

# Research reveals mechanisms behind 'COVID toes'

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Redness and swelling of the hands and toes, known as chilblain-like lesions, have been reported during the COVID-19 pandemic. A new study published in the *British Journal of Dermatology* uncovers the

underlying mechanisms involved in such "COVID toes" symptoms.

The study included 50 participants with COVID toes and 13 with similar chilblains lesions that arose before the pandemic. The mechanisms behind both types involved an [immune response](#) with high levels of certain autoantibodies as well as type I interferon, a key protein in the antiviral response.

In addition to the [immune system](#), [endothelial cells](#) that line blood vessels also appeared to play a critical role in the development of COVID toes and chilblains.

"The epidemiology and clinical features of chilblain-like lesions have been extensively studied and published, however, little is known about the pathophysiology involved," said senior author Charles Cassius, MD, of Hôpital Saint-Louis, in Paris, France. "Our study provides new insights."

**More information:** *British Journal of Dermatology* (2021). [DOI: 10.1111/bjd.20707](#)

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