

# COVID-19 Update

## October 8: Impact of COVID-19 on the Lungs

*Today's issue features information about the post-infection impact of COVID-19 on the lungs from Benjamin D. Singer, MD, pulmonologist, Northwestern Medical Group, and assistant professor of Medicine (Pulmonary and Critical Care) and Biochemistry and Molecular Genetics; and Joseph Bailey, MD, fellow, Northwestern Memorial Hospital Division of Pulmonary and Critical Care Medicine.*

Since the emergence of COVID-19 in late 2019, the medical community has focused on managing and treating the acute phase of infection. However, as rising numbers of patients have recovered from acute infection, providers have increasingly recognized a high prevalence of long-term, chronic complications. Long-term pulmonary complications, such as shortness of breath, hypoxemia and cough, are common and can be particularly persistent.

Persistent symptoms several weeks after onset of symptoms are common after COVID-19 infections. In one study from Italy, 143 patients who required hospitalization between April 21 and May 29 were assessed an average of 60 days after symptom onset. In this population, 87.4% reported persistent symptoms after the two-month follow-up period. Among the most common were pulmonary symptoms, with the most frequently reported being fatigue (53.1%), dyspnea (43.4%) and cough (15%).

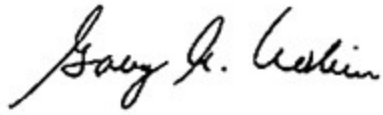
These persistent abnormal pulmonary symptoms may be due to physiologic changes in the lung as a result of COVID-19 infection. In a second study from the University of Virginia, 28 patients who were admitted to an ICU in Virginia were invited to a post-ICU clinic. These patients were seen an average of 39.5 days after discharge. Of these patients, 38.5% had abnormal pulmonary function tests, and their average exercise tolerance was 65.5% of predicted.

COVID-19 primarily manifests as a pulmonary infection and can progress to very severe lung injury, including acute respiratory distress syndrome (ARDS). This severe lung inflammation could cause long-term morbidity by exacerbating underlying conditions such as asthma or COPD, promoting lung fibrosis and scarring, or through other mechanisms such as pulmonary thromboembolic disease.

At Northwestern Medicine, we are committed to providing excellent care to patients suffering from sequelae of COVID-19 infection. If you have a patient who had COVID-19 infection and has ongoing cough, shortness of breath, persistently abnormal lung imaging or would otherwise benefit from a consultation, we are launching a post-COVID-19 patient clinic through the Division of Pulmonary and Critical Care. This initiative is part of a broader multidisciplinary effort at NM to coordinate care for COVID-19 patients. To learn more or to refer a patient, please visit the [Pulmonary Division](#) page on [nm.org](http://nm.org).

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Thank you to all NM physicians and clinicians for your ongoing commitment, collaboration and leadership in providing exceptional *Patients First* care.

A handwritten signature in black ink that reads "Gary A. Noskin". The signature is written in a cursive style with a large initial 'G' and 'N'.

**Gary A. Noskin, MD**  
Senior Vice President, Quality  
Northwestern Memorial HealthCare  
Chief Medical Officer  
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