



# CD4 Recovery Increases Asthma Risk in Children

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[HIV-positive children](#) whose immune systems recover during antiretroviral (ARV) therapy face an increased risk of developing asthma, according to a [study](#) published online in the Journal of Allergy and Clinical Immunology.

The risk of asthma likely increases because of the gains in CD4 cells that are associated with successful HIV treatment, William Shearer, MD, of Baylor College of Medicine, and his study colleagues suggest. CD4 cells are thought to be associated with the inflammation in the lung tissue that accompanies asthma, a debilitating and sometimes deadly respiratory disease. When CD4 cells decline in children with HIV, their asthma symptoms also decrease.

The study conducted by Dr. Shearer's group compared the use of asthma medications among children with HIV who took ARV therapy, compared with those who did not. They found that about one third of those on the ARVs used asthma drugs, compared with 11.5 percent of those who did not take HIV medications.

The association between immune function and asthma documented in this study might help researchers better understand the much larger asthma epidemic in the general population. Shearer's group suggests a study evaluating lung function of HIV-positive children on ARV treatment to help explain how an increase in the immune system affects the risk of asthma

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