it may also be helpful to check out Vitamin supplements good for health? in the Go Ask Alice! archives for a full explanation of supplement consumption.

Good luck and B-well,

Alice!

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