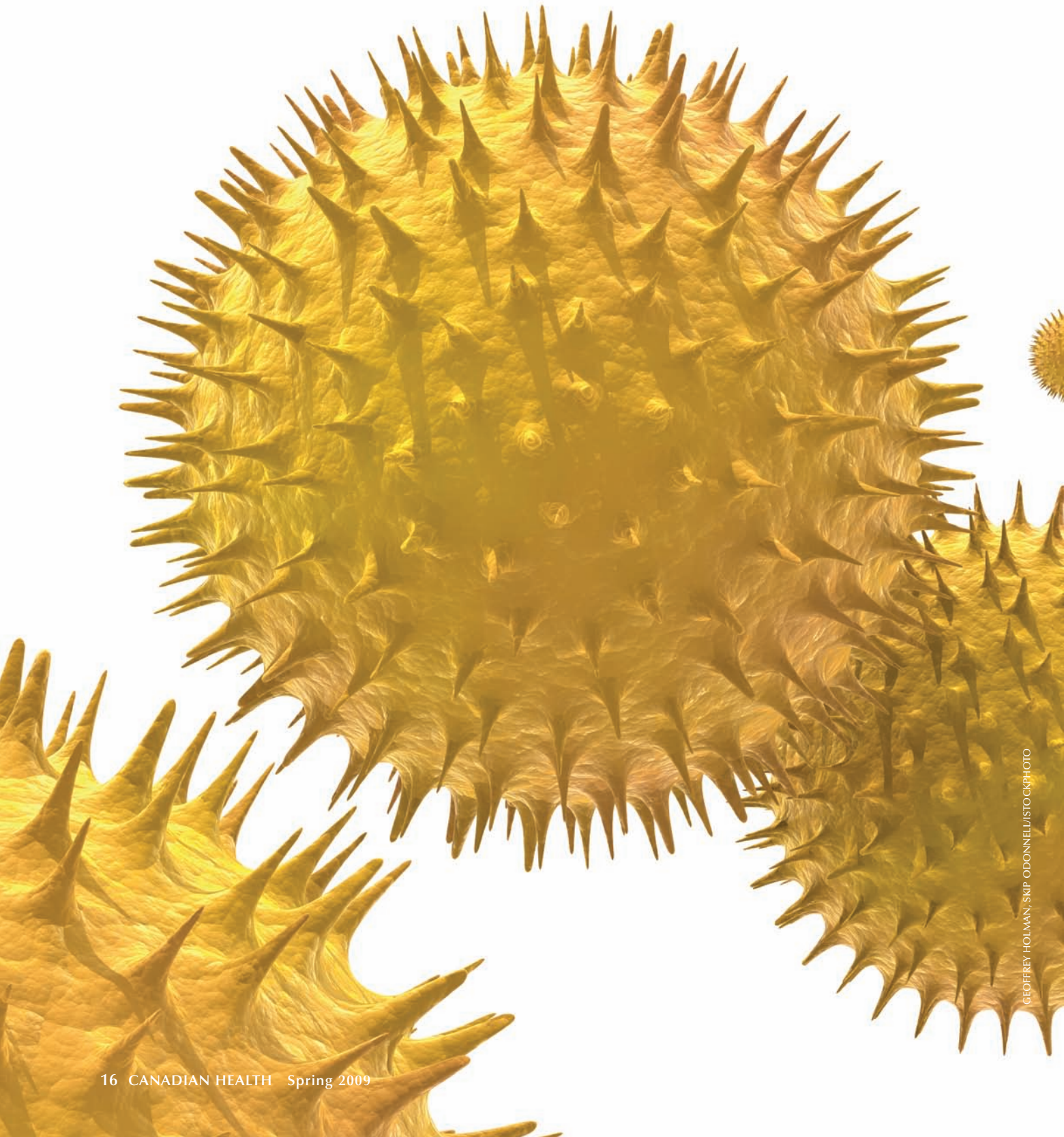


A Sneezer's



GEOFFREY HOLMAN, SKIP O'DONNELL/STOCKPHOTO

Guide to the Galaxy

Spring is in the air, but so are those rogue-meteor pollen grains

DORY CERNY

After a long, dreary winter, most Canadians can't wait for spring. That first hint of a warm breeze that catches us off guard and the tiny buds appearing on the ends of gnarled branches are like a balm to our cold-weary selves. But for the up to 25% of Canadians living with seasonal allergic rhinitis (SAR — commonly known as hay fever — spring's awakening can be a mixed blessing.

"It's frustrating when the sun starts to shine and you want to be outside, but you're more miserable outside than indoors," says Jacynthe Bouchard, 52, a government manager in Victoria. Allergies to mould spores and tree and grass pollen keep her coughing and sneezing from early April right through the fall. "My eyes are watering, my nose is running. I've got dark circles under my eyes, headaches and just no concentration whatsoever," she says. "It's like living in a fog."

Jacynthe's symptoms, along with itchiness of the eyes, nose, ears and throat, are common for hay fever sufferers,



In recent years, doctors have begun to subscribe to the “one airway, one disease” approach, wherein a person who presents with asthma is — theoretically — also tested for allergies, and a patient with seasonal or year-round rhinitis is checked for asthma

who react to the sudden abundance of pollen grains — tiny egg-shaped male cells — floating in the air once the trees and flowers begin to bloom. Trees such as birch, alder, oak, elm and mulberry are common triggers, releasing pollen as early as February in mild British Columbia and in March or April in the East. Summer sees the arrival of grass pollen, while ragweed and mould appear in late summer or fall.

WHAT HAPPENS IN A HAY FEVER ATTACK?

Sensitization to pollen occurs when grains are first encountered by the immune system. It takes several years of exposure for the antibodies to build up, so hay fever symptoms don't usually appear until after the age of five. When the airways of

people who are predisposed to pollen allergy (mainly through heredity) inhale the grains, their immune systems mistakenly identify the proteins as harmful and produce Y-shaped antibodies against specific allergens known as immunoglobulin E (IgE). These protective watchdogs attach themselves to cells called mast cells, which are abundant in the nose, eyes, throat and lungs and wait there until they pick up an allergen on their radar. Once high enough levels have been produced, the antibodies fly into action with subsequent exposure, spurring the mast cells to release protective but inflammatory chemicals such as histamine and leukotrienes. Those chemicals cause a chain reaction that results in the symptoms that make allergy sufferers so miserable.

HAY FEVER'S SINISTER SISTER

Closely linked to allergic rhinitis is asthma. In recent years, doctors have begun to subscribe to the “one airway, one disease” approach, wherein a person who presents with asthma is — theoretically — also tested for allergies, and a patient with seasonal or year-round rhinitis is checked for asthma. This concept of “chronic total allergic airway disease syndrome” is the result of years of research indicating a high level of correlation between the two conditions. It is estimated that at least 80% of asthmatics are also allergic and that approximately 40% of people with allergic rhinitis have asthma. If the allergic reaction involves only the eyes, sinuses and throat, it's probably just allergies.

Allergy Sufferer's Medicine Chest

OTC ANTIHISTAMINES/DECONGESTANTS

PLUSES

MINUSES

First-generation antihistamines and decongestants

Diphenhydramine (Benadryl), chlorpheniramine (Chlor-Tripolon), pseudoephedrine (Afrin, Sudafed), a decongestant used in combination with antihistamines.

Fast-acting, inexpensive and available in even cheaper bulk generic brands.

Short-acting. Cause sleepiness as they readily enter the brain from the bloodstream. Pseudoephedrine can raise blood pressure.

Second-generation histamine receptor antagonists

Loratadine (Claritin, Aeries), fexofenadine (Allegra), cetirizine (Reactine). Added decongestant is identified by "D" or "+ Sinus."

Long-lasting, effective for mild to moderate symptoms. Do not cause drowsiness in most since they don't cross the blood-brain barrier easily.

Pricier than first-generation but cheaper as drugstore house brands. Some people may build up a tolerance, rendering the drugs less effective.

RX CORTICOSTEROID NASAL SPRAYS

Old

Beclomethasone (Beconase AQ), fluticasone propionate (Flonase), mometasone (Nasonex), triamcinolone (Nasacort).

Highly effective for long-term relief of seasonal and perennial rhinitis symptoms. Easy to use and can take effect in 15 minutes.

Pricy. Can cause irritation of the throat, hoarseness, nosebleeds or headache. Can have an unpleasant smell or taste.

New

Fluticasone furoate (Avamys), ciclesonide (Omnaris).

No taste or smell as with other inhaled corticosteroid sprays. Avamys also alleviates both sinus and ocular symptoms.

Pricy. May cause headaches, ear pain and nosebleeds. May take several days to take effect.

RX LEUKOTRIENE INHIBITORS

Montelukast (Singulair), zafirlukast (Accolate).

Treat both allergies and asthma.

Expensive. Side effects include dizziness, stomach pain, insomnia and fatigue.

RX IMMUNE MODULATION

Omalizumab (Xolair).

Effective for severe allergic asthma, it captures IgE antibodies and short-circuits the inflammatory response.

Very costly and must be injected by a physician. May provoke serious allergic reactions.

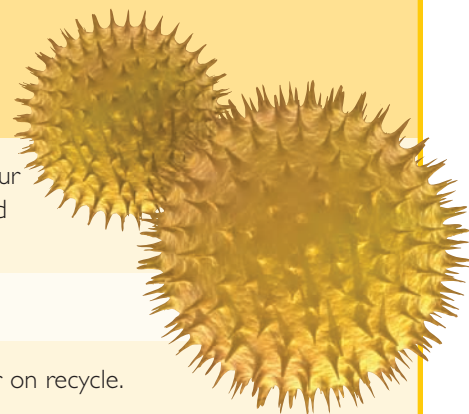
NATURAL/HOMEOPATHIC

Quercetin, bromelain.

Flavonoids, naturally occurring compounds in fruits and vegetables, have shown some antihistamine and anti-inflammatory effects.

Largely untested and unproven. Herbal remedies are also not controlled in the same way as medications, so the content of preparations is unpredictable.

Taking Charge of Allergies



- 1 Know what you're allergic to and when your allergens start to appear. Check your local weather and pollen forecasts. Pollen counts are highest in the mornings and on warm, windy days, so plan your time outdoors accordingly.
- 2 Keep your car windows shut and the air recirculating.
- 3 Keep your home's windows and doors tightly closed and run the air conditioner on recycle. Install HEPA filters on your cooling and heating systems.
- 4 Vacuum with a HEPA-equipped machine and wipe down interior surfaces with a damp cloth.
- 5 Bathe pets regularly to get the pollen out of their fur, and don't let them snuggle up with you on the couch or bed.
- 6 Dry washing on an indoor clothesline.
- 7 Cover your hair outdoors, and shower and change your clothes after being outside on high-pollen days.
- 8 Get someone else to mow the lawn or rake the leaves, which can stir up pollens and mould, or wear a facemask.
- 9 Plan vacations — to low-allergen destinations — to coincide with the height of your local allergy season.
- 10 See your doctor or allergist to discuss your symptoms regularly. Changes or increases to medications may be needed. Always take medications as prescribed or directed.

But if wheezing or coughing affecting the lungs is present, look to asthma as a possible cause.

"If someone is asthmatic, they should see an allergist to make sure they're doing everything they can to minimize the allergic contribution," says Dr. Devi Banerjee, an allergist at Montreal General Hospital. Even people who don't have asthma otherwise can experience symptoms during the height of allergy season. Jacynthe uses a prescription asthma medication called a leukotriene inhibitor when her coughing starts to get out of control. She also takes a daily dose of an over-the-counter (OTC) second-generation antihistamine (see "Medicine Chest," p. 19).

TREATMENT OPTIONS

Thankfully, seasonal allergies can often be managed with OTC medications such as antihistamines

and decongestants. Depending on the severity of the symptoms, these medicines can be taken daily on the recommendation of a doctor and used in combination with other treatments, as in Jacynthe's case.

Decongestants can be taken occasionally but with overuse cause rebound congestion," says Banerjee. "Then there are nasal sprays, which contain a bit of a corticosteroid. Corticosteroid sprays are prescription medications that reduce the inflammation and swelling in the nasal passages (see "Medicine Chest," p. 19). "If we try all of those things and the patient is still very symptomatic, we can also offer immunotherapy," she adds.

In immunotherapy (allergy shots), a patient first undergoes testing (usually a skin prick or scratch test) to determine her specific triggers. Once those are identified,

tiny amounts of these allergens are injected under the skin, moving from very low doses to higher ones, until the body builds up a tolerance to the previously antagonistic proteins. Although symptoms may only be a problem during the allergy season, the immunotherapy process lasts all year, usually for a minimum of three years. Banerjee says that the success rate can be as high as 80%, with most patients seeing a marked improvement in their health, and others experiencing a complete resolution of their allergies.

Other treatments include new improved inhaled corticosteroid sprays that have fewer side effects than their older counterparts (see "Medicine Chest," p. 19). In addition, a growing body of research indicates that these nasal treatments also indirectly ease allergic conjunctivitis, or allergic eyes,

another bothersome symptom of seasonal allergies.

Options also include pre-seasonal allergy shots and sublingual immunotherapy, which is administered beneath the tongue. "With the pre-seasonal option, let's say it's four shots: once a week for four weeks and then it stops," says Banerjee. "That's versus the year-round three- to five-year treatment with the traditional shots. It's not quite as effective, but it's a reasonable alternative." While the pre-seasonal program is already available for some allergens, the sublingual route is not yet offered in Canada, but it is as effective as traditional shots and improves symptoms when used along with injections.

For some, only the heaviest hitter will tame the symptoms of allergic asthma. A relatively new biological treatment called omalizumab works

by capturing the IgE antibodies before they trigger reactions. It's given every two to four weeks and is very effective. The downside is that it must be injected in a doctor's office because of the elevated risk of anaphylaxis, a life-threatening allergic reaction. It's currently prescribed only for allergic asthma and not for allergies affecting the nose, eyes or skin. It can also be prohibitively expensive for those without a drug plan or government aid, costing from \$600 to \$3,600 a month, depending on the dose.

COMING DOWN THE PIKE

Currently under study by scientists at McMaster University in Hamilton, Ont., among others, is the use of peptide immunotherapy. This uses not actual allergens but synthetic components of allergenic molecules in tiny doses to build tolerance in the immune system. This reduces

the response of the cells that promote reactions and increases the effectiveness of those that promote tolerance. The peptide approach may be much safer because it is less likely to trigger a serious allergic reaction during treatment, always a risk with any form of immunotherapy. Both oral and injected versions are being tested.

The good news is that after years of battling symptoms, getting older may actually be the best medicine. As we age, our immune systems start to produce fewer antibodies, IgE included. That means that while people facing their senior years may be more prone to infections, allergic reactions become less frequent and severe. Jacynthe has yet to see the age factor mitigate her allergies, but she's looking forward to it. "Maybe that's the silver lining to the cloud of entering your golden years!" she says with a laugh. 🍷

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