

## **VIRGIN COCONUT OIL (LAURIC ACID)**

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### **Introduction**

Virgin coconut oil (VCO) is extracted from the *Cocos nucifera* plant by the wet milling process and has been, for many years, proven to have antiviral effects. Lauric acid and its derivatives monolaurin, and sodium lauryl sulfate (which is also known as sodium dodecyl sulfate) compose 50% of coconut oil and are responsible for coconut oil's antiviral and immunomodulatory effects.<sup>1</sup>

### **Mechanism of Action**

Three mechanisms have been proposed to explain the antiviral activity of lauric acid and monolaurin: (1) they cause disintegration of the virus envelope; (2) they can inhibit late maturation stage in the virus replicative cycle (3) they can prevent the binding of viral proteins to the host cell membrane.<sup>1,2,3,4,5,6</sup>

As an immunomodulator, VCO has been shown to increase CD4 counts<sup>7</sup> and to increase the ratio of IFN $\gamma$ mRNA to IL-4 mRNA.<sup>8</sup>

### **Clinical Studies**

There are ongoing clinical studies on the use of VCO as an oral supplement for COVID-19 in the Philippines as initiated by the Department of Science and Technology (DOST)

### **Recommended Dose**

As a topical agent, coconut oil can be used ad libitum. As an oral supplement, no standard dose has been established.

### **Adverse Effects**

Coconut oil and its derivatives have been shown to be safe in humans and animals.<sup>1</sup>

### **Conclusion**

More clinical trials are needed to establish its efficacy for COVID-19.

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