## Examine.com

# Anxiety Supplement Guide



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## **Medical Disclaimer**

This guide is a general-health document for adults over 18. Its aim is strictly educational. It does not constitute medical advice. Please consult a medical or health professional before you begin any exercise-, nutrition-, or supplementation-related program, or if you have questions about your health.

This guide is built on scientific studies, but study outcomes are never homogeneous: individual results do vary. If you engage in any activity or take any product mentioned herein, you do so of your own free will, and you knowingly and voluntarily accept the risks. While we mention major known interactions, it is possible for any supplement to interact with other supplements, as well as with foods and pharmaceuticals.

A product may not contain the exact compounds and amounts listed on its label. Before you decide whether to take it, investigate it and its manufacturer. More than isolated compounds, herbs are prone to batch-to-batch variability, which can alter their efficacy and safety.

For evidence supporting the claims mentioned in this guide, please visit Examine.com.

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## How to Use This Guide

The Examine.com team has been publishing research on nutrition and supplementation since March 2011. Drawing from all we've learned, we've designed this Stack Guide to help you figure out which supplements can help you reach your health goal, and which can hinder you or just waste your money.

**Core supplements** have the best safety-efficacy profile. When used responsibly, they are the supplements most likely to help and not cause side effects.

**Primary options** may provide substantial benefit, but only in the right context. A primary option is not for everyone, but if you read the entry and find that you meet the criteria, consider adding the supplement to your stack.

**Secondary options** have less evidence for their effects. They could work or be a waste of money. Keep them in mind, but think twice before adding them to your stack.

**Promising supplements** are backed by tradition or by mechanistic, animal, epidemiological, or anecdotal evidence, but not yet by convincing human trials.

**Inadvisable supplements** are either potentially dangerous or simply ineffective, marketing claims notwithstanding. Do not add them to your stack. At best, they'll be a waste of money; at worst, they can cause you harm.

Now that you've been presented with various supplements worthy of your interest, the time has come to combine them based on your objective. We'll guide you in **assembling your stack**.

Then comes the **FAQ**, in which we cover common questions that may arise when assembling your stack.

Lastly, we include information on **precautions and troubleshooting**.

With all this combined, you should be able to identify and assemble the supplement stack best suited to your objective.

## **Core Supplements**

### Magnesium

#### Why it's a core supplement

Magnesium (Mg) is a dietary mineral that plays an important role in the brain. A deficiency can result in abnormal neuronal excitations and thus cause or increase anxiety. Magnesium is lost through sweat, so deficiencies are more common in athletes, but they are not unknown in the general population.

Studies have shown that inducing magnesium deficiencies also induces anxiety and other signs of stress, which can then be alleviated through magnesium supplementation. There is no reliable evidence to suggest that taking a magnesium supplement can help people who do not suffer from a magnesium deficiency.

Magnesium is a core supplement because it is cheap, safe, and provides a variety of health benefits. Supplementing magnesium is recommended prior to adding other compounds to the anxiety stack, in case a magnesium deficiency is the cause of the anxiety.

#### How to take it

A diet comprising magnesium-rich foods (such as fish, nuts, beans, and green leafy vegetables) renders supplementation unnecessary, at least for the purpose of preventing anxiety. In case of magnesium deficiency, adding or increasing <u>dietary sources of magnesium</u> should be the first option, but in the absence of practical ways of doing so, supplementation can be used.

Commonly supplemented forms of magnesium include magnesium gluconate, diglycinate, and citrate. To increase absorption, magnesium gluconate should be taken with a meal, while other forms of magnesium can also be taken on an empty stomach. Because of its low bioavailability, magnesium oxide can cause intestinal discomfort and diarrhea; it is therefore not recommended for supplementation.

The standard dose is 200 mg of elemental magnesium once a day, though up to 350 mg can be used. Because magnesium might have a sedative effect, it is often supplemented before bed.

Avoid taking magnesium, <u>calcium</u>, <u>iron</u>, and <u>zinc</u> at the same time in combinations of 800+ mg, since high amounts of these minerals will compete for absorption. Magnesium may also impair the absorption of antibiotics, notably those in the tetracycline class (e.g., doxycycline) and quinolone class (e.g., ciprofloxacin), so take magnesium and antibiotics at least six hours apart.

## **Primary Options**

## **Arginine** with Lysine

#### Why it's a primary option

State and trait anxiety is a form of anxiety that can occur in otherwise healthy individuals in response to minor stressful events, such as a presentation. More precisely, state anxiety is defined as an unpleasant emotional arousal in response to a stressor, whereas trait anxiety is indicative of an individual's general tendency to respond with state anxiety when stressors arise.

People suffering from state and trait anxiety have been found to benefit from supplementing arginine and lysine in combination.

Since research on these two amino acids has focused on state and trait anxiety in otherwise healthy adults, it is uncertain if they hold any benefit with regard to other forms of anxiety, such as generalized anxiety disorder (GAD).

#### How to take it

Take 1.25 g of arginine and 1.25 g of lysine twice a day (i.e., 2.5 g of each per day), with or without a meal. Effects can be felt after a week of supplementation.

### Kava

#### Why it's a primary option

Kava (*Piper methysticum*) is an herb traditionally used to reduce anxiety, with effects occurring quickly after oral supplementation. It is well researched and has evidence to support its use as an anti-anxiety supplement. In fact, some studies show it works about as well as low-dose benzodiazepines, which is surprising since supplements seldom reach pharmaceutical-level potency.

Like lavender, kava is an effective supplement for people with GAD. It has also been tested in the context of other kinds of anxiety, with promising results. Some concerns have been raised about the safety of kava because of reports of liver damage. Such reports are numerous enough to be cause for concern, yet it is still unclear whether and in which cases kava can be blamed. The current view is that kava at high doses, for prolonged periods of time, or combined with other medications might increase the risk of liver damage. In some cases, the damage may have been due to the poor quality of the kava supplement.

#### How to take it

Most studies on kava used an extract called WS 1490. Study participants took 100 mg three times a day (i.e., 300 mg/day). If supplementing with other products, select one that specifies its kavalactone content (kavalactones being the active molecules in kava). Take 70 mg of kavalactones three times a day (i.e., 210 mg/day).

Kava does not need to be taken with meals.

### Lavender

#### Why it's a primary option

Lavender (*Lavandula*) is traditionally used in aromatherapy to reduce anxiety. Unfortunately, because of the difficulty of blinding aromatherapy studies, a lot of the evidence for lavender's effects stems from lower-quality studies.

Newer studies have examined oral supplementation. In this form, lavender oil has been found to benefit people with generalized anxiety disorder (GAD), a condition characterized by frequently occurring symptoms of anxiety unrelated to specific stress or situations. Studies on other kinds of anxiety have also shown benefits, but they were less rigorously conducted, so the results are less convincing. Likewise, while lavender and <u>lemon balm</u> have been shown to be synergistic, more research is needed to confirm this effect.

### Figure 1: Summary chart of studies – lavender oil and anxiety



Sources:

Woelk et al. *Phytomedicine*. 2010 Feb. Kasper et al. *Int Clin Psychopharmacol*. 2010 Sep. Uehleke et al. *Phytomedicine*. 2012 Jun.

Because anxiety is prevalent in younger women, anxiety treatments are often taken along with contraceptive pills. One study has shown that lavender doesn't interact with a type of estrogen-based birth control: ethinyl estradiol with levonorgestrel.

Yet lavender may have hormonal effects. The <u>Endocrine Society</u> and the <u>National Institutes of Health</u> warn that there is mechanistic and anecdotal evidence that lavender oil has estrogenic properties and can cause gynecomastia (enlarged breasts in males). It is reassuring that none of the clinical trials have reported gynecomastia among their subjects, but still, if you are male and your breasts becomes tender, stop using lavender.

#### How to take it

Studies on lavender and GAD have used 80 mg of Silexan, a lavender oil preparation standardized for the active component linalool at 25–46% of total weight. This supplement is taken once a day, usually with breakfast. After two

weeks, if no benefit has been observed, the dose can be increased to 160 mg (this is the *maximum* dose).

Lavender oil is also used in aromatherapy — burned as a candle, heated, placed in a vaporizer, or added to a hot bath. The number of variables (product concentration, proximity of the user to the source, size of the room ...) makes recommending dosages exceedingly difficult, but studies have used at least thirty minutes of exposure in a well-ventilated room.

### Vitex Agnus-Castus

#### Why it's a primary option

*Vitex agnus-castus* (VAC) is a very specific anti-anxiety supplement. An extract of the plant is used to reduce the anxiety that can occur during the menstrual cycle, as well as to alleviate the symptoms associated with premenstrual syndrome (PMS). VAC may also reduce irritability and improve sleep during PMS, which can in turn improve mood and indirectly reduce anxiety.

VAC has no effect when supplemented by women not currently experiencing PMS and has not been tested in men for anxiety.

#### How to take it

To supplement VAC, take 150–250 mg of the dried berry once a day with breakfast.

VAC extracts with a higher percentage of the active compounds may provide benefits at a lower dosage. To supplement VAC through the Ze 110 extract, take 20 mg once a day. To supplement VAC through the BNO 1095 extract, take 4 mg once a day.

## **Secondary Options**

## Agmatine

#### Why it's a secondary option

Agmatine is a neurotransmitter produced from <u>arginine</u>, an amino acid. If alcohol reduces anxiety, it is notably by causing the body to release agmatine. This often results in increased anxiety the next day, when the body's reserves of agmatine are depleted. Giving rodents agmatine helped mitigate this "hangover anxiety". Agmatine may also make opioids more effective for pain relief as well as less addictive.

Though agmatine is a promising supplement, human studies are needed to determine if the anti-anxiety effects observed in rodents will occur reliably in humans.

#### How to take it

Studies on people with nerve pain used as much as 3.2 g/day, with no reported side effects, yet this dose seems unnecessarily high to treat anxiety, especially since rodent studies found that very high oral doses could actually *worsen* anxiety. The optimal anti-anxiety agmatine dose for rats was 10 mg/kg, which translates to approximately 1.62 mg/kg (or 0.74 mg/lb) in humans, so about:

- 110 mg for a 150-lb person
- 150 mg for a 200-lb person
- 180 mg for a 250-lb person

More research is required to determine the optimal time to supplement agmatine. The few human studies on nerve pain had their participants take agmatine with a small breakfast.

## Ashwagandha

#### Why it's a secondary option

Ashwagandha (*Withania somnifera*) is an adaptogen, commonly defined as a supplement that can reduce the mental and physical effects of stress, including anxiety. It is only a secondary option because studies specifically on ashwagandha and anxiety are rare, but the results are promising. Furthermore, studies on ashwagandha and social functioning suggest that this adaptogen could be especially beneficial to people suffering from social anxiety.

Rodent studies have noted an increase in social interaction, even when the animals were not stressed. The mechanism is hypothesized to involve serotonin signaling.

Human studies have noted a self-reported increase in both general well-being and social and romantic functioning. These effects were significantly greater with ashwagandha than with placebo.

The general stress-reducing properties of ashwagandha are comparable to those of other adaptogens, such as *Rhodiola rosea* and *Panax ginseng*. However, ashwagandha is the better choice for people with social anxiety (who don't want to resort to alcohol to make friends at a party).

#### How to take it

To supplement **ashwagandha** in anticipation of a stressful event, especially one likely to trigger social anxiety, take 2–6 g of the root powder (or 1–3 g of a 2:1 extract) one hour before the event. To supplement ashwagandha continuously, take 300–500 mg of the root powder (or 150–250 mg of a 2:1 extract) once a day. If you have access to an extract that specifies its withanolide content, aim for 15–60 mg of withanolides per day.

Ashwagandha is usually taken with breakfast, if only because night-time supplementation may cause insomnia.

To supplement *Rhodiola rosea*, find a product with SHR-5 (an extract standardized for 3% rosavins and 1% salidroside). To supplement SHR-5 in anticipation of a stressful event, take 500 mg one hour before the event.

To supplement SHR-5 continuously, take 80–160 mg once a day, preferably with a meal.

To supplement *Panax ginseng* continuously, take 100–200 mg of an extract standardized for 2–3% ginsenosides, once a day.

### Inositol

#### Why it's a secondary option

Inositol usually refers to *myo*-inositol, a sugar used to treat some disorders of glucose metabolism, like polycystic ovary syndrome (PCOS). It has also been investigated for its beneficial effects on anxiety and depression, with some evidence to support its use specifically to alleviate panic attacks. High doses of inositol (18 g) have been compared to <u>fluvoxamine</u> in potency.

Initial evidence is promising, yet more research is needed before inositol can become a primary option to fight anxiety.

#### How to take it

As an anti-anxiety supplement, take 14–18 g/day, in one or more doses, with food.

When taking softgels, only some 30% of the powder dose is required, so 4.2-5.4 g of inositol.

### Lemon Balm

#### Why it's a secondary option

Lemon balm (*Melissa officinalis*) is actually is actually a light sedative, not an anti-anxiety supplement per se, but people with anxiety issues can use it to help fall asleep.

Though quality sleep is a great way to reduce general anxiety, it can be difficult to get if anxiety strikes near bedtime. It is all too easy to get stuck in a cycle of anxiety that both causes sleep deprivation and is fueled by it. If you have already tried and failed to establish healthy sleep habits (see the *Sleep* stack guide for more information), a minor sedative such as lemon balm can help break the anxiety-and-sleep-deprivation cycle.



Source: Cases et al. Med J Nutrition Metab. 2011 Dec.

Lemon balm may act synergistically with <u>lavender</u>, but more research is needed to confirm this effect. Since the point of lemon balm supplementation is to improve sleep, other supplements that can induce sleep, such as melatonin, can also be used.

Unlike benzodiazepines, lemon balm is not potent enough to have addictive or habit-forming properties. Nevertheless, any supplement with a sedative effect can disrupt working memory, reduce attention span, and increase reaction time. Do not drive or operate heavy machinery after taking lemon balm or any other supplement with a sedative effect. Do not take lemon balm during the day.

#### How to take it

Take 300–1,200 mg of **lemon balm** 30–60 minutes before bed. Start with 300 mg; ramp up to 600 mg over the course of a week if no lower dose proves effective. Only take a dose larger than 600 mg if it provides noticeably greater benefits. Lemon balm is also used in aromatherapy, but studies tend to examine oral supplementation because it is a more reliable delivery method.

Alternatively, take 0.5 mg (500 mcg) of **melatonin** about 30 minutes before bed. Increase by 0.5 mg each week until you find the lowest effective dose that works. Do not take more than 5 mg. Time-release melatonin may be more effective at sustaining sleep throughout the night.

### Passionflower

#### Why it's a secondary option

Passionflower (*Passiflora incarnata Linneaus*) is one of the oldest herbal anxiolytics. Researchers are not sure which bioactive compound in this plant exerts the anxiety-reducing effect, although it is thought to be water-soluble, since passionflower is also effective as an infusion. Chrysin and benzoflavone are good candidates, as each could exert an anxiolytic effect by increasing the efficiency of the neurotransmitter gamma-aminobutyric acid (GABA) by acting on its receptors.

In contrast to other options, passionflower does not appear to be that effective acutely, but rather shows steady benefits after a month or more of daily supplementation. Passionflower seems to affect anxiety in general rather than a type of anxiety in particular, which can be seen as an advantage but also means that human studies are all over the place and specific protocols seldom replicated. For that reason, it is considered a secondary option.

#### How to take it

The ideal dosage is not yet known, but studies have found success with 500 mg of passionflower extract. Passionflower infusions, consumed at least twice a day, also appear to be effective.

# Inadvisable Supplements

## Alcohol

Alcohol is popular worldwide, notably as a means to stave off anxiety. Like nicotine abuse, however, alcohol abuse results in exacerbated anxiety symptoms. While reasonable consumption is not unhealthy, relying on alcohol to alleviate anxiety is not recommended because of the health hazards associated with high-dose or high-frequency alcohol intake.



Self-medicating with an addictive substance is not a healthy solution to anxiety or other problems, nor is it sustainable. Long-term reliance on alcohol results in acquired tolerance and subsequent withdrawal, which greatly exacerbates anxiety. Moreover, since hangovers worsen anxiety, any attempt at medicating anxiety with alcohol is likely to backfire even in the short term. In brief, alcohol has negative consequences for anxiety in both the short and long terms.

### Nicotine

Nicotine is known to reduce anxiety in new users. Tolerance builds up with frequent use, however, leading to a reduction of the anti-anxiety effect. Tolerance also leads to nicotine withdrawal, which greatly increases anxiety.

Nicotine's addictive properties vary depending on the dose taken and the speed at which it enters the bloodstream. When inhaled, nicotine reaches the blood quickly, which makes this delivery method especially addictive. At the other end of the spectrum, patches are the least addictive delivery method, but they act too slowly to ward off anxiety (unless said anxiety is related to nicotine withdrawal).

When it comes to speed of delivery, nicotine gum holds the middle ground. By itself, it would not prevent a panic attack, but it could be chewed during the practice of coping mechanisms (2 mg of nicotine at a time, no more than 10 mg in one day). Making this a daily habit, however, would allow tolerance to develop, and only ceasing supplementation entirely (for a couple of weeks) would allow sensitivity to return. Increasing the dose instead would, sooner or later, lead to nicotine withdrawal and greatly increased anxiety. Even the minimum dose, taken regularly, is potentially addictive, and thus potentially harmful, especially for people suffering from anxiety.

Of course, tobacco is still the most noxious source of nicotine, and not just because it contains some thirty carcinogens. As noted above, when inhaled, nicotine reaches the blood quickly, which makes it especially addictive. In addition, several other compounds in tobacco, such as monoamine oxidase inhibitors (MAOIs), amplify the addictive effects of nicotine. Finally, the acquired need to suck on something contributes to the addictive properties of cigarettes, cigars, and smoking pipes (and thumbs, for little children).

While most anti-anxiety supplements have a sedative effect, nicotine acts as a stimulant.

## Yohimbine

Yohimbine is an alkaloid found in the bark of the African tree yohimbe (*Pausinystalia johimbe*). It is used to treat erectile disfunction and to aid in fat loss.

Alas, yohimbine is associated with a variety of side effects, one of which is anxiety. In fact, this side effect is so reliable that many studies on anxiety use yohimbine to *induce* anxiety. People who are susceptible to panic attacks or have panic disorders are especially susceptible to anxiety caused by yohimbine.

## **Assembling Your Stack**

### **Incorporating Core Supplements**

This stack contains only one core supplement: magnesium.

Eating a variety of healthy foods like leafy green vegetables, nuts, and fish will provide enough magnesium to make supplementation unnecessary. If your diet does not provide you with enough magnesium and you cannot modify it so it does, a bedtime dose of 200–350 mg of magnesium (in a form such as citrate, gluconate, or diglycinate) will alleviate a deficiency. Magnesium oxide, the cheapest form of magnesium, is associated with intestinal distress and is thus not recommended.

If you elect to supplement magnesium, do so for a couple of weeks before you consider adding one of the following options.

## **Incorporating Options**

The following supplements should only be used to cope with anxiety and stress that established coping strategies have been unable to address.

## For people with generalized anxiety disorder (GAD)

After supplementing magnesium for two weeks, to eliminate the possibility of the anxiety being caused by a magnesium deficiency, add lavender (starting with 80 mg of Silexan per day, working up to 160 mg/day over the course of a week if no lower dose proves effective) or kava (100 mg of the WS 1490 extract or 70 mg of kavalactones, three times a day). Figure 4: Symptoms of generalized anxiety disorder



anxious about getting through the day, believing as they do that things will go poorly for them.

#### For people with anxiety linked to accumulated stress

After supplementing magnesium for two weeks, to eliminate the possibility of the anxiety being caused by a magnesium deficiency, add ashwagandha (300–500 mg of the root powder or 15–60 mg of withanolides) once a day. Do not take ashwagandha in the evening, as it may cause insomnia. If you take your supplements in the evening, try replacing ashwagandha by *Rhodiola rosea* (80–160 mg of the SHR-5 extract) or *Panax ginseng* (100–200 mg of an extract standardized for 2–3% ginsenosides).

#### For people with state and trait anxiety

Take 1.25 g of arginine and 1.25 g of lysine twice a day (i.e., 2.5 g of each per day), with or without a meal. Effects can be felt after a week of supplementation.

#### For panic attacks and panic-related anxiety

Anxiety related to panic disorders may be reduced by taking inositol (14–18 g) as a daily supplement. Agmatine (1.62 mg/kg or 0.74 mg/lb) may also be beneficial — by itself or in conjunction with inositol — but there is no human evidence to support this claim.

#### For women experiencing anxiety related to PMS

Take *Vitex agnus-castus* once a day: either 150–250 mg of the dried berry, 20 mg of the Ze 110 extract, or 4 mg of the BNO 1095 extract.

#### **Other options**

Alongside another anxiety stack, <u>lemon balm</u> (300–600 mg) or <u>melatonin</u> (0.5–5 mg) can be supplemented 30–60 minutes before bed if impaired sleep is contributing to anxiety. Start at the low end of the dosage range, then add 100 mg of lemon balm every couple of days or 0.5 mg (500 mcg) of melatonin every week until you reach the minimum effective dose. Do not take more than you need, and do not take more than the high end of the dosage range.

# FAQ

#### Can I add to my stack a supplement not covered in this guide?

Supplement your current stack for a few weeks before attempting any change. Talk to your doctor and <u>research each potential new addition</u> in advance. Check for known negative interactions with other supplements in your current stack, but also for synergies. If two supplements are synergistic or additive in their effects, you might want to use lower doses for each.

#### Can I modify the recommended doses?

If a supplement has a recommended dosage range, stay within that range. If a supplement has a precise recommended dose, stay within 10% of that dose. Taking more than recommended could be counterproductive or even dangerous.

#### Should I take my supplements with or without food? And at what time?

Answers are provided in each supplement entry whenever the evidence permits. Too often, however, the evidence is either mixed or absent. Besides, a supplement's digestion, absorption, and metabolism can be affected differently by different foods. Fat-soluble vitamins (A, D, E, K), for instance, are better absorbed with a small meal containing fat than with a large meal containing little to no fat.

Starting with half the regular dose can help minimize the harm a supplement may cause when taken during the day (e.g., tiredness) or in the evening (e.g., insomnia).

#### What's the difference between elemental magnesium and other kinds of magnesium?

"Elemental" refers to the weight of the mineral by itself, separately from the compound bound to it. For instance, consuming 500 mg of magnesium gluconate means consuming 27 mg of elemental magnesium. *Product labels display the elemental amount*. On a label, "27 mg of magnesium (as magnesium gluconate)" means 27 mg of elemental magnesium (and 473 mg of gluconic acid).

## As an athlete with a low dietary intake of magnesium, I supplemented 400 mg and experienced diarrhea. Why is that?

If magnesium is indeed the culprit, then your diarrhea was probably caused by too large a dose reaching the colon. Alternatively, it could mean that your body's levels of magnesium are in fact sufficient, making supplementation unnecessary.

In the future, split your daily dose into multiple doses. If the problem persists, reduce your daily dose to 200 mg. If you are using magnesium oxide, switch to a different form of magnesium.

#### Should I stop using stimulants if I have anxiety?

Though stimulants do not always cause anxiety, many create a stress response that could worsen existing symptoms. People with anxiety might not need to stop using stimulants entirely, but they may want to avoid frequent use, especially if symptoms worsen.

<u>Caffeine</u> is the stimulant least likely to cause anxiety. Ideally, 100–200 mg of caffeine should be paired with an equal dose of theanine, an amino acid that can tame the anxiety caused in some people by caffeine without impairing caffeine's stimulatory effect. In fact, the improvements in concentration (focus and attention span) induced by caffeine and theanine respectively have been shown to be synergistic.

Yohimbine and yohimbine-containing products — as well as supplements that have a similar mechanism, such as <u>rauwolscine</u> — should be avoided.

#### What kinds of coping strategies are effective at alleviating anxiety?

Deep breathing, muscle relaxation, and stretching are typical methods to cope with anxiety. The most effective stress-reducing activities, however, are highly dependent on the individual. Some people will soothe their anxiety through quiet rituals (knitting, tea ceremony ...), while others will quell it through high-intensity exercising (weight lifting, boxing ...).

Regular contact with nature (gardening, trekking, laying out in the sun ...) has shown benefits for most people.

Cognitive Behavioural Therapy (CBT) is highly effective in alleviating some forms of anxiety, as a substitute or a complement to supplements or pharmaceuticals.

#### Can yoga alleviate anxiety?

The movements and poses in yoga incorporate the basic anti-anxiety coping strategies: deep breathing, muscle relaxation, and stretching. Yoga is also a form of meditation, and meditation has been shown to reduce anxiety.

## **Precautions and Troubleshooting**

Stack components are seldom studied together. The safest way to add supplements to your daily routine is one at a time, at least a couple of weeks apart, to better assess the effects (and side effects) of each new addition. Start at half the regular dose for a week, then slowly increase to the regular dose if you are not experiencing the desired effects.

Since minerals and vitamins (especially the fat-soluble vitamins: A, D, E, and K) can accumulate in the body, it is best to consider supplementation only after a dietary evaluation. Track what you eat for a week; if, on average, you are getting less than 80% of your <u>Recommended Dietary Allowance</u> or <u>Adequate</u> Intake, supplementation becomes an option, though first you should try eating more foods rich in the desired vitamin or mineral.

Any supplement that can affect the brain, especially supplements with a stimulatory or sedative effect, should first be taken in a controlled situation. Do not take a dose, least of all your first dose, before events such as driving or operating heavy machinery, when impaired cognition may be a risk for your safety and the safety of others.

It is important to fully grasp the effects of a supplement, especially on anxiety. After a month or so, pause supplementation and keep a close eye on your state of mind. If your anxiety does not increase, discontinue the supplement permanently, unless it provides other benefits.