



## INCLUSIVE 4-H: MORE PREVALENT MEDICAL CONDITIONS: ASTHMA, DIABETES, ALLERGIES

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These medical conditions are commonly found in children in the United States, and you are likely to have children with at least one of these medical conditions in your 4-H program. These conditions may also be present in conjunction with other disabilities. These conditions are likely to require little intervention from 4-H Extension Educators and 4-H volunteers. However, that does not downplay the importance of learning how to properly care for a 4-H member with any of these conditions.

### ASTHMA

Asthma is a disease that causes wheezing, difficulty breathing, and coughing due to constricted airways. Asthma can be controlled using medicine and avoiding triggers that can cause an attack. In the event of an asthma attack, a child may have extreme difficulty catching his or her breath and may cough or wheeze frequently. There are many triggers of asthma including:

- Smoke
- Pet dander
- Air pollution
- Pollen
- Strong emotional reactions (crying, laughing, yelling, etc.)
- Physical activity

Asthma is a common disease: 1 in 12 children (ages 0-17) in the U.S. have asthma. Parents and caregivers of children with asthma typically develop an action plan for controlling their child's asthma. The action plan should include how to safely use medicine and avoid triggers. Someone who has their asthma under control should be able to do all of their normal activities without much concern. Most asthma symptoms can be controlled using an inhaler and/or oral medication.

### DIABETES

Diabetes is a disease in which the pancreas does not produce insulin, or the body does not effectively use the insulin produced. Insulin is the hormone needed to convert sugars into energy. There are 3 types of diabetes: Type 1, Type 2, and Gestational.

Type 1 diabetes is the most common type found in children. Someone with Type 1 diabetes must take insulin either through an injection or insulin pump daily.

Type 2 diabetes is more common in adults than in children, but children are still at risk for the disease. This type results from increased blood sugar and typically occurs in people who are overweight and/or do not maintain a healthy lifestyle. There are different ways to control Type 2 diabetes including insulin injections, oral medications, and lifestyle changes.

People with type 1 and type 2 diabetes must check their blood sugar levels frequently to keep them under control. If their blood sugar levels are too high or too low, they may exhibit a host of symptoms such as dizziness, confusion, and headache, among others.

## FOOD ALLERGIES

Food allergies are extremely common in children. A food allergy is an immune system reaction that occurs after eating a certain food. A small amount of the allergy-causing food can trigger signs and symptoms of an allergic reaction. Some common symptoms include:

- Digestive problems
- Hives or itching
- Tingling in the mouth
- Swelling of the lips, face, tongue, and throat
- Wheezing, nasal congestion, or trouble breathing
- Dizziness, lightheadedness, or fainting
- Anaphylaxis (life-threatening reaction making it difficult to breathe)

In the event of an Anaphylaxis episode, when the child is unable to breathe, an EpiPen injection is necessary. If a child has a severe food allergy, it is likely they have an EpiPen. During events where the child will be eating, be sure someone knows where the EpiPen is located, and how to use it properly. If the EpiPen is used, 911 should still be called because the symptoms could come back after the emergency medication wears off. If the child is having a severe allergic reaction and there is no EpiPen available, seek medical treatment immediately. Less severe allergic reactions may not require medical intervention, but the child's parents should still be called.

Follow this link to a video about food allergies and proper use of an EpiPen for children: [purdue.ag/epipen](http://purdue.ag/epipen)

## IMPORTANT CONSIDERATIONS

- Have contact information for parents or guardians and the member's doctor in accessible places. An example of this would be behind the child's nametag and in the medical forms box in the main office at 4-H events. This form should include information such as what kinds of medications the child is taking, allergies, if any adaptive devices are used, and other health conditions.
- Visit with the member and his or her parents about the member's medical condition(s).
- Understand that some people may not feel comfortable talking about certain aspects of their condition or disability. Do not force someone to answer questions that make them uncomfortable. Remind them that any information they share is voluntary, confidential, and not required.
- Do not restrict a member's activities just because they have a medical condition. If the member and his or her family are comfortable allowing them to participate in an activity, allow them to do so while following appropriate safety protocols. The member should not be made to feel like they are different than their peers.
- If you do notice the child is having a hard time, engage with them to determine if they need assistance before removing them. If the child does need to be removed, find an alternate activity. For example, if the member is having a hard time breathing during a physical game, ask them to either slow down to catch their breath, or find an alternative task such as keeping score.
- Typically, these medical conditions should not have a significant effect on a child's 4-H experience, but it is important to understand what types of accommodations the child may need to avoid medical emergencies.
- Consider offering training to 4-H volunteers about interacting with 4-H members who have medical conditions and disabilities.
- When creating workshops, events, and programming, always ask if there are access needs that need to be considered (including food or environmental allergies), and provide a contact name/number/email to request those ahead of time.

## ALLERGIES (MISC.)

Children may have allergies to things other than food. Some common allergy triggers in children include:

- Outdoors: tree pollen, plant pollen, insect bites or stings
  - Indoors: animal hair or fur, dust mites, mold
  - Irritants: cigarette smoke, perfume, car exhaust
- Allergy symptoms in children:
- Skin rashes and hives
  - Difficulty breathing
  - Sneezing, coughing, a runny nose or itchy eyes
  - Upset stomach

Unless the allergy is severe, the child should not require major medical intervention if they are exposed to a trigger. Most children with allergies require medication to keep the allergies under control. If someone has an allergy to insect stings, latex, or certain medications and is exposed to the trigger, they may require an EpiPen injection. See information about EpiPen in the **Food Allergies** section.

## ASTHMA TIPS

- Examples of questions to be asked include:
  - a. What are some of the triggers for your asthma?
  - b. What is the severity of these triggers?
  - c. Do you need to keep an inhaler with you for your asthma?
- Develop a plan of action if the child has an asthma attack during a 4-H event.
- There are situations in 4-H which may trigger asthma attacks. Some of these situations may include working with animals, being in a dusty arena, and participating in physical activities. It is important to monitor the activities of a member with asthma and make sure he or she always has medication accessible.
- If a member begins to have an asthma attack, leaders should stay calm and do their best to keep the member calm. If their medication is not helping and their symptoms of the attack worsen, parents should be called, and the child may need to go to the hospital.

## FOOD ALLERGY TIPS

- Examples of questions to be asked include:
  - a. What reactions do you experience if you are exposed?
  - b. Do you have an EpiPen?
  - c. Are you comfortable with having an adult 4-H educator or volunteer administering the EpiPen if needed?
- Some children may have allergies so severe that they cannot be in the same room with a certain food. Before serving food at any event, be sure to check with each family about food allergies.
- If one child is allergic to a certain food, it is best to avoid serving that food at an event where the child will be eating; this will increase the chances of avoiding an allergic reaction.
- If you know of a child with severe food allergies, always keep their EpiPen near them. If the EpiPen is kept in a separate location, by the time it gets to the child, it could be too late. Have a designated person keep track of medical supplies for the children.
- Always have an action plan for children with food allergies with procedures for medical treatment, especially at events like 4-H camp when the child will be away from their parents.

## DIABETES TIPS

- Examples of questions to be asked include:
  - a. What information is helpful for us to understand your diabetes?
  - b. Do you use an insulin pump or insulin injections?
  - c. Are you able to give your own insulin injections?
  - d. What types of snacks, if any, do you take when needed for your blood sugar?
  - e. What are signals that you need to check your blood sugar?
- Stress can cause fluctuations in insulin levels. This is important to keep in mind, because 4-H events can often cause stress (both good and bad), especially if it is a new experience to the member.
- If a child has low blood sugar, it is important to have quick doses of sugar available.
- Make appropriate arrangements and modifications before any event which includes food and drinks. (Drinks such as apple juice or something similar generally allows for quicker sugar absorption.)

## MISC. ALLERGY TIPS

- Most of the time families will manage their child's allergies at home, through medication.
- Have an action plan in place with the child's parents in case the child is exposed to a trigger and has an allergic reaction.
- Try to help the child avoid triggers. For example, if there is a child in your program who is allergic to dogs, either warn them if dogs will be present at an event, or find an alternative to using a live dog.

## ADDITIONAL RESOURCES

- General: [www.CDC.gov](http://www.CDC.gov) and [www.mayoclinic.org](http://www.mayoclinic.org) are both good resources for information regarding medical conditions and disabilities.
- Asthma and Allergies: <https://acaai.org/>

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