

Adolescents and Anaphylaxis

For adolescents at risk of anaphylaxis and their parents, the shift from elementary school to a much larger middle or high school can be unsettling. Parents and teens at risk need to rethink the teen's anaphylaxis management strategies to address both a new environment and the developmental changes that take place during puberty. There are many changes during this time, but three stand out: the loss of control over the school environment, the social changes that teens face, and the way the teen's brain will be evolving during this time.

School Environment

When students move from a smaller elementary school to a larger high school setting, they have access to a whole new group of people from which to choose their friends. They may stop seeing friends who knew them well in elementary school and who knew what to do in an emergency. They may not tell their new school friends about their allergy and parents may not be aware that they are no longer with friends who know what to do in an emergency.

While adolescents are expected to take on more responsibility, this is a time when parental involvement and ongoing communication with their children is critical. Several studies of fatal anaphylaxis indicate that age may be a factor. Many of the individuals who died from anaphylaxis were older children, teens and young adults. Teens at risk, their parents, and school staff should work together to agree to an anaphylaxis management strategy which protects the teens while respecting their need for privacy and their personal choice about how they want to educate others.

Social Changes

As teens are under less adult supervision, they must learn to teach their friends about their allergy and how to avoid accidental exposure. For safety's sake, a significant food allergy should always be disclosed, and the sooner the better.

It is important for parents to start talking to their teens about how they will handle social situations at an early age. Research is starting to show that parents should begin talking about sensitive issues (for example, sex and drugs) about two years earlier than they think they need to. Evidence shows that children will start learning about these things on the playground at 10 or 11.

Teens must learn to deal with awkward situations such as advising their date of a food or latex allergy **before** they engage in any physical contact. Teens at risk of anaphylaxis must disclose their allergy to their friend. Severe allergic reactions can occur if a residual amount of a food protein is transferred orally during intimate kissing. Teens who are allergic to latex and are sexually active should inform their partner about the need to use a non-latex condom.

Teens must be able to resist peer pressure and seek help if they are being teased or bullied about their food allergy. Adolescents must be able to count on their friends for support and assistance should they have an allergic reaction.

Brain Development

During puberty the brain undergoes a complete re-ordering. A very organized, easygoing child may change completely during this time. Regrettably, the part of the brain that makes decisions is the last to mature. Recent research shows that the development process is not completed until around age 25. Teens at risk of anaphylaxis may go through a period of very poor decision making. They may engage in risky behavior such as eating unsafe foods or neglecting to carry their medications. It is important for both parents and educators to be realistic about these changes and watch for irresponsible behaviour.

Adolescents are eager to fit in, which means being like every one else. For anaphylactic teens this means not telling friends about their condition and may mean not wearing a fanny pack anymore. Instead, the epinephrine auto-injector gets put in back packs or purses that may not always be with the student. Teachers need to know where the auto-injector is being carried at all times.

Parents should stay involved in their teen's lives and remember to acknowledge their efforts when they act responsibly about their allergy. Teens with life-threatening allergies must learn how to manage their condition as they move towards adulthood.

Management of Anaphylaxis in the High School Setting

- It is important for individuals at risk of anaphylaxis to be under the care of a physician. Teens with asthma who are also at risk of anaphylaxis need to be followed by an allergist on a regular basis. Studies show that victims of fatal anaphylaxis were often older children, teens and young adults, many of whom had a history of anaphylaxis and were also asthmatic.

Teens with asthma who are at risk of anaphylaxis should be taught to err on the side of caution and use their epinephrine auto-injector if they are not sure if they are having an asthma attack or an allergic reaction. Epinephrine can be used to treat a life-threatening asthma attack or an allergic reaction. They **must** carry an epinephrine auto-injector at all times and know how to use it. If they have asthma, they should also carry their asthma inhalers with their auto-injector. Some high school staff and school nurses do 'spot checks' to ensure that students at risk have their auto-injectors and asthma inhalers (if appropriate) with them.

- Food-allergic students should always be cautious about eating food from the school cafeteria and ask about ingredients each time food is purchased. (Parents should role play with their children to teach them how to inquire about food safety when they are away from home, out of their care. Ideally, older children should be familiar with safety procedures when dining out before they enter high school where there is typically a cafeteria.)

- Teens at risk should eat off a napkin to avoid contact with potentially contaminated surfaces. If they do not have their auto-injector with them, they should not eat.
- Teens should eat lunch with friends who are informed about their allergy and are able to help them if they have a reaction. These friends would know where their auto-injector is kept and when and how to use it. Some schools have incorporated a special lesson in the health curriculum to teach peers about anaphylaxis.
- Students at risk need to know they have the support of school staff, and all complaints should be taken seriously. Parents are encouraged to meet with their child's teachers and coaches individually to review their child's situation. Some parents ask if the student can eat during the first lunch period and to have a designated table which a custodian and the student wipe down. Parents and students should make sure that eating arrangements at school and on field trips are in place. This process may need to be repeated when the semester changes.
- In some schools, first responders (such as paramedics) will be fully trained, but everyone needs to know about the allergy and how the emergency protocol works. At the beginning of the school year, all high school staff should be informed about allergic students and, ideally, all staff should be trained.
- Foodservice staff should be included in anaphylaxis training for staff. An Anaphylaxis Emergency Plan for all food-allergic students should be kept in foodservice preparation areas where staff can review information discreetly while respecting the privacy of food-allergic students.
- High schools should consider keeping a spare epinephrine auto-injector in the cafeteria and office in case of emergency. The accessibility of back-up devices needs to be considered; they should not be locked up. (High school offices are often locked at the end of the school day, however, students may be at school until evening for extra curricular events.)
- High school populations are comprised of students from many different "feeder" schools in a region. It is important that school computer systems are set up to track critical information as students register. This includes the student's health information, including information about anaphylaxis. All staff need to know which students are at risk for all medical conditions.

Employment

Teens at risk of anaphylaxis should be careful about potential occupational hazards in the workplace, especially where they may be repeatedly exposed to their allergen. For example, teens often seek part-time employment in the foodservice sector. If they have severe food allergies, they need to be selective about the type of work they can do or the environment in which they can work safely.