Teaching Students to Manage Their Life-threatening Allergies & Asthma

The mission of ALLERGY & ASTHMA NETWORK is to end the needless death and suffering due to asthma, allergies and related conditions through outreach, education, advocacy and research.
Today’s Program

01 OVERVIEW OF ALLERGIES & ASTHMA

02 SELF-MANAGEMENT FOR STUDENTS

03 EVIDENCE-BASED RESOURCES FOR TEACHING & CARE
It could happen on any day -

Meet Riley & Jake
Constantly giggling – have a talent for getting into trouble
Riley has an allergy to peanuts
Exposure at lunch – started to show symptoms on the playground

Riley knew what to do – Jake had been taught too

Because the boys knew what to do – a tragic outcome did not occur
We need to teach our students
OVERVIEW OF ALLERGIES & ASTHMA

Life-Threatening Allergies

1 in 12 children have food allergies

$24.8 billion annual cost of food allergies

29% of children with food allergies have asthma

25% of reactions in school without a previous diagnosis

150-200 fatalities per year from food allergies

40 fatalities per year from insect stings

400 fatalities per year from drug allergy

1-6% of Americans have latex allergy
1 – 2 students in every classroom, in every school in our country are at risk for a life-threatening reaction to a food allergy.

**Anaphylaxis**

*Symptoms by System*

**MOUTH**
Itching, swelling of lips and/or tongue

**THROAT**
Itching, tightness/closure, hoarseness, difficulty swallowing

**HEART**
Weak pulse, dizziness, passing out, cardiac arrest

**CHEST**
Shortness of breath, cough, wheeze, chest pain, tightness

**SKIN**
Itching, hives, redness, swelling

**STOMACH**
Vomiting, diarrhea, cramps

**OTHER**
Feeling of impending doom, headache, itchy, watery eyes, nasal congestion
GOALS OF ALLERGY CARE

Planning
- Policies & Procedures
- Care Planning
  - Medications
- Staff Education
  - Food Label Reading
  - Student Education

PREVENTION

EMERGENCY CARE

Protocols
- Emergency Care Plans
- Availability of Epinephrine
  - Stock Epinephrine
- Staff Response

Allergy Care in the School Setting

Successes
- Awareness raised
- Resources available
- Epinephrine injectors
- Stock Epinephrine

Challenges
- Time for education
- Administrative “buy-in”
- Funding & resources
- # of school nurse positions
13

**Asthma**

- **25 MILLION** Americans diagnosed
- **1 in 10 CHILDREN**
- **$80 BILLION** annual costs
- **3,168 DEATHS** annually
- **13.8 MILLION** missed school days per year
- **14.2 MILLION** missed work days per year
- **3 in 5** limit physical activity
- **71%** misuse inhalers
- **1 in 5 CANNOT AFFORD medications**

14

01 Difficulty breathing

02 Mucus in air sacs

03 Constricted airway
Asthma

**Bronchospasm**
- “Noisy” part of asthma
- Sensitive airways tighten & constrict
- Airflow is blocked
- Coughing, wheezing

**Inflammation**
- “Quiet” part of asthma
- Inflammation & swelling
- Can’t feel this happening
- Shortness of breath, restricted airflow

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**GOALS OF ASTHMA CARE**

**Routine Care**
- Doctor’s Orders
- Medications (Know what they take at home)
- Staff Training
- Student Education (use straw demonstration)

**Asthma Action Plan**
- Templates
- SAMPRO Action Plan
- Green, Yellow & Red Zone
- Families often don’t understand how to use the plan
Asthma Care in the School Setting

**Successes**
- High level of awareness
- Resources available
- School nurses are comfortable caring for students with asthma

**Challenges**
- Need for Stock Albuterol
- Low level of understanding of how to use inhaler, nebulizer
- Environmental triggers – bus idling

Self-Management for Students
What is “Normal”?

Developmental Stages

Physical  Emotional  Social  Cognitive

Could add Moral, Cultural, Spiritual

Developmental Capabilities does not equal Chronological Age

**Developmental Stages**

- **PRESCHOOL** 3 – 5 years
- **EARLY ELEMENTARY** 6 – 7 years
- **UPPER ELEMENTARY** 8 – 11 years
- **MIDDLE SCHOOL** 12 – 14 years
- **HIGH SCHOOL** 15 – 17 years
PRESCHOOL YEARS

3-5 years

Parents provide care, helping the child to learn about his or her body and routines of daily life (such as carrying medications).

Preschool Self-Care Skills

Overall Skills
Follow the adult’s instructions for treatment

Asthma
Tell parents or responsible adults when it gets hard to breathe

Allergies
Tell parents or responsible adults when an allergic reaction occurs

Adults can help the child develop the language to express what they are feeling
Specific Considerations for Preschoolers

Cooperation
Child learns to cooperate when using inhaled medications, emergency allergy medications

Age-appropriate education
Child learns about asthma and allergies and understands their condition at a developmentally appropriate level

Identification
Child learns how to alert an adult as to breathing problems or allergy symptoms

Discussion and Teaching:
• “Where are your lungs?” - “How do they work?” - “Who should you tell if you’re breathing is hard?”
• “Do you know what you’re allergic to?” - “How can you tell someone that you feel like you might be having an allergic reaction?” - “Allergens as invaders”

Always work with families and consider developmental stage more than chronological age

02
EARLY ELEMENTARY YEARS
6 – 7 years

Parents and adult caregivers help the child navigate separation from parents
Early Elementary Self-Care Skills

Overall Skills
Learn to communicate asthma/allergy symptoms to teacher & caregivers

Asthma
Learn to trust care-givers beyond parents

Allergies
Know where their medications are at home and school

Specific Considerations for Early Elementary Students

- **Triggers or Allergens**: Child is able to identify their triggers or allergens
- **Age-Appropriate Education**: Child can assist in administration of medications and identify symptoms of asthma & allergies
- **Identification**: Child is able to identify routine & emergency medications

Discussion and Teaching:
- “What do you think triggers your asthma?” - “When do you need your medication?” - “What color is your inhaler?”
- “Tell me what happens if you eat a food you’re allergic to.” - “How do you get help when you need it?”

Always work with families and consider developmental stage more than chronological age
UPPER ELEMENTARY YEARS

8 - 11 years

Child focuses on peers and establishing friendships

Parents clarify responsibilities outside of the home – safety rules & social etiquette

Upper Elementary Self-Care Skills

Overall Skills
Know when to get help
Independently request or use emergency medication

Asthma
Recognize symptoms of asthma
Know what daily & quick relief medications they have

Allergies
Recognize symptoms of an allergic reaction
Know when to pursue care – become more involved in care
Specific Considerations for Upper Elementary Students

**Beginning Self-Care**
Child starts to identify technique and need for inhaled medications and/or emergency epinephrine.

**Making Decisions**
The child starts to make more decisions regarding care - when they need their inhaler, how to avoid allergens.

**Bullying**
Child can identify bullying and learn strategies to manage bullying in and out of school.

**Discussion and Teaching:**
- "Show me how you use your inhaler." - "What does your medication do in your body?"
- "How can you avoid your allergens at school? At home?" - "Has anyone bullied you because of your allergy?" - Dealing with bullies

Always work with families and consider developmental stage more than chronological age.

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**MIDDLE SCHOOL YEARS**

12 – 14 years

Parents provide framework for increased independence & learning life skills.

Discuss strategies for more complex tasks.
Middle School Self-Care Skills

Overall Skills
- Carry medications when appropriate
- Allow for increasingly independent care whenever possible

Asthma
- Develop medication routine with parental supervision
- Seek medication before exercise if needed

Allergies
- Know allergens and how to avoid them – including reading food labels
- Learn how to assess environment for safety

Specific Considerations for Middle School Students

Self-Medicate
- Student takes own inhaled medications

Self-Management
- Student can identify when to use routine and emergency medications and carries medications as appropriate

Self-Reports
- Student can articulate general condition over time to doctors and nurses to help guide treatment

Discussion and Teaching:
- Inhaler self-management - "How do you feel about having asthma?" - "Is your asthma in control?"
- "When do you need epinephrine?" - "How would you go about getting your epinephrine when needed?"

Always work with families and consider developmental stage more than chronological age
HIGH SCHOOL YEARS
15 – 17 years

Students need assistance in making choices on avoiding exposures & managing symptoms

Working towards independent care

High School Self-Care Skills

Overall Skills
Can perform self-care
Understands physiology of condition and makes appropriate decisions

Asthma
Identifies inhalers and their action
Takes the lead in managing symptoms and taking medications

Allergies
Takes responsibility to avoid allergens
Carries epinephrine responsibly
Knows when and how to administer emergency medication
Specific Considerations for High School Students

- **Independence**
  Teen manages self-care with inhaled and/or allergy medications

- **Self-Advocate**
  Becomes an active partner in asthma & allergy care

- **Ready to Launch**
  Teen has the skills to self-manage condition in an independent setting

Discussion and Teaching:
- "When is your next doctor appointment – what are you going to prepare to discuss?" - Medication self-management - Picking up prescriptions - Identifying when asthma is in control – Medical emergency
- Epinephrine self-management, including watching expiration dates - Allergen avoidance - Food label reading - Managing in a restaurant setting

Always work with families and consider developmental stage more than chronological age

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**EVIDENCE-BASED RESOURCES FOR TEACHING & CARE**
ALLERGY & ASTHMA NETWORK

- Understanding Asthma
- Understanding Allergies
- Understanding Anaphylaxis
- Understanding Atopic Dermatitis

Posters

- Respiratory Treatments
- Anaphylaxis at a Glance
- Epinephrine Treatments
Allergy 101
Information on allergies and management

School Safety Guidance for Allergy Management
School specific information on education and emergency response

Educational Resources for Student & Staff Instruction
Programs & resources

Will be updated in 2022

Take Action. Take Control
Created by Allergy & Asthma Network and CHEST

ASTHMA: TAKE ACTION. TAKE CONTROL.
WHAT IS ASTHMA?
Asthma is a chronic lung disease in which the airways become overly inflamed and constricted, which makes it hard to breathe. Severe or difficult-to-control asthma is more serious and a greater threat to your health.

SPOT YOUR SYMPTOMS
- Shortness of breath
- Chest tightness
- Wheezing
- Coughing

DO YOU KNOW?
1. Identify your symptoms
2. Use an inhaler for quick relief
3. Keep track of how often you use your inhaler
4. Talk to your doctor about your treatment

4 STEPS TO TAKE CONTROL OF YOUR ASTHMA
1. Avoid triggers
2. Check your symptoms
3. Keep your medications current
4. Have a plan for asthma attacks

VITALITY CHECK:
- Take your medications
- Avoid triggers
- Check your symptoms

Asthma.chestnet.org
Web-based Resources for Teaching

01 KidsHealth
Portals for Educators
Teacher’s guides

02 Open Airways
American Lung Association
Curriculum Available

03 FAME
Food Allergy Management & Education

04 AMES
Asthma Management & Education for Schools

Children & Teens should feel good about their asthma and allergy care

01 Fully participate
Participate in activities:
• Physical activity with asthma
• Activities that may include allergens

02 Sleep well
Have a good sleep routine
• No asthma symptoms at night
• Anxiety management about chronic health condition

03 Have “normal” life
• Have normal or near normal lung function
• No bullying or isolation at lunch time

04 Have few or no ER visits
Preventive care preventing emergencies
• Asthma care and medication management
• Prevent allergen exposures whenever possible

05 Few side effects
Right medication at the right time
• Quick relief vs. controller asthma medications
• Epinephrine FIRST, epinephrine FAST in an anaphylactic emergency

06 Growing independence
Encourage self-care and a strong sense of self
• Feel good about who they are
• Feel empowered to live a full life
Educated Students = Empowered Students = Positive Health Outcomes

Children need to learn how to take care of their chronic conditions
When they do, they can self-manage & react quickly in emergencies
More children can have positive outcomes like Riley!

QUESTIONS

We’ll get to as many questions as we can!
Next Webinar

COVID-19 & Immunity Issues: Upcoming Treatment Options
January 20, 2022
4:00 PM ET

Breathe Better Together

Allergy & Asthma Network
allergyasthmanetwork.org