

## CHILDREN'S HOSPITAL OAKLAND

### How to use an aerosol-type Meter Dose Inhaler (MDI) With spacer and mask (yellow or orange)

1. Remove the cap from the inhaler.
2. Insert the inhaler mouthpiece into the spacer.
3. Shake the assembled unit 10 to 20 times, vigorously.
4. Place the mask tightly to make a good seal by covering both mouth and nose.
5. Spray one puff from the inhaler into the spacer.
6. Let child (baby) take 5 breaths. Watch for gray flaps to open and close five times. At the same time count to five aloud to let child know when medication administration is completed.
7. Take the spacer with mask off to let child breathe normally.
8. Repeat these steps, according to your provider's instructions. Otherwise, wait 2-5 minutes between puffs for quick relief medicines and 1 minute between puffs for long-term control medicines.
9. Have child rinse his/her mouth and spit after inhaled corticosteroid use (use a wet wash cloth to wipe inside of the mouth for infants).

#### Helpful Hints

- ❖ Bundle infants for medication administration.
- ❖ Let toddlers/preschoolers gradually get used to mask (by watching the parent, dolls/stuffed animals, siblings to take the medicine with the mask)
- ❖ Allow child's participation, encourage his/her cooperation with praise and animated enthusiasm.

#### Weekly Cleaning of Spacer

1. Remove the inhaler from the spacer.
2. Wash the spacer once a week by placing it in a bowl filled with clean warm water. Use a mild soap. Rinse it with warm water.
3. Set the spacer upright on a towel or clean cloth to air dry.
4. You will need to replace the spacer every 6 – 24 months, depending on how often you use it, and how careful you are with it. Ask your doctor or nurse practitioner for a prescription for a new spacer if yours doesn't seem to be working well (for example, if the flaps do not completely close).

#### How to tell when to refill medications

##### For inhalers used preventively or daily

Increasingly MDIs have attached counters that count down the number of medication doses. Always refill your medication one week before the medication runs out. For medications without counters, divide the number of sprays in the canister by the number of sprays to be used daily. For example, if your inhaler contains 120 puffs, and your dose is 2 puffs 2 times a day (4 puffs daily), divide 120 by 4 (=30), so the medicine will run out in 30 days. Mark the calendar approximately one week before the medicine runs out, so you have enough time to get a refill.

## CHILDREN'S HOSPITAL OAKLAND

### How to use an aerosol-type Meter Dose Inhaler (MDI) With blue spacer (Aerochamber)

1. Stand or sit up straight.
2. Remove the caps from both the inhaler and the spacer mouthpiece.
3. Insert the inhaler mouthpiece into the wider end of your spacer.
4. Shake the assembled unit 10 to 20 times, vigorously.
5. Breathe out fully.
6. Place the spacer mouthpiece in your mouth and close your lips tightly around the mouthpiece.
7. Spray one puff from the inhaler into the spacer.
8. Breathe in slowly and deeply through the spacer, taking about 5 seconds to complete this step (a high pitch sound will be heard if you breathe in too fast).
9. Hold your breath for ten seconds (they can slow down the count by adding an interesting word of 4-5 syllables between each count, such as hippopotamus, California, etc).
10. Exhale.
11. Repeat these steps, according to your provider's instructions. Otherwise, wait 2-5 minutes between puffs for quick relief medicines and 1 minute between puffs for long-term control medicines.
12. Rinse your mouth and spit after inhaled corticosteroid use (use a wet wash cloth to wipe inside of the mouth for infants).

### Weekly Cleaning of Spacer

1. Remove the inhaler from the spacer.
2. Wash the spacer once a week by placing it in a bowl filled with clean warm water. Use a mild soap. Rinse it with warm water.
3. Set the spacer upright on a towel or clean cloth to air dry.
4. You will need to replace the spacer every 6 – 24 months, depending on how often you use it, and how careful you are with it. Ask your doctor or nurse practitioner for a prescription for a new spacer, if yours doesn't seem to be working well (for example, if the flaps do not completely close).

### How to tell when to refill medications

#### For inhalers used preventively or daily

Increasingly MDIs have attached counters that count down the number of medication doses. Always refill your medication one week before the medication runs out. For medications without counters, divide the number of sprays in the canister by the number of sprays to be used daily. For example, if your anti-inflammatory inhaler contains 120 puffs, and your dose is 2 puffs 2 times a day (4 puffs daily), divide 120 by 4 (=30), so the medicine will run out in 30 days. Mark the calendar approximately one week before the medicine runs out, so you have enough time to get a refill.

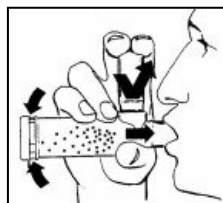
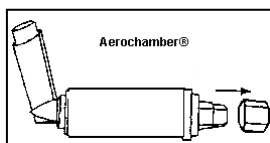
## Using an Asthma Inhaler

An **inhaler** contains medicine in the form of a fine spray. It is used to inhale the medications used to treat asthma and other breathing problems. There are many kinds of inhalers. Your health care provider will help you find the kind that works best for you.

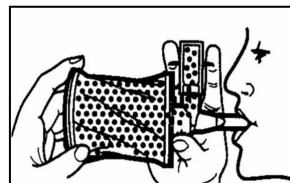
### Spacers

To receive the most benefit from medication from an inhaler, you must get the medication deep into your lungs. We recommend that you always use a **spacer** with your inhaler because the use of a spacer can increase the amount of medication that reaches your lungs.

There are several types of spacer devices available. Below are pictures of some common brands. Spacer devices can be purchased at most local pharmacies.

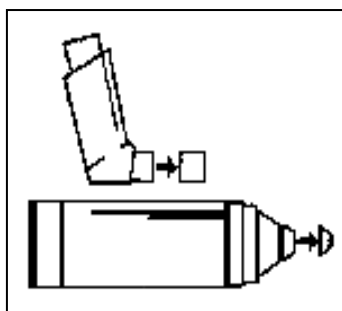


Optihaler

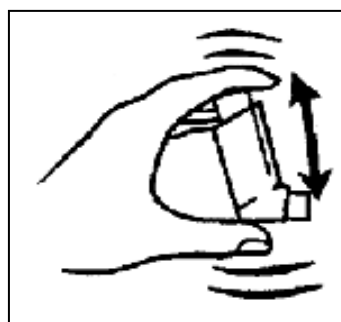


Inpirease

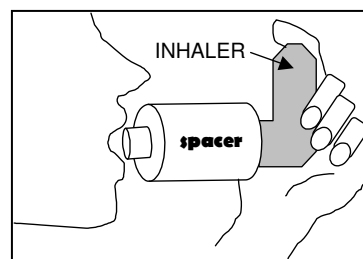
## How to Use an Inhaler with a Spacer



1. Take the plastic covers off the mouthpieces of the inhaler and spacer.



2. Shake the inhaler for several seconds.



3. Place the spacer in your mouth and close your lips around the mouthpiece. Push down on the inhaler **ONCE** to release the medication. At the same time, take a slow deep breath in.

## Cómo Utilizar el Inhalador para el Asma

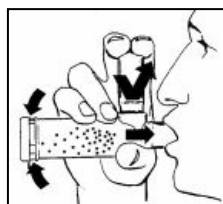
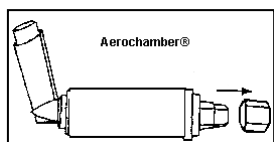
Un **inhalador** contiene medicina en forma de aerosol. Se utiliza para inhalar los medicamentos que se usan para tratar el asma y otros problemas respiratorios.

Hay muchos tipos de inhalador. Su médico le ayudará a encontrar el que sea más conveniente para usted.

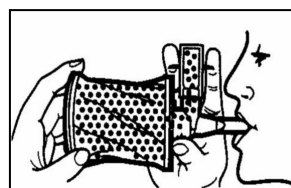
### Espaceadores

Con el fin de obtener el mayor beneficio de la medicina que hay en el inhalador, el medicamento debe llegar al fondo de sus pulmones. Le recomendamos utilizar siempre, **un espacioador** con su inhalador, porque el uso de éste puede aumentar la cantidad de medicina que reciben sus pulmones.

Hay diferentes tipos de espacioador. Más abajo encontrará ilustraciones de algunas de las marcas más comunes. Los espacioadores pueden comprarse en la mayoría de las farmacias.

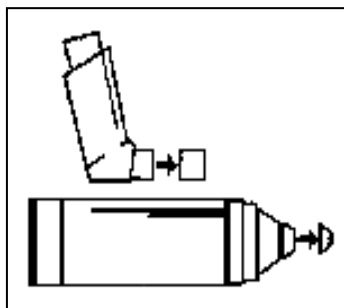


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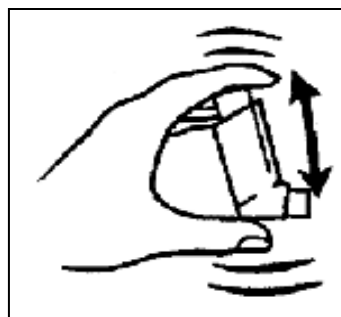


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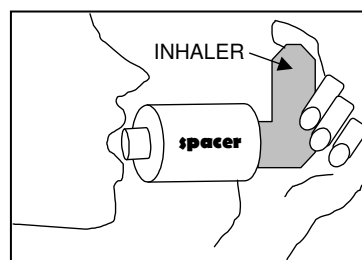
## Cómo Utilizar un Inhalador con Espacedor



1. Quite la tapa plástica de las boquillas, tanto del inhalador, como del espacioador.



2. Agite el inhalador por varios segundos.



3. Coloque el espacioador en su boca y apriete los labios alrededor de la boquilla. Oprima el inhalador **SOLA VEZ** para dejar el medicamento. Al mismo tiempo, aspire lenta y profundamente.

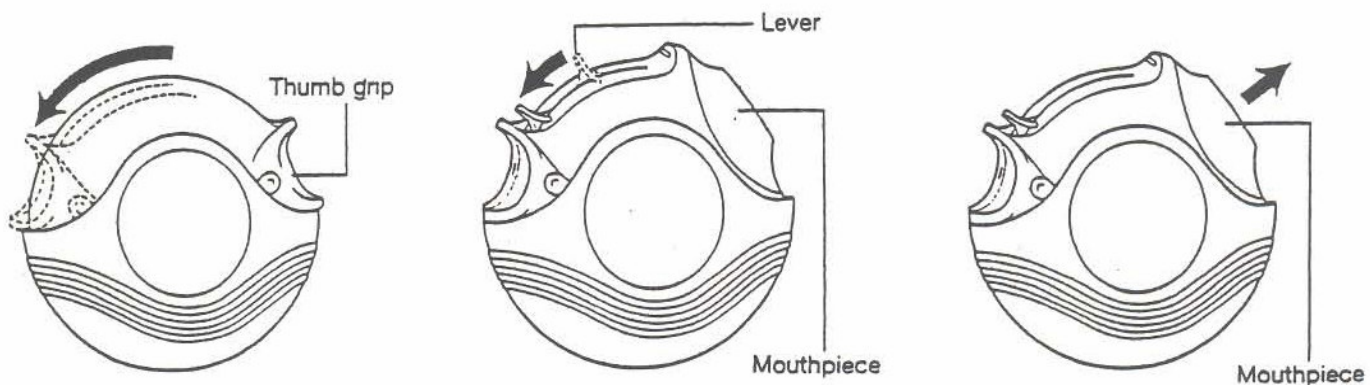
## CHILDREN'S HOSPITAL OAKLAND

### How to use a diskus inhaler

1. Stand or sit up straight
2. Open diskus inhaler by holding inhaler in one hand, placing thumb of other hand on grip and pushing away to expose lever underneath.
3. Push lever away until you hear and/or feel a "click."
4. Breathe out fully
5. Place the mouthpiece to your lips, press tightly to get a good seal.
6. Breathe in steadily and deeply through the inhaler. Take about 5 seconds to complete this step.
7. Hold your breath for ten seconds (you can slow down the count by adding an interesting work of 4-5 syllables between each count, such as hippopotamus, California, etc.).
8. Exhale.
9. Repeat these steps, according to your provider's instructions.
10. Close inhaler.
11. Rinse your mouth and spit after inhaled corticosteroid use (use a wet wash cloth to wipe inside of the mouth for infants).

### Helpful Hints

1. When not using the inhaler, keep the cover closed to keep stray objects from getting inside.
2. Store the inhaler at room temperature.
3. Wipe off the mouthpiece once a week with a warm, wet wash cloth.
4. Common mistakes include breathing in through your nose, failing to hold your breath.
5. Keep the inhaler away from water, so the powder won't get wet.
6. A counter on the side of the inhaler will tell you how many puffs are left.



# CHILDREN'S HOSPITAL OAKLAND

## How to use your peak flow meter

1. Make sure the indicator is at the bottom of the scale by shaking it down or pushing it down with your finger.
2. Take all measurements in a standing position.
3. Take as deep a breath as possible.
4. Put the mouth piece in the between the teeth and close lips tightly.
5. Blow as hard and fast as possible in a huff (little kids might respond to "like a big dragon breath").
6. Look at the number next to the indicator and write it down.
7. Record the best (highest) of three tries (Reset the indicator to "zero" before each additional try).

## Tips and trouble shooting

Improper technique causes a ***falsely high*** Peak Flow measurement if the child:

- Coughs when blowing into the meter
- Makes noise when blowing into the meter
- Spits or flicks their tongue when blowing into the meter

Improper technique causes a ***falsely low*** Peak Flow measurement if:

- Air escapes from lack of tight seal on the mouth piece
- Hand blocks the indicator or exhalation port/vent
- Lack of enthusiasm/poor effort

Peak Flow measures the large airways and may be normal (green zone) when the child is sick. Small airways can have significant inflammation with no or minimal change in Peak Flow (individual characteristics). ***Always use symptoms as indicator for starting action plan.***

## How to determine a Personal Best Peak Flow number

Perform your peak flow twice a day each day for 2 weeks when you are not sick and your asthma is not causing any problems. Perform and record your peak flow right away in the morning right after you get up and before you take any medicine, each day. The highest peak flow reading you had during the 2 weeks is your personal best.