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## Effect of vitamin B supplements on stress level

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### Introduction

Any intrinsic or extrinsic stimulus that evokes a biological response is known as **stress**. Stress can be either a triggering or aggravating factor for many diseases and pathological conditions. According to studies, one way to **reduce stress** is to consume **vitamin B**. The B Vitamins are a group of water-soluble vitamins that include thiamine (vitamin B1), riboflavin (vitamin B2), niacin (vitamin B3), pantothenic acid (vitamin B5), pyridoxine (vitamin B6), folate (folic acid, folinic acid, and methyltetrahydrofolate (MTHF)), and cobalamin (vitamin B12). The B vitamins have a multitude of **functions** in the **nervous**, endocrine, and cardiovascular systems, energy metabolism, metabolism of DNA, cell signaling, and various metabolic reactions. Some of the clinical applications include **stress**, depression, fatigue, peripheral neuropathy, memory impairment, anemia and insulin resistance.

### Methods

The present study was conducted as a **review** of the effect of vitamin B on stress. Based on all the articles published in this field without a time limit until the end of September 2022, were extracted during a search in 3 international databases, Pubmed, Science Direct, Scopus, and Google Scholar web search.

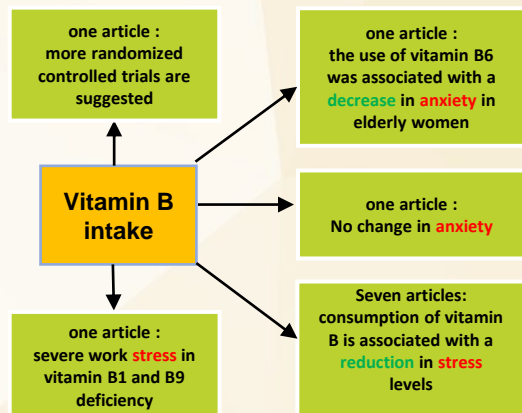
The **Inclusion criteria** included all published articles discussing the effect of B vitamins on stress management. **Exclusion criteria** included animal studies and studies investigating the effect of vitamin B on other mental disorders.

First time, **26 studies** were identified based on the initial search, and finally, **11 studies** were included.

### Results

study	population	Duration (day)	Outcome measures
Con stough et al.2011	Adults with work stress n=60	84	There were <b>no</b> treatment-related changes in <b>anxiety</b>
Con stough et al.2014	employee n=200	168	<b>Reducing stress</b> by taking vitamin B supplements
Lauren M et al2019	Healthy and at-risk adults n=2015	28-672	<b>Stress reduction</b> in healthy and at-risk population _ without affecting anxiety
Marwan sofyam. 2022	Nurses worked at least 6 month n=80	— (Questionnaire)	Experience severe work <b>stress</b> in vitamin B1 and B9 deficiency
Baharak et al.2021	Iranian healthy adults n=7387	— (Questionnaire)	Taking more B vitamins, especially biotin, <b>reduces stress</b>
Delia McCabe et al. 2017	Measuring stress according to hormonal phase in women n=2193	45-182	Mg and vitamin B6 may be effective in combination in <b>reducing premenstrual stress</b> , and vitamin B6 alone may reduce anxiety effectively in older women
Lionel noa.2021	Moderate to extremely severe stressed adults n=264	56	greater <b>stress reduction</b> was achieved with magnesium combined with vitamin B6 than with magnesium alone
Pouteau E et al. 2018	Adults with depression , anxiety, stress n=260	56	Adults with severe/extremely severe <b>stress</b> had a greater <b>improvement</b> with Mg- vitamin B6 versus Mg
Lionel noa.2020	Adults with depression , anxiety, stress n=264	56	<b>Reduce stress</b> with vitamin B6 and magnesium
Irene li et al.2020	Healthy women n= 40	28	<b>Stress reduction</b> from Ashwagandha and B vitamin supplementation
Sara jayne 2013	Healthy adults n=1292	28-90	<b>Reduce stress</b> with vitamin B supplement

### Discussion



### conclusion

According to the obtained results, it is suggested to take vitamin B supplements to reduce stress. To complete the studies, it is suggested to conduct more clinical trial studies on the effect of vitamin B on stress.

### Key words

Stress, vitamin B, PTSD, anxiety

### References

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