

just for moms

# BUILDING

## your child's immunity

We're obsessed with keeping our kids clean. We bathe them daily, sterilize our homes, slather their hands with anti-bacterial soap and tell them not to play in the mud. But are we really keeping our kids healthier?



The latest research suggests that we may be keeping our children too hygienic for their own health. A growing number of pediatricians, scientists and immunologists believe that here might be negative consequences from too much cleaning and sterility. The present recommendation is not that we stop cleaning or permit our children to roll around in the dirt, but that perhaps we take a different approach to our children's health.

To understand these findings, it's important to understand how your child's immune system develops. At birth, an infant's immune system is like his muscles. It needs to be exercised in order to build strength. In the same way that pediatricians recommend that parents give their children plenty of "tummy time" to develop proper strength and provide the foundation for later developmental milestones, a child's immune system needs some kind of conditioning in order to develop properly.

When a child's immune system is strong and functioning properly, it produces antibodies that provide a powerful natural defense against disease. All children are exposed to pathogens such as bacteria, viruses, fungi and parasites. The immune system allows your child's body to produce antibodies that kill those bad guys. However, the more squeaky clean an environment is, the fewer antibodies a child's immune system will create making them more susceptible to getting sick. Consequently, by overemphasizing cleanliness we may not only be weakening our children's immune systems, but also be priming them to develop autoimmune disorders later in life.

The most common chronic childhood diseases are allergies and asthma, which have reached epidemic proportions in children in the United States. According to The Center of Disease Control and Prevention (CDC), there has been an increasing prevalence of allergies in the last four decades. The CDC also reports that the number of asthma cases in the United States has doubled in the previous two decades from 6.8 million to more than 15 million in 1998. The highest proportion is among children ages 5 to 14.

### WHAT ARE ALLERGIES?

Allergies are hypersensitivity reactions to normally harmless substances like pollen, mold, dust mites and animal dander. The most common allergic disorder is allergic rhinitis, also known as hay fever, which occurs when the immune system mistakenly identifies these substances as harmful intruders and generates a reaction against them. During an allergic reaction, the immune system releases substances such as histamines and leukotrienes, resulting in an inflammation of the mucous membranes of the nose and causing symptoms such as runny nasal discharge, stuffiness and sneezing.

Although allergies can develop at any age, they most commonly develop during childhood. According to the American Academy of Pediatrics, more than 50 million American children have allergies, making it by far the most common chronic disease among children in the United States. Many types of allergic disorders, including hay fever, asthma and

eczema, tend to run in families. A child whose parents have allergies has about a 60 to 70 percent chance of developing allergies as well.

Allergies are also the most important trigger to asthma, which has been rising in American children at an alarming rate. According to the Centers for Disease Control and Prevention, childhood asthma has risen by 160%, making it one of the most chronic diseases of childhood. Asthma is a swelling and narrowing of the bronchial airways, causing difficulty breathing and accounting for more than 5,000 deaths each year. According to the American Lung Association, approximately 75 to 80 percent of children with asthma have significant allergies.

### THE HYGIENE HYPOTHESIS

While no one knows why so many children are developing asthma and allergies, scientists have turned to the environment for clues. A growing body of evidence suggests that modern day living, such as urbanization and development, may be blamed for the soaring rates of allergic and autoimmune disorders in our children. Known as the "hygiene hypothesis," this theory suggests that growing up in cities and suburbs, spending time indoors in sterilized and well-sealed homes and away from fields and farm animals, leaves our children more susceptible to a host of immune disorders, including allergies and asthma.

Why? Medical experts believe that the immune system needs to be stimulated or challenged in order to develop properly. In the first few years of life, the immune system is determining which environmental

substances are friends and which are foes. More natural environments such as farms offer exposure to a host of substances, helping to train the body to respond appropriately. Without these stimuli, the understimulated immune system can become hypersensitive to otherwise harmless substances like pollen, house dust and animal dander, resulting in the development of allergies and asthma.

Studies have found that children who grow up on farms or who have been exposed to dogs and cats in the first few years of life may be less likely to develop allergies and asthma than those who are not. A study in the May 2000 issue of the American Journal of Respiratory and Critical Care Medicine concluded that children who grew up on farms were 40% less likely to have asthma than those who did not. Similarly, a report in the New England Journal of Medicine found that children who have older siblings or attend daycare during the first six months of life have a lower risk of allergies and asthma.

I am not proposing that you need to raise your children on a farm. But to keep your child's immune system healthy, it needs to be able to recognize the bad guys. The good news is that there is much that you can do, inexpensively at home, to help build your child's immune system and reduce his or her chances of ever developing allergies and asthma.

## BREASTFEEDING

One of the most important things you can do for your child's immunity is breastfeed during the first 6 months of life. Pediatricians have found that breastfed babies tend to have fewer allergies, ear infections and other related problems than their formula-fed counterparts. In fact, several studies show that the rates of eczema, allergies and asthma are lower in

children who were breastfed for 6 months or longer.

Breast milk contains antibodies that protect babies from many common respiratory diseases. Breastfeeding also provides protection from developing immune system cancers such as lymphoma, Crohn's disease and celiac sprue, and juvenile rheumatoid arthritis, all of which are related to immune system dysfunction. The American Academy of Pediatrics recommends that mothers breastfeed exclusively for the first 6 months. If there is a family history of asthma, eczema, hay fever or other allergies, you may want to consider breastfeeding longer.

## EARLY INTERVENTION

Perhaps the most exciting scientific discovery in recent years is the idea that the immune system can be trained to never develop allergies and asthma in the first place. A growing number of studies, including published research in the New England Journal of Medicine, suggest that exposure to certain stimuli in the first few years of life can help a baby's immune system build tolerance and may significantly reduce their chances of ever developing allergies and asthma. Many immunologists call the first few years of a child's life a window of opportunity. By providing stimuli during this critical period when the immune system is developing, you may be able to reduce your child's risk of ever developing allergies, asthma and autoimmune disorders.

In two clinical studies that are already under way (one in the United States and the other in England), investigators are attempting to combine bacterial components and allergens into a new immunotherapeutic allergy vaccine. While these vaccines won't be available for a few years, there are new products currently on the

market, such as Baby Splendor's Baby Boost (available at [www.babysplendor.com](http://www.babysplendor.com)), that safely and noninvasively expose children to the stimuli needed to properly train their immune systems and decrease their chances of developing asthma and allergies in their lifetime.

Developed by a company comprised of doctors and scientists from Harvard Medical School, Massachusetts General Hospital for Children and MIT, Baby Splendor's line of Baby Boost blankets, stuffed animals and other useful baby items contain a blend of specific proteins that have been identified by scientists as associated with healthy immune development. The proteins are contained in fiber patches that are embedded in each product and are slowly released into the child's environment over a period of 4 years.

More than 50 studies, including those published in the New England Journal of Medicine and Nature Immunology, suggest that exposure to the proteins such as the ones contained in Baby Boost products in the first few years of life aid in healthy immune development and may help to reduce a child's risk of developing allergies, asthma, eczema and other allergic diseases by up to 75%.

At a time when childhood asthma and allergies have reached an all-time high, parents and pediatricians alike are actively searching for solutions to keep our children healthy. One thing we know for sure is that by helping your child to build a healthy, strong immune system in the first few years of life, you can give your child's immune system a boost – without giving up the bath!

**Simon Dao, Ph.D.** is a research scientist at Massachusetts Institute of Technology (MIT). Dr. Dao received his doctorate from the Harvard-MIT Division of Health Sciences and Technology.

# Expand the power of your *Ministry!*

# *fresh* faith

Receive thousands of dollars for your church, ministry or organization while spreading the good news!

## Fresh Outlook's Magazine Partnership Program

### Give your ministry a fresh outlook!

**How it works:** Your ministry offers *Fresh Outlook* to your supporters or congregation at a 40% discount off the newsstand price, or \$18.99. For each subscription ordered, *Fresh Outlook* will give \$2.00 back into your ministry. Once your orders and payment are received, we will mail you a check. It's a cinch to organize and we will make sure you have all you need to make this partnership program a success, including supplying order forms and sample copies of *Fresh Outlook*. Keep in mind, this partnership program should run a maximum of 1-2 weeks to keep motivation high.

**Helping your ministry:** For example, a church of 5,000, if each member ordered just 1 subscription in support of your ministry, *Fresh Outlook* would give back to your ministry \$10,000 — just by announcing this partnership program in one service, without ever leaving the building! It doesn't have to stop there: If each member brought in 2 more subscriptions, it would triple what *Fresh Outlook* gives back to your ministry. The opportunity is limitless!

Join us in helping others live the best life through God's blessings!

Call  
Us Today!  
888-482-2030

*fresh* Outlook  
THE PREMIERE CHRISTIAN MAGAZINE®

