

The Peanut Predicament

Early exposure — rather than avoidance — may be key to stemming rise of peanut allergies among kids

By SUSAN BLOOM

EMI SOUTHGATE, of Fair Lawn, was just 2 years old when she had her first allergic reaction to peanuts.

“Emi had eaten peanuts and peanut butter without problems as a baby,” says her mother, Mishuku. But while the family was having dinner in a restaurant in 2011, they were served a dish containing peanuts and Emi had a reaction. Though Emi immediately spit out the food, “she got hives and vomited, and we knew something was wrong,” Mishuku says. “After giving her Benadryl, we rushed her to the hospital and concluded that it must have been the peanuts.”

The Southgates were referred to Patricia Hicks, director of allergy and immunology at The Valley Hospital in Ridgewood. Hicks performed a peanut “challenge” on Emi and confirmed that the little girl was, indeed, allergic to the legume.

“A lot of scary things go through your mind as to what can happen and we feel lucky that Emi (now 6 years old) didn’t experience any breathing issues,” Mishuku says. She filled Emi’s prescription for an EpiPen Jr. and was trained alongside her daughter at the doctor’s office in how to administer the shot.

But a new study by British researchers has found that introducing peanuts into a child’s diet early may alter the immune system and help the child to build up a tolerance. The five-year study, involving hundreds of kids under age 1 and considered at high risk for developing peanut allergies, indicated that those who received regular peanut protein were at much less risk of developing a peanut allergy by age 5.

CONDITION ON THE RISE

Pediatric peanut allergies have increased dramatically in the past 10 to 15 years and are estimated to affect 1 percent to 3 percent of all children in westernized countries, according to the American Academy of Allergy Asthma & Immunology. They are the most prevalent of allergies among kids, along with those involving eggs and milk. “Years back, schools always had an EpiPen — a syringe containing a vial of epinephrine (adrenaline), which safely and successfully treats acute allergic reactions by keeping airways open and maintaining blood pressure and other vital signs — in their first-aid kit, but the need for it was rare,” Hicks says.

“Today, however, roughly one in 50 kids has a peanut allergy and a local school nurse recently told me that she now keeps 27 prescribed EpiPens in her office,” says the

INSIDE JERSEY'S
2016

Top
Doctors for
Children's
Health

Mari Southgate, left, holds an EpiPen as sister Emi, their mom, Mishuku, and allergist Patricia Hicks look on in the doctor's Ho-Ho-Kus office.

Photo by Steve Hockstein

Adolescent Medicine**Silvia A. Blaustein**

Preventive Medicine, Adolescent Gynecology, Adolescent Behavior-High Risk, Vaccines

Paterson

(973) 754-2575

St. Joseph's Regional Medical Center

Susan R. Brill

Menstrual Disorders, Obesity, Adolescent Gynecology, Eating Disorders

New Brunswick

(732) 565-5487

Saint Peter's University Hospital

Robert T. Brown

Adolescent Gynecology, Adolescent Behavior-High Risk, Chronic Illness

Camden

(856) 342-2001

Cooper University Hospital

Jill Clark-Hamilton

Eating Disorders, Adolescent Gynecology, Behavioral Disorders

Morristown

(973) 971-5199

Goryeb Children's Hospital

Lori B. Feldman-Winter

Nutrition, Eating Disorders, Preventive Medicine, Adolescent Behavior-High Risk

Voorhees

(856) 751-9339

Cooper University Hospital

Peter J. Imbornone**Rochelle Park**

(201) 291-1010

Hackensack University Medical Center

Robert L. Johnson

AIDS/HIV, Abuse/Neglect, Behavioral Disorders, Men's Health-Adolescent

Newark

(973) 972-2100

University Hospital

Wendy P. Neal

Adolescent Gynecology

New Brunswick

(732) 235-6230

Robert Wood Johnson University Hospital - New Brunswick

Walter D. Rosenfeld

Eating Disorders

Morristown

(973) 971-6310

Goryeb Children's Hospital

Leslie Sanders

Eating Disorders

Summit

(908) 522-5757

Overlook Medical Center

Allergy & Immunology**Eric W. Bantz**

Asthma & Allergy, Pediatric Allergy & Immunology, Food & Drug Allergy, Allergic Rhinitis

Medford

(609) 953-7500

Virtua Memorial Hospital

- Mount Holly

Paul Berlin

Asthma & Allergy, Food & Drug Allergy, Hives, Pediatric Allergy & Immunology, Sinus Disorders

Turnersville

(856) 262-9200

The Memorial Hospital

of Salem County

William J. Chernack

Asthma, Sinus Disorders, Pediatric Allergy & Immunology

Morristown

(973) 538-7271

Morristown Medical Center

Theodore Falk

Asthma, Pediatric Allergy & Immunology, Immune Deficiency, Chronic Fatigue Syndrome

River Edge

(201) 487-2900

Holy Name Medical Center

Eugene A. Gatti

Asthma, Immune Deficiency, Insect Sting Allergy, Drug Allergies, Pediatric Allergy & Immunology

Marlton

(856) 988-0570

Virtua Voorhees Hospital

Debora K. Geller

Pediatric Allergy & Immunology, Sinus Disorders, Food Allergy, Allergic Rhinitis, Asthma

Emerson

(201) 265-7515

Chilton Medical Center

Carolyn E. Goodstein

Allergy, Asthma, Rhinitis, Urticaria, Contact Dermatitis

Englewood

(201) 871-4755

Englewood Hospital

& Medical Center

Ziv Harish

Asthma & Sinusitis, Hay Fever, Urticaria, Hives, Cough-Chronic, Infectious Disease-Chronic, Skin Allergies, Food Allergy, Immune Deficiency

Englewood

(201) 871-7475

Englewood Hospital

& Medical Center

Sunita Kanumury

Asthma, Eczema, Food & Drug Allergy, Sinusitis, Pediatric Allergy & Immunology

Denville

(973) 627-1000

Saint Clare's Hospital - Denville

Alexander Marotta

Pediatric Allergy & Immunology, Food Allergy, Asthma

Wyckoff

(201) 652-6211

Valley Hospital

Nayla Z. Mumneh

Asthma & Allergy, Pediatric Allergy & Immunology, Hereditary Angioedema, Food Allergy & Eczema

Piscataway

(732) 562-1717

JFK Medical Center - Edison

Patrick Perin

Allergy, Asthma, Pediatric Allergy & Immunology

Teaneck

(201) 836-6400

Holy Name Medical Center

Paresha S. Shah

Allergic Rhinitis, Asthma, Food Allergy, Pediatric Allergy & Immunology

Turnersville

(856) 227-5700

Kennedy University Hospital

- Stratford

Justin M. Skripak

Asthma & Allergy, Food Allergy, Immune Deficiency, Pediatric Allergy & Immunology

Oradell

(201) 722-9850

Valley Hospital

Child & Adolescent Psychiatry

Family Therapy, ADD/ADHD, Bipolar/Mood Disorders, Depression

Passaic

(973) 471-8006

St. Mary's General Hospital

allergist, who has seen hundreds of kids with peanut allergies during more than 30 years of practice.

“Many of us carry an allergic reaction to a food, but also a blocking antibody that helps us develop tolerance,” Hicks says.

For kids who don't have that tolerance, however, inhaling airborne particles from allergens such as peanuts can stimulate mast cells to respond, causing an elevated reaction. “This can result in acute symptoms — from minor swelling around the mouth to hives, vomiting, and respiratory distress and low blood pressure, which can become fatal,” Hicks says.

Jack Page, of Holmdel, was also 2 years old when he had his first peanut-related incident, which left him covered in hives within 30 minutes of eating peanuts. Fourteen years later, he knows all too well the issues of growing up with a peanut allergy.

Jack is vigilant about avoiding anything that would cause a reaction because, he says, it makes his throat “feel like it's going to explode.”

All through school, “I had to sit at my own lunch table or, if someone near me had peanuts, I had to move,” says Jack, who's now 16 and about to begin his junior year of high school at the Academy of Allied Health and Science in Neptune. “I couldn't participate in birthday parties and often had to bring my own food. Some of the other kids would joke about it and it was hard.”


“Because they're often singled out in school, one of the symptoms we see in some kids with peanut allergies is a sense of impending doom, which makes them afraid to travel, eat out or participate in family events,” Hicks says. “It can be very scary for children and can impact their whole family life.”

THE PEANUT PHENOMENON

According to organizations such as Food Allergy Research & Education (FARE), eight food groups — dairy, eggs, soy, wheat, peanuts, shellfish, fish and tree nuts — are responsible for 90 percent of today's common food allergies. However, peanut allergies have become the leading cause of anaphylaxis and death involving food allergies over the past two decades.

This trend has driven the debate about what has triggered a phenomenon that most people from previous generations never experienced or could even fathom. When it first happened to her son, for example, Jack's mother, Dani Page, says she “didn't even know that there was such a thing as a peanut allergy.”

“After the initial incident where Jack ate a peanut, we had one other unexpected incident when I neglected to wipe down a supermarket shopping cart and Jack came into contact with the used wrapper from someone's peanut butter crackers,” she says. “Who would ever think you'd have to worry about a jar of jelly which someone had stuck a knife with peanut butter into?”

One of the most widely supported explanations for the increase in peanut allergies is the “hygiene hypothesis,” says Ellen Sher, who heads the allergy and immunology section of Unterberg Children's Hospital at Monmouth Medical Center | 

Consuelo C. Cagande-Maestrado

Autism Spectrum Disorders
Camden
(856) 342-2328
Cooper University Hospital

Sandra Cammarata

ADD/ADHD, Bipolar/Mood Disorders
Caldwell
(973) 618-0100
HackensackUMC - Mountainside

Suneeta E. Chacko-Varkey

ADD/ADHD, Anxiety & Mood Disorders
Westfield
(908) 232-6566
Newark Beth Israel Medical Center

Rama R. Gogineni

Camden
(856) 342-2328
Cooper University Hospital

Rosalie Greenberg

Bipolar/Mood Disorders, ADD/ADHD
Summit
(908) 598-0200
Overlook Medical Center

Lisa A. Kotler

Eating Disorders, ADD/ADHD,
Depression, Anxiety Disorders
Hackensack
(201) 465-8111
NYU Langone Medical Center
- New York

Nanci L. Lebowitz-Naegeli

Psychotherapy
& Psychopharmacology, Anxiety
& Depression, ADD/ADHD, Mood
Disorders, Autism & Developmental
Disorders, Obsessive-Compulsive
Disorder, Post Traumatic Stress
Disorder, Family Therapy
Montclair
(973) 744-4900

Andres J. Pumariega

Cross Cultural Psychiatry,
Eating Disorders, Psychiatry
in Physical Illness, Mood Disorders
Camden
(856) 342-2328
Cooper University Hospital

Lawrence R. Shampain

Pervasive Development Disorders,
Anxiety Disorders, ADD/ADHD,
Child Psychiatry
Metuchen
(732) 548-1600
Rutgers University Behavioral
Health Care

James R. Varrell

Behavioral Disorders, Family Therapy,
Psychopharmacology, Telepsychiatry
Marlton
(856) 983-3900
Virtua Marlton Hospital

Andrea Jeanne Walter

Anxiety & Mood Disorders,
ADD/ADHD, Cognitive Psychotherapy,
Behavioral Disorders, Depression
Hackensack
(201) 487-1240

Child Neurology

Ronald E. Barabas

Brain Injury, Neurogenetics,
Cerebral Palsy
Wall Township
(855) 852-8150
Monmouth Medical Center

Harvey S. Bennett

Concussion, Tourette's Syndrome,
Cerebral Palsy
Morristown
(973) 971-5700
Goryeb Children's Hospital

Jennifer A. Cope

Epilepsy/Seizure Disorders
Ridgewood
(201) 444-0868
Valley Hospital

Trevor Desouza

Epilepsy, Neuromuscular Disorders,
Cerebral Palsy, Tourette's Syndrome
Morristown
(973) 993-8777
Goryeb Children's Hospital

Rina F. Goldberg

Epilepsy
Livingston
(973) 322-7580
Saint Barnabas Medical Center

Olga Goldfarb

Developmental Disorders,
Neuromuscular Disorders,
ADD/ADHD, Headache
Pennington
(609) 537-7300
Capital Health Regional
Medical Center

Michael H. Goodman

Brain Injury, Concussion Management,
Seizure Disorders, Fetal Neurology
Camden
(856) 342-2226
Cooper University Hospital

Elliot A. Grossman

Migraine, ADD/ADHD, Tourette's
Syndrome, Developmental Disorders,
Sleep Disorders
Mountainside
(888) 244-5373
Children's Specialized Hospital

Peter L. Heilbroner

ADD/ADHD
Ridgewood
(201) 444-0868
Valley Hospital

Bernard Maria

Neuro-Oncology
Morristown
(973) 971-5700
Morristown Medical Center

Sue Xue Ming

Autism Spectrum Disorders,
Sleep Disorders
Newark
(973) 972-2922
University Hospital

Mark I. Mintz

Asperger's Syndrome,
ADD/ADHD, Autism Spectrum
Disorders, Epilepsy/Seizure Disorders
Voorhees
(856) 346-0005
Our Lady of Lourdes Medical Center

Jayoung Pak

Epilepsy/Seizure Disorders,
Neurophysiology
Newark
(973) 972-2922
University Hospital

Juliann M. Paolicchi

Epilepsy, Clinical Trials
Hackensack
(201) 343-6676
Overlook Medical Center

Eric Brian Segal

Epilepsy, Autism Spectrum Disorders,
Metabolic Disorders, Neurophysiology
Hackensack
(201) 343-6676
Hackensack University
Medical Center

Ariel A. Sherbany

Epilepsy/Seizure Disorders,
Neonatal Neurology,
Neurodevelopmental Disabilities,
Neurometabolic Disorders
Hackensack
(551) 996-3200
Hackensack University
Medical Center

Rolando Sousa

Epilepsy
Hackensack
(973) 222-4653
NYU Langone Medical Center
- New York



The EpiPen, above, is used to treat acute allergic reactions, including those from peanuts. At left, a medic alert bracelet worn by Jack Page, 16, of Holmdel, who has a peanut allergy.

in Long Branch, and is medical director of Atlantic Allergy, Asthma and Immunology Associates of New Jersey.

This theory suggests that today's ultra-clean society, in which children don't contract as many serious diseases as they once did, has caused the body to reset its immune system and develop other types of antibodies.

"Studies of global populations with a historically low incidence of peanut allergies, which include groups such as the Amish and some Polish communities that rely on old-fashioned farming methods, have led researchers to conclude that exposure to nature and, particularly, to the endotoxins present in the fecal matter of livestock, have protective qualities against developing allergies," Sher says.

"Westernized countries worldwide have lost much of that natural shield as a function of their increasing industrialization."

At the same time, she says, chemical exposure, the greater use of antibiotics, kids spending increased hours indoors and the depletion of the ozone layer have reduced our immunity and contributed to the increased prevalence of allergies in general.

A HUGE 'LEAP' FORWARD

When it comes to allergies, Sher says a person's most vulnerable time of life is early on, "when cells are deciding whether to be allergic or not, a process which may even occur in utero."

Nearly two decades ago, medical organizations armed | ➡

JAMES J. CONNOLLY

Lauri D. Mulvey
 Pediatric Ophthalmology, Amblyopia, Strabismus, Glaucoma-Pediatric
Plainsboro
 (609) 520-1717
 Children's Hospital of Philadelphia

Joseph D. Napolitano
 Pediatric Ophthalmology, Strabismus
Iselin
 (732) 750-0400
 Robert Wood Johnson University Hospital - New Brunswick

Lawrence S. Turtel
 Pediatric Ophthalmology, Strabismus
Asbury Park
 (732) 988-4000
 Jersey Shore University Medical Center

Rudolph S. Wagner
 Congenital Eye Disorders, Strabismus, Hereditary Eye Diseases, Pediatric Ophthalmology
Belleville
 (973) 751-1702
 Clara Maass Medical Center

Barry N. Wasserman
 Pediatric Ophthalmology, LASIK-Refractive Surgery, Eyelid Surgery, Botox Therapy
Princeton
 (609) 243-8711
 Wills Eye Hospital - Philadelphia

Orthopaedic Surgery

Douglas G. Avella
 Pediatric Orthopaedic Surgery, Pediatric Sports Medicine, Scoliosis
Ridgewood
 (201) 612-9988
 Valley Hospital

Tamir Bloom
 Pediatric Orthopaedic Surgery, Congenital Anomalies-Orthopaedic, Foot & Hip Disorders-Complex
 Pediatric, Clubfoot/Foot Deformities in Children, Neuromuscular Disorders, Cerebral Palsy, Spinal Deformity-Pediatric
Springfield
 (973) 538-7700
 Saint Barnabas Medical Center

David Yih-Min Lin
 Pediatric Orthopaedic Surgery, Arthroscopic Surgery, Trauma-Pediatric, Sports Injuries, Limb Deformities
Cedar Knolls
 (973) 538-7700
 Saint Barnabas Medical Center

Jason E. Lowenstein
 Spinal Surgery, Scoliosis, Minimally Invasive Spinal Surgery, Spinal Cord Injury, Fractures-Pediatric, Pediatric Orthopaedic Surgery
Morristown
 (973) 538-0900
 Morristown Medical Center

Seth R. Queler
 Adolescent Sports Medicine
Nutley
 (973) 751-0111
 Clara Maass Medical Center

Rick A. Raimondo
 Foot & Ankle Surgery, Pediatric Orthopaedic Surgery, Deformity Reconstruction
Moorestown
 (609) 267-9400
 Virtua Memorial Hospital - Mount Holly

Kenneth J. Rieger
 Fractures-Pediatric, Scoliosis, Spinal Surgery
Chatham
 (973) 635-0800
 Overlook Medical Center

Mark A. Rieger
 Pediatric Orthopaedic Surgery, Scoliosis, Hip Disorders-Pediatric, Adolescent Sports Medicine, Club Foot
Cedar Knolls
 (973) 538-7700
 Morristown Medical Center

Sanjeev Sabharwal
 Pediatric Orthopaedic Surgery, Limb Lengthening (Ilizarov Procedure), Limb Deformities
Livingston
 (973) 972-0246
 Saint Barnabas Medical Center

Richard L. Salzer Jr.
 Hip & Knee Replacement, Knee Surgery, Pediatric Orthopaedics, Joint Replacement, Minimally Invasive Surgery
Englewood
 (201) 569-2770
 Englewood Hospital & Medical Center

Joshua A. Strassberg
 Pediatric Orthopaedic Surgery, Trauma-Pediatric, Hip Disorders-Pediatric, Sports Injuries
Cedar Knolls
 (973) 538-7700
 Saint Barnabas Medical Center

James C. Wittig
 Bone Tumors, Sarcoma-Soft Tissue, Reconstructive Surgery, Pediatric Orthopaedic Cancers
Hackensack
 (551) 996-2533
 Hackensack University Medical Center

Otolaryngology

Harry Cantrell
 Sinus Disorders, Pediatric Otolaryngology, Ear Disorders
Sewell
 (856) 602-4000
 Virtua Voorhees Hospital

Michael A. D'Anton III
 Nasal & Sinus Disorders, Endoscopic Sinus Surgery, Pediatric & Adult Otolaryngology, Rhinoplasty
Wayne
 (973) 633-0808
 Chilton Medical Center

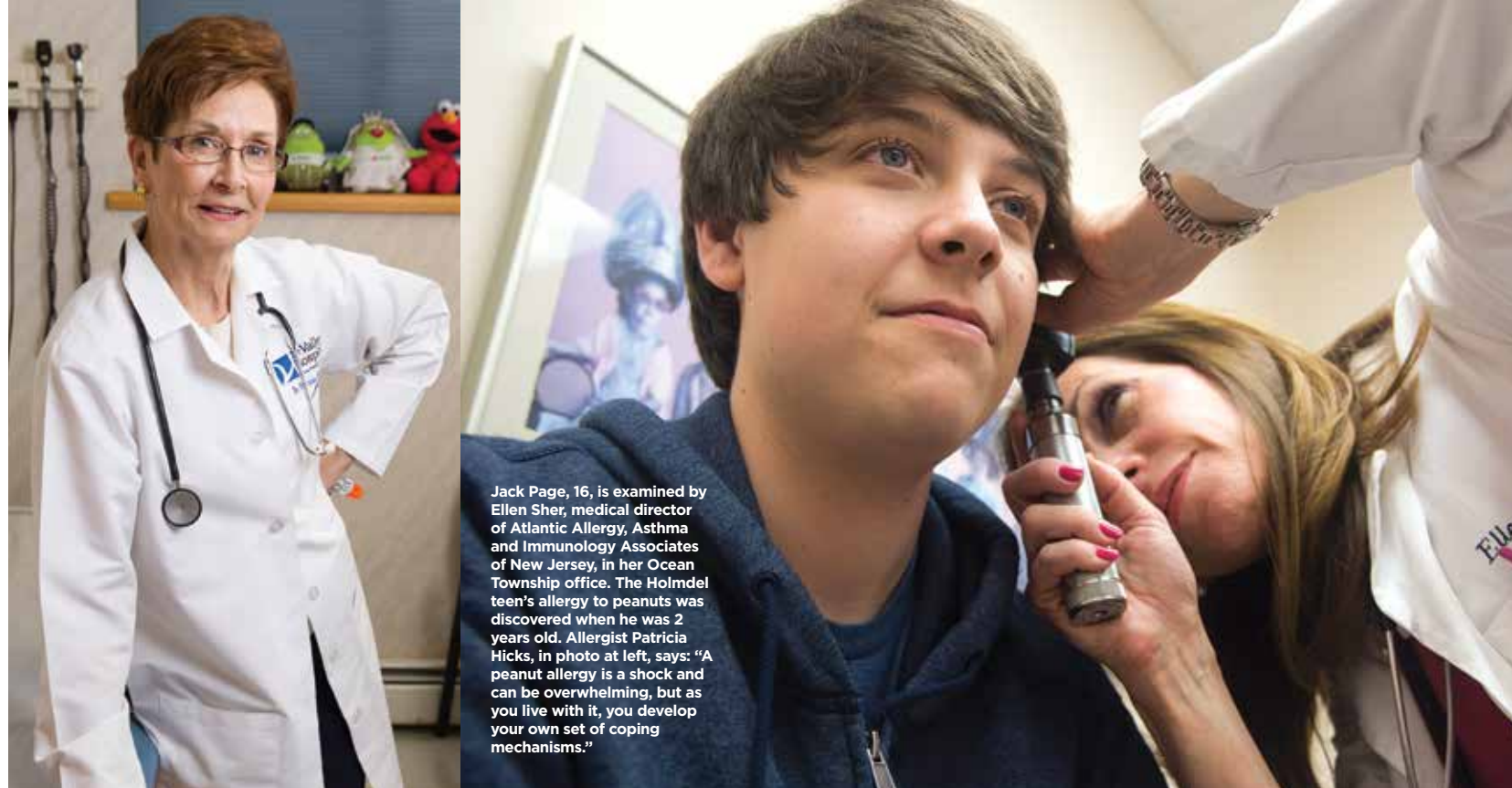
Aylon Y. Glaser
 Pediatric & Adult Otolaryngology, Sleep Apnea, Head & Neck Surgery, Sinus Disorders
Hoboken
 (201) 792-1109
 Hackensack University Medical Center

Norman Holzberg
 Endoscopic Sinus Surgery, Sleep Disorders, Pediatric & Adult Otolaryngology, Head & Neck Surgery
West Orange
 (973) 243-0600
 Saint Barnabas Medical Center

James La Bagnara Jr.
 Thyroid & Parathyroid Surgery, Pediatric Otolaryngology
Paterson
 (973) 942-1300
 St. Joseph's Regional Medical Center

Brian Lee Lebovitz
 Pediatric & Adult Otolaryngology, Nasal & Sinus Disorders, Sleep Disorders/Apnea/Snoring
Parsippany
 (973) 394-1818
 Saint Clare's Hospital - Denville

Ronald W. Li
 Pediatric & Adult Otolaryngology, Head & Neck Surgery
Princeton
 (609) 921-1000
 University Medical Center of Princeton at Plainsboro



Jack Page, 16, is examined by Ellen Sher, medical director of Atlantic Allergy, Asthma and Immunology Associates of New Jersey, in her Ocean Township office. The Holmdel teen's allergy to peanuts was discovered when he was 2 years old. Allergist Patricia Hicks, in photo at left, says: "A peanut allergy is a shock and can be overwhelming, but as you live with it, you develop your own set of coping mechanisms."

consuming them, though there are possibly benefits to keeping peanuts in their diet."

MANAGING THE CONDITION

While the medical community digests the results of these studies and likely will integrate them into guidelines for future generations, children who are dealing with peanut allergies are left to vigilant management.

“Roughly one in 50 kids has a peanut allergy and a local school nurse recently told me that she now keeps 27 prescribed EpiPens in her office.”

PATRICIA HICKS,
director of allergy and immunology at The Valley Hospital in Ridgewood

when we travel, but Emi now asks about things before she eats them or has someone read a label to her, and she understands that this is something she needs to worry about and guard against that her friends

“Once you’re allergic to peanuts, you can’t do much more than strictly avoid them,” says Sher, “which includes washing your hands, reading labels and avoiding foods that you don’t know the origins of,” as well as learning how peanuts can often be hidden in foods.

“A peanut allergy is a shock and can be overwhelming, but as you live with it, you develop your own set of coping mechanisms,” Hicks says.

Though Emi Southgate’s peanut allergy (also shared by her 3-year-old sister Mari) “has affected what we can eat or keep in the house,” says her mother, Mishuku, the family has developed a good routine and mindset.

“The girls’ peanut allergies are a constant concern, particularly if we accidentally leave the EpiPen home

don’t,” says Mishuku Southgate.

Jack Page agrees that he’s also gotten to a comfort zone with his allergy. “It’s about being proactive and looking around to see what could be a problem because you can’t be sure that a food is 100 percent safe,” he says.

“I’ll never purposely eat anything with peanuts and I always have my EpiPen on hand,” Jack says. “It’s become second nature.”

On the positive side, both Sher and Hicks agree that managing

this condition has become easier for kids, thanks to strength in numbers. “There’s so much more awareness of the issue and support at schools, as well as better labeling of products and more peanut-free products available,” Sher says.

“The real goal is having kids develop tolerance to peanuts, so that if they get exposed, they won’t react now — or years later,” says Hicks, who notes that research is being done on the role that Chinese herbs may play, as well as the combined use of probiotics and peanut protein to build tolerance. In the United States and Europe, researchers are also looking at the effects on long-term tolerance levels of administering peanut protein to

children orally, as well as via patches.

“It’s exciting to think that new research may someday get us to the point where we don’t have to worry about peanut allergies anymore,” Mishuku Southgate says. @

STEVE HOOKSTEIN (HICKS), JAMES J. CONNOLLY (PAGE)

LEARN MORE

Find information on peanut and food allergies by visiting:

- National Institute of Allergy and Infectious Diseases food allergy guidelines: niaid.nih.gov/topics/foodAllergy/clinical/Documents/FAguidelinesPatient.pdf
- Food Allergy Research & Education (FARE): foodallergy.org
- Kids with Food Allergies: kidswithfoodallergies.org
- Asthma and Allergy Foundation of America: aafa.org
- Food allergy travel site: selectwisely.com
- S.B.

Apostolos A.P. Rossos
 Pediatric Otolaryngology, Sinus Disorders, Hearing Disorders/Tinnitus, Sleep Apnea, Head & Neck Tumors
Freehold
 (732) 409-2500
 CentraState Medical Center

Scott R. Schaffer
 Pediatric Otolaryngology, Nasal & Sinus Disorders, Endoscopic Surgery, Sleep Disorders/Apnea/Snoring, Hearing Disorders/Tinnitus, Dizziness/Vertigo
Marlton
 (856) 435-9100
 Virtua Marlton Hospital

Jason B. Surow
 Pediatric Otolaryngology, Sinus Disorders, Voice Disorders
Oradell
 (201) 722-9850
 Valley Hospital

Raj Tandon
 Minimally Invasive Surgery, Thyroid & Parathyroid Surgery, Endoscopic Sinus Surgery, Head & Neck Surgery, Sleep Disorders/Apnea/Snoring, Pediatric & Adult Otolaryngology
Hoboken
 (201) 792-1109
 Hackensack University Medical Center

Pathology

Debra S. Heller
 Gynecologic Pathology, Pediatric Pathology, Perinatal Pathology
Newark
 (973) 972-0751
 University Hospital

Pediatric Allergy & Immunology

Lisa Barisciano
 Asthma, Food Allergy, Allergy, Eczema, Immune Deficiency
Florham Park
 (973) 503-0600
 Morristown Medical Center

Maryann J. Colenda
 Asthma-Adult & Pediatric, Allergy
Fort Lee
 (201) 224-2256
 Englewood Hospital & Medical Center

Joel M. Fiedler
 Asthma & Allergy, Food Allergy, Drug Sensitivity
Voorhees
 (856) 435-1300
 Children's Hospital of Philadelphia

Arthur F. Fost
 Asthma & Allergy, Sinusitis, Urticaria
Verona
 (973) 857-0330
 Clara Maass Medical Center

Patricia M. Hicks
 Asthma & Sinusitis
Ho-Ho-Kus
 (201) 444-5277
 Valley Hospital

Maria Lania-Howarth
 Asthma, Food Allergy, Immunology
Voorhees
 (856) 751-9339
 Cooper University Hospital

Susan H. Morrison
Belleville
 (973) 450-0100
 Clara Maass Medical Center

Gary C. Pien
 Asthma & Allergy, Food & Drug Allergy, Eczema, Immune Deficiency, Latex Allergy
Berkeley Heights
 (908) 277-8681
 Overlook Medical Center

Helen S. Skolnick
 Food Allergy
Flemington
 (908) 782-0093
 University Medical Center of Princeton at Plainsboro

Arthur J. Torre
 Asthma & Allergy
Fairfield
 (973) 882-0880
 St. Joseph's Regional Medical Center

Pediatric Cardiology

Kishan C. Agarwal
 Echocardiography, Heart Disease in Adolescents, Arrhythmias
Edison
 (732) 494-9500
 JFK Medical Center - Edison

Mitchel B. Alpert
 Hypertrophic Cardiomyopathy, Kawasaki Disease, Sudden Unexplained Death Syndrome (SUDS), Long QT Interval Syndrome, Cardiomyopathy
Brick
 (732) 458-9666
 Jersey Shore University Medical Center

Howard D. Apfel
 Congenital Heart Disease, Echocardiography, Fetal Echocardiography
Paramus
 (201) 599-0026
 NewYork-Presbyterian Hospital - New York

Elsa I. Castro
 Echocardiography, Fetal Echocardiography, Congenital Heart Disease
Brick
 (732) 458-9666
 Jersey Shore University Medical Center

Christine M. Donnelly
 Fetal Echocardiography, Congenital Heart Disease, Cardiac Catheterization, Interventional Cardiology
Morristown
 (973) 971-5996
 Goryeb Children's Hospital

Joshua L. Dyme
 Congenital Heart Disease, Fetal Echocardiography
Livingston
 (973) 597-3333
 Saint Barnabas Medical Center

John Fernandes
 Congenital Heart Disease, Fetal Cardiology, Echocardiography
Livingston
 (973) 533-1031
 Saint Barnabas Medical Center

Joseph W. Gaffney
 Echocardiography, Fetal Echocardiography, Critical Care
New Brunswick
 (732) 235-7905
 Robert Wood Johnson University Hospital - New Brunswick

Cheryl C. Kurer
 Congenital Heart Disease, Arrhythmias, Syncope
New Brunswick
 (732) 846-2855
 Children's Hospital of Philadelphia