What is Vitamin B5?

Vitamin B5 is also known as panthothenic acid, meaning “everywhere” in Greek, probably because it is involved in so many crucial processes in the body. It was discovered by Dr. William Rogers from the University of Texas in Austin and is found in many foods.

Why is Vitamin B5 important and what does it do in the body?

Vitamin B5 is used to make coenzyme A (CoA) which plays a major role in multiple metabolic functions. It is also used to make acyl carrier protein (ACP) which performs a crucial role in using fats, proteins and carbohydrates to make energy. B5 is involved in the manufacture of antibodies, acetylcholine (a chemical that transmits nerve impulses) and adrenal hormones. Like the other B vitamins it is known as an anti-stress vitamin, because it supports adrenal hormone production. B5 is also important for normal joint function and red blood cells. Its most active form is pantethine, which is used to lower blood levels of cholesterol and triglyceride. It does this by promoting their use in energy production, using the amino acid carnitine and CoQ10. (Other forms such as pantothenic acid have little effect in lowering these levels). Pantothenic acid also enhances stamina and prevents some types of anemia. B5 supports gut health and may help to treat depression, anxiety and rheumatoid arthritis. It may also help reduce toxic waste from bacteria.

What amount of Vitamin B5 do you need each day?

People who do not eat a balanced diet every day may benefit from taking a multivitamin and mineral complex. Vitamin B5 can be found in multivitamins and B complex vitamins. It is also sold alone as: pantothenic acid, pantethine and calcium pantothenate. As already stated, pantethine is the most effective form. It is available as tablets, soft gels, and capsules.

The DRI (Daily Recommended Intake) /RDA (Recommended Daily Allowance) of dietary vitamin B5 are listed on the next page:

Please Note: By definition, the DRI/RDA recommendations apply only to 98% of healthy individuals and are not sufficient for those with higher nutrient requirements based upon their biochemical individuality, genetics, health status, medications, deficiencies, lifestyle, and toxic exposures.
Daily recommendations for Vitamin B5 are listed below.

**Pediatric**
- Infants birth - 6 months: 1.7 mg
- Infants 7 months - 1 year: 1.8 mg
- Children 1 - 3 years: 2 mg
- Children 4 - 8 years: 3 mg
- Children 9 - 13 years: 4 mg
- Teens 14 - 18 years: 5 mg

**Adult**
- 19 years and older: 5 mg
- Pregnant women: 6 mg
- Breastfeeding women: 7 mg

Higher doses may be recommended by a health care provider for the treatment of specific conditions.

RECOMMENDED DAILY ALLOWANCE 68mg/Day
OPTIMAL DAILY ALLOWANCE 100mg/day
What are possible Vitamin B5 (Pantothenic) deficiency conditions and symptoms?

- Allergies
- Depression
- Eczema
- Fatigue
- Frequent colds or Infection
- Gastric ulcers
- Glucose intolerance
- Greying hair
- Hair loss
- Hypoglycemia (low blood sugar)
- Muscle weakness, twitching or spasms
- Nausea and vomiting
- "Pins and Needles"
- Poor concentration
- Rheumatoid arthritis
- Stress and Anxiety

What are possible Vitamin B5 excess symptoms?

No side effects or adverse reactions have been reported with either pantethine or pantothenic acid.

What steals Vitamin B5 from the body?

The following medications should not be taken with vitamin B5 supplements unless you have advice from your health care provider.

**Antibiotics**

- Tetracycline: (B5 interferes with its absorption)

**Drugs to treat Alzheimer’s disease**

- Cholinesterase inhibitors: Donepezil (Aricept), Memantine hydrochloride (Ebixa), Galantamine (Reminyl), Rivastigime (Exelon) (Vitamin B5 may increase the effects of these drugs and lead to severe side effects).
- The use of broad spectrum antibiotics such as Amoxicillin/Clavulanic Acid (Augmentin), Vancomycin will kill off the colonies of beneficial bacteria in the gut that help make B5 vitamins.
- Stress, alcohol, caffeine, inflammation and diabetes – cause increased demand of more vitamin B5.

What tests can be used to assess Vitamin B5 or pantothenic acid levels?

- Alpha keto acids in urine
- Pantothenic acid in urine
1. Liver 8.3mg/100g
2. Rice bran 7.4mg/100g
3. Sunflower seeds 7.1mg/100g
4. Mushrooms 3.6mg/100g
5. Caviar 3.5mg/100g
6. Sun dried tomatoes 2.1mg/100g
7. Wild Atlantic salmon 1.9mg/100g
8. Avocado 1.5mg/100g
9. Sweet potato 1.1mg/100g
10. Cauliflower 0.71mg/100g

What are the best Vitamin B5 products?

Pantethine.

REFERENCES
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All the statements, including product labels, supporting literature and/or product manufacturers websites have not been evaluated by FDA. These products are not intended to diagnose, treat, cure or prevent any disease.
What are the very best Vitamin B5 products to buy?

**PRL Max B-ND**
Dietary Supplement
Max B-ND™ is a nutritional industry first - with never before available probiotic-cultured B vitamins. It contains a high-energy, end-chain, B vitamin complex derived from live sources for...

**ProThera Thera-B**
B-complex with activated folate and B12. Thera-B™ provides a full-complement of essential B-complex vitamins and related nutrients in high potency amounts. Inclusion of Metafolin®** L-5-methyltetrahydrofolate (L-5-MTHF, a bioactive...

**Klaire VitaSpectrum**
Powdered multiple vitamin/mineral supplement for children with Autism Spectrum Disorders. Natural berry-pomegranate flavor. This comprehensive multiple vitamin/mineral supplement contains 28 highly bioavailable...

**ProThera MultiThera 3**
Iron- and copper-free multiple formula. Both iron and copper have been eliminated from this version of MultiThera® to address the needs of patients who may have elevated tissue identical in all other respects to MultiThera® 1 ...

**Pure Caps Womens Pure Pack**
Women's Supplement to Support Bone and Heart Health. Now With Metafolin® L-5-MTHF. Sizes Available 30 packets. Each packet contains 6 different supplements, including...

**Pure Caps Mens Pure Pack**
Regardless of your walk of life, all men need to ensure that they get enough of an array of important nutrients. However, who wants to spend their time picking out supplements for a daily…