## Dirty air indoors and your lungs

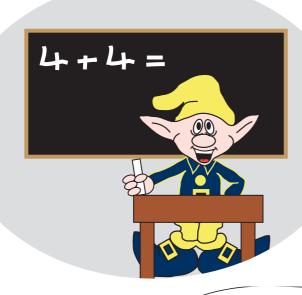




This factsheet is intended to teach children between the ages of 5 and 11 about indoor air pollution, how it can affect our lungs and what we can do to prevent it.

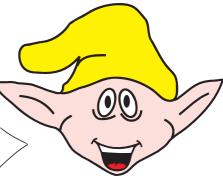


Hello I'm Elf. I
work for the European Lung
Foundation (ELF) and I'm back to tell
you about air pollution indoors. Do you
spend much time indoors? I'm sure you do
at school, at home, and especially while
you're asleep. As we spend most of our
time indoors, it's very important that
the air is nice and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





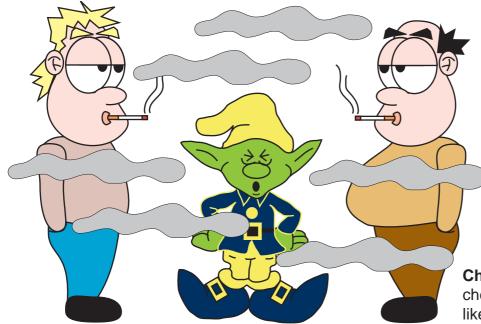
For more information from ELF or the adult version of this factsheet please go to www.european-lung-foundation.org

This information was written and compiled by the European Respiratory Society (http://dev.ersnet.org) Environment and Health Committee.

Co-funding and production and content support for this publication has been provided by the Health and Environment Alliance (HEAL); **www.env-health.org**, through DG Environment, European Commission.

## 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.

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.

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?





## Cleaning up our indoor air

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.

our you to ways o

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/environment/youth/index\_en.html
or ecoagents.eea.europa.eu