

Benefits of vitamin D supplementation

For the prevention of coronavirus contamination

Scientific rationale and dosage

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.

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. A simple but less known action is to wash the nostrils three or four times a day with well salted water. This not only cleanses a good part of the viruses, but also the allergens that weaken the nasal mucous membranes and encourage the virus to cling to them.

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.

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.

To go further, you can find my article '*Soleil sagesse et vitamine D*' on my website 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..

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

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.

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.

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