

# *Benefits of vitamin D supplementation For the prevention of coronavirus contamination*

## 补充维生素 D 对预防冠状病毒感染的益处

### *Scientific rationale and dosage*

#### *科学原理与剂量*

On 26 February, the first case of coronavirus death in France was announced at the Salpêtrière hospital in Paris, an establishment known to be capable of managing serious cases. Just afterwards, the President visited an intensive care unit at La Salpêtrière. The head of the department took the opportunity to complain to him about the budget cuts for public health and the fall in the quality of care at many levels.

2月26日，法国首例冠状病毒死亡病例在巴黎 Salpêtrière 医院宣布，该医院为众人所知的就是可以处理各种严重病例能力。在那之后，总统访问了 Salpêtrière 医院的一个重症监护室。该部门负责人借此机会向他抱怨公共卫生预算削减以及各级医疗质量下降。

I have done recent research on the antiviral activity of vitamin D, which is therefore proven for viruses with envelopes, a group to which coronavirus belongs. Let's say from the outset that the interest of vitamin D supplementation is not in the place of, but **in addition to** the common sense measures in case of an epidemic and which are communicated in many media: avoid large gatherings, wash your hands often, stay at home and away from people as much as possible, and of course even more so if you start symptoms of the disease, fever or febrile feeling, coughing, sneezing etc.

我最近对维生素 D 的抗病毒活性进行了研究，因此证明维生素 D 对冠状病毒所属的带包膜病毒具有抗病毒活性。我最开始要说清楚的是，补充维生素 D 的目的不在取代而是在预防流行病的常识性措施之外进行补充辅助作用，这些措施是在许多媒体中都有报道提到的：比如避免大型集会，经常洗手，尽可能呆在家里远离人群，当然如果你开始有显现一些疾病的症状、发烧或发热、咳嗽、打喷嚏等，更要遵守这些措施。

Vitamin D has also long been known to be active against the common flu virus, and even some studies have shown it to be more active than vaccination. In any case, it is thought that the development of a vaccine against coronavirus could take 8 to 10 months. The mechanism of action against enveloped viruses, including coronavirus, is to stimulate two anti-viral peptides, LL 37 and human beta-defensin (see attached articles). It has already been noted that the intensity of influenza epidemics increases as the winter progresses and is inversely correlated to vitamin D levels: as vitamin D decreases in the population, the influenza epidemic spreads. It should be noted that the epidemic of coronavirus spread especially from January in Wuhan in China which is located in the northern hemisphere, and where there is therefore winter and vitamin D deficiency. This reinforces the usefulness of this prevention by vitamin D. I'm attaching three articles that show the activity of vitamin D for prevention and as an adjunct to the treatment of viral infection. In fact, coronavirus

actually is a form of flue, and regular flue is already killing weakened people, but it is frightening because it is expanding rapidly around the world, so it still has the potential to kill many people in absolute terms.

众所周知，维生素 D 对普通流感病毒也很有效，甚至一些研究表明它比疫苗更有效。不管怎么说，人们认为研制一种抗冠状病毒的疫苗可能需要 8 到 10 个月的时间。对抗包膜病毒（包括冠状病毒）的作用机制是刺激两种抗病毒肽 LL-37 和人  $\beta$  防御素（见附文）。人们已经注意到，流感流行的强度随着冬季的进展而增加，并且与维生素 D 水平成反比：随着人体中维生素 D 的减少，流行流感蔓延增加。值得注意的是，冠状病毒的流行从 1 月份开始在位于北半球的中国武汉地区蔓延，正值冬季人体内缺乏维生素 D。这加强了维生素 D 预防的有效性。我附上三篇文章，展示了维生素 D 的预防作用和作为病毒感染治疗的辅助手段的作用。事实上，冠状病毒实际上是一种流感，而常规流感已经足以让虚弱的人丧命，但它之所以可怕，是因为它在全球范围内迅速扩张，所以它仍然在一定时期内会夺去很多人的性命。

On the practical level, if you sunbathe for a quarter of an hour a day, or work for one or two hours a day in shorts and tank tops for example, you don't need supplementation, but few people do this in city life, even if the climate is sunny. if one doesn't do this or don't take vitamin D3 regularly, it is best to take directly 100000 IU (international units), possibly 150000 IU if one's weight is more than 85-90 kg. Then one should continue with a dose of 4000 or 5000 IU per day. If one is not exposed to the sun at all and is in contact with potentially contaminating patients, one will again favour an extra dose of 50000 IU. Some will say that this is too much, but I have a friend who, after breast cancer, has been taking 10000 IU of vitamin D per day on the advice of her doctor for ten years. She is doing just fine and has not had a relapse of her cancer. Indeed, vitamin D also has a preventive action at this level. In general, even outside of epidemic periods, it is important to take a maintenance dose of vitamin D, about 4000 IU per day, grouped together once a week, since vitamin D is stored by adipose tissue. It has many positive effects, preventing or treating bacterial and viral infections, especially ENT ones, hypertension, psoriasis, various forms of cancer, cardiovascular diseases, cognitive decline, and there are regularly new positive effects: the last one I learned was the facilitation of the reproduction of cells at the bottom of intestinal villi that regenerate the mucous membrane and thus limit intestinal porosity, a disorder that itself has significant long-term negative effects, inflammation, diabetes, cardiovascular diseases and cancer. Vitamin D is the only vitamin, or hormone, that has receptors in virtually every cell in the body. If the receptors are there, it has an action on these cells, even if we don't always know which one. To avoid the risk of chronic hypervitaminosis, it's a good idea to check vitamin D and calcium levels after the onset of the long term complementation and then every year. . In general, if you take the above mentioned doses, you do not need any calcium supplement because the calcium already present in the food will be well absorbed by the intestine.

实际上，如果你一天晒一刻钟的太阳，或者一天穿着短裤和背心工作一两个小时，你不需要补充营养，但在城市生活中很少有人这样做，即使气候晴朗。如果不这样做或不定期服用维生素 D3，最好直接服用 100000IU（国际单位），如果体重超过 85-90 公斤，可能要服用 150000IU。然后继续每天 4000 或 5000 IU 的剂量。如果一个人根本不暴露在阳光下，并且接触到有潜在污染的病人，那么他最好服用额外 50000 IU 的剂量。有人会说这太多了，但我有一个朋友，在乳腺癌之后，在医生的建议下，她每天服用 10000 IU 的维生素 D 已经十年了。她身体很好而且癌症没有复发。事实上，维生素 D 在这个水平上也有预防作用。一般来说，即使不在病毒流行期，也必须服用一定剂量的维生素 D，每天约 4000 IU，也可以每周一次服用，因为维生素 D 是由脂肪组织储存的。它有许多积极作用，预防或治疗细菌和病毒感染，特别是耳鼻喉炎、高血压、银屑病、各种癌症、心血管疾病、认知能力下降，而且有一些新的积极作用：我了解到

的最新的的一个作用是促进肠绒毛底部细胞的繁殖，这些细胞可以再生粘膜，从而限制肠的孔隙率，这种疾病本身具有显著的长期负面影响，炎症，糖尿病，心血管疾病和癌症。维生素 D 是唯一一种维生素，或激素，几乎在身体的每一个细胞中都有受体。如果受体在那里，它对这些细胞就有作用，即使我们并不总是知道是哪一个。为了避免长期服用维生素过多的风险，在开始长期补充维生素 D 和钙之后，最好每年检查一次。一般来说，如果你服用上述剂量，你不需要任何钙的补充，因为食物中已经存在的钙会被肠道很好地吸收。

To go further, you can find my article '*Soleil sagesse et vitamine D*' on my website [www.jacquesvigne.com](http://www.jacquesvigne.com) towards the bottom of the list of articles and translations for 2009. It was then published as a chapter of my book '*Healing Anxiety*' (Le Relié, 2015): I present in parallel the physical and neuropsychological benefits of this vitamin and I relate them to the importance given to the sun in ancient religions, and still in current Hinduism as well as in the modern culture of going to holidays with the strong need to spend them in the sun..

想要了解更多信息，你可以在我的网站 [www.jacquesvigne.com](http://www.jacquesvigne.com) 上找到我的文章 '*Soleil sagesse et vitamine D*'，在 2009 年的文章和翻译列表的底部。它是我的出版书籍《治愈焦虑》（Le Relié, 2015）一书中的其中一个章节：我同时介绍了这种维生素在生理方面和神经心理方面的益处，并将它们与古代宗教、现在的印度教以及现代文化中太阳的重要性联系起来，即带着强烈的需求去阳光充足的地方去度假，

To go further, there are many Internet sources on the benefits of vitamin D.

想要更深入了解更多信息，网上也有很多关于维生素 D 益处的资料。

To be more complete on this topic, I'm giving you the full list of side effects of hypervitaminosis D, but this hypervitaminosis occurs with relatively massive intakes. Through lifestyle and lack of real sun exposure such as regular sunbathing, one can clearly assume that there is a vitamin D deficiency and that one has to take a supplement. There are certainly many more risks in not taking supplementation than in taking moderate doses as indicated above. This should be well pondered about.

为了更完整地讨论这个话题，我给你一个完整的维生素 D 过多的副作用列表，但是这种含量过多的发生与相对大量的摄入有关。通过生活方式和缺乏真正的阳光照射，如定期日光浴，人们可以清楚地假设存在维生素 D 缺乏症，必须补充维生素 D。不服用补充剂的风险肯定比服用上述合适剂量的维生素风险要大得多。这应该好好考虑一下。

I would like to thank Dr. Daniel Salandre, former head of the gastroenterology clinic at the University Hospital of Bichat in Paris and Dr. Eve Lefranc, former head of the cardiology clinic at the University Hospital in Brussels, for their kind perusal of this presentation and their encouragement to make it available to the general public. Daniel acknowledges that in the hospital environment in particular, people are fascinated by strong drugs with heavy side effects, such as corticosteroids, powerful antibiotics or chemotherapy, and neglect milder and preventive therapies, such as vitamin D supplementation. As for himself, he actually decided, after our exchange, to increase the doses he was taking of vitamin D to have a better prevention in this period of epidemic.

我要感谢巴黎 Bichat 大学医院胃肠病门诊部前主任 Daniel Salandre 博士和 Brussels 大学医院心脏病门诊部前主任 Eve Lefranc 博士，感谢他们对本报告的认真审阅和鼓励，才得以使这篇文章向公众开放。Daniel 承认，特别是在医院环境中，人们依赖于具有严重副作用的强效药物如皮质类固醇、强效抗生素或化疗，而忽视了温和的预防性治疗，如补充维生素 D。至于他自己，

实际上在我们交换意见后，他决定增加他服用维生素 D 的剂量，以便在这一流行病时期有更好的预防措施。

***Do not hesitate to spread this document among your friends and in social networks. It will help people.***

*请在你的朋友中间和社交网络中传播这个文件。它将帮助人们。*