

ASTHMA AND OTHER LUNG PROBLEMS IN YOUTH **BORN WITH HIV**

Some studies suggest that there may be a rise in asthma and lung problems in youth born with HIV. We wanted to see how well youth born with HIV are breathing by testing their lung function. We did pulmonary function tests (PFTs) on youth born with HIV using a breathing machine called a spirometer. PFTs measure how well the lungs are working.

WHO PARTICIPATED



WHAT WE DID



Airway muscles should relax after receiving the medicine. If they don't, it could mean the person has a lung problem different from asthma.

WHAT WE FOUND



Youth born with HIV in the study:

Were more likely to have asthma.



Had lungs muscles that did not relax very much after receiving the airway muscle relaxing medicine (if they had asthma).

Had T-cells that were not very good at controlling some kinds of antibodies.

- 188 youth born with HIV
- 132 HIV-negative youth born without HIV to mothers living with HIV

We used the spirometer to look for any lung problems. We then asked the youth to breath in a medicine that relaxes muscles in the airway, and we repeated the PFTs. We also looked at their medical history and study questions about asthma. Finally, we looked at blood tests to see whether they were more likely to develop asthma or other lung problems.

We found that youth born with HIV were more likely to have asthma than the HIV-negative youth.

We also found that T-cells (which protect the body from illnesses) did not work very well in the youth with HIV. This could mean they had some problems with their immune system.

WHAT WE LEARNED



C064. Shearer, W et al. Long-term pulmonary complications in perinatally HIV-infected youth. Journal of Allergy and Clinical Immunology 2017; pii: S0091-6749(17)30336-6. https://www.ncbi.nlm.nih.gov/pubmed/28279683

Youth born with HIV might have problems with asthma and other lung problems. Some adults with these same kinds of problems may develop severe lung disease. More research is needed to learn whether youth born with HIV will have lung problems as they grow older.

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