Examine.com

Seniors Supplement Guide

Ready to improve your health?

Get the Supplement Guides

Preview

This document is a preview of one of our 17 Supplement Guides — our Seniors Supplement Guide.

We've included the Table of Contents so you can see how extensive the guide is. We've included one entry (Magnesium, which falls under "Primary Options"), and also Iron, which we consider to be an Inadvisable Supplement.

The Supplement Guides are not just re-packaged information from our website - we have spent thousands of hours collecting, discussing, and collating research so that our recommendations are not only helpful but also safe.

Please note that our Supplement Guides come with free lifetime updates (we originally released the guides in 2013), and also an unconditional money-back guarantee.

Medical Disclaimer

This guide is a general-health document for adults 18 or over. 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 based on scientific studies, but 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, with foods and pharmaceuticals, and with particular health conditions.

For more information on the supplements 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 Supplement Guide with two aims in mind: helping you decide which supplements are right for you, based on the scientific evidence, and helping you integrate these supplements into synergistic *combos*.

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 combo.

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 combo.

Unproven supplements are backed by tradition or by mechanistic, animal, epidemiological, or anecdotal evidence, but not yet by convincing human trials. At this point, they are not good candidates for your combo.

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

Now that you've learned of various supplements worthy of your consideration, you'll learn to integrate them into synergistic **combos**. You'll discover a *core combo* (composed of the core supplements) and several *specialized combos* (composed of primary and secondary options). Each specialized combo is optimized for a specific population. The simplest way to formulate your own combo is to combine the core combo with the specialized combo that best fits your situation, needs, and primary health goal.

Then comes the **FAQ**, in which we cover common questions that may arise when selecting and combining supplements. Lastly, we include information on **precautions and troubleshooting**. With all this, you should be able to identify and assemble the supplement combo best suited to your objective.

Magnesium

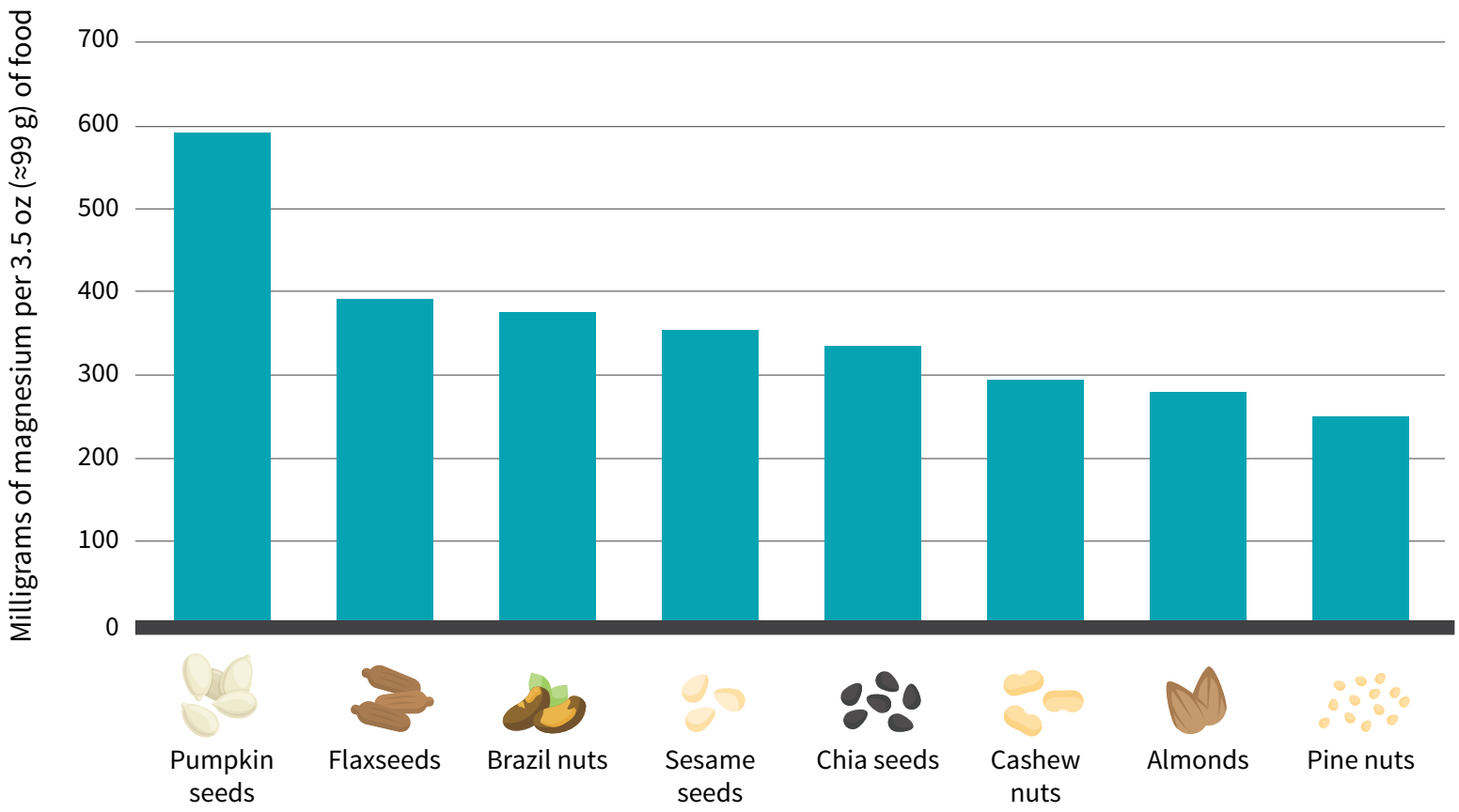
What makes magnesium a primary option

Like calcium, magnesium is one of the major mineral components of bone.[94] Low levels in the blood are associated with bone loss; conversely, high levels are associated with greater bone mass in old age.

Hypomagnesemia (suboptimal magnesium levels in the blood) has been linked to neuromuscular and cardiovascular disorders,[95] inflammatory diseases,[96] and neurological disorders[97,98] such as Alzheimer's disease (actually, suboptimal levels in the blood aren't associated with Alzheimer's; but suboptimal levels in the hair and the cerebrospinal fluid are[99]). Hypomagnesemia can also result in abnormal nervous-system stimulation leading to anxiety and poor sleep. In older people with hypomagnesemia, supplemental magnesium has been shown to improve sleep quality.[100,101]

In people with low magnesium intakes, magnesium supplementation has been shown to raise slightly both total testosterone and the percentage of free testosterone (the percentage your body can use most easily).[102]

Figure 6: Magnesium content of seeds and nuts (mg)



Reference: USDA Food Composition Databases. Accessed September 27, 2019. https://ndb.nal.usda.gov/ndb/

Who is more likely to have low magnesium levels?

- **Older people**, because they tend to have relatively low magnesium intakes[103] and may absorb less during digestion.[104]
- **People who sweat a lot**, because magnesium is lost through sweat. Athletes participating in sports requiring weight control may be especially vulnerable.
- **Type 2 diabetics.** It has been estimated that, over all adult ages in developed countries, hypomagnesemia affects less than 15% of healthy people but up to 50% of people with type 2 diabetes.[105]

In addition, certain diuretics, proton pump inhibitors, and the antifungal medicine amphotericin-b can cause significant magnesium loss.[106,107,108] However, potassium-sparing diuretics (e.g., amiloride, eplerenone/Inspra, spironolactone/Aldactone, triamterene/Dyrenium) may not.[106]

Warnings about magnesium

High doses of supplemental magnesium can cause diarrhea and general intestinal discomfort.[109] Fortunately, magnesium obtained via food has not been seen to cause such problems.[109]

Table 9: Tolerable Upper Intake Level (UL) for supplemental magnesium (mg)

AGE	MALE	FEMALE	PREGNANT	LACTATING
0–12 months	—	—	—	—
1–3 years	65	65	—	—
4–8 years	110	110	—	—
≥8 years	350	350	350	350

Reference: Institute of Medicine. Magnesium (chapter 6 in *Dietary Reference Intakes for Calcium, Phosphorus, Magnesium, Vitamin D, and Fluoride*. The National Academies Press. 1997. DOI:10.17226/5776)

Magnesium can lower blood sugar and may have additive effects when taken with other supplements or pharmaceuticals that can lower blood sugar, such as diabetic medicines.

Magnesium may impair the absorption of some pharmaceuticals, notably bisphosphonates and antibiotics — especially antibiotics in the tetracycline class (e.g., doxycycline) and quinolone class (e.g., ciprofloxacin).[110] Take magnesium at least 6 hours before or after taking taking bisphosphonates or antibiotics.

Since calcium, iron, magnesium, and zinc compete for absorption, it is better to take them at least one hour apart.

Because magnesium might have a sedative effect, it is often supplemented before bed.

How to take magnesium

There is no single, agreed-upon, satisfactory method for assessing magnesium status[111] (as we saw, suboptimal levels in the blood aren't associated with Alzheimer's, but suboptimal levels in the hair and the cerebrospinal fluid are[99]).

We said that older people tend to have relatively low magnesium intakes, but to get a better sense of *your* typical magnesium intake, you should track what you eat for a week. If, on average, you are getting less than 80% of your Recommended Dietary Allowance (RDA), supplementation becomes an option, though first you should try to eat more foods rich in magnesium.

Table 10: Recommended Dietary Allowance (RDA) for magnesium (mg)

AGE	MALE	FEMALE	PREGNANT	LACTATING
0–6 months	30*	30*	—	—
7–12 months	75*	75*	—	—
1–3 years	80	80	—	—
4–8 years	130	130	—	—
9–13 years	240	240	—	—
14–18 years	410	360	400	360
19–30 years	400	310	350	310
31–50 years	420	320	360	320
>50 years	420	320	—	—

* Adequate intake (AI)

Reference: Institute of Medicine. Magnesium (chapter 6 of *Dietary Reference Intakes for Calcium, Phosphorus, Magnesium, Vitamin D, and Fluoride*. The National Academies Press. 1997. DOI:10.17226/5776)

If, for some reason, you cannot get enough magnesium through foods, start supplementing with **200 mg** once a day. Capsules with 400 mg are common, but keep in mind that the Tolerable Upper Intake Level (UL) for supplemental magnesium is 350 mg. The higher the dose, the higher the risk of gastrointestinal issues.

Inadvisable Supplements

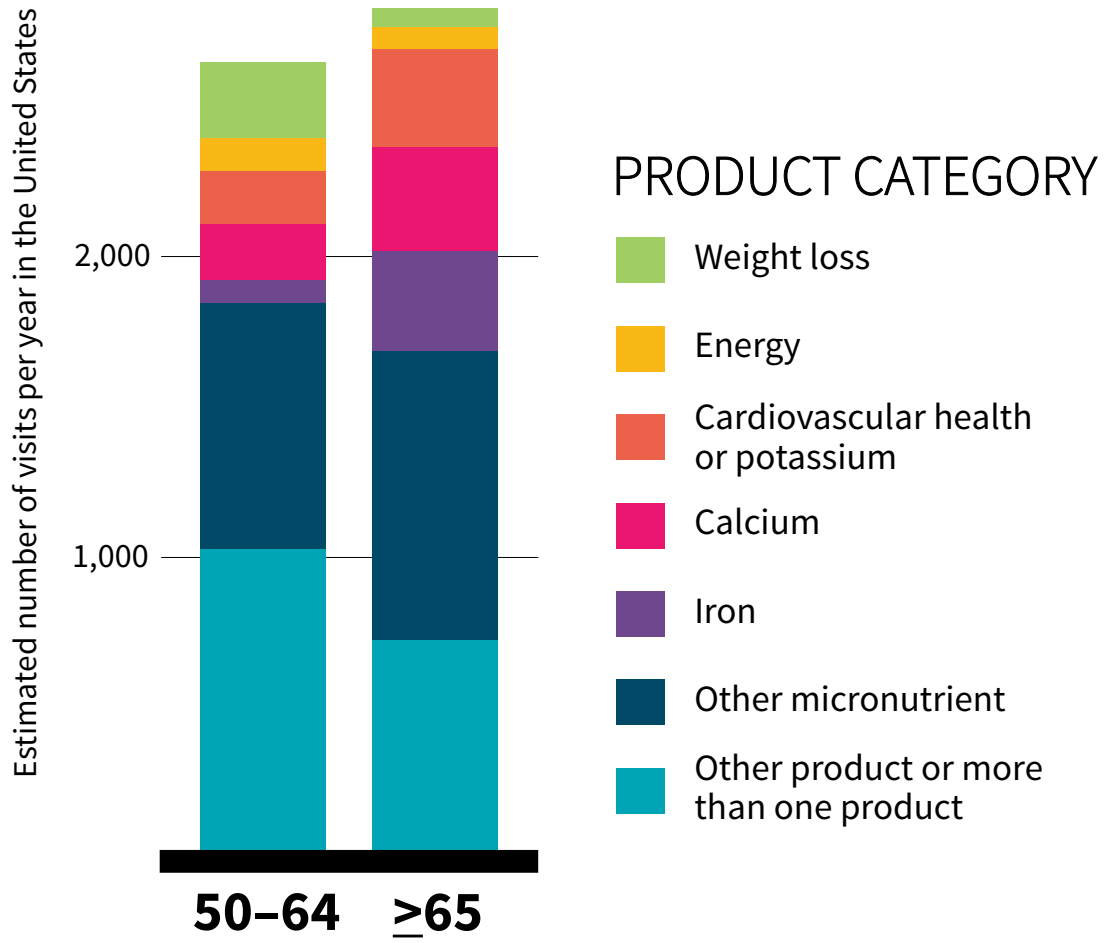
Inadvisable supplements are either potentially dangerous or simply ineffective, marketing claims notwithstanding. Do not add them to your combo. At best, they'll be a waste of money; at worst, they can cause you harm.

Iron

What makes iron an inadvisable supplement

Data gathered between 2004 and 2013 show that, in the United States, three micronutrients are responsible for almost a third of all supplement-related emergency-room visits of adults aged 65 or older: calcium, potassium, and iron.[150] The study specifies that "swallowing problems caused most emergency department visits involving calcium products […], whereas abdominal symptoms (e.g., nausea, vomiting, and abdominal pain) were frequently associated with iron or potassium products".[150]

Figure 9: Supplement-related emergency-room visits in people aged 50+



Adapted from Geller et al. *N Eng J Med*. 2015. PMID:26465986

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