Allergies

Runny nose, watery eyes, itchy mouth and throat, hives and trouble breathing... These are just some of the symptoms of allergies that people experience when they are allergic to a substance (allergen) such as a food, an airborne allergen or a contact allergen. Allergies usually develop during childhood and young adulthood, but they can develop at any point in a person’s life. If one person in a family has an allergy, other family members have a 25% chance of having allergies, not necessarily to the same allergen. If both parents have allergies, their likelihood is even greater.

The body’s immune system is designed to fight bacteria and viruses and protect the body from disease. In an allergic reaction, the immune system thinks a substance that is usually harmless, such as pollen or peanut butter, is a dangerous invader. The body responds to the allergen by producing the antibodies immunoglobulin E (IgE). These antibodies call up the mast cells and basophils, sometimes called the allergy cells, to release histamines to fight off the invader. The histamines cause the allergic reaction. Symptoms may affect the nose, eyes, throat, skin, lungs or gastrointestinal tract. They can range from mild and annoying to severe and possibly life threatening.

Early educators and families are likely to be the people who first recognize that a child may be developing allergies. Some allergies are easy to recognize. These allergic reactions follow a pattern after a child has been exposed to a substance which causes an allergic reaction. Through careful observation early educators and families begin to recognize the pattern and suspect allergies.

Other allergies are much harder to detect as their symptoms may be similar to common illnesses, such as colds or an intestinal virus. It is helpful to watch for symptoms that

- are persistent (allergy to animal dander),
- show up at the same time of year (seasonal allergies), and
- appear after eating a certain food (food allergies).

Early educators and families can discuss what they suspect might be the substance to which the child is allergic and describe the child’s symptoms. When families talk with their child’s health care professional they can share these observations. Once an allergy is diagnosed, early educators and families will continue to work together to offer the child an allergy friendly environment. Early educators should ask the families to work with their child’s health care professional to develop a health care plan for the child. This will include a list of the allergens to which the child is allergic, identify ways to prevent exposure to those allergens, and outline procedures to follow when the child has an allergic reaction.

Allergies cannot be cured. To manage allergies, caregivers and families work to reduce or eliminate exposure to the allergens. When it is not possible to eliminate exposure, the child’s health care professional may prescribe medications to control and relieve symptoms.

References for Pages 1-3:

More About Allergies

Airborne Allergies

Many people experience allergic reactions to ordinary things (allergens) which are carried through the air.

Common airborne allergens

- **Dust mites**: microscopic insects that feed on dead skin cells, which fall off humans every day. Dust mites, one of the most common allergens, are found in household dust on bedding, carpets, and upholstered furniture.
- **Pollen**: tiny particles that weeds, trees and grasses send into the air to fertilize other plants. Pollen is released at predictable times during the year and causes seasonal allergies. In North Carolina trees release pollen from February to May. Grass pollens are in the air during May and June and ragweed from August through October. Generally the pollen count is higher in the morning. The more pollen in the air, the stronger the allergic reaction. Warm, dry, breezy weather increases the pollen in the air. Cold weather and wet weather reduce the pollen count.
- **Molds**: musty smelling fungi that grow well in dark, warm, moist areas. Throughout the year mold grows indoors in bathrooms, under sinks, and places where the air is still, dark and damp. Outside molds occur more seasonally and are found in wet, dark and dense areas such as piles of compost or rotting leaves.
- **Pets**: allergens are found in pets’ saliva, dander, urine and hair. After animals lick their fur or feathers to clean themselves, the saliva dries. It leaves tiny protein particles that travel through the air and land on fabric in the house. Cats cause the majority of the allergies to pets.
- **Cockroaches**: allergens are found in feces, saliva and the bodies of cockroaches. Urban housing and private homes harbor cockroaches, especially in low socioeconomic areas in inner-cities and in the South.

Symptoms

- **Allergic rhinitis**: sneezing, itchy nose, itchy throat, nasal congestion, or coughing
- **Allergic conjunctivitis**: itchy, watery eyes, red eyes
- **Allergic “shiners”**: dark circles around the eyes

Wheezing and shortness of breath are signs that the person has developed asthma. Asthma episodes range from mild to severe and can become life threatening.

Food Allergies

As with all allergies, the body’s immune system responds to certain foods as if they are harmful. This reaction can range from mild to life threatening. After the first allergic reaction, the person will have an allergic reaction each time he or she eats or touches the food, or inhales its particles.

Food intolerance, also referred to as food sensitivity, differs from a food allergy. Though the symptoms can be very similar, with food intolerance the immune system is not involved. Frequently the person is not able to digest the protein in the food. For example, a person with lactose intolerance has trouble digesting the lactose protein found in cow’s milk. Though uncomfortable, food allergies rarely result in serious reactions.

Common food allergens

- **Eggs**: Infants and young children with egg allergies are most often allergic to the protein in egg whites. Some may be allergic to the protein in the egg yolk. Usually children outgrow their egg allergy by the time they start kindergarten. Eggs are used in the preparation of many foods and are sometimes a “hidden ingredient” in a food.
- **Seafood and shellfish**: Proteins in seafood and shellfish are the most common food allergen for adults. Allergies to seafood and shellfish might not be out-grown.
- **Cow’s milk (cow’s milk protein)**: Up to 7.5% of infants are allergic to cow’s milk protein. About 80% of infant formulas in the US are cow milk based. Children and adults can also have cow’s milk allergies. They might react to any food that contains cow’s milk including cheese and other milk products. Many foods on the market, such as bread, may have been prepared with milk.
- **Peanuts and tree nuts**: Peanut allergies are among the most severe and can be life threatening. Though a legume (like a pea), peanuts are grouped with tree nuts because about half of the people allergic to peanuts are also allergic to tree nuts such as cashews, almonds, walnuts and pecans. Peanut allergies might not be out-grown.
- **Soy**: Soy is another legume allergen that can cause allergies. Soy allergies are more common in infants than older children. 30-40% of infants with allergies to cow’s milk are allergic to soy products such as soy formulas.
- **Wheat**: Any food containing wheat protein can cause mild to severe allergic reactions. Celiac disease is a digestive condition that is caused by a reaction to the gluten found in wheat, oats, rye and barley. This reaction differs from an allergic reaction to wheat. Celiac disease damages the small intestine and stops the absorption of needed nutrients.

Symptoms

Allergic reactions to foods range from mild to severe, depending on the amount of food allergen eaten and how sensitive the person is to the allergen. Symptoms occur within 2-3 minutes to 2 hours and may include:

- **Oral allergy syndrome**: itchy mouth and throat may be the only symptom for some children
- **Skin symptoms**: raised, red itchy bumps called hives, itchy rashes such as eczema, and swelling
- **Breathing symptoms**: sneezing, runny itchy nose, wheezing, tightening of the throat, and difficulty breathing
- **Stomach symptoms**: nausea, vomiting, and diarrhea
- **Circulation symptoms**: pale skin, light-headedness, and loss of consciousness

When several parts of the body are affected, the reaction is serious and might quickly become life threatening.
Other Common Allergies

Insect Stings: Insect bites usually cause localized swelling, redness, and itching. People with allergies to insect venom may exhibit whole-body reactions such as wheezing and other signs of a severe reaction that can be life threatening. Allergic reactions to insect venom often continue into adulthood.

Medicines: Antibiotics and other medicines, including some over-the-counter medicines, can cause mild to severe allergic reactions. A pharmacist or health care professional can help determine if a child is having an allergic reaction to a medicine.

Chemicals: Laundry detergents, cosmetics dyes, household cleaners, and pesticides contain chemical allergens.

Symptoms

- **Insect bites and medications:** swelling of the throat, hives over the entire body, difficulty breathing, nausea, diarrhea, and shock
- **Chemicals:** itchy rash

Treatment for Allergies

Allergies cannot be cured. Treatment consists of relieving the symptoms and preventing exposure to allergens. Parents must inform early care and education programs of their child’s allergies. The child’s health care professional writes a Health Care Plan and an Action Plan which provide the information early educators need to prevent exposure and respond to an allergic reaction.

When medication is part of the treatment plan, parents must complete the medication permission slip for each medication and provide the medication according to NC Child Care Rules .0803 and .1720. Emergency medications for life threatening allergic reactions should not be locked and must be stored out of children’s reach. Replace the medications before their expiration date.

Anaphylactic Shock

Anaphylactic shock occurs when a child has a severe, whole-body reaction to an allergen. Symptoms occur within seconds or minutes. Common causes include drug, food and insect bite allergies. Symptoms may include:

- high pitched breathing sounds, cough, nasal congestion, difficulty breathing, wheezing
- abdominal pain or cramping, nausea, vomiting, diarrhea
- swelling of the throat that may block airway
- slurred speech, difficulty swallowing
- light-headedness, dizziness, fainting
- anxiety, confusion
- rash, redness of skin, hives
- loss of consciousness

Anaphylactic shock requires immediate medical attention. Early educators should refer to the child’s Action Plan and follow the steps in the plan. Children and adults with severe allergies should have injectable epinephrine available for use when they experience anaphylactic shock. Epi-Pen® and Epi-Pen Jr® kits include pre-mixed epinephrine that is ready and easy to inject. Child care health consultants (CCHCs) and other health professionals can train early educators on how to safely administer Epi-Pen® and Epi-Pen Jr®.

First Aid for anaphylactic shock

Follow the steps in the child’s Action Plan.

If the child does not yet have an Action Plan, follow these first aid guidelines.

1. Give injectable epinephrine as directed, if it is available, and ask another person to call 911.
2. If the only adult, give injectable epinephrine as directed, if it is available, and then dial 911.

Ways to Prevent Exposure to Allergens

- Clean air filters to keep animal dander down. Keep animals out of the child care environment if necessary.
- Reduce items that collect dust. Clean carpets, pillows, soft toys and fabric often to remove dust from the environment.
- Keep areas such as the bathroom clean and dry to reduce mold.
- Close windows during pollen season. Go outside when the pollen count is low.
- Avoid all “problem” food. This is easier to do with young children who are given food and supervised closely as they eat. Teach child and friends what foods to avoid.
- Establish a policy of No Sharing of Food to prevent accidental exposure to food allergens.
- Read food labels carefully each time, as ingredients may change. To be safe, avoid foods that have labels that read “may contain (known allergen)” or “prepared in a facility that processes (known allergen)”.
- Use separate utensils when preparing foods to avoid spreading the food allergen to other foods.
- With severe food allergies keep the “problem” foods out of the facility. For example, become a “peanut free” facility if a child with a severe peanut allergy is enrolled in the program.
- Serve infants and toddlers foods they have eaten at home. Discuss new foods with parents before introducing them to very young children.

Resources for Early Educators

Caring for Our Children National Health and Safety Performance Standard 4.2.0.10: Care for Children with Food Allergies www.nrckids.org/CFOC3/HTMLVersion/Chapter04.html#4.2.0.10

The Food Allergy and Anaphylaxis Network www.foodallergy.org

Healthy Children, American Academy of Pediatrics www.healthychildren.org

Children’s Books on Allergies

Allergic Like Me
by Michelle Meyer-Devlin, 2010

Aaron’s Awful Allergies
by Troon Harrison, 1996

Cody the Allergic Cow: A Children’s Story of Milk Allergies
by Nicole Smith, 2006

- Preschool – School-age
**Safe Outdoor Play**

Outdoor learning environments offer unique opportunities for social and active physical play, as well as learning while exploring nature. Consider filling a crate with toys and games that suit the interests of individual children. Rotate the items to vary activities and bring favorites out frequently. Allow time for children to learn from watching insects, birds, plants and other people.

Be sure to use sunscreen and take advantage of shade. Provide plenty of water for everyone to drink. Use the following guidelines for safe play in the outdoor learning environment or on the playground. Careful planning and supervision can help prevent the playground-related injuries treated in emergency rooms each year.

- Have enough staff present to actively supervise all children.
- Carefully maintain playground equipment:
  - Check daily for hazards, such as broken toys and debris.
  - Check monthly for any needed repairs.
  - Complete a comprehensive playground safety audit annually.
  - Develop an equipment inventory file and update annually. Call 800-367-2229 for sample forms.
- Keep a first aid kit handy.
- Dry off wet equipment before use.
- All ground surfaces should be soft and thick enough to lessen the impact of a child’s fall.
- Remember that infants and toddlers need smaller, age appropriate equipment. If there is only one outdoor learning environment, set up different play times and appropriate rules for each age group.
- Teach children to be careful and watch out for others. Make sure they understand outdoor safety rules.

Reference:

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**June is**

- June 1-July 4: Fireworks Safety Month
- Great Outdoors Month
- Home Safety Month
- Perennial Gardening Month
- 19: World Sickle Cell Day

**July is**

- Juvenile Arthritis Awareness Month
- National Make a Difference to Children Month
- Garlic and Nectarine Month
- 10: Teddy Bear’s Picnic Month
- 28: National Dance Day

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**Bulletin Board**

**Never leave a child alone in a vehicle.** Always check to see that no children are left in the vehicle. On a warm to hot day temperatures inside the car can rise to 120°F in less than 10 minutes. Children can suffer from hyperthermia, heat stroke or death.

**July is UV Safety Month**

UV rays (ultraviolet rays from the sun) are the main cause of skin cancer. UV can damage eyes and cause wrinkles and blotchy skin. The damage starts at an early age and most often shows up after age 50. The people most at risk for skin cancer have light skin and freckles, blond or red hair, and green or blue eyes.

Take these steps to help prevent skin cancer:
- Stay out of the sun between 10 a.m. and 4 p.m.
- Use sunscreen with SPF 15 or higher.
- Cover up with long sleeves and a brimmed hat.
- Wear sunglasses.
- Keep infants less than 6 months of age out of direct sunlight.

To learn more about skin cancer go to this interactive tutorial from MedLine Plus: [http://1.usa.gov/l9Fvbl](http://1.usa.gov/l9Fvbl).

**August is National Immunization Awareness Month**

Immunizations protect the health of children and adults. Vaccines (shots) protect people from infectious diseases such as whooping cough, flu and measles. Use August as a time to check children’s immunization records. It is a good time for families to take their children to their health care provider for any missing shots. Remind families to bring in a copy of their child’s current immunization record.

Adults, like children, should get their shots on a regular schedule. [www.immunize.org](http://www.immunize.org) has immunization schedules for children and adults. It also has other child care information and materials such as the Annual Child Care Immunization Report Memo.
Children, Allergies, and Child Care

Millions of children in the United States deal with some kind of allergy. Most of these are mild and easily treated. However, some can be life threatening or interfere with daily activities. Follow these guidelines to make sure a child with allergies stays safe, healthy and happy.

Work with the child’s early educators to prevent allergic reactions.

Tell them about each of the child’s allergies. Then work with them to make the child’s environment as free as possible of the allergens, substances that cause the allergies. For example, pollen and dust mites are some of the most common allergens. Closing windows during pollen season and removing items that gather dust, such as pillows, helps reduce allergic reactions.

Share this information with other adults who care for the child as well, such as babysitters, relatives, or a friend’s parents. When a child has food allergies, ask early educators and other caregivers to read food labels carefully to avoid serving food with allergens.

Families of children with food allergies should provide the facility with a detailed list of foods to avoid. The child’s primary healthcare professional can help with this list. The website www.foodallergy.org is a great source for allergen-free recipes, guides for reading labels, and more.

Be prepared for an allergic reaction

The child’s health care professional should help develop a written Health Care Plan and Action Plan in case of an emergency. The Health Care Plan should state the child’s allergies. It should include a clear, up-to-date list of the child’s typical symptoms and specific instructions for any medication the child needs. The Action Plan lays out the exact steps to follow when a child is having a serious reaction and needs immediate care.

Keep copies of these documents available at home and at child care.

Remember to put emergency contact numbers in cell phones and to post them where they can be easily seen: on the refrigerator or near phones. Contact numbers for parents, health care professionals, other trusted adults, and 911 should be written at the top of the Health Care Plan and Action Plan.

Know First Aid procedures for allergic reactions, and make sure early educators do, too.

Learn to recognize the symptoms of severe allergic reactions. The most severe type of reaction, known as Anaphylaxis, can cause death if not treated quickly.

Visit www.foodallergy.org/section/a for more information.

Health care professionals will prescribe injectable epinephrine if the child has a life-threatening allergy. It comes in an easy to carry container, often called an Epi-Pen®. Using the Epi-Pen Jr.® or other administration kit is permitted in child care because it is considered lifesaving first aid. Early educators should receive training on how to use the Epi-Pen Jr.®. They should be familiar with the child’s Health Care Plan and Action Plan.

After using the kit as directed, the early educator should call 911 to get the child to the hospital. One dose of epinephrine wears off in 15-20 minutes. Sometimes a second dose of epinephrine is needed. For this reason health care professionals may suggest having a second dose available.

Consider providing a written, signed release of confidentiality, so the early educators can communicate with the child’s healthcare team as needed.

References:

NORTH CAROLINA CHILD CARE HEALTH & SAFETY RESOURCE CENTER • 1-800-367-2229
Emmanuel Child Care Center (Emmanuel CCC) in Monroe always planned on becoming a 4 or 5 star program. In the fall of 2011, the director invited three child care specialists from Child Care Resources, Inc. to work closely with the teaching staff for six months. Donna Smutherman Scott worked with the school-age teachers, Jennifer Kappas with the preschool teachers, and Karen Long worked with the infant and toddler teachers.

The three specialists teamed up with administrators Debbie Hildreth and Melissa Auret and the teachers. The specialists recommended changes to the classrooms based on the criteria in Environmental Rating Scales, state regulations and other best practices recommendations.

Emmanuel CCC’s involvement with the North Carolina’s Infant-Toddler Quality Rating Improvement Program is an example of the process used by all the specialists. Through this program, the Infant Toddler (IT) specialist mentored teachers in all aspects of infant and toddler child care. First the IT specialist did a mock assessment using the Infant-Toddler Environment Rating Scale (ITERS-R). Based on the findings, teachers choose areas to improve, such as supervision, interaction with children, basic care routines, or classroom materials. Next, teachers and the IT specialist developed a technical assistance plan, called an Action Plan, for each classroom. The Action Plan included:

► the steps to take to make improvements
► who was to do the work
► when (date) the work was to be completed.

The IT specialist coached teachers as they made changes in their classrooms. After the teachers completed their action steps, the IT specialist conducted another assessment. Together the IT specialists and teachers reviewed and reflected on the changes made. They celebrated their progress toward improving the quality of care.

Throughout the improvement process at Emmanuel CCC, the specialists and teachers worked together to build trust. They created an environment where teachers could try different ways to provide the highest quality care. For example, Emmanuel CCC wanted to convert a room that had been used primarily for infants into a room for older infants and young toddlers. Teachers found this very challenging, due in part to the limited space in this room. The director told the IT specialist, “We’ll do whatever you suggest…except for taking out the group feeding table.”

The IT specialist observed that the group feeding table crowded the space and was not developmentally appropriate. After making other changes in the room, the IT specialist explained why removing the group feeding table might improve the quality of care in the classroom. Because the teachers and administrators trusted the IT specialist, they were willing to try a new feeding arrangement. They understood they could change the arrangement if it did not work for them. But it did!

The teachers in the room for young two year olds also faced a challenge. The IT specialist suggested they change from a teacher-directed approach to a child-centered approach. In a child-centered approach, teachers support the learning experiences initiated by the children. Believing that a picture is worth a thousand words, they observed another classroom to see how well the child-centered approach works. The teachers made an amazing transformation, starting the very next day! The teachers became less stressed and the children thrived from the flexible child-centered care.

Administrators and teachers at Emmanuel CCC’s wanted to provide higher quality child care. The success they experienced can best be explained by three factors:

► Teachers and administrators were open to the suggestions of the specialists.
► Everyone was eager to do whatever it took to provide higher quality care.
► There was mutual respect among all the professionals involved.
My Garden
This is my garden, I'll plant it with care,
Here are the seeds I'll plant in there,
The sun will shine,
The rain will fall,
The seeds will sprout and grow up tall.

Gardening allows children to experience the life cycles of plants and the fun of getting their hands dirty. When children dig in the dirt, they find worms and insects living in their natural habitats. Children discover that insects can help plants (ladybugs and bees) or harm plants (Japanese beetles). They learn about responsibility and patience as they care for plants and wait for them to grow. Children can start gardens from seeds or established plants (seedlings).

Grow from Seed
Bean or sugar snap pea seeds grow quickly and are large enough for young children to handle. Use poles to create structures such as tepees and tunnels. Pinto and kidney beans can stay on the vine until the pods become brown. Shaking the pods entices curious children to look inside.

Cosmos grows readily, even in poor soil. Place these small seeds into a spice jar to sprinkle on the soil. Varieties grow from 16 inches to 4 feet tall. Their fine, delicate foliage and brightly colored, daisy-like flowers attract butterflies.

Sunflowers produce cheerful, vibrant, flowers. Dwarf varieties are no taller than preschoolers and giants tower to 8 feet tall. Left in the garden to dry, sunflower seeds are good to eat – for children and birds!

Grow from Small Plants (seedlings)
Herbs are a good choice for a child’s first garden. Herbs are easy to grow and require little care.


Create a container garden with chocolate peppermint. This keeps the mint from spreading everywhere. Mint needs well-drained soil and partial sunlight. The dark brown tinged leaves taste like a peppermint patty!

Pineapple sage has a pineapple-like scent when its leaves are crushed. Its scarlet flowers attract hummingbirds and butterflies. Add pineapple sage leaves to salads for a sweet flavor.

Rosemary, an evergreen with blue or white flowers, produces aromatic pine-scented leaves used in cooking meats and vegetables and in baking bread. Varieties grow upright or with trailing branches.

Online Resources for Educators
Appalachian Sustainable Agriculture Project
Early Introductions to Sensory Gardens: Infants and Toddlers
Suggestions for activities and experiences for infants and toddlers to explore gardening through their senses
http://growing-minds.org/early20intro.php

Toxic Free NC
Organic Solutions for Gardeners
An illustrated guide to organic pest management in North Carolina
www.toxicfreenc.org/organicgardening

Children’s Books on Gardening
Compost Stew
by Mary McKenna Siddals 2010

Counting In The Garden
by Kim Parker 2005

Jack’s Garden
by Henry Cole 1997

How a Seed Grows
by Helene J. Jordan 1992

How Groundhog’s Garden Grew
by Lynne Cherry 2003

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Reference:

Gardening Tips

Be sun safe! Garden at the beginning or end of the day. Use sunscreen and wear protective clothing.

Help young children learn to balance a wheelbarrow and use gardening tools. Provide child-sized shovels, rakes, and spades for better grip.

Plant a shade and a sun garden. Discuss what plants need. Some require sunshine, others shade. Some need wet soil and others need dry soil.

Practice the steps “dig, plant, and pat” to help children know when they finished settling the seed or plant into its “bed”.

Nurture language and math skills. “Where do you think that worm sleeps? What color is that flower? How many cucumbers are on that vine?”
Q: Technology seems to develop faster every day. Are there any new hazards I should be aware of as an early educator?

A: Yes. The electronics that are smaller and sleeker often have a small, coin-sized battery that can be harmful to young children.

Some common items, such as mini remote controls, watches and singing greeting cards may use these powerful button batteries. When a child swallows this lithium battery, it can get caught in his or her throat. The child’s saliva triggers an electric current, which may burn the throat and the esophagus in as little as two hours. The burning can continue even after the battery has been removed. In 2010, 3,400 cases of swallowing button batteries were reported in the United States. Nineteen of these resulted in serious injuries. In recent years, more than eleven children have died as a result of swallowing a battery.

Young children under the age of four are most likely to swallow coin-size batteries. These batteries may appear “invisible” to adults, but children who love to explore and take things apart can find them. Keep items that have button batteries out of children’s sight and reach.

A child who has swallowed a lithium button battery may experience coughing, drooling, and discomfort. These symptoms are similar to those for other illnesses. When a child has these symptoms check small devices to see if any button batteries are missing.

If a child swallows a battery:

- Follow your plan for a medical emergency. Call 911 if necessary.
- If the battery came in a package, write down the identification number and give it to the health care professional.
- Do not let the child eat or drink until an x-ray has been taken.
- Do not induce vomiting.

For more information and to watch a video illustrating the risk, visit www.safekids.org/safety-basics/safety-spotlight/battery-safety/.