

Possible link between autism and airway abnormality

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Autism and autistic spectrum disorders (ASD) are currently diagnosed primarily through subjective observation of autistic behaviors. However, new research, presented at CHEST 2011, the 77th annual meeting of the American College of Chest Physicians (ACCP), suggests that a physical abnormality in the airway may be a prominent indicator for autism and autistic spectrum disorders, making it a possible diagnostic marker for this disease.

"With all of the bronchoscopies I've performed, I have not seen this type of abnormality in children who aren't autistic," said study author Barbara Stewart, MD, Nemours Children's Clinic, Pensacola, Florida. "It appears to be a definitive marker for [autism](#) or autistic spectrum disorder."

Dr. Stewart evaluated 49 children (

"Another way to think of this is "symmetric doubling" of airways in the lower airways. When airways divide beyond the first generation, they typically branch like a tree, with one branch on one side and one on the other. A "doublet" occurs when there are twin branches that come off together instead of one, which are exactly symmetrical, in each of the lower locations that can be seen."

Patients who have "doublets" in the lower airways may have higher airway resistance, which, as Dr. Stewart explained, "might be why the population of children with autistic spectrum disorder are not truly athletic people."

Although bronchoscopy can help identify the structure of the airway, Dr. Stewart cautions that it is not yet ready to be a screening or [diagnostic tool](#) for autism.

"Bronchoscopy is a useful tool, but it is still an invasive surgical procedure and one that should not be undertaken lightly. The practitioner should consider the root cause for this embryologic anomaly, asking the deeper question concerning the genetic link of the doubling," said Dr. Stewart. "However, if there is a medical reason to perform bronchoscopic evaluation of the airway, one should obtain the maximum amount of information during that procedure."

"The potential association between autism and airway structure is intriguing; however, additional studies are needed to determine the genetic factors which may then lead to airway abnormalities," said David Gutterman, MD, FCCP, President of the [American College of Chest Physicians](#).

Provided by American College of Chest Physicians

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