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Smartphone guide to asthma self-management ages 5 to adult (patient education materials)

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Let's
Talk
about
Asthma!

smartphone guide to
asthma self-management
for people ages 5 years and older

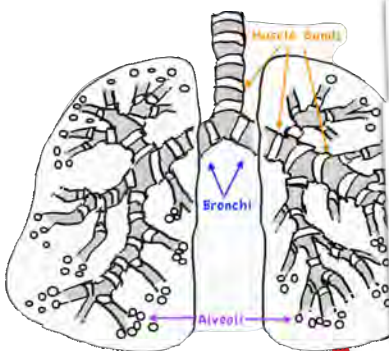
Disclaimer: Information in this booklet is based on national guidelines for children ages 5 years to adults. ALWAYS check with your doctor first to determine the treatment and doses of medication that are right for you.

Developed BY people with asthma FOR people with asthma
Jennifer Mammen, PhD, Kimberly Arcoleo, PhD, & Hyekyun Rhee, PhD
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Contents

What is ASTHMA?



ASTHMA causes:

Swelling

Obstruction

Spasms

SOS!

INSIDE LUNGS = swollen + clogged



NORMAL



INFLAMED



AWFUL!!

INVISIBLE
Swelling

CAUSES **O**bstruction + **S**pasms

COUGH
MUCUS

WHEEZE

TIGHTNESS

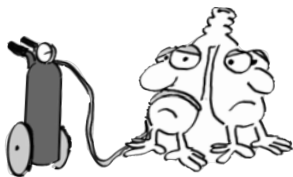
if you STOP swelling first, you won't get symptoms.

Uncontrolled asthma can scar your lungs

Why does it matter if I have symptoms if it doesn't bother me?



- Asthma **INFLAMMATION (swelling)** causes **INJURY** to your lungs.
- When injury heals, it leaves a small stiff **SCAR**.
- Over time, the scars add up (**REMODELING**).
- Your lungs get stiff, making it harder to breathe.




REMODELING

it permanently scars your lungs.


**control medication stops SCARRING
and prevents SYMPTOMS**

ASTHMA CONTROL - for ages 5 to 11yrs

| OVER THE LAST MONTH | ALL green = WELL CONTROLLED | ANY yellow but NO red = NOT WELL CONTROLLED | ANY red = VERY POORLY CONTROLLED |
|--|--|--|---|
|  symptoms | 2 or LESS times a <u>week</u> | 3 or MORE times a <u>week</u> or many times a day > 2 days/wk, or | MANY times a <u>day</u> |
| night time wake up for symptoms | 2 or LESS times a <u>month</u> | 3 or MORE times a <u>month</u> | 2 or MORE times a <u>week</u> |
| using rescue inhaler | 2 or LESS times a <u>week</u> | 3 or MORE times a <u>week</u> | Several times a <u>day</u> |
| activity limitations | NONE | SOME limitation | VERY limited |
| Peak Flow | MORE THAN 80% of best | 60 to 80% of best | LESS THAN 60% of best |

Your asthma is:

ASTHMA CONTROL - ages 12 yrs to Adult

| OVER THE LAST MONTH | ALL green = WELL CONTROLLED | ANY yellow but NO red = NOT WELL CONTROLLED | ANY red = VERY POORLY CONTROLLED |
|--|--|--|---|
|  symptoms | 2 or LESS times a <u>week</u> | 3 or MORE times a <u>week</u> | MANY times a <u>day</u> |
| night time wake up for symptoms | 2 or LESS times a <u>month</u> | 3 or MORE times a <u>month</u> | 4 or MORE times a <u>week</u> |
| using rescue inhaler | 2 or LESS times a <u>week</u> | 3 or MORE times a <u>week</u> | Several times a <u>day</u> |
| activity limitations | NONE | SOME limitation | VERY limited |
| Peak Flow | MORE THAN 80% of best | 60 to 80% of best | LESS THAN 60% of best |

Your asthma is:

There are really only 2 KINDS of **ASTHMA MEDICATION**

Take every day

SLOWER **CONTROL MEDICATION**

Prevents **swelling** and **obstruction**.
Control medication **STOPS** scarring in your lungs

(Takes days to weeks to start working)

Take if needed

FASTER **RESCUE MEDICATION**

Treats **spasms** (active symptoms)
Does **NOT** treat swelling - Does **NOT** stop scarring

Works in 5-20 minutes

| | | |
|-----------------------|---|---------------------------|
| CONTROL | → | Remember: |
| CONTROL/RESCUE | → | <u>S</u>welling |
| RESCUE | → | <u>O</u>bstruction |
| | | <u>S</u>pasms |



SOS!

STOP the SCARRING—CONTROL it!

Getting a routine down

For control medication to work, you have to take it consistently. Skipping once in a while isn't a big problem, but missing a lot is. You've got to make it easy to remember!



Here are some tips for success:

What do you do every morning?

Keep your inhaler + spacer next to it!

What do you do every night?

Keep a second inhaler + spacer next to it!

And...Set a reminder on your phone!

What are your symptoms of asthma?

Let's Talk About Asthma©

- | | | |
|--------------------------|------------|--------------------------------------|
| <input type="checkbox"/> | YES | cough |
| <input type="checkbox"/> | YES | mucus |
| <input type="checkbox"/> | YES | wheezing |
| <input type="checkbox"/> | YES | short of breath trouble breathing |
| <input type="checkbox"/> | YES | cough at night |
| <input type="checkbox"/> | NO! | FEVER |
| <input type="checkbox"/> | YES | chest pain/tightness |
| <input type="checkbox"/> | YES | symptoms with exercise |
| <input type="checkbox"/> | YES | clearing throat a lot |
| <input type="checkbox"/> | YES | tiredness |

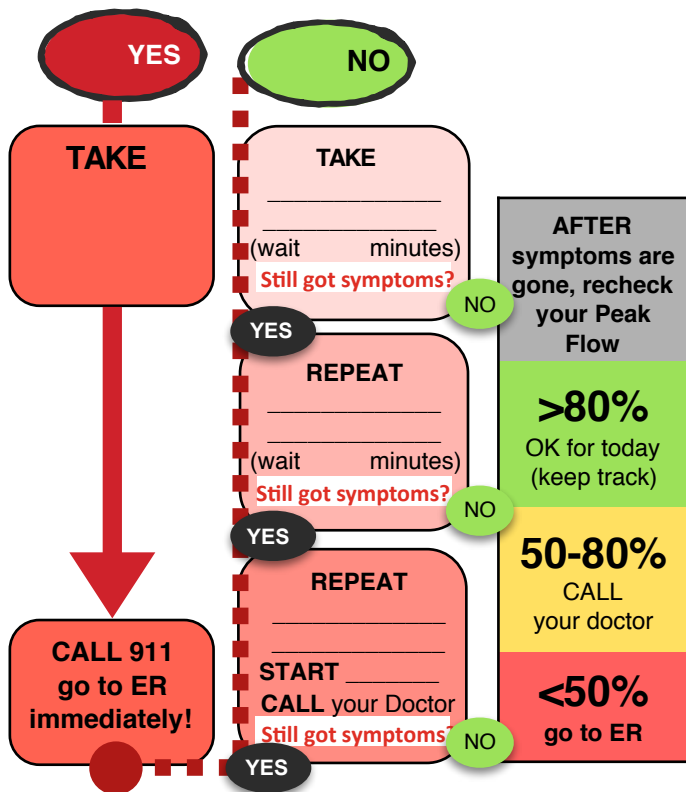
SYMPTOMS = SOS*

*Swelling Obstruction Spasms

Understanding the National Guidelines: How to treat an asthma attack

for ADULTS and children older than 5 years

Do you have any SYMPTOMS of LIFE THREATENING ASTHMA?



LIFE THREATENING
ASTHMA
SYMPTOMS

tap on buttons to learn why

**get immediate
medical attention !!**

How to take inhalers

(correctly)

**because
ANYONE can
do it wrong.**

1. Stand up.
2. Shake the inhaler.
3. Breathe OUT.
4. Hold the inhaler up right.
5. Start breathing in AND puff the inhaler.
6. Breathe in as deep as you can.
7. **Hold for 10 seconds**, breathe out.
8. Wait 1 minute and repeat if needed.

**MAKE SURE YOU RINSE YOUR MOUTH
AFTER TAKING STEROID INHALERS.**

(or you can get a yeast infection in your mouth.)

Don't forget to use a Spacer!



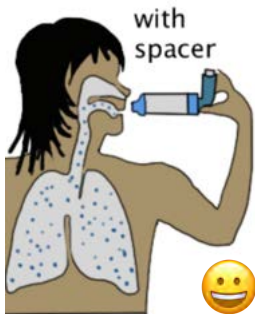
Spacers help more medicine get in your lungs. When you use your inhaler with out a spacer a lot of the medicine gets lost.

1. Shake inhaler and attach it to the spacer
2. Breathe OUT
3. Put the spacer mouth piece in your mouth, squirt in one puff into the chamber, and then inhale slowly through your mouth
4. Hold for 10 seconds (a long time!)
5. Wait 1 minute and repeat as directed
6. Clean your spacer if needed



without spacer

get more medicine in your lungs!!



with spacer



How to take **dry powder inhalers**

1. Stand up.
2. Open and prime the inhaler (twist or click back).
3. Hold the inhaler out straight and flat.
4. **Breath OUT** completely (but not into the inhaler or you can lose the medicine).
5. **Seal your lips tightly** around the hole
6. **Suck IN** the medicine **HARD, FAST,** and **DEEP.**
7. **Hold for 10 seconds**, breath out through your nose, and rinse your mouth.

**MAKE SURE YOU RINSE YOUR MOUTH
AFTER TAKING STEROID INHALERS.**

(or you can get a yeast infection in your mouth.)

How to use a Digital Peak Flow Meter (PFM)



1. Turn it on, hear it beep.

(set slider to 0 if not electronic).
Stand up straight.

2. BREATH IN.

Put the tube in your mouth, seal your lips around it. Hold straight out like a trumpet.

3. BLOW OUT.

Take the biggest breath you can.
Blow HARD and FAST.

4. WRITE IT DOWN.

Write down the score.

Best of 3 tries:

5. RESET + REPEAT

Try again twice more.

**The BEST (highest of 3 tries)
is your PEAK FLOW!**

PEAK FLOW METERS

show how FAST you can blow air out of your lungs. It's a way to measure

Swelling + Obstruction + Spasms

Find YOUR personal best
(Your BEST EVER score)

GREEN 81-100% →

YELLOW 50-80% →

RED <50% !! →



= Good! 😊

= Caution! 😬

= Danger!!! 😰

BEST SCORE TODAY ÷ BEST EVER = %

Insert your own numbers and watch it calculate!

Best today

Best EVER

Your percent!

÷

=

Are you green, yellow, or red?

LEARN YOUR ASTHMA TRIGGERS

chemicals

- Chemicals
- Personal Care Products
- Home Cleaners

pests + pets

- Pests: Roaches, Rats, Mice
- Pets: fur / feathers

consumables

- Food
- Medicine

exposures

- Cold weather
- Fumes
- Cigarettes
- Mold
- Pollens
- Dust

events

- Exercising/
Sports
- Laughing
- Stress
- Catching a cold

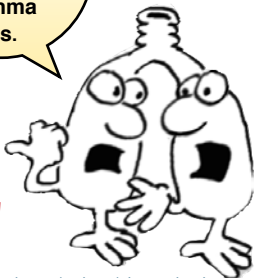
Talk about how to handle your triggers with your healthcare provider.



if you smoke...

kick the habit!

ASTHMA TRIGGERS
are ANYTHING that causes asthma symptoms.



People with asthma should exercise and be active just like everyone else

PROS:

- Exercising strengthens your lungs
- Exercise decreases inflammation
- Exercise = fewer symptoms over time. Exercise is being healthy
- Exercise is part of controlling asthma.

CONS:

- Exercise can trigger symptoms.

SOLUTION:

- You may need to take your albuterol inhaler 15 minutes **BEFORE** exercising.



Symptom Diary

Best EVER

| Date | Any Symptoms? | Took Rescue | Took Control | Peakflow | Zone |
|------|---------------|----------------|-----------------|----------|------|
|------|---------------|----------------|-----------------|----------|------|

Want more information about asthma?

Check out these free sites:

MY ACTION PLAN

peak flow TODAY

GREEN

Rare symptoms (2 or less x week)

Peak flow > 80%

Keep it up - no changes!

Continue your control medication:

÷

Best EVER

=

YELLOW

SOME symptoms (off and on > 2 x week)

Peak flow between 50% - 80%

Take _____ for symptoms

What to do:

RED !

A LOT of symptoms (constantly)

or Peak flow < 50%

Take _____ immediately

What to do: