



Where others see

VITAMIN D

we see the
opportunity to deliver it

FASTER

ampli-D®

Vitamin D supports a healthy
immune system

ampli-D® is better absorbed by
the body, so it raises vitamin D
to optimal levels faster.

ampli-D® is currently approved in Australia, Singapore and New Zealand with pending approval by the European Commission following the publication of the EFSA opinion. Not approved in all other markets.

NUTRITION • HEALTH • SUSTAINABLE LIVING



DSM

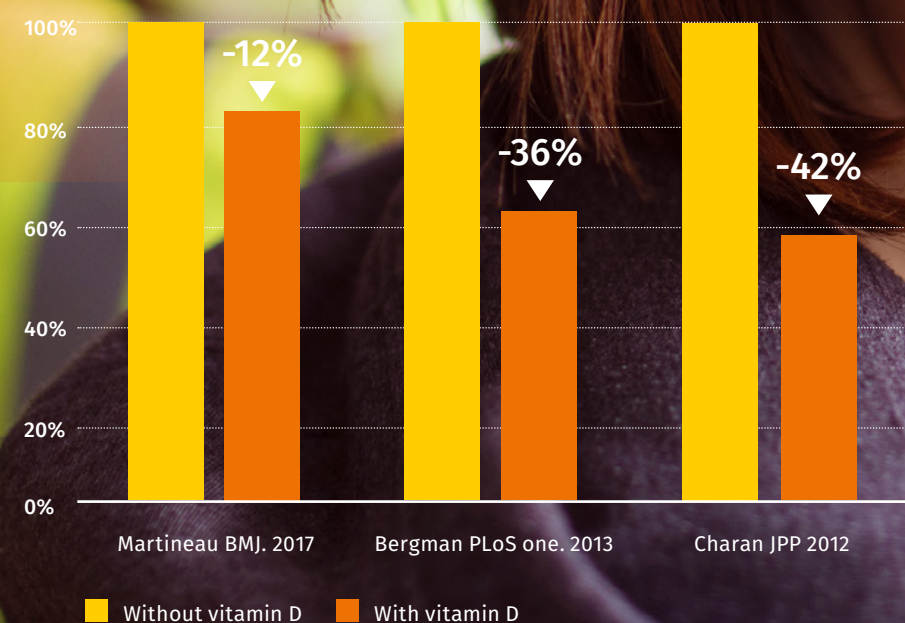
BRIGHT SCIENCE. BRIGHTER LIVING.

Vitamin D supports a healthy immune system

Although vitamin D is most known for its effects on bone and muscle health, there is emerging evidence that vitamin D plays a crucial role in immunity.

Nutrition plays a key role in maintaining a healthy immune system. Scientific studies show sufficient vitamin D levels are linked to the reduced risk of infections such as acute respiratory infections. An increasing body of evidence suggests vitamin D is linked to reduced risk, duration and severity of COVID-19 infection.

Relative Risk of Respiratory Tract Infections with Vitamin D and Without Vitamin D



The sunshine vitamin: Why it's hard to get enough vitamin D

Vitamin D is produced when our skin is exposed to sunlight. That's how we get up to 90% of our vitamin D. In winter, especially, it can be a challenge to get enough. Other factors that limit vitamin D production in the body include age, indoor lifestyles, sun protection, and darker skin tone.

Few foods naturally provide the vitamin D we need. With fortified foods and regular dietary supplements it can take months to build up vitamin D levels and be effective.

88% of the world's population has sub-optimal vitamin D levels (<75 nmol/L)^{1,2}

Consumers associate vitamin D with immunity benefits

Consumers are increasingly understanding the connection between vitamin D and immunity. They are showing high interest in vitamin D, particularly following the endorsement by leading scientists and KOLs such as, NIAID Director Dr. Anthony Fauci.

Vitamin D Supplementation Could Prevent and Treat Influenza, Coronavirus, and Pneumonia Infections

By William B Grant, Henry Lahore, Sharon L McDonnell, Carole A Baggerly, Christine B French, Jennifer L Aliano, and Harjit P Bhattoa
30 March 2020 | Scholarly Article

Clear Link Between Vitamin D Deficiency and Severity of Coronavirus, Say Researchers

By Nikki Hancocks
28 April 2020 | Nutraingredients.com

Evidence that Vitamin D Supplementation Could Reduce Risk of Influenza and COVID-19 Infections and Deaths

By William B Grant, Henry Lahore, Sharon L McDonnell, Carole A Baggerly, Christine B French, Jennifer L Aliano, and Harjit P Bhattoa
02 April 2020 | Scholarly Article

Consumers have keen interest in immunity and vitamin D*

Consumer understanding of the immunity benefits of vitamin D is nearly as high as Vitamin C¹

69%
Understand the immunity benefits of Vitamin C

62%
Understand the immunity benefits of Vitamin D

More than one-third of consumers say they take dietary supplements¹

69%
Take them to maintain healthy immunity

33%
Take them more frequently since COVID-19

* Proprietary DSM Global Consumer Research, September 2020

ampli-D® is a 3x faster and more effective form of vitamin D

Vitamin D supports a healthy immune system

🔄 Normally, it can take months for the body to reach optimal vitamin D levels



Vitamin D3 from dietary supplements or fortified foods, needs to be processed by the liver and converted into calcifediol, before further use. This is a slow process, thus it can take months to reach optimal vitamin D levels.

How ampli-D® works 3x faster than vitamin D*

Calcifediol is the most common form of vitamin D in the body. It is also the more bioavailable vitamin D form, hence better absorbed by the body. This helps in reaching optimal vitamin D levels faster. ampli-D® is DSM's calcifediol product, clinically proven to optimize vitamin D status 3x more quickly than ordinary vitamin D.^{1,2,3}

* Clinical studies show that sufficient vitamin D status is achieved on average 3 times faster and more effectively compared to vitamin D3 on an equal dose basis.

ampli-D® is the faster, more effective form of vitamin D

Our bodies can get vitamin D from food, supplements and sunlight. Before this can be used further by the body, it must be processed by the liver and converted into calcifediol. It's a slow process that can easily take several months to achieve a healthy vitamin D level in the bloodstream.

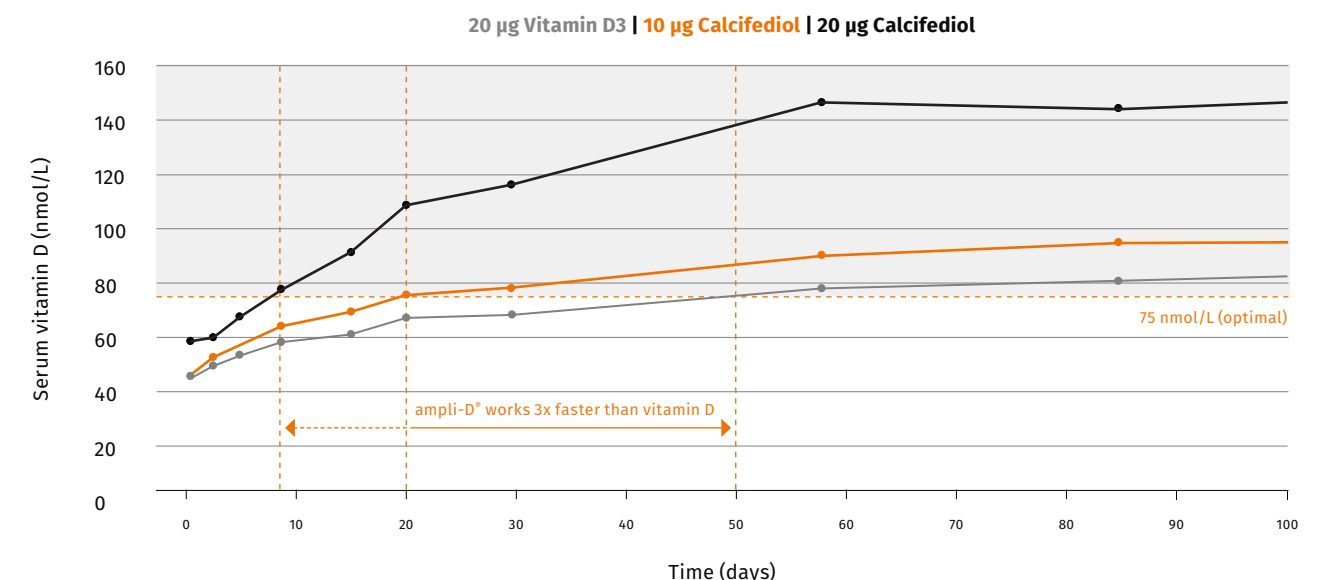
ampli-D® is already in calcifediol form. That means it's immediately available to be further activated and used by the body. ampli-D® raises vitamin D levels 3x faster than regular vitamin D*.

Optimal levels are reached faster

Many clinical studies have shown that ampli-D® boosts blood vitamin D levels more effectively than conventional vitamin D3. Moreover, you are more likely to achieve optimal vitamin D levels with ampli-D® than with vitamin D3 in just weeks instead of months.

Chart right
Graeff-Armas J Nutr 2020
Optimal levels vitamin D reached faster with calcifediol compared to regular vitamin D3

* Clinical studies show that sufficient Vitamin D status is achieved on average 3 times faster and more effectively using ampli-D® compared to vitamin D3 on an equal dose basis



**ampli-D® differentiates your supplements
in a crowded vitamin D market***

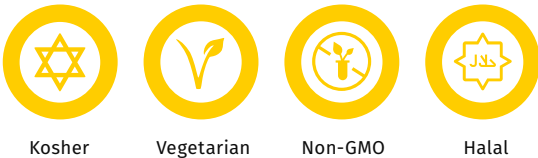
Comparative Claims*

- Faster and more reliable form of vitamin D
- Fast-acting form of vitamin D
- (3x) More effective/efficient at raising vitamin D levels
- (3x) Faster form of vitamin D
- (3X) Faster and more effective form of vitamin D
- Raises vitamin D levels faster
- Achieves optimal vitamin D levels faster
- More bioavailable form of vitamin D
- More metabolically available form of vitamin D
- More effective form of vitamin D
- More effectively raises vitamin D Levels
- More reliably raises vitamin D levels
- More effectively/efficiently raises vitamin D levels

Mechanic Claims

- Directly raises your vitamin D levels/vitamin D status
- Immediately available for your body to begin using
- Naturally produced in the body
- The form of vitamin D that circulates in the body
- Does not need to be metabolized by the liver

Consumer friendly



Product details & benefits

- Produced in US and Switzerland to the highest of quality standards
- 2-year shelf life
- Application and stability data in multivitamins, calcium plus vitamin D combinations and high potency tablets
- Strong patent portfolio
- Strong evidence from over 15 human studies
- Product and samples available upon request

* Clinical studies show that sufficient Vitamin D status is achieved on average 3 times faster and more effectively using ampli-D® compared to vitamin D3 on an equal dose basis

Potential claims are for informational purposes only and are not intended to take the place of independent advice and counsel by the customer's own and/or locally hired experts in the fields of Regulatory Affairs, Nutrition Science, and Legal Affairs. Customer shall rely solely on its own experts for advice and recommendation in these fields. For further assistance, please contact your DSM account manager.

YOUR END-TO-END PARTNER
PRODUCTS CUSTOMIZED SOLUTIONS EXPERT SERVICES

**It takes more than ingredients
to launch innovative products.
It takes an end-to-end partner to
support you at every stage of your
product development process.**

From consumer insights to market ready solutions, DSM can co-innovate with you to bring new and innovative products, getting you to market faster. Learn how we can deliver ampli-D® as a market-ready solution today. PartnerWithDSM.com

**Market-ready solutions
backed by science**

DSM is already spearheading purpose-led innovation in the field of immunity. Its calcifediol (also known as calcidiol) product – ampli-D® – is already available on retail shelves in Australia, with other global markets to follow soon. EFSA gave a positive opinion on the novel food dossier recognising calcidiol is safe and a source of the biologically active form of vitamin D. ampli-D® brings all the benefits of vitamin D, but is three times faster and more effective at raising vitamin D levels than traditional supplements*. This latest development is yet another example of DSM's evolved strategic direction in human nutrition and health as an end-to-end partner. By delivering as a market-ready solution, DSM has been able to accelerate speed to market, which is especially important during these times.

Floor Saris, Director Market-ready Solutions says: "Through our Products with Purpose strategy we are identifying real global health concerns and are working to develop industry-leading nutritional solutions, to support specific health areas - including immunity.

We continue to invest heavily in the immunity field and I'm proud to see how quickly we can bring innovative, purpose-led market-ready solutions to our customers that will support the health of individuals globally."

By championing the purpose behind the products, DSM and its partners are helping to solve the world's greatest nutritional challenges and keep the growing global population healthy. As a reliable, end-to-end, innovation partner, DSM offers a broad portfolio of science-backed products and customized solutions, powered by expert services, so that it can support customers across the entire product life cycle, from concept to consumer.

See how purpose drives everything at PartnerwithDSM.com.

* Clinical studies show that sufficient Vitamin D status is achieved on average 3 times faster and more effectively using ampli-D® compared to vitamin D3 on an equal dose basis

Partner with DSM to develop next-generation vitamin D products with ampli-D®.

YOUR END-TO-END PARTNER

PRODUCTS

CUSTOMIZED SOLUTIONS

EXPERT SERVICES

At DSM, we pride ourselves on collaborating with customers who want to develop the best products on the market, because where others see products, we see purpose.

Get started at PartnerWithDSM.Com

References

- 1) Quesada-Gomez, J.M.; Bouillon, R. Is calcifediol better than cholecalciferol for vitamin D supplementation? *Osteoporos Int* 2018, 29, 1697-1711.
- 2) Graeff-Armas, L.A.; Bendik, I.; Kunz, I.; Schoop, R.; Hull, S.; Beck, M. Supplemental 25-Hydroxycholecalciferol Is More Effective than Cholecalciferol in Raising Serum 25-Hydroxyvitamin D Concentrations in Older Adults. *The Journal of Nutrition* 2020, 150, 73-81.3) Vaes, A.M.M.; Tieland, M.; de Regt, M.F.; Wittwer, J.; van Loon, L.J.C.; de Groot, L. Dose-response effects of supplementation with calcifediol on serum 25-hydroxyvitamin D status and its metabolites: A randomized controlled trial in older adults. *Clin Nutr* 2018, 37, 808-814.

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