



## **CHILDHOOD ASTHMA, INHALED STEROIDS, AND GROWTH**

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Recent studies confirm that the long-term use of inhaled corticosteroids to treat asthma in childhood does not stunt growth. Indeed inhaled steroids are not only safe to use in children with asthma, but also are the most effective medications to improve lung function and quality of life.

Inhaled corticosteroids have been available to treat asthma for over 20 years, but parents of children and physicians have been somewhat hesitant to utilize them due to concerns about safety. Two years ago, the FDA mandated that a warning regarding the potential growth suppression of inhaled corticosteroids be placed in the product labeling of these medications. This warning was based on several short term studies that suggested that children might grow around ½ inch per year less on these medications. On the other hand, newer data suggests that this decrease in rate of growth on inhaled steroids is likely temporary, and that continued use does not appear to effect growth further. It is also important to keep in mind that moderate or severe asthma can itself decrease growth by globally affecting a child's health, and that medications that improve asthma can oftentimes actually improve growth.

An article by Dr. Allen from the University of Wisconsin in *Pediatrics* in 1998 showed that over 12 months of continual usage, one of the newer inhaled corticosteroids, Flovent (Fluticasone), did not cause significant growth suppression in young children. A second article by Dr. Silverstein from the Mayo Clinic looked at children who had been on inhaled corticosteroids for many years and found that they actually obtained normal adult height.

In October 2000, there were 2 articles in the *New England Journal of Medicine* that have gone a long way to put to rest the notion that inhaled steroids are unsafe in children. One study, completed by the National Institute of Health (NIH) known as the Childhood Asthma Management Program (CAMP) was one of the largest and most comprehensive pediatric asthma studies involving over 1000 children for 4 to 6 years. In this study, children on Budesonide (Pulmicort) fared better in the control of their asthma on this inhaled steroid while experiencing only a minor decrease in growth rate initially that did not continue after the first year of treatment. The other study, reported by Danish researchers, showed that dozens of children on this same inhaled steroid for an average over 9 years still achieved a normal adult height.

The current expert opinion regarding the use of inhaled corticosteroids in children with persistent asthma is that although any inhaled steroid may cause a temporary decrease in growth, children thereafter grow normally and final adult height is not effected. Furthermore, the National Heart, Lung and Blood Institute (NHLBI) in its 1997 report on asthma treatment stated that inhaled corticosteroids were the most effective long term medication available to treat both children and adults with chronic, bothersome asthma. Therefore, both physicians and parents of children with asthma can rest more

comfortably knowing that these youngsters can safely receive the most effective medications that we have available to treat asthma without worrying about significant effect on growth or indeed any other important side-effects.