Asthma Inhalers and How They Affect Growth Patterns

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Asthma Inhaler Side Effects

There has been a lot of recent interest in possible asthma inhaler side effects, especially for children. After all, asthma affects children far more frequently than adults (around 6.8 million US children suffer from this lung condition), and often need to take regular doses of medication throughout their formative years. Fortunately for the medical community and parents of asthmatic children, recent studies have returned some concrete answers on asthma treatment, growth patterns, and overall health.

The Findings on Asthma Inhalers and Growth Patterns

Research out of the Federal University of Rio Grande in Brazil and the University of Montreal in Canada has shown that inhaled steroid medication appears to affect growth, both in the first years of taking the medication, and possibly further into adulthood.

The published research included two systematic reviews: one that focused on how certain asthma inhalers impact growth rates compared with other drugs, and one that investigated dose levels and their impact on growth. The results confirm the suspicions that doctors and parents have had for some time: asthma medication does seem to affect growth, and the amount in each dose does make a difference.

Not all inhaled medication is to blame. In fact, the culprit is a specific type of inhaler, the corticosteroids known as “preventers” that aim to calm the airways and prevent more serious asthma symptoms. In the 25 trials that were examined, the children who used the preventer inhalers were, on average, about a quarter of an inch shorter than other children after one year.

Understanding How the Findings Affect your Child

Since corticosteroid inhalers are the most popular and reliable long-term asthma medication, these findings will surely affect many children. However, try to keep the results in perspective as you decide if and how to adjust your child’s asthma management:

- **Growth suppression rates vary.** There’s no guarantee that every child who takes steroid inhalers will grow less. Remember, the results are an average of all the participants, and given that the height difference is so small, it’s safe to assume that many children suffer little to no adverse effects when it comes to their growth.

- **Restrictions in growth are likely temporary**. Although growth rates seem to be affected in the first years of treatment, and may even carry into early adulthood, they don’t speed up. That is, the average half inch discrepancy after the first year doesn’t grow into an inch, two inches or half a foot as the years go on. In fact, many children catch up to average height with an adjustment to their medication dose, or simply with time.

- **Asthma control is more important than height.** In the grand scheme of things, a well-functioning respiratory system is far more important than a half inch of height. There is nothing to show that children on corticosteroids who suffer from a slight growth impediment suffer in any other physical or intellectual capacity. On the other hand, there is lots of evidence that long-term corticosteroid inhalers prevent asthma from interfering with daily life and development.

Next page: choosing the right asthma medication and controlling asthma symptoms.

Choosing the Right Asthma Medication

In light of the recent findings, you may be tempted to alter your child's medication. Before you consult your doctor to make any changes, consider the different medications available, and how they factor into an asthma management plan:

- **Inhaler vs other types of medication.** Inhalers have been favored over other types of asthma medication, primarily because they are fast-acting and easy to use. Oral and intravenous medication can be important tools for taming severe asthma attacks, but inhalers – both the preventative and rescue varieties – are the most effective first line of defense.
- **Steroid vs non-steroid.** The National Heart, Lung and Blood Institute (NHLBI) and the vast majority of pediatricians agree that corticosteroids are the better choice, hands-down. They work best for relieving the inflammation in the airways that restricts breathing, plus they are effective for long-term asthma treatment. Non-steroidal medications (like bronchodilators) tend to have a shorter lifespan in the body, plus they can bring some nasty side effects. In many cases, they also need to be paired with a corticosteroid to counter those risks.
- **Dosage.** The studies show that the level of corticosteroids in each dose can affect growth differently: in the trials that followed particpants for over a year, lower doses in following years led to better growth. In turn, experts recommend sticking to the lowest effective dose for the lowest risk, which means you should be very clear on how and when to use the inhaler. It's also a good idea to request that your child's height be monitored regularly.

Ultimately, childhood asthma that's left untreated is far more likely to impact health in later years than a small restriction in height, and that's why most doctors continue to suggest steroid inhalers to control and reduce symptoms. Well-controlled asthma in childhood ensures proper lung development, and that's nothing to be taken lightly.

Tips to Control Asthma Symptoms

Whichever medication allows for better breathing and fewer asthma symptoms is the medication that's best for your child. However, there are other daily measures you can take to keep asthma attacks at bay, and avoid the need for a higher dose or a stronger treatment. Allergy-proof pillow and mattress covers can keep nasty mites and other irritants away from your child's lungs, and be sure to wash stuffed animals regularly. As for the rest of the home, use mild cleaning products and keep the environment nice and dry to protect against mold.

Allergies and asthma are closely related, so it's important to keep on top of pollen alerts, food allergies, and changes in air quality. But don't let asthma control your child's life: if you keep using the medication as directed by your doctor and adopt a few preventative measures, there's no reason why they can't enjoy the same freedoms and activities that other children enjoy.