

Care Connection



# School-Based Asthma Therapy (SBAT) Program



**NATIONWIDE  
CHILDREN'S®**

*When your child needs a hospital, everything matters.*



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# Asthma

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## What is Asthma?

Asthma is a disease of the lungs. When you have asthma, your airways are sensitive to many things in the air. This causes swollen, narrow airways and increased mucus production that makes it difficult to breathe.

## Does Asthma go Away?

No, there is no cure for asthma. Symptoms often improve as children get older, but this may take a long time. The good news is that symptoms can typically be controlled with daily controller medication.

## What are Common Asthma Symptoms?

- Coughing
- Wheezing (whistling sound)
- Noisy breathing
- Chest tightness
- Fast breathing
- Feeling short of breath

## What Causes Asthma Symptoms?

Asthmatics are sensitive to certain asthma “triggers,” which can lead to an asthma attack. Some of these triggers may include:

- Viruses or other infections
- Extreme hot or cold weather
- Exercise
- Pets
- Cockroaches
- Dust mites
- Mold
- Indoor air pollutants or irritants such as perfume, incense, hair spray, wood-burning stoves, candles and scented cleaning products
- Outdoor air pollutants such as vehicle emissions
- Pollen
- Stress
- Second-hand and third-hand smoke exposure

## Why do Some Students Take Asthma Medications Every Day?

Students with frequent or severe symptoms are typically prescribed a “controller” medication, usually taken daily.

### Controller medication:

- Helps prevent asthma symptoms and flare ups.
- Is taken every day, regardless of how the child is feeling.
- Works to reduce the swelling and the mucus in the airways.

### Rescue medication:

- Acts quickly to treat symptoms.
- Is used “as needed” when symptoms are present.

For students in the SBAT program, controller medications are taken daily at school as prescribed.

**IN AN EMERGENCY, USE PRESCRIBED  
QUICK-RELIEF MEDICATIONS!**

## Program Information

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### What is School-Based Asthma Therapy (SBAT)?

- A program offered through Nationwide Children's Hospital's Care Connection to any school-aged child in central Ohio to improve asthma symptoms in children who are at high risk for asthma complications.
- SBAT works with doctors, pharmacies, school nurses/personnel and the child's families to ensure asthma inhaler medications are at school and home.
- The SBAT team will monitor compliance with the help of the school and the child's family to ensure success for each child in the program.
- Controller medication is given to the child daily by the school nurse, or other staff responsible for medication administration, with a goal to optimize their asthma control and improve their asthma symptoms.
- The SBAT team arranges for medication refills for home and school, necessary physician orders and needed appointments. It also serves as a resource for asthma education for the school nurse and staff.

### Who is a Candidate for SBAT?

Any student who is prescribed a daily asthma controller medication AND is at high risk for problems related to asthma such as:

- Frequent ER visits and/or hospitalizations
- Emergency squad calls
- Multiple school absences related to asthma
- Frequent school clinic visits due to asthma
- A pattern of frequent albuterol use for asthma symptoms
- Concern that difficulty obtaining or taking daily medication at home is contributing to the above issues

### How do I Know if a Student is Enrolled in SBAT?

All students enrolled in the SBAT program will have:

- Daily controller medication and quick-relief medication (albuterol) at school in a black Nationwide Children's bag
- Spacer (yellow mask or blue mouthpiece depending on the age of the child)
- Medication orders supplied by SBAT nurse practitioner
- An Asthma Action Plan

# Medication Administration

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## Daily Clinic Visits – What to Expect

- Students enrolled in SBAT should receive controller medication **EVERY DAY** – no exceptions.
  - Typically ordered as 1-2 puffs with spacer in the morning.
  - Some students receive an additional dose in the afternoon; orders will specify.
- It is OK to administer quick-relief medication (typically albuterol) during this time in addition to controller medication if needed.

## Common Daily Controller Medications

- Flovent (44 mcg, 110 mcg or 220 mcg)
- Asmanex (100 mcg or 200 mcg)
- QVAR (40 mcg or 80 mcg)
- Asmanex Twisthaler (110 mcg or 220 mcg)
- Advair (45/21, 115/21 or 230/21)
- Symbicort (80/4.5 or 160/4.5)

## Clinic Visits for Symptoms – What to Expect

- Asthma symptoms such as coughing, wheezing or shortness of breath should be treated with quick-relief medication as ordered.
- Children often feel symptoms coming on before they are visible to others.
- Always give quick relief medication (typically albuterol) if a child asks for it, even if they do not appear to be having symptoms.
- A child may report:
  - “My chest is tight” or “My chest hurts.”
  - “I can’t catch my breath.”
  - “I can’t stop coughing.”
  - “I don’t feel well.”
- Allow the child to rest.

- If symptoms do not resolve, check the doctor’s order to see if more doses of quick-relief medication can be given and follow school policy to call the school nurse and/or parent.
- In an emergency, always call 911!

## Common Quick-Relief Medications

- Proair (albuterol)
- Ventolin (albuterol)
- Proventil (albuterol)

## Why do we use Quick-Relief Medication?

- It works immediately for asthma symptoms.
- It opens the airway by reducing swelling.
- It may also be used 15-20 minutes before exercising or playing.

## Asthma Emergency

Call 911 when:

- Lips or fingernails turn gray or blue.
- Breathing is very hard and fast.
- Nose opens wide when breathing (nasal flaring).
- Respiratory muscles are used (belly breathing, rib and neck muscles show).
- It’s hard to walk, talk, eat or drink due to being short of breath.
- You see panic (scared look).
- There is confusion or loss of consciousness.

**ALWAYS GIVE QUICK-RELIEF MEDICATION  
IF CHILD IS ABLE.**

## Referrals

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### How can I Refer a Student to SBAT?

- We enroll students who have symptomatic asthma who could benefit from assistance with daily medication administration at school.
- If you know a child who may benefit from our program, you can refer a child to SBAT by submitting a referral form to the SBAT team by fax or email.
- Referral forms can be found online by visiting [NationwideChildrens.org/Asthma-Therapy-Program](https://www.nationwidechildrens.org/Asthma-Therapy-Program) or you can request one from an SBAT nurse.
- If you are unsure if a child qualifies for the SBAT program, send the referral and a team member will follow up.

## Refills

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### How do I Know when a Refill is Needed?

Most inhalers have counters which indicate the number of remaining puffs. On most inhalers, the counter will be seen at the bottom as shown here.



One common exception is Symbicort, which has the counter located on the top as a dial which is shown below.



- **Most inhalers begin with 124 puffs** and count down.
- **When 20 doses** remain, a refill is needed.
- **At 0**, there is no medication remaining.

### When do I Request a Refill?

A student may need a refill when:

- The inhaler has 20 puffs or less remaining on the counter.
- Medication has been lost or damaged.
- The type of medication is changed by the provider.

Refills can be requested by:

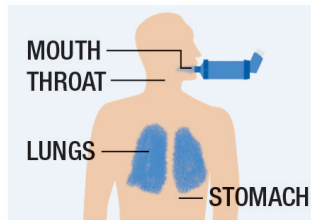
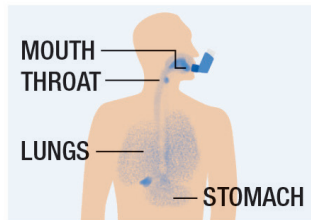
- Contacting a member of the SBAT team (preferred)
- Calling the SBAT pharmacy technician at (614) 722-6314

# Spacer Education

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## Spacers

- These are also known as “chambers.”
- They should always be used with traditional inhalers: both daily controller and quick-relief medications.
- After taking their controller (daily) medication, students should rinse their mouth out with water. This can help prevent thrush from developing.
- Spacers allow much more of the medication to reach the lungs.
- When a spacer is not used, most of the medication ends up in the mouth, throat and/or stomach.



## Mask Spacer Usage

- Place mask tightly over the nose and mouth.
- Administer 1 puff.
- Count 5-6 normal breaths. (If whistling noise occurs, breathing is too strong or too fast).
- Wait 1 minute.
- Repeat steps if additional puffs ordered.
- Rinse mouth out with water when complete.

## Mouthpiece Spacer Usage

- Have the child exhale slowly.
- Place mouth around mouthpiece.
- Administer 1 puff.
- Inhale slowly and completely, then hold breath 5-10 seconds. (If whistling occurs, breathing is too strong or too fast).
- Wait 1 minute.
- Repeat steps if additional puffs ordered.
- Rinse mouth out with water when complete.

Contact the SBAT team at (614) 355-5495 if the spacer is lost or damaged and a new one can be delivered to the school.

*\*If a child is not enrolled in SBAT, contact the parent or physician.*





## Asthma Control Test

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### **What is the Asthma Control Test?**

An asthma control test (ACT) is a way to determine if asthma symptoms are well controlled.

- The SBAT team will ask the nurse to complete an ACT with each student in the program.
- If the ACT score is:
  - Less than 20 - the test will be completed every month.
  - Greater than 20 - the test will be completed every three months.
- If students have a low score, the SBAT team will follow up with the school staff, the child's family and the child's asthma care provider to determine if the asthma treatment plan is working or if changes need to be made.



## Childhood Asthma Control Test for children 4 to 11 years

### Know your score.

**Parent or Guardian:** The Childhood Asthma Control Test\* is a way to help your child's healthcare provider determine if your child's asthma symptoms are well controlled. Take this test with your child (ages 4 to 11). Share the results with your child's healthcare provider.

**Step 1:** Have your child answer the **first four questions (1 to 4)**. If your child needs help, you may help, but let your child choose the answer.

**Step 2:** Answer the last **three questions (5 to 7)** on your own. Don't let your child's answers influence yours. There are no right or wrong answers.

**Step 3:** Write the number of each answer in the score box to the right.

**Step 4:** Add up each score box for the total.

**Step 5:** Take the COMPLETED test to your child's healthcare provider to talk about your child's total score.

### Have your child complete these questions.

1. How is your asthma today?

 <b>0</b> Very bad	 <b>1</b> Bad	 <b>2</b> Good	 <b>3</b> Very good
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2. How much of a problem is your asthma when you run, exercise or play sports?

 <b>0</b> It's a big problem, I can't do what I want to do.	 <b>1</b> It's a problem and I don't like it.	 <b>2</b> It's a little problem but it's okay.	 <b>3</b> It's not a problem.
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3. Do you cough because of your asthma?

 <b>0</b> Yes, all of the time.	 <b>1</b> Yes, most of the time.	 <b>2</b> Yes, some of the time.	 <b>3</b> No, none of the time.
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4. Do you wake up during the night because of your asthma?

 <b>0</b> Yes, all of the time.	 <b>1</b> Yes, most of the time.	 <b>2</b> Yes, some of the time.	 <b>3</b> No, none of the time.
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### Please complete the following questions on your own.

5. During the **last 4 weeks**, how many days did your child have any daytime asthma symptoms?

<b>5</b> Not at all	<b>4</b> 1-3 days	<b>3</b> 4-10 days	<b>2</b> 11-18 days	<b>1</b> 19-24 days	<b>0</b> Everyday
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6. During the **last 4 weeks**, how many days did your child wheeze during the day because of asthma?

<b>5</b> Not at all	<b>4</b> 1-3 days	<b>3</b> 4-10 days	<b>2</b> 11-18 days	<b>1</b> 19-24 days	<b>0</b> Everyday
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7. During the **last 4 weeks**, how many days did your child wake up during the night because of the asthma?

<b>5</b> Not at all	<b>4</b> 1-3 days	<b>3</b> 4-10 days	<b>2</b> 11-18 days	<b>1</b> 19-24 days	<b>0</b> Everyday
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\*The Childhood Asthma Control Test was developed by GSK.

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**19  
or less**

**IF YOUR CHILD'S SCORE IS 19 OR LESS, Your child's asthma symptoms may not be as well controlled as they could be. No matter what the score, bring this test to your child's healthcare provider to talk about your child's results.**

NOTE: If your child's score is 12 or less, his or her asthma may be very poorly controlled. Please contact your child's healthcare provider right away.

SCORE















## ASTHMA CONTROL TEST™

### Know your score.

The Asthma Control Test™ provides a numerical score to help you and your healthcare provider determine if your asthma symptoms are well controlled.

Take this test if you are 12 years or older. Share the score with your healthcare provider.

**Step 1:** Write the number of each answer in the score box provided.

**Step 2:** Add up each score box for the total.

**Step 3:** Take the completed test to your healthcare provider to talk about your score.

**IF YOUR SCORE IS 19 OR LESS, Your asthma symptoms may not be as well controlled as they could be.**

**No matter what the score, bring this test to your healthcare provider to talk about the results.**

NOTE: If your score is 15 or less, your asthma may be very poorly controlled. Please contact your healthcare provider right away. There may be more you and your healthcare provider could do to help control your asthma symptoms.

1. In the <b>past 4 weeks</b> , how much of the time did your <u>asthma</u> keep you from getting as much done at work, school or at home?	SCORE
All of the time <b>[1]</b>	Most of the time <b>[2]</b>
Some of the time <b>[3]</b>	A little of the time <b>[4]</b>
None of the time <b>[5]</b>	
2. During the <b>past 4 weeks</b> , how often have you had shortness of breath?	
More than Once a day <b>[1]</b>	Once a day <b>[2]</b>
3 to 6 times a week <b>[3]</b>	Once or twice a week <b>[4]</b>
Not at all <b>[5]</b>	
3. During the <b>past 4 weeks</b> , how often did your asthma symptoms (wheezing, coughing, shortness of breath, chest tightness or pain) wake you up at night or earlier than usual in the morning?	
4 or more nights a week <b>[1]</b>	2 to 3 nights a week <b>[2]</b>
Once a week <b>[3]</b>	Once or twice <b>[4]</b>
Not at all <b>[5]</b>	
4. During the <b>past 4 weeks</b> , how often have you used your rescue inhaler or nebulizer medication (such as albuterol)?	
3 or more times per day <b>[1]</b>	1 to 2 times per day <b>[2]</b>
2 or 3 times per week <b>[3]</b>	Once a week or less <b>[4]</b>
Not at all <b>[5]</b>	
5. How would you rate your asthma control during the past 4 weeks?	
Not Controlled at All <b>[1]</b>	Poorly Controlled <b>[2]</b>
Somewhat Controlled <b>[3]</b>	Well Controlled <b>[4]</b>
Completely Controlled <b>[5]</b>	

TOTAL: \_\_\_\_\_

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# Asthma Action Plan

## What is the Asthma Action Plan?

An Asthma Action Plan is an individualized plan that provides instructions on what medications the patients should take, and when, for their asthma care. This plan is created by the health care provider. The plan is color-coded based on asthma symptoms severity.

# Asthma Action Plan

Name: \_\_\_\_\_





Date: \_\_\_\_\_

MRN: \_\_\_\_\_

DOB: \_\_\_\_\_

Asthma Severity:

- ☐ Exercise Induced  
☐ Intermittent  
☐ Moderate Persistent  
☐ Severe Persistent

Green Zone: Doing Well	Do These Things Every Day!						
 <p>All of these are true:</p> <ul style="list-style-type: none"> <li>Breathing is great!</li> <li>No coughing or wheezing</li> <li>Asthma does not bother sleep or exercise</li> </ul>	<p>Take these medicines every day:</p> <table border="0"> <tr> <td>Medicine</td> <td>How to take</td> <td>How Often</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table> <p>Use 15-20 minutes before exercise: _____</p> <p>Watch out for these triggers: _____</p>	Medicine	How to take	How Often	_____	_____	_____
Medicine	How to take	How Often					
_____	_____	_____					
Yellow Zone: Symptoms Starting	Start Relief Medicine!						
 <p>Any of these are happening:</p> <ul style="list-style-type: none"> <li>Getting a cold</li> <li>Coughing a lot</li> <li>Wheezing</li> <li>Having trouble breathing</li> </ul>	<table border="0"> <tr> <td>Medicine</td> <td>How to take</td> <td>How Often</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table> <p>Keep taking Green Zone Medicine</p>	Medicine	How to take	How Often	_____	_____	_____
Medicine	How to take	How Often					
_____	_____	_____					
Orange Zone: IN TROUBLE	CALL YOUR DOCTOR FOR HELP!						
 <p>Relief medicine is not working:</p> <ul style="list-style-type: none"> <li>Medicine not lasting 4 hours – symptoms coming back too soon</li> <li>Constant coughing</li> <li>Awake all night from asthma</li> <li>Needing more than 4 doses of relief medicine in one day</li> </ul>	<p>Doctor's Name: _____</p> <p>Doctor's Phone Number: _____</p> <table border="0"> <tr> <td>Medicine</td> <td>How to take</td> <td>How Often</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table> <p>If you cannot reach your doctor and symptoms continue, go to urgent care or ER</p>	Medicine	How to take	How Often	_____	_____	_____
Medicine	How to take	How Often					
_____	_____	_____					
Red Zone: IN DANGER	GET HELP NOW!						
 <p>Breathing is bad:</p> <ul style="list-style-type: none"> <li>Gasping (breathing hard and fast)</li> <li>Ribs show when breathing</li> <li>Neck or stomach caving in</li> <li>Hard to talk or walk</li> </ul>	<p>Go to Closest ER or Dial 9-1-1</p> <p>On the way take:</p> <table border="0"> <tr> <td>Medicine</td> <td>How to take</td> <td>How Often</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table>	Medicine	How to take	How Often	_____	_____	_____
Medicine	How to take	How Often					
_____	_____	_____					

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## Frequently Asked Questions

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### **I don't think a student is using the proper technique when taking their asthma medication. What should I do?**

- Notify your school nurse so they can assist and educate the child on proper technique.
- You may also contact a member of the SBAT team via phone or email at any time. We are typically available from 7 a.m. to 3:30 p.m. most weekdays.

We are more than happy to set up a day and time to visit your school and educate any student and/or staff member on proper technique.

### **A student just had their daily controller medication. Can they still have their quick relief medication?**

- Quick relief medication works to reduce symptoms immediately and should be used as needed for asthma symptoms like coughing, wheezing or shortness of breath.
- It will **NOT** cause harm to the student to have both quick-relief and daily controller medication at or near the same time.

### **I have a student who is frequently absent or often misses doses of their inhaler at school. What should I do?**

It's important for all students to take their controller medication every day. If a child goes for two weeks with frequent absences or multiple missed doses, please notify the SBAT team and we will follow up with them and their family.

### **The family has not signed and returned the school medication authorization form. What should I do?**

If the school medication authorization form has not been returned within two weeks of receiving medications at school, please notify the SBAT team and we will reach out to the family.

### **Do I have to prime an asthma inhaler?**

Yes, inhalers will typically need to be primed to receive the correct dose of medication. Priming occurs when a few puffs are dispensed into the air. An inhaler will need to be primed if it is new and again if it has not been used for two or more weeks.

### **Can I use an inhaler I had from the previous school year?**

Yes, as long as the school was air conditioned, the inhaler was stored properly and it has not expired. Use the old inhaler first before beginning a new inhaler if possible. Be sure to prime the old inhaler before using.

### **A student does not have asthma medication at home. What should I do?**

Inform the SBAT nurse and we will follow up with the student and their family and have inhalers delivered to the home if needed.

### **A student wants to take their quick relief medication before gym class. Is it ok to give?**

Yes, taking the quick relief medication 15-20 minutes prior to exercise or sports can help to prevent a student from having asthma symptoms during the activity. Always refer to the doctor's orders.

## Contact Information

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**Phone**

(614) 355-5495

**Fax**

(614) 355-6227

**Email**

SBAT@NationwideChildrens.org

**Website**

[NationwideChildrens.org/Asthma-Therapy-Program](https://www.nationwidechildrens.org/asthma-therapy-program)

or scan the QR code





NATIONWIDE  
CHILDREN'S®

*When your child needs a hospital, everything matters.*