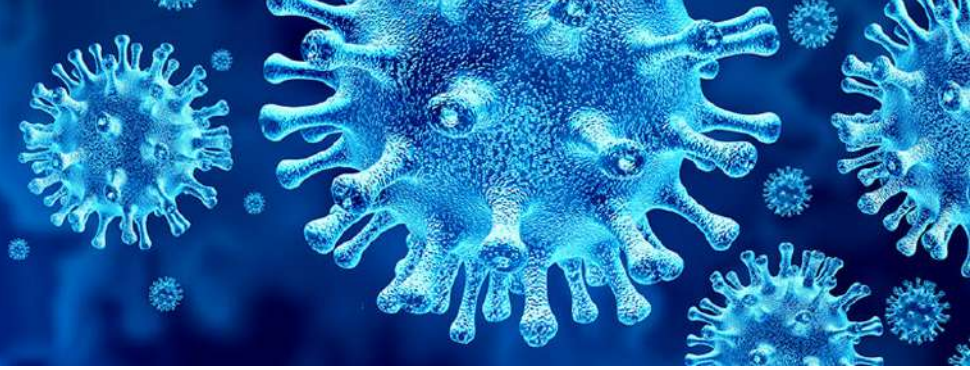




Forward Farma BV



Resveratrol: natural regulator - the role of resveratrol in COVID

Dietary factors including resveratrol can modulate the immune system in a variety of ways. Resveratrol is a polyphenol with antioxidant, anti-inflammatory, antiviral and neuroprotective properties. Resveratrol occurs in various plant species, but especially in the skins of blue grapes, berries and plums.



Lin et al. Showed in 2017 that resveratrol significantly inhibits viral replication of the directly Corona-related virus MERS-COVID in the cells. [1] This resulted in less severe respiratory symptoms in the group that received resveratrol compared to the untreated control group.



COVID-19 activates the so-called NLRP-3 inflammasome, which leads to a cytokine storm and a lot of tissue damage. In a 2016 review entitled 'Natural substances as regulators of NLRP-3 inflammasome-mediated IL-1 beta production' resveratrol, curcumin, EGCG and quercetin are mentioned as potent inhibitors of NLRP-3 inflammasome-mediated IL-1 beta production. [2]



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- Resveratrol is found in, among other things, blue grapes, blueberries and pistachios.
- In addition to modulating NLRP3, curcumin in turmeric may also have a COVID Main protease-inhibiting effect, slowing down the multiplication of the virus.
- ECGC in green tea modulates and the NLRP3 inflammasome possibly inhibits the COVID-19 Main protease.
- Quercetin is found in, for example, onions, red apples and citrus fruit. It has antiviral effects against RNA and DNA viruses, including influenza, the corona virus and herpes virus. It has anti-inflammatory effects and modulates several biochemical pathways associated with post-transcriptional modulators involved in the healing of the body after viral infection.

Quercetin promotes inactivation and elimination of viruses and inhibits viral replication and NLRP-3 inflammasome. More research is needed into the effectiveness of quercetin in the COVID-19 virus specifically.

Modulating action of nutrients

Various substances naturally occurring in food and herbs may have a modulating effect on the attachment, cell penetration and multiplication of the COVID-19 virus and inflammatory (cytokine) storms caused by the virus. This is due to their influence on the ACE-2 receptors, furin and COVID Main proteases and inflammasomes NLRP3.

Examples include luteolin, quercetin, curcumin, resveratrol, ECGC, glycyrrhizin, Andrographis paniculata and baicalin. Baicalin is also a polyphenol of the flavonoids group. More research is needed into the effectiveness and correct dosage of these substances to arrive at a natural, effective approach to the prevention and treatment of the COVID-19 virus.

[1] Lin SC, Ho CT, Chuo WH, et al. Effective inhibition of MERS-CoV infection by resveratrol. BMC Infect Dis 2017;17:144-54.

[2] Tyzsér J. and Benky S., Natural Compounds as Regulators of NLRP3 Inflammasome-Mediated IL-1 Production, Mediators of Inflammation, Volume 2016, Article ID 5460302, <http://dx.doi.org/10.1155/2016/5460302>

Source: <https://www.natuurdietisten.nl/de-rol-van-resveratrol-bij-covid/>



Immune-boosting role of vitamins D, C, E, zinc, selenium and omega-3 fatty acids: promising protectors against covid-19

A number of nutrients such as vitamins A, C, D and E, the minerals zinc, selenium, magnesium and omega-3 fatty acids have been associated with improved outcomes to the defense against Covid-19:

1. Vitamin D

Vitamin D appears to be a promising protector against covid-19.

2. Anthocyanidins

Since anthocyanins can be found in almost all plant families, they are also found in many edible plants. The main sources of anthocyanins in our food are berries, such as blackcurrants, redcurrants, blackberries, blue grapes, blueberries, aronia berries, cranberries, elderberries, raspberries, as well as some vegetables, such as eggplant and avocado. Other important sources are oranges, elderberries, olives, red onions, figs, sweet potatoes, mangoes and red cabbage.

3. Polyphenols

Polyphenols are generally divided into lignans, coumarins, stilbenes, flavonoids, neoflavonoids, isoflavonoids, quinones, hydrolyzable and condensed tannins. These substances can disrupt the function of viruses. For example, the procyanidins in bilberry (*vaccinium myrtillus*) and cranberry (cranberry) inhibit the action of bacteria that cause infections. Various flavanols from green tea have also been shown to have an effect against viruses, so that drinking a large pot of high-quality green tea can have a resistance-increasing effect.



4. Zinc

Due to the lack of zinc reserves, too low a zinc intake with the diet can lead to (reversible) health problems such as fatigue and an increased (virus) infection sensitivity within a few weeks. A zinc deficiency also results in a reduced sense of taste and smell, which is often seen in COVID patients.

5. Selenium

Selenium is also a mineral essential for immunity. A group of researchers led by Margeret Rayman (University of Surrey, UK) has found a link between selenium status and COVID-19 in China. In selenium-poor areas, COVID-19 patients are less likely to recover than patients living in selenium-rich areas of China. Selenium sources are; meat, fish, eggs, Brazil nuts, broccoli, cabbage, garlic, mushrooms.

Source: <https://www.sciencedirect.com/science/article/pii/S0378512220303467>



November Stocklist

No.	Product Name	Specification
In the warehouse		
01	Apple pectin	/
02	Black Cohosh Extract	10:1
03	Black Pepper Extract 95%	95%
04	Boswellia Serrata Extract	65%;Pale brown
05	Cordyceps Extract	40% Polysaccharides
06	Cranberry Extract	6%
07	DL-Phenylalanine	99%
08	Echinacea Extract	4% polyphenol
09	Echinacea Extract	4% Chicoric acid
10	Gamma Oryzanol	99%
11	Garcinia Cambogia Extract	60% HCA(Hydroxy Citric acid)
12	Garlic Extract	10:1
13	Goji Extract	50% polysaccharide
14	Green Tea Extract	98% Total Tea Polyphenols
15	Guarana Extract	22% caffeine
16	Haematococcus Pluvialis Extract	5% UV
17	Hericium Erinaceus Extract	30% Polysaccharide
18	Horse Chestnut Extract	20% Sodium aescinate
19	Inositol hexanicotinate	99%
20	Konjac Glucomannan	95%
21	L-Carnosine	99%
22	L-Glutamic Acid	99%
23	Lycopene	5% microcapsules
24	Marigold Extract	Lutein 5%
25	Marigold Extract	Lutein 10%
26	Marigold Extract	Zeaxanthin 5%
27	Marigold Extract	Zeaxanthin 10%
28	Marigold Extract	Zeaxanthin 20%
29	Methyl Sulfonyl Methane	99%



November Stocklist

No.	Product Name	Specification
30	N-Acetyl-L-Cysteine	99%
31	Natto Extract	20000FU/gram
32	Natto Extract	5000FU/G
33	Natto Extract	10000FU/G
34	Natto Extract	20000FU/G
35	Nettle Extract	/
36	Oat Extract	70% Beta glucan
37	Olive Leaf Extract	40% Oleuropein
38	Phosphatidylserine	20%
39	Pine Bark Extract	95%
40	Polygonum Multiflorum Extract	5:01
41	Reishi Mushroom Extract	40% polysaccharide
42	Rhodiola Rosea Extract	3%1%
43	Rose Hips Extract	/
44	Rosemary Extract	5% Rosemary acid
45	Rosemary Extract	10% Rosemary acid
46	Saw Palmetto Extract	45% Fatty acid
47	Saw Palmetto Extract	25% Fatty acid
48	Selenium Yeast	0.2% se
49	Shiitake Mushroom Extract	20%
50	Sodium Hyaluronate	92%
51	Sophora Japonica Extract	Rutin 95% EP
52	Soybean Extract	40% Isoflavons
53	Stevia Extract	RA 98% Steviol Glycoside
54	Stevia Extract	90% Steviol Glycoside
55	Tomato Extract	10% microcapsules
56	Tribulus Terrestris Extract	40% Saponins
57	Tribulus Terrestris Extract	90% Saponins
58	Turmeric Extract	USP 95% Granular, Curcuminoids
59	Turmeric Extract	95% Granular, Curcuminoids
60		



November Stocklist

No.	Product Name	Specification
60	Turmeric Extract	95%,Curcuminoids
61	Turmeric Extract	95% USP,Curcuminoids
62	Yeast Beta Glucan	80%
On the way		
63	Ashwagandha Extract	2.50%
64	Black Maca Extract	/
65	Ginkgo Biloba Extract	CP15
66	L-Glutathione Reduced	98%~101%
67	Milk Thistle Extract	80%&30%
68	Milk Thistle Extract	80%&30%
69	Olive Leaf Extract	20%
70	Pumpkin Seed Extract	/
71	Reishi Mushroom Extract	50% polysaccharide
72	Sophora Japonica Extract	NF11
73	Yellow Maca Extract	/