Welcome!

Common Chronic Conditions Training
Know Your Students

Know the School’s Process
Asthma
Training Objectives

1. Recognize a student who is having an asthma attack

2. Know where to find care plan and how to use it to treat the student

3. Identify correct inhaler technique
Asthma Management in Schools

1. One out of every 12 school aged child has asthma
2. One of the leading causes of health related absences
3. Allows student to participate in activities
What Does Asthma Look Like?
Mild Symptoms of an Asthma Attack

1. Trouble breathing
2. Wheezing
3. Frequent cough
4. Chest tightness
5. Change in activity level
# Colorado Asthma Care Plan and Medication Order for School and Child Care Settings

## Student Information

- **Parent/Guardian Complete and Sign:**
  - **Child Name:**
  - **Parent/Guardian Name:**
  - **Phone:**
  - **Healthcare Provider Name:**
  - **Phone:**

## Triggers

- Weather (cold air, wind) □
- Illness □
- Exercise □
- Smoke □
- Dust □
- Pollen □
- Other □

**Life-threatening allergy, specify:**

I give permission for school personnel to share this information, follow this plan, administer medication and care for my child/youth, and if necessary, contact our healthcare provider. I assume full responsibility for providing the school/program prescribed medication and supplies, and to comply with board policies, if applicable. I am aware 911 may be called if a quick relief inhaler is not at school and my child/youth is experiencing symptoms. I approve this care plan for my child/youth.

## Healthcare Provider Complete All Items, Sign and Date

<table>
<thead>
<tr>
<th>Quick Relief (Rescue) Medication</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common side effects: □ heart rate, tremor</td>
<td></td>
</tr>
<tr>
<td>□ Have child use spacer with inhaler</td>
<td></td>
</tr>
<tr>
<td>Controller medication used at home</td>
<td></td>
</tr>
</tbody>
</table>

## Symptoms

### Green Zone: No Symptoms
- No current symptoms
- Doing usual activities

### Yellow Zone: Mild Symptoms
- Trouble breathing
- Wheezing
- Frequent cough
- Complains of tight chest
- Not able to do activities, but talking in complete sentences
- Peak flow: □

### Red Zone: Emergency Symptons
- Coughs constantly
- Struggles to breathe
- Trouble talking (only speaks 3-5 words)
- Skin of chest and/or neck pull in with breathing
- Lips/fingernails gray or blue
- □ Level of consciousness
- Peak flow: □

## Response

**If you see this:**

- Pretreat strenuous activity: □ Not required □ Routine □ Student/Parent request
- Give Quick Relief Med 10-15 minutes before activity: □ 2 puffs □ 4 puffs
- Repeat in 4 hours, if needed for additional physical activity: □
- If child is currently experiencing symptoms, follow YELLOW ZONE.

**Do this:**

1. Stop physical activity.
2. Give QUICK RELIEF MED: □ 2 puffs □ 4 puffs
3. Stay with child/youth and maintain sitting position.
4. REPEAT QUICK RELIEF MED, if not improving in 15 minutes: □ 2 puffs □ 4 puffs
5. Child/youth may go back to normal activities, once symptoms are relieved.
   - If symptoms do not improve or worsen, follow RED ZONE.

**Provider Instructions for Quick Relief Inhaler Use:**

- □ Student needs supervision or assistance to use inhaler. Student will not self-carry inhaler.
- □ Student understands proper use of asthma medications, and in my opinion, can carry and use his/her inhaler at school independently with approval from school nurse and completion of contract.
- □ Student will notify school staff after using quick relief inhaler, if symptoms do not improve with use.

**Healthcare Provider Signature:**

<table>
<thead>
<tr>
<th>Print Provider Name</th>
<th>Date</th>
<th>Fax</th>
<th>Phone</th>
</tr>
</thead>
</table>

Copies of plan provided to: □ Teacher(s) □ PhysEd/Coach □ Principal □ Main Office □ Bus Driver □ Other

*Appendix 4a: Asthma Action Plan for School*
Common Asthma Triggers

- Physical Activity
- Colds/illness
- Allergies
- Smells
- Emotions
- Unique triggers
When an Asthma Attack Happens

1. Remove Trigger
2. Stay with Student
3. Follow Asthma Care Plan
<table>
<thead>
<tr>
<th>IF YOU SEE THIS:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No current symptoms</td>
<td>Pretreat strenuous activity: □ Not required □ Routine □ Student/Parent request</td>
</tr>
<tr>
<td>• Doing usual activities</td>
<td>Give QUICK RELIEF MED 10-15 minutes before activity: □ 2 puffs □ 4 puffs</td>
</tr>
<tr>
<td>• Green Zone: No Symptoms</td>
<td>□ Repeat in 4 hours, if needed for additional physical activity.</td>
</tr>
<tr>
<td>Pretreat</td>
<td>If child is currently experiencing symptoms, follow YELLOW ZONE.</td>
</tr>
</tbody>
</table>
## Asthma Care Plan - Yellow Zone

<table>
<thead>
<tr>
<th>IF YOU SEE THIS:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Trouble breathing</td>
<td>1. Stop physical activity.</td>
</tr>
<tr>
<td>• Wheezing</td>
<td>2. Give QUICK RELIEF MED: □ 2 puffs □ 4 puffs</td>
</tr>
<tr>
<td>• Frequent cough</td>
<td>3. Stay with child/youth and maintain sitting position.</td>
</tr>
<tr>
<td>• Complains of tight chest</td>
<td>4. <strong>REPEAT</strong> QUICK RELIEF MED, if not improving in 15 minutes: □ 2 puffs □ 4 puffs</td>
</tr>
<tr>
<td>• Not able to do activities, but talking in complete sentences</td>
<td>5. Child/youth may go back to normal activities, once symptoms are relieved.</td>
</tr>
</tbody>
</table>

*If symptoms do not improve or worsen, follow RED ZONE.*
# Asthma Care Plan - Red Zone

<table>
<thead>
<tr>
<th>IF YOU SEE THIS:</th>
<th>DO THIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Coughs constantly</td>
<td>1. Give QUICK RELIEF MED: □ 2 puffs □ 4 puffs</td>
</tr>
<tr>
<td>• Struggles to breathe</td>
<td>▪ Refer to anaphylaxis plan, if child/youth has life-threatening allergy.</td>
</tr>
<tr>
<td>• Trouble talking (only speaks 3-5 words)</td>
<td>2. Call 911 and inform EMS the reason for the call.</td>
</tr>
<tr>
<td>• Skin of chest and/or neck pull in with breathing</td>
<td>3. Stay with child/youth. Remain calm, encouraging slower, deeper breaths.</td>
</tr>
<tr>
<td>• Lips/fingernails gray or blue</td>
<td>4. Notify parents/guardians and school nurse.</td>
</tr>
<tr>
<td>• Level of consciousness</td>
<td>5. If symptoms do not improve, <strong>REPEAT</strong> QUICK RELIEF MED: □ 2 puffs □ 4 puffs every 5 minutes until EMS arrives.</td>
</tr>
<tr>
<td>• Peak flow &lt; ______________</td>
<td></td>
</tr>
</tbody>
</table>

*School personnel should not drive student to hospital.*
Steps For Using An Inhaler

1. Prepare the medication
2. Prepare the student
3. • Exhale  
   • Inhale  
   • Hold  
   • Exhale
4. Follow Asthma Care Plan
Prepare the Medication

MDI

MDI with valved holding chamber / spacer

MDI with valved holding chamber / spacer and mask
Prepare the Student

- Have the student stand / sit up straight
- Stay with the student

The Student:
1. Exhale’s their breath
2. Inhales the medication
3. Holds the medication in their lungs
4. Exhales their breath
Exhale / Inhale / Hold / Exhale

Metered Dose Inhaler (MDI)

1. Have student **EXHALE** their breath
2. Place the mouthpiece in the student's mouth, with lips tightly sealed around the mouthpiece.
3. Press the inhaler
4. Have student **SLOWLY** inhale the medication
5. Have student hold their breath for **10 SECONDS**
6. Have student **EXHALE**
7. Have student **RESUME NORMAL BREATHING**
8. Wait one minute and repeat above steps for each puff prescribed
Exhale / Inhale / Hold / Exhale

MDI with valved holding chamber/spacer

1. Have student EXHALE their breath
2. Place the mouthpiece in the student's mouth, with lips tightly sealed around the mouthpiece.
3. Press the inhaler
4. Have student SLOWLY inhale the medication so the VALVED HOLDING CHAMBER DOES NOT MAKE A NOISE
5. Have student hold their breath for 10 SECONDS, if able
6. Have student EXHALE
7. Have student RESUME NORMAL BREATHING
8. Wait one minute and repeat above steps for each puff prescribed
Exhale / Inhale / Hold / Exhale

MDI with valved holding chamber and mask

1. Have student **EXHALE** their breath
2. Place the mask over the student’s nose and mouth forming a tight seal
3. Press the inhaler
4. Have student breath in and out for **10 SECONDS**
5. **REMOVE MASK** and have student **RESUME NORMAL BREATHING**
6. Wait one minute and repeat above steps for each puff prescribed
Follow Asthma Care Plan

Review Asthma Care Plan to know if the student needs additional medication and further care.
What’s The Deal With Self Carry?
What is included in the Asthma Care Plan?

A. Student’s name  
B. Triggers  
C. Medication  
D. Symptoms  
E. Response  
F. All of the above
A student with asthma is having trouble breathing. What should you do next?

A. Ask your friend who has asthma
B. Review the Asthma Care Plan
C. Ignore
D. Talk to the school nurse the next time you see them
E. Send the student to the health office
What is the correct order for using an inhaler?

A. Inhale / Exhale / Hold / Exhale
B. Lie Down / Rest / Wait 1 minute / Use Inhaler
C. Exhale / Inhale / Hold / Exhale
What do you do if a student has an Inhaler in your classroom?

A. Ask your school nurse if the student has a self carry contract
B. Have them share with other students
C. Take it away
D. Nothing
1. Identify which students have severe allergies
2. Know where to find the care plan and how to use it
3. Explain correct epi pen technique
4. Manage, using ACT and REAct severe allergic reactions
Allergy Management in Schools

1. Occur frequently
2. 32% unrecognized
3. 24% experience bullying
4. Decreased with staff involvement
**ACT to Prevent Accidental Exposures**

1. Avoid
2. Communicate
3. Teach

**Be prepared to REAct**

1. Recognize Anaphylaxis
2. Epinephrine
3. Activate School’s Emergency Response Plan
ACT:
Avoid - Prevent an emergency by avoiding the allergen
Common Food Allergens:

- Peanuts
- Soy
- Fish
- Nuts
- Milk
- Shellfish
- Wheat
- Eggs
Other Common Allergens:

- Insect stings
  - bees
  - wasps
  - hornets
  - fire ants

- Latex

- Medications
Causes of Unintentional Allergen Exposure

1. Ingestion
2. Contact contamination
3. Cooking in class
4. Craft projects
ACT:
Communicate -
Know your students
ACT: Teach

1. Allergy avoidance
2. Zero tolerance for bullying
3. Self-awareness
4. Being a good friend means DON’T share food
5 Hand Washing

Before and after eating or handling potential allergens:
  - Hands must be washed for 20 seconds

What Works:
  - Soap and water
  - Commercial hand wipes

What Doesn’t Work:
  - Hand sanitizer
Surface Washing

Before and after eating or handling potential allergens:

- Surfaces must be cleaned

What Works:
- Soap and water
- Commercial hand wipes

Avoid:
- Re-dipping cloth or sponge in bucket
- Asking food allergic children to clean tables or desks
Bullying of Students with Food Allergies

Approximately 1/3 of children with food allergies report being bullied.

<table>
<thead>
<tr>
<th>This Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teasing because of eating at special tables</td>
</tr>
<tr>
<td>Threats with foods</td>
</tr>
</tbody>
</table>

Beyond the social and emotional impact bullying can have, it can also pose a severe physical threat to the student.
Need to REAct:

1. Recognize the emergency. Obtain allergy plan and medication
2. Epinephrine; Prepare medication; Follow allergy action plan
3. Activate school’s emergency response plan
REAct - Recognize the Emergency
Symptoms of Mild Allergic Reaction

1. Nose
2. Skin
3. Gut
Symptoms of Severe Allergic Reaction

- Lung - Short of breath
- Throat - Tightness, hoarse
- Mouth - Swelling of tongue / lips
- Heart - Pale, blue, faint, dizzy
- Skin - Hives, redness
- Gut - Vomiting or diarrhea (if severe)
- Other - Confusion, agitation
REAct - Epinephrine

Emergency Plan:

Student Name: ________________________  DOB: ________________________

Staff trained and delegated to administer emergency medications in this plan:

1. ________________________  Room: ________________________
2. ________________________  Room: ________________________
3. ________________________  Room: ________________________

Self-carry contract on file:  Yes  No

Expiration date of epinephrine auto injector: ________________________

Keep the child lying on their back. If the child vomits or has trouble breathing, place child on his/her side.

**AUVI-Q® (EPINEPHRINE INJECTION, USP) DIRECTIONS**
1. Remove the outer case of Auvi-Q. This will automatically activate the voice instructions.
2. Pull off red safety guard.
3. Place black end against mid-outter thigh.
4. Press firmly and hold for 5 seconds.
5. Remove from thigh.

**ADRENACLICK® (EPINEPHRINE INJECTION, USP) AUTO-INJECTOR DIRECTIONS**
1. Remove the outer case.
2. Remove grey caps labeled “1” and “2”.
3. Place red rounded tip against mid-outter thigh.
4. Press down hard until needle enters thigh.
5. Hold in place for 10 seconds. Remove from thigh.

**EPIPEN® AUTO-INJECTOR DIRECTIONS**
1. Remove the Epipen Auto-injector from the clear carrier tube.
2. Remove the blue safety release by pulling straight up without bending or twisting it.
3. Swing and firmly push orange tip against mid-outter thigh until it ‘clicks’.
4. Hold firmly in place for 3 seconds (count slowly 1, 2, 3).
5. Remove auto-injector from the thigh and massage the injection area for 10 seconds.

If this condition warrants meal accommodations from food service, please complete the form for dietary disability if required by district policy.

Additional information: ____________________________________________________________

Adopted from the Allergy and Anaphylaxis Emergency Plan provided by the American Academy of Pediatrics, 2017
REAct - Activate School’s Emergency Response Plan

• Response from emergency medical services for monitoring and additional treatment
What is the best way to prevent an allergic reaction?

A. Wash your hands  
B. Share snacks among students  
C. Avoid exposure to allergen  
D. Do not worry about it
A student with no documented allergies is having difficulty breathing, complaining of nausea and has hives all over their body.

What should you do first?

A. Call their parents
B. Activate the school’s emergency response plan
C. Use another student’s epi-pen
D. Leave the student just for a minute to find another adult
Training Objectives

1. Identify which students have diabetes
2. Recognize symptoms of high and low blood sugar
3. Know where to find the care plan and staff who can help with emergencies
Diabetes is:

A chronic disease in which the body does not make or properly use insulin.

Type 1 diabetes:
• Requires insulin

Type 2 diabetes:
• May be controlled with diet or oral medications
• Might require insulin
Check Blood Glucose Levels

- Regular basis, usually before lunch
- Manage their diabetes
- Recognize symptoms - high or low blood sugar

CGM

Finger poke
5 Common Symptoms of Mild to Moderate Low Blood Sugar

1. Shaky
2. Irritable
3. Hungry
4. Confusion
5. Tired or Drowsy

Look at student’s care plan
Mild / Moderate Low Blood Sugar Steps to Follow

1. Check blood sugar, if possible
2. Send student to office WITH a responsible person
3. Notify the office
Give quick acting sugar:

- Glucose tablets
- Juice box, Capri pouch
- Regular soda pop 4-6 ounces
- 2-3 Smarties candy rolls

Look at student’s care plan
Give glucose gel:

1. Keep head elevated
2. Squeeze gel between cheek and gum
3. Encourage child to swallow

Look at student’s care plan
Severe Low Blood Sugar

1. Unable / Unwilling to swallow
2. Unconscious
3. Having a seizure

Medical Emergency
Alert delegated staff to bring glucagon

- Position student on side
- Remain with student
- Emergency response plan initiated
4 Common Symptoms of High Blood Sugar

1. Thirsty
2. Frequent restroom use
3. Stomach ache
4. Nausea

Look at student’s care plan
High Blood Sugar
Steps to Follow

1. Check blood sugar, if possible
2. Send student to office WITH a responsible person
3. Notify the office
A student with Type 1 diabetes must have insulin daily in order to survive.

A. True
B. False
A student with mild to moderate low blood sugar (hypoglycemia) may be?

A. Shaky
B. Irritable
C. Hungry
D. Confused
E. Tired
F. Drowsy
G. All of the above
What is an example of a quick acting sugar?

A. Granola bar
B. Crackers
C. Diet soda
D. Juice, Capri
Seizures
Training Objectives

1. Recognize the different types of seizures
2. Respond and provide first aid to a student who has a seizure
Seizures are:

A brief excessive discharge of electrical activity in the brain

Classified as:

• Generalized
• Focal
How to Respond & Provide First Aid

1. Know which students have a documented history
2. Read their Seizure Action Plan
3. Know your school’s emergency response plan
4. Document all seizures on Seizure Observation Record

Contact school nurse with questions
Seizure Triggers

• Missed medication
• Sleep deprivation
• Flashing lights
• Illness

• Stress
• Dehydration
• Sudden rise in temperature
• Overheating
• Hormones

Try to Manage these Triggers
3 Types of Seizures

1. Generalized
2. Absence
3. Focal
4. Non-epileptic Spells
Generalized Seizure

1. A sudden, hoarse cry; fall, with loss of consciousness
2. Stiffening arms/legs with rhythmic jerking, shallow breathing
3. Possible drooling, loss of bowel or bladder control, bluish skin, nails, lips
4. Generally lasts from seconds to 3 minutes
5. Followed by tiredness, confusion, headache
Generalized Seizure Response

1. Refer to Seizure Action Plan
2. Remain calm and time seizure
3. Have a responsible person escort other students out of the area
4. Stay with the student
Provide First Aid

1. Clear the area around student
2. Do not restrain - this may result in injury
3. Cushion head
4. Turn student on side to allow saliva to drain out of mouth
5. Do not put anything in students mouth
Provide First Aid

6. Give rescue medication per Seizure Action Plan, if ordered
7. After seizure, remain with student until they are oriented
8. Provide emotional support
9. Document seizure activity
Initiate School’s Emergency Response

- First time seizure
- Generalized seizure lasts longer than 5 minutes or per seizure action plan
- Repeated seizures without regaining consciousness
- Normal breathing does not resume
Initiate School’s Emergency Response

- Student is injured, has diabetes, is pregnant
- Seizure occurs in water
- Increase in number or type of seizure
Absence Seizure Video

- An absence seizure causes a short period of “blanking out” or staring into space.
- If you tap a child on the shoulder and they respond, this is not a seizure.
Absence Seizure Response

- Generally no first aid is needed
- Repeat instruction when needed
- If student has no known seizure disorder, report events to school nurse
3 Focal Seizure

May have:

• Changes in sensation, emotions or thinking
• Stillness and staring off OR
• Repetitive, purposeless or clumsy movements (picking at things, nonsensical speech or lip smacking)
Focal Seizures

- May be misinterpreted as drunkenness, drug abuse, aggressive behavior or resemble mental health issues (panic attacks, hallucinations)
- May become combative if you attempt to restrain them
1. Refer to Seizure Action Plan
2. Stay calm and time seizure
3. Reassure others
4. Do not restrain - this may result in injury
5. Gently direct away from hazards
3 Focal Seizure Response

6. Don’t expect student to follow verbal instructions

7. Give rescue medication per Seizure Action Plan, if ordered

8. Stay with student until fully alert and aware
Non-Epileptic Spells

- Look very similar to seizures, but are not caused by abnormal electrical brain activity.
- Psychological in nature
- Not clearly purposeful or intentional
- Student may have non-epileptic spells and epilepsy
Non-Epileptic Spells

- Typically caused by difficulties coping with stress or anxiety
- Body responds physically to these strong emotions, similar to people having stomach aches or headaches when nervous or stressed
Non-Epileptic Spells Response

Know and follow the non-epileptic spell care plan

• **Monitor for safety and allow the spell to run its course**

• **Give brief reassurance, then stop interacting until the spell has stopped**

• **May be tired, have a headache or not be able to remember what occurred.**
Non-Epileptic Spells Response

• Provide a 5-10 minute break if needed, but may return to classwork immediately
• It is not appropriate to give medications, or initiate school’s emergency response
• Encourage participation in normal activities
Which statement(s) are true?

A. Students may not be aware that they are having a seizure

B. Epilepsy is not contagious

C. Most seizures are considered medical emergencies

D. All students with seizures have similar symptoms
First aid for a generalized seizure include:

A. Refer to Seizure Action Plan
B. Cushion head
C. Position student on their side
D. All the above
Case Study: A student’s Seizure Action Plan states to give emergency medication and call 911 if the seizure lasts for more than 5 minutes. The student’s seizure has lasted 1 minute and it has now stopped.

What should you do?

A. Follow Seizure Action Plan
B. Call 911
C. Leave student to go get help
D. Give emergency medication
A student with a seizure disorder is going on a field trip. What may raise concerns?

A. Bowling with strobe lights
B. An overnight field trip at the zoo
C. A long hike with questionable cell service
D. All of the above
Together We Can Keep Kids Healthy and Safe In School
Thank You!

Talk to your school nurse about any additional questions.
Funding: Colorado Cancer Cardiovascular and Pulmonary Disease Grants Program

AsthmaCOMP Common Chronic Disease Working Group

- **Children’s Hospital Colorado School Nurses**
  - Pamela Brunner Nii, BSN, RN, NCSN, AE-C
  - Charlotte Brazelton, BA, BSN, RN, NCSN
  - Bobbi Gillis, BSN, RN
  - Geri M Johnson, MS, RN, NCSN
  - Wendy Moore RN MSN, NCSN
  - Andria Redman, BSN, RN, AE-C
  - Emily Ziniel, RN, CPN, AE-C

- **RMC Health**
  - Natalie Boyer, MPH

- **University of Colorado School of Medicine**
  - Melanie Gleason, MS, PA-C, AE-C