



# Currents

CANADIAN NETWORK FOR RESPIRATORY CARE SPECIAL SUPPLEMENT • WINTER 2011

## Don't Let Winter Steal Your Breath

BY KRISTINA BERGEN

**Living in Whitehorse**, Tracee Vickerman knows cold air. As a certified respiratory educator and pharmacist, she also knows asthma – and that cold air can make asthma worse, but it shouldn't stop you in your tracks. So when Vickerman discovered that a combination of cold air, exercise and out-of-control asthma was straining a local cross-country skier's ability to compete last winter, she was determined to keep her from quitting the sport.

Vickerman explains that breathing cold, dry air can irritate the airways, causing passages to constrict and spasm, reducing airflow. For those with sensitive airways, even just walking outside in the winter can be enough to trigger asthma.

Cold air also contributes to exercise-induced asthma. Symptoms typically begin after several minutes of vigorous activity when a person begins to breathe through the mouth rather than inhaling through the nose, which warms and humidifies air. In a person with asthma, the contrast between the warm air in the lungs and cold inhaled air can cause the airways to swell and secrete mucus, leading to wheeze, cough or tightness in the chest.

But cold weather sports don't have to be avoided, stresses Dr. Robert Cowie of the Health Research Innovation Centre in Calgary. "People with asthma can participate in any sport they like," he says. The key is to have your asthma under control and

See *Breathing Well* on page 35

Cold, dry air  
can irritate  
airways.

## Can a Coffee Help Asthma?

BY SHIRIN JETHA

**I remember waking up** in the night as a child, terrified, struggling to breathe. My grandmother would sit me on her lap and, in addition to medication, give me *kahwa* – dark coffee in a little African cup. Lulled by her prayer recitals and the warmth of the *kahwa*, I



would drift to sleep, breathing easy until the morning. Years later, as an asthma educator, I've often thought back to those moments – and the effects, if any, of caffeine on the lungs.

This year a major review by The Cochrane Collaboration group looked at several studies examining caffeine's effect on lung function. The researchers found that while caffeine can open up the airways, it takes one to five cups of coffee to make a difference, and the effect will only last a

few hours. They also cautioned that drinking coffee before a lung function exam may skew test results, and you could be prescribed a lower dose of medication than you require for asthma control.

So forget foregoing your meds; it takes too much caffeine to make enough of a difference. Plus you could end up battling caffeine side effects like agitation, insomnia, or nervousness. But a grandmother's loving care in the dead of night? That's remains a timeless remedy.

*Shirin Jetha is a pharmacist and CRE.*

# Currents



Jo-Anne St. Vincent

Maria Muirhead

Dora Chan

## Q&A

Certified Educators take your asthma and allergy questions.

Send questions to: [editor@allergicliving.com](mailto:editor@allergicliving.com)

### Q. My daughter desperately wants a pet, but she has asthma. Would something small, like a hamster, be OK?

**Jo-Anne St. Vincent:** Any pet with dander, saliva and urine can be an asthma trigger. If allergies run in your family, there is a 50 per cent chance that your child will become allergic to a new pet, which could aggravate her asthma.

Although it is not recommended, a smaller pet that stays in an enclosed container may cause fewer problems than cats or dogs that roam the house. If you do get a hamster, be sure not to keep it in your daughter's bedroom and don't let her clean the cage. Monitor her asthma closely and be prepared to give the pet away if the asthma worsens. A fish would be a safer alternative.

### Q. Why did my asthma educator ask me to demonstrate how I use my inhaler when I've been using one for years?

**Maria Muirhead:** Although many inhalation devices are fairly straightforward, some people don't use them correctly and are not getting the maximum benefit from their medication. Some may never have learned the correct technique; others may have forgotten. By reviewing inhalation technique, your asthma educator aims to help you get the most from your treatment plan.

### Q. I find I often have to use my puffer after a few drinks. Is alcohol an asthma trigger?

**Dora Chan:** For some people, alcohol – usually wine – can trigger asthma attacks. It's thought that the non-alcoholic

ingredients in these drinks are triggering the symptoms, including sulphites (used as preservatives) and histamine (created during fermentation).

In other people, particularly those of Asian descent, an inability to metabolize alcohol can lead to facial flushing, an increased heart rate and constricted or wheezy breathing. Like any other trigger, be sure to avoid alcoholic drinks that cause asthma symptoms. Having your asthma under control should help.

### Q. My husband and I are hoping to put in a gas fireplace. Is it correct to assume this would be safer than wood-burning since our son has moderate, controlled asthma?

**Jo-Anne St. Vincent:** Wood-burning fireplaces can expose family members to a number of environmental triggers including smoke and mould. Exposure to these triggers on an ongoing basis may affect your son's asthma control.

Unfortunately, a gas fireplace can also affect air quality. Gas-burning fireplaces emit nitrogen oxide, which can increase airway inflammation. Ultimately, a gas fireplace would be the better choice. Proper maintenance of any fireplace, however, is of the utmost importance. If installing, have this done professionally and get it inspected yearly. Ensure both the fireplace and the room it is in are well-ventilated.

### Q. I thought my childhood asthma had returned, but my physician told me it's not asthma, it's COPD. Can you explain how this differs from asthma?

**Dora Chan:** Chronic obstructive pulmonary disease (COPD) is a progressive lung disease in which the airways are inflamed, swollen, and partly blocked by mucus. This causes coughing and makes it more difficult to breathe. In COPD, the lung tissue is permanently damaged. Smoking is the biggest cause of COPD, but there are other environmental and genetic causes.

With asthma, triggers in the environment, such as dust, cold air, animals and plants, cause airway inflammation and mucus production. This airway obstruction can be reversed and prevented by using medications and by avoiding triggers.

### Q. How can peak flow readings help me manage my asthma?

**Maria Muirhead:** If you have moderate to severe asthma, charting the difference between your morning and evening peak flow readings is an effective way of determining asthma control. In general, evening readings are higher, meaning your airways are narrower in the morning and wider in the evening. A variation of more than 15 per cent indicates that your asthma control is deteriorating. (Your respiratory educator can show you how to calculate the variation between your the readings.) At that point, you would have to refer to your asthma action plan for guidance on medication dosing and when to seek medical attention.

*Jo-Anne St. Vincent is a nurse and CAE at the Children's Asthma Education Centre in Winnipeg. Dora Chan is a pharmacist and CRE at Taddle Creek Family Health Team in Toronto. Maria Muirhead is a CRE and author of My Asthma Book and Smoking = Problems (Big Problems!).*

# THE ASTHMA EXPERT

With Dr. Harold Kim

**Wintertime is mostly indoor time**, and that means perennial or year-round allergies can really affect people. Since 50 per cent of Canadians own pets, their dander is a key inside allergen.

When it comes to pets, much of the allergy research, and the urban legends, concern cats and their infamous Fel d 1 allergen. For instance, allergists get asked all the time: Is there a non-allergenic cat? While there are a few researchers trying to breed litters without the major allergen, so far the answer remains a resounding, "No!"

When an allergist identifies cat as the cause of asthma or rhinitis symptoms, we recommend that the cat be removed from the home. But we know only a small minority of patients will follow this advice. As a result, patients and researchers both have tried a myriad of methods to decrease cat allergen.

I know patients who shave their cats, wash their cats or wrap their cats. There are studies that show using HEPA filters and washing the cat at least once a week may decrease allergen levels, but likely will not lead to improved symptoms over the long term.

Some suggestions allergists make: remove carpet from the bedroom; keep pets out of the bedroom; use dust mite covers; and clean the house frequently. These strategies, however, have not been proven to reduce symptoms.



I do recommend that the pet be removed, and symptoms often also require medical therapy. For asthma, this usually includes corticosteroid inhalers and a rescue bronchodilator inhaler. For rhinitis, nasal corticosteroids and antihistamines are the norm.

In the end, patients must make a difficult decision. While the source of the allergen is often treated like a member of the family, it's better to find another good home for your cat or dog. That way, the pet's in good hands, and your health won't suffer.

For more information about CNRC, contact us at: [www.cnrchome.net](http://www.cnrchome.net) or 905-880-1092.

## Breathing Well In Wintertime

*continued from page 33*

to take some simple measures before heading outside. For Vickerman's cross-country skier, improving performance involved managing her asthma with medications, covering her face in the cold air and warming up longer before training or racing.

By taking steps to keep cold air out of their lungs, Vickerman says athletes with asthma go the distance, even when it's freezing outside.

### Cold Exercise Tips

*Tracee Vickerman, pharmacist and CRE provides these pointers:*

- Exercise-induced asthma affects almost 90 per cent of those with asthma, so before undertaking a sport, make sure your breathing is well-managed.
- Warm up indoors for at least 30 minutes and allow your body to recover from exertion with an adequate cool-down routine.
- Talk to your doctor or asthma educator about whether a dose of reliever medication 10 to 15 minutes before being exposed to cold air or starting to exercise is the right strategy for you.
- Drink plenty of water. Dehydration can even induce bronchospasm before exercise even begins and worsen exercise-induced asthma symptoms.
- Wrap your face with a scarf or wear a heat-exchange mask when exercising outdoors. The mask warms and humidifies cold air.

## CNRC: ABOUT US

**The Canadian Network for Respiratory Care** is a non-profit organization and registered charity that works to improve the lives of those living with respiratory disease. We conduct exams and certify health-care professionals as Certified Asthma and Respiratory Educators (CAEs and CREs).

Our CAEs and CREs work to help patients with their asthma, COPD, allergies and smoking cessation efforts.

For more information about CNRC or to locate a CAE or CRE, please see [www.cnrchome.net](http://www.cnrchome.net) or phone: 905-880-1092.

## QUIZWHIZ

**1 True or False: All meter-dose inhalers have to be shaken before use.**

**2 True or False: Lungs can get used to rescue inhalers, causing them to be less effective.**

**3 True or False: Emotional stress can be an asthma trigger.** *Quiz Answers page 36*



## Currents

# Easy Ways to Beat the Mite

**We've all heard the advice** to combat dust mites: vacuum daily, change the sheets often and dust, dust, dust. But who wants to? Although good recommendations – these microscopic, allergenic creatures cannot survive when their source of nutrition is removed – it is not always practical to be a slave to the dust rag.

Pharmacist and CRE **Jolanta Piszczek** offers advice for losing the mite, without the back-breaking work:

- Go straight to the source: the bedroom mattress. Encase it with a dust-mite cover that has a minimum pore size of 3.9 microns.
- *How* sheets are washed is more important than *how often*. Use water that is at least 60 degrees Celsius. If using a mattress cover, you can get away with changing bed linens once every one-to-two weeks.
- Great news! It's OK to leave the bed unmade once in a while. This allows body heat and moisture to escape, an environment that mites thrive in.
- Remove the carpet and install wood floors. If you miss the feel of carpet, add smaller, washable area rugs.
- Plug in a dehumidifier and open the curtains; dust mites can't survive in dry environments.
- Above all, eliminate the source of dead skin from the bedroom: lock out pets, move to another room during the day and shower before bed.

### QUIZ ANSWERS *from page 35*

1. **F** Atrovent (ipratropium) is a rescue inhaler in which the drug is well dissolved in the liquid. There is no need to shake it.
2. **F** You will not develop tolerance to rescue inhalers if used properly. If yours is no longer working, see your asthma educator or doctor.
3. **T** Stress can increase the respiratory rate and stimulate the nerves that control breathing muscles, leading to loss of asthma control.

*Contributed by Jolanta Piszczek, pharmacist and CAE in Cornwall, Ont.*

## Parent Advice

# Asthma-Proofing the Babysitter

**You've planned an evening out** and hired a reliable babysitter. Don't walk out that door, say educators Helen Kelson and Tamara Lange, until you've reviewed these five key points.

**Medication:** Show the babysitter where your child's asthma medication is stored, explain when and how to deliver it, and let the babysitter know if your child can take it on his (or her) own. Ask the sitter to carry a reliever inhaler during outdoor activities, including backyard play.

**Triggers:** Leave a list of what sets your child's asthma off. Common triggers are exercise, a cold, or exposure to animals or dust.

**Warning Signs:** Make sure the babysitter knows what to look for if your child's asthma gets worse. Many children who are having trouble breathing will flare their nostrils, cough, or wheeze when they exhale.

**Contact Info:** Leave a note with where you'll be, when you'll be home and how to reach you. Also have a backup contact, in case you can't be reached.

**Emergency Help:** Make sure your sitter knows when to call 911 and what your home address and phone number are, in case paramedics are needed.

*Note:* If your babysitter seems inattentive to instructions, careless, or nervous about handling a flare-up, he or she is likely not the right person to watch your son or daughter. Never leave your child if you're not comfortable.

*Helen Kelson is a registered respiratory therapist and CAE in Toronto. Tamara Lange is a pharmacist and CRE in Saskatoon.*



*After your review, ask if any questions.*

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