

Press backgrounder

Philips Air: empowering parents to take control of their child's allergies

When their child is at home, it's important for parents to know that they have done everything they can to reduce the triggers that aggravate their child's allergy symptoms – and to create a healthier home for the whole family.

Allergies are among the most prevalent chronic diseases, and the number of people affected is increasing. The World Health Organization estimates that over 20% of the world population suffers from allergic disease, such as allergic asthma and allergic rhinitis¹. In addition to this, air pollution is a major environment-related health threat to families and a risk factor for both acute and chronic respiratory disease².

To Philips every breath matters. We deliver good air quality for parents and their families and take allergens out of the air.

What are the most common conditions?

1. Allergic Rhinitis:

The most common childhood ailment caused by allergies³, 1 in 8 children worldwide suffer from allergic rhinitis⁴. This is the inflammation of the inside of the nose caused by an allergen, such as pollen, dust, mold, or flakes of skin from certain animals.

Allergic rhinitis typically causes cold-like symptoms, such as sneezing, itchiness and a blocked or runny nose. These symptoms usually start soon after being exposed to an allergen. Some children only get allergic rhinitis for a few months at a time because they're sensitive to seasonal allergens, such as tree or grass pollen – this is commonly known as hay fever. Other children get allergic rhinitis all year round because they react to allergens in the home, such as house dust mite or pets⁵. Allergic rhinitis can affect people at every stage of their life, from 1 years old to 70+ years old.

2. Allergic Asthma:

Allergic asthma means allergens trigger your child's asthma symptoms. Allergens cause an allergic reaction because the immune system thinks they are harmful and it responds by releasing a substance called immunoglobulin E (or IgE). Too much IgE can trigger inflammation (swelling) of the airways in the lungs. This can make it harder for your child to breathe and can trigger an asthma attack. However, both allergic and non-allergic asthma have the same symptoms, such as shortness of breath and wheezing⁶.

Only a doctor can confirm a diagnosis of allergic asthma. This is usually done using a skin or blood test in combination with an investigation into the lung function and other parameters of the respiratory system. These tests will help determine if seasonal allergies or year round allergies trigger your child's asthma⁶.

What impacts the quality of indoor air?

Most often, controlling air quality is focused on outdoor air as opposed to indoor environments such as homes and businesses. In fact both need addressing. There are six major factors that influence indoor air quality:

1. PM 2.5: these are fine inhalable particles, with diameters that are 2.5 micrometers and smaller. To understand how small this is, think about a single hair from your head. The average human hair is about 70 micrometers in diameter – making it 30 times larger than the largest fine particle⁷
2. Bacteria and viruses: these are living organisms with the ability to infect and cause diseases, such as tuberculosis or influenza. These biological agents can also provide additional problems by making asthma and allergies significantly worse⁸. Respiratory viruses, notably rhinoviruses, are the most important triggers of asthma exacerbations in both children and adults⁹.
3. Volatile organic compounds (VOCs): these are found in chemicals used to manufacture and maintain building materials, interior furnishing, cleaning products and personal care products. Long-term exposure to VOCs indoors can be a threat to health. However, the development of health problems is dependent upon the level of exposure
4. Dry air indoors: this can draw water out of skin and hair cells, causing itchy skin, chapped lips, brittle hair and redden eye. It can aggravate allergies, asthma and other respiratory conditions, and ruin a good night's sleep
5. Humidity: this is the opposite situation that can also happen at home. High levels of indoor humidity can encourage a flourishing of bacteria, viruses, mites and fungi
6. Allergens: such as pollen coming in from outdoors, dust mite, pet dander and mold spores

In fact, the allergens that are the most likely to cause allergic reactions are¹⁰:

- House dust mite: 22% (meaning that more than a fifth of people suffer from allergic reactions caused by this allergen)
- Grass pollen: 17%
- Cats: 9%
- Birch pollen: 6%

What can be done to help?

Improving indoor air quality has the potential to remove many irritants and allergens. At Philips we believe there is always a way to make life better and, whilst parents of allergy sufferers are powerless to control the quality of outdoor air, they can improve their indoor air at home and monitor outdoor allergen levels.

Our aim is to help people to improve the quality of the air they breathe indoors. We work in partnership with globally renowned experts¹¹ and leverage our leading expertise in respiratory health to design humidifiers, dehumidifiers, purifiers and combi products (a purifier and humidifier in one device). These appliances reduce exposure to airborne allergens and give parents the confidence that the indoor air their children are breathing is cleaner.

To combat poor air quality, Philips air purifiers can help to reduce allergens and control air quality levels indoors – such as in a child's bedroom or playroom; and its humidifiers maintain comfortable moisture levels:

1. Philips Air Purifier Series 2000i

This connected air purifier removes 99.97% of airborne allergens including pollen, house dust mites and pet dander¹². To help decrease the impact of these moments, it also includes AeraSense, a particle sensor that detects even a slight change in the air and ensures the purifier's settings are adjusted to reduce airborne allergens. Through an app it gives users real-time air quality feedback via the display, plus allergy management advice.



2. Philips Air Purifier Series 3000i

Combining AeraSense and VitaShield IPS technologies, the connected Philips Air Purifier Series 3000i reduces airborne allergens, gases and odors. Through a display and app, users are able to monitor the quality of their indoor air in real-time. Available anywhere, the app also gives users advice on their allergen management regimen. VitaShield IPS technology also uses natural filtration to collect and retain many contaminants, leaving indoor air cleaner.



3. Air Matters App

Monitoring in real time, this app – which can be used around the world – shows what the current outdoor allergen levels are and provides an air quality forecast for the next seven days. This is based on information from more than 10,000 monitoring stations in over 50 countries. The app also allows you to regulate the settings and the speed of your Philips air purifier, and to receive information on its filter status. What is more, its Pollen Forecast provides the levels of different types of pollen for the next 3 days. It covers the top allergens such as birch, grass and olive to ragweed, mug wort and alder; and is currently available in Europe and the US¹³.



4. Philips Humidifier Series 2000

This humidifier helps users to retain comfortable moisture levels in their home by maintaining a constant and even, relative humidity between 40% and 60%. NanoCloud Technology spreads 99% less bacteria compared to ultrasonic humidifiers¹⁴. This unique humidification technology uses a natural, cold evaporation process with no artificial additives. It humidifies the users' home by generating tiny molecules of pure water that are invisible to the eye, and evenly distributes them around the room.



5. Philips DeCombi Series 5000

This 2-in-1 dehumidifier combines a highly efficient dehumidification system with an air purifier. Removing up to 25 liters¹⁵ of water per day. Its NanoProtect filter removes ultrafine particles as small as 0.02micron¹⁶, 99% airborne Aspergillus Niger mold spores¹⁷, bacteria¹⁸ and the H1N1 virus¹⁹. What is more, it also features a humidity sensor with a numerical display and an air quality sensor.



With advanced technology, plus certification or testing by AHAM, ECARF and Airmid Healthgroup, each product in the Philips Air portfolio is designed to ensure you have cleaner air or comfortable moisture levels, always.

¹ http://www.who.int/gard/news_events/1-3.GARD-06-07-K1.pdf?ua=1

² <http://www.who.int/ceh/risks/cehair/en/>

³ <http://acaai.org/allergies/who-has-allergies/children-allergies>

⁴ Pols DH et al. *Interrelationships between Atopic Disorders in Children: A Meta-Analysis Based on ISAAC Questionnaires*. 2015 Jul 2;10(7)

⁵ <https://www.nhs.uk/conditions/allergic-rhinitis/>

⁶ <http://www.aafa.org/page/allergic-asthma.aspx>

⁷ <https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>

⁸ California Air Resources Board. Report to the California Legislature: Indoor Air Pollution in California. California Environmental Protection Agency. Sacramento, CA. 2005.

⁹ Global Atlas of Asthma”, European Academy of Allergy and Clinical Immunology, 2013)

¹⁰ Bousquet, *Allergy* 2007; 62: 301–309

¹¹ Asthma Council Australia (Sensitive Choice service program), European Centre for Allergy Research Foundation (ECARF), Universities in China and Europe and locally (GP’s, pulmonologist)

¹² Tested on the filter media for 1 pass efficiency at 5.33cm/s air flow, by a third party lab.

¹³ In the US, pollen information and forecasts are available via Air Matters thanks to a collaboration with pollen.com. In Europe, pollen information and forecasts are provided by The Medical University of Vienna

¹⁴ Compared to standard ultrasonic technology (non warm mist), Philips NanoCloud technology emits up to 99% less natural bacteria into the air, as tested for 8 weeks in a 1m³ chamber, and certified in an independent laboratory benchmark study by Rabe HygieneConsult in June 2012 (Rabe Hygiene Consult 2101p_12.116).

¹⁵ Refer to DE5205 and DE5206 dehumidification performance

¹⁶ The filter was tested with NaCl test aerosol according to DIN71460-1 in IUTA

¹⁷ Microbial Reduction Rate Test conducted at Airmid Healthgroup Ltd. tested in a 28.5m³ test chamber contaminated with airborne *Aspergillus niger* mold spores within 60 minutes of operation

¹⁸ Tested by Shanghai Institute of Measurement and Testing Technology (SIMT) in 30m³ chamber according to GB21551.3-2010, (*Staphylococcus albus*) 8032 as testing bacteria

¹⁹ Microbial Reduction Rate Test conducted at Airmid Healthgroup Ltd. tested in a 28.5m³ test chamber contaminated with airborne influenza A(H1N1)