Zinc Supplementation and COVID-19

Recommendations

There are insufficient data to recommend either for or against the use of zinc for the treatment of COVID-19.

SWDH, in alignment with the National Institutes of Health (“NIH”) COVID-19 Treatment Guidelines Panel, recommends against using zinc supplementation above the recommended dietary allowance for the prevention of COVID-19, except in a clinical trial.

Rationale

Research has shown increased zinc concentrations in the body can impair the reproduction (replication) of a number of RNA viruses. Zinc may also be effective at combating COVID-19 (also an RNA virus), but an optimal dose of zinc for the treatment of COVID-19 is not established. The recommended dietary allowance for elemental zinc is 11 mg daily for men and 8 mg for nonpregnant women. The doses used in registered clinical trials for COVID-19 vary between studies, with a maximum dose of zinc sulfate 220 mg (50 mg of elemental zinc) twice daily.

Long-term zinc supplementation can cause serious side effects, notably copper deficiency with reversible anemia and low white blood cells. Zinc supplementation for a duration as short as 10 months has been associated with copper deficiency. Zinc supplementation can also potentially cause irreversible neurologic manifestations (i.e. muscle pain, balance problems, weakness, etc.) In addition, oral zinc can decrease the levels of several medications that bind with the zinc cation.

Because zinc has not been shown to have a clinical benefit and may be harmful, presently zinc supplementation above the recommended dietary allowance is not recommended for the prevention of COVID-19, except in a clinical trial.
References


