Hello I'm Elf. I work for the European Lung Foundation (ELF) and I'm back to tell you about air pollution indoors. Do you spend much time indoors? I'm sure you do - at school, at home, and especially while you're asleep. As we spend most of our time indoors, it's very important that the air is nice and clean for us to breathe.

Lots of people know about the things that can make the air outdoors dirty, like smoke from factory chimneys and car and truck exhausts. But not everyone knows that the air indoors can be polluted too and can hurt our lungs.
Lots of different things can make indoor air dirty. Here are some of them...

Smoking. Everyone knows that cigarettes, pipes and cigars are bad for the people who smoke them, but did you know that the smoke can harm other people in the room too? If you breathe in smoke from other people it might make you cough and you may find it hard to breathe.

Damp. If the air or the walls are too wet, then nasty mould can grow. This can get into your lungs and make you ill.

Radon. Radon is a gas that comes from underground and can collect in houses. It is common in some parts of Europe and can make people very ill.

Chemicals. We use lots of chemicals in our homes, for jobs like cleaning, decorating and killing germs. Some of these chemicals can give off fumes that can hurt our lungs.

Pets. Pets are great and we love them but they can make some people very ill because the hair and the tiny skin particles they leave behind get into their lungs and make them wheezy.

Heating and cooking. It’s nice to be warm and cosy but sometimes the ways we keep warm can affect our health. Fires can give off tiny soot particles which can make you cough. Have the windows open when cooking or use an extractor fan to get rid of harmful gases.

Beds. Tiny creatures called dust mites live in our beds and carpets. The waste they leave behind is usually harmless but can cause wheezing in people who are allergic to dust mites.

Buildings. Sometimes, the material used to make buildings can be harmful especially if it is disturbed. Asbestos has been used in many buildings and can damage the lungs if people breathe it in. It is sometimes hard to tell if the air indoors is dirty, because the pollution can’t always be seen and you don’t get ill until you grow up. But there are some clues you can look for. If you can see any mould growing anywhere, or there are bad smells indoors, then perhaps the air is not very clean. Is there a place where you often feel like you cannot breathe properly, or your nose and throat itch, or you cough? If there is, then maybe something is causing pollution in that place, or you might be allergic to something in that area.
Our lungs allow us to breathe. They are very, very important and we need to look after them. They contain lots of little tubes called airways, which branch out like trees in your chest. Polluted air could hurt our lungs if we breathe it in. Pollution is especially bad for children and young people, whose lungs are still growing and for those who have asthma.

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This is my friend Alf. Before I taught him about lungs and air pollution his house was very unhealthy! Now he's made six changes and he feels much better. Can you spot them?

Here is a picture of a lung. It's made out of millions of tiny building blocks called cells, which are too small to see without a special device called a microscope. These cells stick together to make lots and lots of small tubes and air bags. Pollution can hurt your lungs in different ways. Sometimes, they get better quickly but sometimes the damage is more serious.

- Particles can get into the lungs and damage them or they can make the airways swell up and make it difficult to breathe.

- Some types of pollution, like cigarette smoke, can hurt the cells in the lungs.

Answers: Alf has opened the windows, put out his dirty fire, stopped smoking, got rid of the mould and damp on the walls and thrown away that smelly air-freshener. The dog's gone too, but don't worry, he's OK. He's just not allowed on the furniture any more.
There are lots of things we can do to try to make sure indoor air is clean. You could ask your parents or someone who looks after you to help. Perhaps you can think of more ways to make sure indoor air is good to breathe.

No smoking indoors! I'm sure you don't smoke, but perhaps some of the grown-ups you know do. If they knew it was hurting you, they might take their cigarettes outside.

Open the windows every day. Sometimes it might be too cold, or the air outside might be smoky, but it is important to let fresh air in sometimes and blow all the old air away. You might not want to do this too often if you suffer from hayfever because you may let pollen into the room.

Does your home or school have smoke alarms or other pollution detectors? You could ask someone, and find out whether they have been tested lately.

Find out whether the chimney, cooking fan or central heating in your home has been cleaned or checked lately. If they are not looked after, they can make the air indoors dirty.

Ask someone who looks after you to read my factsheet for grown-ups, which is on my website at www.european-lung-foundation.org or you might like to visit: ec.europa.eu/environmen/youth/index_en.html or ecoagents.eea.europa.eu