

Viral Infection and Asthma

Respiratory infections, such as head or chest colds, are common ailments, and viruses are often the cause. Symptoms include a runny nose, a sore throat, and maybe a cough.

Although they can make anyone feel miserable, do these infections affect people with asthma more severely?

Interestingly, researchers have found scientific evidence to support two contradictory effects of respiratory viruses on asthma:

- Viral infections can make asthma symptoms worse.
 - Viral infections may help protect children against asthma development later in life.
- A review of a few medical studies may help explain these different conclusions. The authors of a study published in 2002 analyzed respiratory symptoms in couples among whom one partner had allergic asthma (which is influenced by family history) and the other did not. The researchers found no difference between the partners in frequency, severity, and duration of upper respiratory symptoms (in the head and throat). In those with allergic asthma, however, they found twice the frequency, increased severity, and longer duration of lower respiratory symptoms (in the lungs and airways). Studies such as these support the notion that viral respiratory infections (such as colds and bronchitis) are probably the most common cause of worsening asthma symptoms, accounting for at least 30% to 40% of asthma flareups in adults. In contrast, a study of children and their siblings who had had nonrespiratory viral infections (such as measles, mumps, or chickenpox) during the first year of life showed a small protective effect against asthma development. But when respiratory infections were singled out for analysis, scientists noticed an increase in asthma risk. In another study, children at age 3 who had occasional upper respiratory infections showed a lower risk of asthma by age 7. But it was found that children who had lower respiratory infections were at significantly increased risk for asthma. This study suggests that the effect of respiratory viruses on asthma development depends on numerous factors—for example, whether a virus affects the upper or lower respiratory tract, the frequency and severity of viral infections, a person's age when exposed to viruses, and family history of asthma. In light of the medical research, viral respiratory infections clearly have the ability to worsen asthma symptoms in people who already have the disease. But claiming that they offer some protection against developing asthma is probably a conclusion that needs further research.