SUMMARY

BY ALYSSA BURNETTE

THE END OF FOOD ALLERGY

By Kari Nadeau, MD, PhD, and Sloan Barnett

QuickRead

FREE BOOK SUMMARIES

Summary of The End of Food Allergy by By Kari Nadeau, MD, PhD, and Sloan Barnett

Written by Alyssa Burnette

Learn why food allergies may soon become a thing of the past.

Table of Contents

QuickRead
FREE BOOK SUMMARIES

DO YOU WANT THIS BOOK
AS AN 20-MINUTE AUDIOBOOK?

Get the key insights of non-fiction books in minutes instead of hours. Listen to our free audiobooks while you workout or on your commute to work.

Download on the App Store

DOWNLOAD
OUR FREE APP

ANDROID APP ON Google play

Introduction

Food allergies are a global health problem-- and it's getting worse. You often hear older people say, "Back in my day, we didn't have all those allergies!" and in this case, it turns out they're actually right! While it's certainly possible that food allergies may have been underdiagnosed in the past, the alarming reality is that food allergies are rising at an increasingly alarming rate. Over the course of this summary, we'll explore the history of food allergies and learn why recent medical breakthroughs have shed new light on this subject.

GET THE FREE AUDIOBOOK IN OUR APP: QUICKREAD.COM/APP

The History of Food Allergies

As the author of this summary, this is a topic that's very close to my heart. Because I have struggled with severe food allergies for my entire life. For example, I have an anaphylactic peanut allergy. If I touch, inhale, or-- god forbid-- ingest any form of peanut product, I experience a life-threatening allergic reaction. For this reason, I have to carry an epi-pen with me everywhere I go. I have to ask about the ingredients of my meals when I eat at restaurants. When I fly, I have to call the airline in advance and request they refrain from serving peanuts on my flight because I will have a reaction if I even smell peanuts. If I'm ordering a blizzard at Dairy Queen or a scoop of ice cream at an ice cream shop, I have to worry about cross-contamination. If my ice cream is scooped with a spoon that has also been used to serve nuts, I could have a reaction. So, every time, I have to ask that my order be made on a device that has not touched nuts.

This is only a small representation of how my food allergies impact my daily life. And my anaphylactic peanut allergy is only one example! I'm also allergic to all tree nuts, to sesame seeds, to apples, and to carrots. (You can imagine how inconvenient my allergies are at holidays when I can't have apple pie, pecan pie, or even a salad with carrots!) And yet, this is my reality. For me, and many other people who struggle with food allergies, this is totally normal. In fact, I've never known life without it; my food allergies have been part of my life since I was three years old. But wouldn't it be amazing if no one else had to live with this fear and inconvenience ever again? The authors' research might make that possible! But before we learn more about their new advances in medical technology, let's take a brief look at the history of food allergies to learn why so many people are plagued with this problem in the first place. The American Academy of Allergy, Asthma, and Immunology explains that:

"Your immune system controls how your body defends itself. For instance, if you have an allergy to pollen, your immune system identifies pollen as an invader or allergen. Your immune system overreacts by producing antibodies called Immunoglobulin E (IgE). These antibodies travel to cells that release

chemicals, causing an allergic reaction. This reaction usually causes symptoms in the nose, lungs, throat, sinuses, ears, lining of the stomach or on the skin. Each type of IgE has specific "radar" for each type of allergen. That's why some people are only allergic to cat dander (they only have the IgE antibodies specific to cat dander); while others have allergic reactions to multiple allergens because they have many more types of IgE antibodies. For example, if you have a food allergy, your immune system overreacts to a particular protein found in that food. Symptoms can occur when coming in contact with just a tiny amount of the food. The most common triggers are the proteins in cow's milk, eggs, peanuts, wheat, soy, fish, shellfish and tree nuts.

It is not yet fully understood why some substances trigger allergies and others do not, nor why some people have allergic reactions while others do not. A family history of allergies is the single most important factor that puts you at risk of developing allergic disease. Approximately 50 million Americans suffer from some form of allergic disease, and the number is increasing."

Peanut allergies are especially common. The allergy scientists at Allergy UK have provided some statistics that are especially helpful to the authors' research, given that most of their studies have been conducted in the United Kingdom. Allergy UK asserts that: "peanut allergy affects around 2% (1 in 50) of children in the UK and has been increasing in recent decades. It usually develops in early childhood but, occasionally, can appear in later life. Peanut allergy tends to be persistent and only approximately 1 in 5 children outgrow their allergy, usually by the age of 5. Infants with eczema and/or egg allergy are more likely to develop a peanut allergy. It is important to know that peanuts are a legume and from a different family of plants to tree nuts (almonds, Brazil nuts, cashews, hazel nuts, macadamia, pecan, pistachios and walnuts). A peanut allergy does not automatically mean an allergy to tree nuts although it is not uncommon to be allergic to both peanuts and some tree nuts. An allergy to peanuts does also increase the likelihood of an allergy to sesame and lupin." So, now that we know a little more about peanut

allergies, let's dive in and explore the author's research, which aims to eradicate peanut allergies for good.

GET THE FREE AUDIOBOOK IN OUR APP: QUICKREAD.COM/APP

Gideon Lack's Hypothesis

The groundbreaking research explored in this book comes from the mind of an allergist named Gideon Lack. Gideon Lack is a pediatric allergist at King's College London who was researching peanut allergies in children in the early 2000s. Lack was concerned because he had noticed an alarming trend in the British children he was treating: they were developing anaphylactic peanut allergies at an alarming rate. This data also gave him cause for concern when he considered the current medical advice at the time. In the early 2000s, parents were being told not to feed their children peanuts. The assumption was that if children were not fed peanuts, they wouldn't develop a peanut allergy.

That sounds like it should work, right? But shockingly, it wasn't helping. And Lack didn't know why. Despite never being exposed to peanuts, multiple children were developing peanut allergies left and right! In fact, according to Allergy UK, "it is estimated that between 1-10% of adults and children have a food hypersensitivity. Around 11-26 million members of the European population are estimated to suffer from food allergy. If this prevalence is projected onto the world's population of 7 billion, it translates into 240-550 million potential food-allergic people." Lack felt that the medical community needed to learn more about the body's relationship with food allergies so they could learn why this was happening and prevent it.

But he didn't know how to do that until a trip to Tel Aviv led to a major breakthrough. Lack was in Tel Aviv for a medical conference; he was meant to deliver a paper about peanut allergies at a convention for doctors. As an opening question, Lack asked how many members of his audience had treated a patient for peanut allergies in the past year. Shockingly, only a few people raised their hands. Lack was stunned by this answer because the number would have been much higher in England. He wanted to find out why and his answer soon arrived in the form of a lunch with a colleague. When he watched a colleague feeding her baby, he quickly picked up on the smell of peanut butter and asked about it. He was told that Israeli babies

consume peanut butter and peanut products at a much higher rate than children in the United Kingdom. (69% versus 10%, to be exact!)

This shocking revelation led Lack to rethink the current model of allergy prevention in the United Kingdom. He and his colleagues had thought they were doing the right thing by recommending that parents avoid giving their children peanuts. But maybe they were going about it the wrong way! Maybe more exposure was needed instead. When he flew home to London, he was buzzing with anticipation and eager to learn more.

Download on the App Store
QuickRead FREE BOOK SUMMARIES
ANDROID APP ON Google play
GET THE FREE AUDIOBOOK IN OUR APP: QUICKREAD.COM/APP

The LEAP Study

Lack's discovery in Israel led to the development of a groundbreaking research program known as the LEAP study. The acronym LEAP stands for "Learning Early About Peanut Allergy" and it aimed to investigate the correlation between peanut allergies, eczema, and early exposure to foods such as peanuts. The researchers' theory was that, if they could learn more about this correlation, they could prevent it. But before we dive into their findings, let's pause a moment to consider why the correlation between food allergies and skin allergies like eczema is relevant. In the first chapter of this book, we learned that people can often be allergic to many things at once. But new studies that came out during the course of Lack's research proved that people who have peanut allergies are especially likely to have the skin condition eczema as well. Allergist Corrinne Savides Happel explains this correlation in her article for Very Well Health by asserting that:

"Eczema and food allergies are common in the developed world. Research suggests that eczema affects roughly 20% of children and up to 5% of adults. By comparison, around 7% of children and 6% of adults report symptoms of at least one food allergy. While a connection between allergic or atopic diseases has long been recognized, a 2017 review published in The Lancet reported that up to 81% of people with eczema were also found to have some form of food allergy. According to the researchers, eczema appeared to precede the development of the allergy, suggesting that the former somehow triggered the latter. It is a pattern identified in other studies, which scientists today refer to as the "atopic march." This describes a pattern of development in which eczema generally appears first, followed by food allergies, seasonal allergies, and asthma.

Food allergies are today recognized as a comorbidity (related health condition) of eczema along with allergic rhinitis (hay fever) and asthma. Why eczema tends to precede a food allergy is still something of a mystery. Part of the explanation may be in the way in which each develops. An allergy, by definition, is an abnormal immune response to an otherwise harmless allergen (such as food or pollen). By contrast, eczema is one of several atopic

disorders in which a hypersensitive reaction occurs as a result of allergen exposure on another part of the body. It has been hypothesized that eczema "landscapes" the body for allergy, in part, by diminishing the barrier function of the skin. As the structure of skin cells collapses, it not only causes the loss of moisture but allows allergens and irritants to infiltrate vulnerable tissues. This, in turn, triggers an immune response in the form of inflammation. It is believed that this hypersensitizes the immune system to the various allergens it encounters on the skin, causing an exaggerated response when those allergens are later eaten or inhaled."

So, even though we still don't know exactly why peanut allergies and eczema have such a high comorbidity rate, we do know that they are connected. And Lack and his team of researchers took this into account when they organized the LEAP study. Today, the LEAP study has a website which proudly announces the study's findings, and the site summarizes Lack's results by explaining that:

"The Learning Early about Peanut Allergy (LEAP) study identified 640 infants between the ages of 4-11 months with either severe eczema, egg allergy or both. These infants, considered high-risk for peanut allergy, were randomly assigned to two groups – one that consumed peanuts and one that avoided consumption. Infants assigned to the group which consumed peanuts were given at least 1 ¼ teaspoon of either smooth peanut butter or Bamba, a peanut-containing snack consumed regularly by children in Israel. Within the group consuming peanuts, the infants were further segmented into those with a mild reaction to a peanut skin-prick test and those with none. An oral food challenge was used to determine true peanut allergy in 617 of the subjects. The study showed that early consumption benefited both groups in reducing the prevalence of peanut allergy. 86% of children did not develop a peanut allergy."

Put simply, the LEAP study confirmed Lack's hypothesis! The results of the study prompted researchers to conclude that his theory was correct: if peanuts are introduced into a child's diet early in life, a child is less likely to develop a peanut allergy. However, the study does not confirm that no one

will ever develop a peanut allergy in the future. Unfortunately, we can't predict that with any type of certainty. So, because it's impossible to rule out the possibility that your child might develop a peanut allergy, you should always consult a doctor before feeding your child peanut products, especially if your child is at a high risk for developing eczema and other allergies.

Lack's study did not eradicate all peanut allergies in a single sweep, but it was a powerful breakthrough in food science. The LEAP study has also laid the groundwork for future research in the field of food allergies and this groundwork gives us reason to hope that we may one day make food allergies a thing of the past.

GET THE FREE AUDIOBOOK IN OUR APP: QUICKREAD.COM/APP

Final Summary

Food allergies are a global health problem affecting an overwhelming portion of the world's population. Peanut allergies are an especially prevalent-- and deadly-- form of food hypersensitivity. But fortunately, the research of British allergist Gideon Lack has shed new light on the development and treatment of peanut allergies. This research has furthered our understanding of food allergies and laid new groundwork for researchers to fight and treat them.

In the early 2000s, Lack discovered that children in the United Kingdom were developing peanut allergies at an alarming rate, despite following medical advice to avoid peanuts. This led Lack to the conclusion that the current medical advice was ineffective. His theory was confirmed when he discovered that children in Israel were consuming peanuts at a much higher rate and developing fewer peanut allergies. This discovery inspired him to start the LEAP study which found that children who are exposed to peanuts as infants are less likely to develop peanut allergies.

Download on the App Store
QuickRead FREE BOOK SUMMARIES
ANDROID APP ON Google play
GET THE FREE AUDIOBOOK IN OUR APP: QUICKREAD.COM/APP

QuickRead
FREE BOOK SUMMARIES

DO YOU WANT THIS BOOK
AS AN 20-MINUTE AUDIOBOOK?

Get the key insights of non-fiction books in minutes instead of hours. Listen to our free audiobooks while you workout or on your commute to work.

Download on the App Store

DOWNLOAD
OUR FREE APP

ANDROID APP ON Google play