

AH SHOO!

IS YOUR HAY FEVER GETTING WORSE?

The surprising ways climate change might be affecting your health



Words  Rosanne Buchanan

By far the most common allergy is allergic rhinitis, otherwise known as hay fever. Up to 16 million South Africans suffer from it and while you might not think it's a particularly serious condition, having an itchy, runny or blocked nose, watery eyes and scratchy throat for weeks on end is no fun.

Now scientists warn that allergic reactions are on the increase globally. Allergies are caused by sensitivities to pollen, certain foods, dust, mould, pet fur, medications and insect bites. Some of the more bizarre things that might cause a reaction include cockroaches, the sun, particular metals and certain elements in water. And the symptoms of an allergic reaction are just as varied – you might cough, tingle, itch, break out in a rash or hives, wheeze or feel short of breath.



► Rise in allergies

Some experts say climate change – which may make hay fever symptoms more severe and last longer – is a contributing factor in the global spike. According to one study published in *Environmental Health Perspectives*, plants grow more vigorously and produce more pollen because of the earth's warmer temperatures and higher levels of CO₂.

And of course, more pollen in the air means hay fever sufferers are sneezing louder than ever.

Other experts say current food processing methods and toxic environments are to blame for the uptick. 'There is, without doubt, an increase in the number of people presenting with allergies to the environment,' says Johannesburg GP, Dr Kevin Scheepers, who focuses on integrative and functional medicine. He believes allergies may be on the increase due to worsening pollution, pesticides and insecticides in fresh produce, and metals (such as mercury and lead) in our drinking water.

Another reason offered for the rise in allergic reactions is the hotly-contested 'hygiene hypothesis'. This idea suggests that children today, who are raised in very clean environments, have a higher rate of hay fever, asthma and other conditions because they aren't exposed to enough germs early in life to help their immune systems develop.

● ● ● BLAME IT ON YOUR GENES!

► One of the largest hay fever studies ever found that changes in the human genome increase the risk for developing allergy symptoms. Scientists analysed data from 900 000 people and found a total of 41 locations along the human genome that increase the risk of hay fever – including 20 not previously known about. The study was published in *Nature Genetics*.

Later research has largely replaced the 'hygiene hypothesis' thinking, suggesting that we've simply lost contact with particular bacteria and germs that helped our ancestors develop healthy, tough immune systems.

As Dr Adrian Morris of the Allergic Clinic (Johannesburg and Cape Town) says, **'Most allergies start in childhood – and early exposure to allergens is critical.'** He adds that **avoiding allergens in childhood is unadvisable.**

Bridget Surtees, a Cape Town clinical dietician adds another potential reason for the upswing in sneezing. 'Research is also looking into the role of intestinal bacteria in allergy protection,' she says. 'Gut bacteria has changed over time because we have less contact with germs than ever before.' This means your bacteria may offer less protection against allergies than your ancestors.

► Is there a cure?

Immunotherapy, under your doctor's guidance, is the only treatment that can cure certain allergies and works best in (but is not restricted to)

patients allergic to only one allergen. This therapy involves being regularly given the thing you're allergic to via drops or injections. The point is to try to "trick" your body into becoming resistant to the allergy – but it's a long-term treatment and can take more than three years to be effective.

Integrative medical doctors might recommend supplements to ensure optimal immune system support. According to Dr Scheepers, iron, vitamin C and vitamin D are most commonly lacking when it comes to allergies. 'I would suggest specific supplements to treat the allergies – for example Quercetin (a bioflavonoid found in onions), fish oil and curcumin (a potent antioxidant extract of turmeric).'

Other recommendations include taking vitamin C with meals and avoiding mucus-forming foods such as full-fat dairy, cheese and chocolate. However, Professor Claudia Gray of Allergy Foundation South Africa (AFSA) says the jury is still out on whether supplements are effective in managing allergies and that more studies need to be conducted.

There may be hope on the horizon, as a recent European study claimed a vaccine against hay fever could be on the cards within three years. This would entail several years of booster jabs though.

▶ SELF-HELP SOLUTIONS

To ease your symptoms when the pollen count is high.

DO

- ▶ wear wraparound sunglasses to protect your eyes from pollen
- ▶ shower and change your clothes after you've been outside to wash pollen off
- ▶ keep windows and doors shut as much as possible
- ▶ vacuum regularly and dust with a damp cloth

DON'T

- ▶ cut grass or walk on grass
- ▶ keep fresh flowers in the house
- ▶ smoke or be around smoke – it makes your symptoms worse

▶ How to tell if it's hay fever – or something else

If you've been experiencing symptoms for longer than two weeks, it is important to see your doctor. 'Hay fever symptoms can be similar to those of a viral or bacterial infection of the upper airways,' says Dr Elmarie Botha, an ENT specialist in Pretoria.

'Persistent nasal congestion has many possible causes. These include perennial allergies (allergies that are not related to seasonal changes), chronic sinusitis, nasal polyps, medications, and hormonal disturbances,' Dr Botha adds.

If your symptoms don't get better after two weeks, your doctor may prescribe an antibiotic or request further testing. Remember, persistent fever, difficulty breathing, facial swelling and wheezing, are signs that you need medical attention.

DID YOU KNOW?



▶ **Not all hay fever is caused by pollen. Perennial allergic rhinitis (that occurs all year round) is mainly caused by house dust mites, animals and moulds.**



WHY DO YOU SNEEZE?

▶ **As Dr Botha explains, the symptoms of hay fever begin with exposure to pollens, which your body mistakenly identifies as a threat. To combat this threat, your body triggers the release of an antibody called Immunoglobulin E (IgE) that attaches itself to mast cells, the 'master regulators' of your immune system.**

'Further pollen exposure causes pollen molecules to bind to the antibodies on the outside of the mast cells,' Dr Botha adds. 'This causes the mast cells to release a number of chemicals, including histamine. Histamine is the chemical responsible for the inflammatory response to allergens, the symptoms of which can include a runny nose, itching, sneezing and congestion.'

FIND OUT WHAT MAKES YOU WHEEZE

▶ **Skin Prick Tests (SPT)** a drop of the allergen is placed on your skin, which is then pricked to introduce the allergen under the skin surface. After 15 minutes, there may or may not be a reaction, like a hive or bump. The tests can be used to help to diagnose allergens in the air (hay fever and asthma) as well as food allergies.

▶ **Allergen Patch Testing (APT)** is used to assess skin allergies to metal, cosmetics, perfume, soap and topical medicines. Patches containing allergens are attached

to your skin and remain in place for two days. When they are removed, your skin is checked for micro-blisters to indicate a specific allergy.

▶ Other options include challenge testing – when you are exposed to the suspected allergen in a controlled manner – like traces of pollen sprayed up your nose and into your eyes – and blood tests, which can detect IgE antibodies produced by your immune system.