

Trees help prevent asthma, respiratory diseases, study says

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(Phys.org) —We all know that trees produce oxygen and help improve air quality.

But a new study suggests they also help significantly cut down on asthma and other [respiratory diseases](#), and save millions of dollars every year as a result.

The study was done by a group of researchers at Portland State University. They measured nitrogen dioxide levels associated with traffic and other sources of [air pollution](#) in different areas across Portland.

They placed 144 sensors in different neighborhoods.

They found the amount of tree cover had a significant impact on the levels of nitrogen dioxide in an area and the [respiratory health](#) of the residents in that area.

Specifically, the study concluded, because of the city's existing tree canopy:

- Children age 4-12 avoided missing 7,380 school days due to asthma attacks.
- People of all ages avoided 54 asthma-related emergency room visits.
- There were 46 fewer hospital stays for people older than 65 because of respiratory illness.

- All together all those health benefits equaled \$6.6 million in savings.

The study concluded that trees are so important when it comes to removing [nitrogen dioxide](#) from the air, it's up to city planners to find ways to better incorporate trees into their designs.

The researchers say more studies need to be done, but this one clearly shows why urban forests give us much more than just a shady place to rest.

More information: Meenakshi Rao, Linda A. George, Todd N. Rosenstiel, Vivek Shandas, Alexis Dinno, "Assessing the relationship among urban trees, nitrogen dioxide, and respiratory health," *Environmental Pollution*, Volume 194, November 2014, Pages 96-104, ISSN 0269-7491, [dx.doi.org/10.1016/j.envpol.2014.07.011](https://doi.org/10.1016/j.envpol.2014.07.011).

Provided by Portland State University

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