



GrowHappy[®]

DEVELOPED BY
ALLERGY
EXPERTS
AWARD-WINNING

The Ultimate Feeding Allergens Guide

1 - BACKGROUND: THE SCIENCE BEHIND FOOD ALLERGIES

Food Allergies on the Rise

Since the late 1980s, food allergies in children have risen by 50% and nut allergies have doubled! On average, two kids in every classroom have a food allergy today. Many experts believe old feeding recommendations to avoid food allergens during the first years of life inadvertently contributed to the increase.

GrowHappy's Prof. George du Toit and colleagues proved Early & Often™

GrowHappy's Professor George du Toit with colleagues showed in the landmark LEAP (2015) and EAT-On studies that we need to teach the immune system to accept food allergens early while the immune system is still developing. We do this by getting allergens into the diet as soon as as the child can eat and keeping them in the diet regularly. Fortunately these allergens are nourishing and yummy foods!



Professor George du Toit

- GrowHappy ImmunoNutrition Team Member
- Author of the LEAP Studies and EAT-On Studies
- Director at Allergy Centre of Excellence



“Leading allergy experts and pediatricians agree - feed allergens Early & Often from 4 months when developmentally appropriate to train the immune system.”

IMPORTANT: Statements made in this guide have not been evaluated or approved by the Food and Drug Administration. The information in this guide is provided as a general information resource only, and nothing in the content, products or services should be considered, or used as a substitute for, medical advice, diagnosis or treatment. This information in the guide is not medical advice, and should not be treated as such. This information is not intended to be a substitute for professional diagnosis and treatment. Please consult your health care provider before making any healthcare decisions or for any guidance.

Major guidelines and consensus statements now recommend feeding allergens Early & Often™

On the back of LEAP and EAT-On studies, guidelines changed around the world.

USDA (United States Department of Agriculture) recommends introducing potentially allergenic foods (e.g. peanuts, egg, cow milk products, tree nuts, wheat, shellfish, fish, and soy) when other complementary foods are introduced to an infant's diet.



The AAP (American Academy of Pediatrics) supports that we should not delay the introduction of allergenic foods once the baby is eating.

The three top allergy organizations in the US and Canada (AAAAI, ACAAI, CSACI) worked together to form a consensus report (which our Professors David Fleischer and Carina Venter were authors of) with recommendations for the medical community and parents to address the rise in food allergies. Here are key takeaways from the report:

① Feed allergens early:

"Peanut and egg should be introduced around 6 months of life, but not before 4 months."

② Maternal exclusion of allergens not recommended:

"Maternal exclusion of common allergens during pregnancy and/or lactation as a means to prevent food allergy is not recommended."

③ Diet diversity:

Upon introducing complementary foods, infants should be fed a diverse diet, as this may help foster food freedom

④ Breastfeeding:

"Although exclusive breast-feeding is universally recommended for all mothers, there is no specific association between exclusive breastfeeding and the primary prevention of any specific food allergy."



2 - FEEDING ALLERGENS: WHO, WHAT AND HOW

When is the best time to get started eating allergens?

As soon as your child can start eating solid foods, you could start feeding allergens. It depends on their development, but most are ready between ages 4-6 months. A summary of early allergen introduction studies showed us that the first year of life is the safest time to introduce common allergens, and the earlier the better, especially if at increased risk of developing food allergies. The goal is to get the allergens in by proactively feeding allergens in the first year of life. You and your baby can learn together in a controlled environment where you are in charge. That said, it's never too late to start as long as he/she is not allergic yet. Don't feel discouraged if you're getting started later than 4 months. There is still hope to teach the immune system throughout the early years while it's still developing.

Some signs that your baby may be ready to start solid foods are:

- 1 Being able to control the head and neck
- 2 Sitting up with or without support
- 3 Bringing objects to the mouth
- 4 Losing the tongue thrust reflex that pushes food out of the mouth
- 5 Showing an interest in food and reaching for it



The first year of life is the safest time to introduce common allergens, as reactions are milder in infants

What allergens should I feed and how?

GrowHappy's ImmunoNutrition Team members targeted 5 essential allergens for you to get started with asap. These represent some of the most common allergens, and many of them can become life-long allergies too, so let's get proactive Early & Often™!

GrowHappy's ImmunoNutrition Variety Box has the snacks you need for a month to help teach the immune system these top allergens throughout the early years. **Very important:** training the immune system takes at least a year of consistent 2g doses multiple times a week as we laid out in our Monthly Variety Box.

Inside the GrowHappy Allergen ImmunoButter Variety Box:

Peanut



Egg



Cashew



Walnut



Sesame



These products contain common food allergens (Peanut, Egg, Cashew, Walnut, Sesame). They should not be consumed by anyone with a known or suspected allergy to these foods or any other ingredients included.

What about milk?

Please also feed milk proteins to your child! One great way is by feeding plain, unsweetened yogurt, full of gut-friendly microbes with our Allergen ImmunoButters™! - a nice way to add flavor to often sour yogurt without needing sugar. We purposely left out milk in our product range because we want to encourage your baby to eat this food fresh and full of gut-friendly microbes with our range of ImmunoButters. Please, aim to achieve a couple of servings of yogurt every week.



Other tree nuts

Did you know that cashew & pistachio and also walnut & pecan, respectively, have related protein structures?

Studies show that eating cashew can protect you from developing a pistachio allergy and eating walnut can do the same for pecan, and to a lesser degree even Hazelnut, which is why we left pistachio, pecan and hazelnut out of our range for now. That said, feel free to feed pistachio, pecan and hazelnut too because your child might enjoy them. Eventually you can explore other tree nuts that are less common for food allergies, like almond too.

What allergens should I feed and how?

Shellfish and Fin Fish

Keep going in your food adventure by feeding shellfish and fin fish. Sardines, wild caught Alaskan salmon, arctic char and steelhead trout are options low in mercury. Cook thoroughly and remove bones. Try one of our Allergen ImmunoButters™, especially the egg one, with salmon and sweet potato.

Wheat

Spread our Allergen ImmunoButters™ on wheat-based bread! Wheat is a top 9 allergen, although much less common than the other top allergens.

Soy

Like wheat, soy is a well-recognized allergen, but is much less common than other top allergens. You may wish to feed soy by serving our Allergen ImmunoButters™ with boiled and mashed soybeans or tofu together with some mashed sweet potato or carrot.

By the time you are ready to celebrate your child's first birthday, we hope you have woven in all these wonderful foods into your child's diet regularly. The 9 top allergens make up about 90% of food allergies. Have fun eating: egg, milk, peanut, tree nuts (e.g., cashew, walnut, pistachio, pecan, hazelnut, almond), sesame, fin fish, shellfish, wheat and soy!

Infants often refuse new foods and it may take 8-10 tries before the infant will accept the taste.

Don't give up! Keep trying!



How to safely feed allergens for the first time when ready for introduction?

Members of our ImmunoNutrition Team wrote the NIAID (National Institute of Allergy and Infectious Diseases) Guidelines for home feeding of peanuts and are world-wide experts on how to do this, so please take their advice!



Try one allergen at a time for the first couple times. After that you will gain confidence and you can start combining to get them all into the diet. When your child is ready, mix and match the GrowHappy Allergen ImmunoButters™ together!	Offer your child a small part of the allergen serving on the tip of a spoon. Wait 10 minutes. If there is no allergic reaction after this small taste, then slowly give the remainder at the child’s usual eating speed	Try a new allergen every day. There is no need to wait 3-5 days between each new food.
Ensure your baby is developmentally ready to eat, with the head control and mouth skills to be ready to eat	Make sure at least one adult will be able to focus all of his or her attention on the infant, without distractions from other children or household activities.	You can start with veggie, fruit or meat purees first (practices vary around the world.) The most important thing though is that you start getting these allergens into the diet as early as it is safe to do so.
Give the first feeding at home and not at a day care facility or restaurant.	You can add water, breastmilk, infant formula, fruit or veggie purees, or other foods to the GrowHappy Allergen ImmunoButters™ to get them to the right consistency for your baby. Feel free to be creative!	Pick a good time when you can monitor your child for two hours after the first feed. A good time might be right after a nap when your baby will be up for at least a couple of hours.

Once you start feeding allergens, don’t stop. Aim to feed each allergen at least twice a week throughout the early years to help the immune system learn to tolerate the food.

The GrowHappy Allergen ImmunoButter Variety Box is designed so it’s easy for you to keep track of what you need to feed each week so you stay on top of it. Don’t forget to get the other top allergens in too like milk (e.g. yogurt and cheese) and fin fish (e.g. salmon.) Subscribe to make it extra easy, and we’ll replenish the goods every month.

Do not persist with any one food if allergic symptoms are noted; rather seek an allergist’s advice to recommend a safe path forward.

Don’t feed an allergen for the first time when your baby is fussy or ill. For example, do not do the feeding if he or she has a cold, vomiting, diarrhea, or other illness. You don’t want to mistake normal fussiness or illness for a food allergy. But also don’t let this be an excuse for you to delay for weeks if not necessary.

In what order should you feed allergens the first time?

- ★ The most important thing is that you get milk, egg, nuts, and sesame as soon as your baby can eat solids. The 5 GrowHappy ImmunoButters (egg, peanut, cashew, walnut, sesame) were specifically designed to provide a good starting point for feeding allergens throughout the first years of life. While there is no one right way to introduce these foods, we have some suggestions to help you out.
- ★ Some say to start with feeding egg because that is often the first food allergy that babies acquire in infancy. Then you might add peanut because it is a top three allergen that often comes with a life-long diagnosis. You could then do milk to introduce that top third allergen. The EAT study suggests milk protein as yogurt is one of the easiest first foods. But don't stop there! Follow on with cashew, walnut and sesame, which are all on the rise. The **GrowHappy Allergen ImmunoButter Variety Box** has 5 of these allergens in there in the amounts that research suggests your child should eat every week.
- ★ We chose not to include the milk allergen in our range because we want to encourage you to mix our Allergen ImmunoButters™ with fresh, gut-friendly microbes with plain, unsweetened yogurt, so make sure to do that once you have fed each of these allergens a few times and can start mixing allergens with confidence.
- ★ Have fun and try to enjoy this empowering experience where you take control and follow the science to do what's right for your child! It is important to listen to your baby's cues. If your baby pushes the spoon away, shuts their mouth or turns their head away, they have had enough. Try again later in the day or the next day.

First week of feeding allergens with GrowHappy Allergen ImmunoButters™ example: This is just a suggestion, feeding should be fun, and we do not want families to get fixated on a calendar... Try to explore a new allergen every day and build repetition for Early & Often™. The goal is to get to feeding our 5 flavors of Allergen ImmunoButters twice a week.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	ImmunoButter Egg + Breastmilk/Formula	ImmunoButter Peanut + Water	Baby is extra fussy. Take a break	ImmunoButter Cashew + Water	ImmunoButter Walnut + Breastmilk/Formula	ImmunoButter Sesame + Breastmilk/Formula	ImmunoButter Cashew and Sesame + Breastmilk/Formula
Snack							
Lunch			Yogurt			ImmunoButter Walnut + Yogurt	
Snack		ImmunoButter Egg + Breastmilk/Formula		ImmunoButter Peanut + Yogurt			

Visit the Learn Section of letsgrowhappy.com and download for free our Diet Diversity Guide for how to feed your 7 month and older child with at least 30 plant-based foods, including 9 food allergens and various protein sources.

How long should I feed these allergens?

This is not a one-and-done and like many things, practice makes perfect. **Your child's immune system needs regular training through the early years to be sure it learns to tolerate the foods long-term.** The LEAP patients who were fed peanut multiple times a week for 5 years developed the most protection. It may seem overwhelming to keep it up for 5 years and that's ok. Focus on getting these foods in regularly as laid out in the Monthly Variety Box the first year of life when it is most important. Then aim for 6 months at a time and you may be surprised how far you get. Even if you don't quite make it to 5 years, know that every bit counts and will make a difference for your child. Most of the common allergens are nourishing, plant-based, high-fiber, rich in protein, and climate-friendly food options for your child anyway.

Fighting fear and paralysis to do what's right and feed allergens

We have an intrinsic desire as parents to do what's right for our kids, to protect them. In this case, it means feeding allergens Early & Often™ before you have a problem. Some of you will feel excited to introduce those allergens. Others of you will fight a paralysis that we want to help you get over. **We understand your fears, but a moment of fear the first few times you feed could open up a whole world of food freedom and less fearful eating for the rest of your family's life.** Once you get started please don't stop. Keep it up for at least a year in the 2g doses multiple times a week as laid out in the Monthly Variety Box.



**A moment of fear for
a life of food freedom
and a blossoming gut**

How a diverse diet with allergens makes a happy gut microbiome

GrowHappy Allergen ImmunoButters™ help you on your way to feeding a diverse diet to your child, with our 16 plant-based foods and egg. While you teach the immune system to accept the allergens and tolerate the gut, you are also improving diet diversity and fostering a healthier gut microbiome. From Professor Carina Venter's studies, we learned that diet diversity in and of itself is fundamental to a life of food freedom. Plus, most common allergens are rich in protein and fiber = amazing for gut health!



“GrowHappy is all about nourishing the immune system and promoting a healthy gut microbiome.”

Professor Carina Venter

- GrowHappy ImmunoNutrition Team Member
- Children's Hospital Colorado - Professor in Pediatric Allergy
- Author of the European, American and Canadian allergy prevention guidelines
- Chair, Immunomodulation and Nutrition - European Academy of Asthma Allergy and Clinical Immunology

Visit our Learn section at letsgrowhappy.com for more tips from our experts. More guides coming soon, such as The Pregnancy Guide and The Diet Diversity Guide, available for free download at our website.



Who should eat allergens?

All children are at risk of developing food allergies. If you think this is someone else's problem, think again. You don't want to roll the dice and avoid food allergens. Common food allergens like milk, egg, nuts, and sesame are naturally nourishing, from diverse food groups and are typically high in protein and fiber all of which support a healthy gut microbiome anyway.

If you suspect your child may have a higher chance of a food allergy (e.g. your child has an egg allergy and/or eczema that is early onset, persistent, severe, and/or slow to respond to treatment), talk to your doctor about how to get allergens in the diet safely. For example, allergy testing or even a food challenge with an allergist the first time you feed certain allergens may be a good idea.



“All kids are considered at risk. We can train the immune system while it's still developing.”

GrowHappy ImmunoNutrition Team Member - Professor David Fleischer
Children's Hospital Colorado - Section Head,
Pediatric Allergy & Immunology



Do I need to consult a doctor before starting GrowHappy?

Not unless your child already has a food allergy, or is at high risk to develop a food allergy, for example with eczema that is early onset, persistent, severe, and/or slow to respond to treatment. These patients carry a higher risk for food allergy. In these cases, you may want to see an allergist to discuss food allergies before introducing any other major allergens.

If your child has a known or suspected allergy to any food, he or she must avoid that food entirely while you seek an allergist's advice to make sure that the suspected allergy is true; many people who think they have a food

allergy do not, and if your child doesn't have one, you need to feed it before he or she actually does. Find an allergist who does allergy testing, such as skin pricks and blood work, and also offers food challenges.

If the food allergy is confirmed, seek an expert to discuss treatment options. Treatment options are generally more effective when commenced earlier on the allergy journey, usually in the toddler years. Talk to your doctor about how to get other typical food allergens into the diet to be proactive about additional allergies. This is an important intervention as your food-allergic child may be at higher risk of more food allergies.

3 - HOW TO BE PREPARED FOR AN ALLERGIC REACTION

Allergic reactions are a common concern. Thankfully when it comes to early allergen introduction, they are rare. **The first year of life is the safest time to introduce common allergens**, as reactions are milder in infants and often consist of simple hives or vomiting.

That said, its always better to be over-prepared and have medication on hand. **Allergy experts recommend antihistamines such as Children's Zyrtec (Cetirizine)**, as it is fast-acting and non-drowsy.

Most allergic reactions occur within 30 minutes of eating, and nearly all immediate-type (IgE-mediated) allergic reactions are within two hours of consuming the food.

If you do see signs of an allergic reaction, stop feeding the food and consult a doctor. One of the most common symptoms are hives, which look like a mosquito bite.

Know the signs

Mild to Moderate Symptoms:	Itching, sneezing, hives, rashes, nausea, vomiting, diarrhea or stomach pain.	Zyrtec is often given for treatment. If two or more body symptoms are affected (e.g. vomiting/stomach and hives/skin), it is considered severe.
Severe Symptoms:	Trouble swallowing or breathing, loss of consciousness and a weak pulse, among others. Severe symptoms can be a sign of life-threatening anaphylaxis and require immediate treatment with epinephrine.	In the case of severe symptoms, administer an EpiPen if available and go to the nearest Emergency Room. Zyrtec may also be taken if the child is able.



Dr. Edwin Kim

- GrowHappy ImmunoNutrition Team
- Chief - UNC Pediatric Allergy and Immunology
- Director - UNC Food Allergy Initiative
- Associate Professor of Pediatrics - University of North Carolina School of Medicine

Common Redness vs. Allergic Reactions

Redness around the mouth is often just a skin irritation but is commonly mistaken as a food allergy. **Foods that often cause redness that aren't due to allergies are below.** Babies are often not upset or even aware of these rashes which tend to disappear after a few minutes. If you are uncertain or if the rash persists or worsens, it is best to consult a healthcare professional for a proper diagnosis and treatment plan.

- 1 **Citrus Fruits:** Foods like oranges or grapefruits or baby foods containing citric acid can cause a rash around the mouth due to their acidity.
- 2 **Tomatoes:** Like citrus fruits, tomatoes can sometimes cause a rash around the mouth due to their acidity.
- 3 **Strawberries and Other Berries:** Some infants may develop redness or rashes after consuming strawberries or other berries.
- 4 **High salicylate foods:** Cinnamon

What next after a suspected food allergy?

It's important to avoid that food and seek evaluation asap by an allergist to be sure. Find an allergist who does allergy testing, such as skin pricks and blood work and also offers food challenges.

If it is not an allergy, you will want to get the food back in the diet as soon as possible since avoiding the foods unnecessarily may increase the risk of a food allergy developing.

Upon a diagnosis from an allergist, seek an expert for treatment advice. Many treatments work better in toddler age children, so the sooner treated the better usually.



4 - WHY DOES ECZEMA MATTER?

Many experts believe that food allergies start when a child is exposed through broken skin commonly seen with eczema, which up to 1 in 3 babies have to some degree. The allergen enters the body the wrong way via the skin and the immune system learns to fight that allergen like an enemy. This goes back to when our skin needed to protect us from real enemies like bacteria, for example when we bathed in dirty rivers. The immune system learns to go into overdrive unnecessarily whenever it sees that allergen through the skin. That's why our goal is to get those allergens down the GI tract as soon as the baby can eat solids to teach the body that this is just food! No need to go into overdrive!

Eczema is part of the same family as food allergies and asthma. 75% of food-allergic children have eczema prior to developing food allergy. That's why if your child has eczema, he or she has a higher chance of developing food allergies, but don't let this stop you from getting proactive Early & Often™. Instead, let it motivate you to get in there and take control. Talk to a pediatric allergist about how to introduce allergens safely with eczema and teach the immune system that food is safe by feeding allergens Early & Often™.

You may want to see a pediatric allergist for diagnosis, treatment, and advice on how to control your eczema too.

If your child has eczema:

- 1 Your child is at higher risk of developing a food allergy. Fight the fear and let this motivate you to protect your child by introducing allergens to the gut in the first year of life from 4-6 months old and keep them in the diet. At this point, feeding allergens Early & Often™ is the easiest and most effective way that studies have shown to find food freedom.
- 2 If your child has eczema that is early onset, persistent, severe, and/or slow to respond to treatment, these patients carry a higher risk for food allergy. In these cases, you may want to see an allergist to discuss food allergies before introducing any major allergens.
- 3 Talk to your allergist about applying Vaseline to the eczema (especially on the face) before feeding
- 4 Seek a pediatric allergist for advice on how to control the eczema



Through the skin
allergies may begin.
Through the diet,
allergies can stay quiet.

5 - WHY IS GROWHAPPY THE BEST WAY TO FEED ALLERGENS?

Most of these five allergens can be found in everyday foods, but many parents appreciate extra support and welcome a pre-measured quantity of curated allergens as part of a program that helps them stay on track feeding allergens while also providing some fruits and vegetables in an easy, nourishing snack that is a great alternative to a lot of the empty value snacks out there for babies and children. Unlike much of the baby food aisle—where allergens are nearly absent—GrowHappy helps bring allergens back into children's diets while providing a nourishing, convenient snack. Many of these allergens are positive additions to the diet and, together, add to diet diversity = great for gut health. Every detail is thoughtfully crafted - from the nut and seed butter format to how much you can taste the allergens to which allergens we are focused on. And these recipes were not approved until our own children begged for more, so we're confident yours will love them too!

The GrowHappy difference:

- ★ Co-founded by a team of world-leading allergy experts
- ★ Consistent 2g LEAP doses across 5 major allergens. The dose matter!
- ★ 5 allergens addressed early to maximize critical window
- ★ All allergens split out for ease, peace of mind, and flexibility
- ★ Teaches taste of allergens so baby learns to like it
- ★ **REAL FOOD** approach — not ultra-processed. We serve the whole nut and seed with all of its goodness. We don't use nut and seed powders as they are less effective.

Your child's food freedom journey starts here at GrowHappy.
Subscribe to the monthly Allergen ImmunoButter™ Variety Box!



These products contain common food allergens (Peanut, Egg, Cashew, Walnut, Sesame). They should not be consumed by anyone with a known or suspected allergy to these foods or any other ingredients included. 14

6. MEET OUR IMMUNONUTRITION TEAM



**Professor
George du Toit**

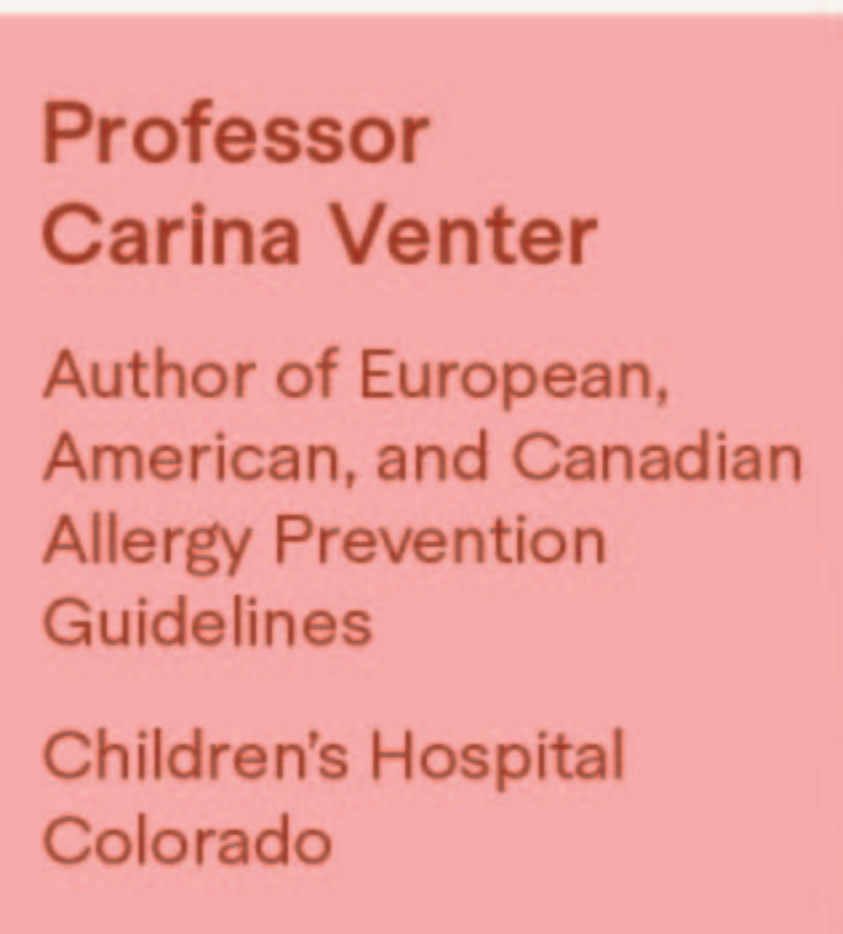
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Eat Allergens Early & Often™ with GrowHappy!
Please help us spread the word by sending this to your
friends and sharing our website letsgrowhappy.com and
Instagram @letsgrowhappy with friends too!
Remember, 20% off when you subscribe!