Covid’s vitamin D link

**Context**

A new study has found an association between low average levels of vitamin D and high numbers of Covid-19 cases and mortality rates across 20 European countries.

The research, led by scientists from UK’s Anglia Ruskin University (ARU) and Queen Elizabeth Hospital King’s Lynn NHS Foundation Trust, is published in the journal *Aging Clinical and Experimental Research*.

**Vitamin D**

Vitamin D is known to modulate the response of white blood cells, preventing them from releasing too many inflammatory cytokines (part of the body’s immune response to fight infections).

And the SARS-CoV2 virus is known to cause an excess of pro-inflammatory cytokines, called a cytokine storm.

Vitamin D has been shown to protect against acute respiratory infections, and older adults, the group most deficient in vitamin D, are also the ones most seriously affected by Covid-19.

**Studies**

The new study shows that Italy and Spain, both of which have experienced high Covid-19 mortality rates, have lower average vitamin D levels than most northern European countries.

This, the researchers said, is partly because people in southern Europe, particularly the elderly, avoid strong sun, while skin pigmentation also reduces natural vitamin D synthesis.

The highest average levels of vitamin D are found in northern Europe, due to the consumption of cod liver oil and vitamin D supplements, and possibly less sun avoidance.

Scandinavian nations are among the countries with the lowest number of COVID-19 cases and mortality rates per head of population in Europe, ARU said in a statement on the new research.