FACT SHEETS

Grading Criteria

A	The evidence strongly supports this effect The A ranking is given when the effect is supported by at least two double-blind placebo-controlled trials with similar methodologies or (a meta-analysis of) numerous double-blind placebo-controlled trials with dissimilar methodologies, in addition to a logical explanation (mechanistic evidence) for the effect. Qualitative review articles are not considered strong evidence.
В	The evidence supports this effect The B ranking is given when the effect is supported by many human trials with very different methodologies or a few human trials corroborated by animal or <i>in vitro</i> studies. The B ranking is also given when the effect is supported by convincing epidemiological evidence that does not have accompanying interventions proving the mechanism of action.
C	The evidence is weak or equivocal The C ranking is given when the effect is supported only by a few human trials of lackluster design, by animal trials, or by observational studies. Alternatively, there may be many human trials with different methodologies reporting dissimilar outcomes.
D	The evidence is against this effect The D ranking is given when the effect is opposed by many human trials with very different methodologies or a few human trials corroborated by animal or <i>in vitro</i> studies. The D ranking is also given when the effect is opposed by convincing epidemiological evidence that does not have accompanying interventions proving the mechanism of action.
F	The evidence is strongly against this effect The F ranking is given when the effect is opposed by at least two double-blind placebo-controlled trials with similar methodologies or (a meta-analysis of) numerous double-blind placebo-controlled trials with dissimilar methodologies, in addition to a logical explanation (mechanistic evidence) for the lack of effect. Qualitative review articles are not considered strong evidence.

VITAMIN D

Evidence

A

Bone Health

Vitamin D is most well known as a bone-health supplement, where it's provision to the body serves a sort of managerial role in 'directing' the minerals that build bone such as calcium, magnesium, and phosphorus to be better at this job. As such, populations that supplement Vitamin D for a long period of time tend to have stronger bones and greater bone mineral density than those who do not get Vitamin D in their diets.

A

Testosterone

Vitamin D does appear to interact with testosterone in men due to it being greatly involved in steroid production in the testicles. Taking supplemental doses of Vitamin D seems to increase testosterone to a mild degree, most prominent in subjects who have relative deficiencies in this vitamin. Superloading the vitamin does not increase testosterone further, and it seems if Vitamin D levels are close to optimal then the increase in testosterone becomes less reliable; in a sense, it is like normalizing a deficiency.

A

Falls in the Elderly

Secondary to improving bone health over a long period of time, and perhaps also related to reducing the frequency of illness and improving overall functionality (muscular and neural), elderly populations that supplement Vitamin D for a period of years tend to have significantly less falls (and less subsequent hospital visits). This may also be the major player in how Vitamin D is associated with reduced mortality and is perhaps the most socially relevant usage for this dietary supplement.

A

Sickness

While Vitamin D insufficiencies tend to be associated with most infectious sickness, supplementation of Vitamin D (daily, not in response to a sickness) seem to reduce the risk of various upper-respiratory tract infections (URTIs).

Cardiovascular Health

While doses near the recommended daily allowance are mixed, there appears to be a beneficial (albeit small) benefit with doses of 1,000 IU or greater in reducing overall cardiovascular diseases and related complications. This may be related to either better calcium regulation (preventing calcium from building up on arteries as much, although this is more related to Vitamin K) or from a minor reduction in blood pressure.

How it became a Supplement

Vitamin D has been a dietary supplement for almost a century, initially as one of a few active components in cod liver oil eventually reaching a basic inclusion when multivitamins were created. Supplementing optimal doses of Vitamin D was not investigated for a long time as it was assumed the dose that prevents deficiency is the ideal dose, which holds true to many vitamins even now. It is only in the last decade, with research into what was once considered mega-dosing Vitamin D and what is now considered the standard supplemental form, has Vitamin D become one of the major players in the supplement game.

VITAMIN D

Ready to level up your health?

The most common question we get is "What supplements can I take for X?" — with X being, of course, any given health goal.

So, what is *your* X? Is it muscle gain? Fat loss? Stronger bones? Better sleep? Freedom from joint pain?... You're millions to visit us every month: each of you has different needs, and those needs evolve with time.

That's why, to date, we've already written **17** Supplement Guides, each of which focuses on a specific health goal (e.g., fat loss) and tells you which supplements are essential, which could help, and which are a waste of money.

So yes, each guide does answer, in detail, the "What supplements can I take for X?" question. But it doesn't stop there. What dosage should you take, exactly? At what time? With or without food? Are there side effects? Can you take this supplement with that one? And if so, should you change the dosage of each?...

Our Supplement Guides answer those questions, and more, succinctly and precisely. They give you simple, you step-by-step directions based on the latest scientific evidence.

Our Supplement Guides are \$49 individually, or \$149 for the full bundle. Using the link below, you can get the bundle for just \$119 — a saving of over 20%.

(Not only do our Supplement Guides get updated as new studies come out, but as we research new topics, new Supplement Guides also get added to the bundle for free!)



There's a reason why we have over 50,000 customers who rely on our scientific expertise to make their supplement decisions.

We are unbiased. We are the trusted, 100% independent source of information on nutrition and supplementation.

We don't sell supplements. We don't offer consulting or coaching. We don't even accept ads on our website. *All* we do is analyze nutrition research, and our publications are our sole source of revenue.

That's why FastCompany called us one of the top 10 innovative companies in health and fitness. That's why *Men's Fitness* called us a Game Changer. That's why organizations like the *New York Times*, the *Washington Post*, *Men's Health*, the BBC, and many more rely on us for nutrition information.

If you want to know what to take, how much to take of it, when to take it, and why you should take it (depending on whatever your goals are), our Supplement Guides are the single best resource you will find.



VITAMIN D

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