Health dangers and costs of heating and cooking in homes

Buildings today are a source of air pollution

Using stoves and boilers based on oil, gas or solid fuels (such as coal or biomass) for domestic cooking and heating is a major source of air pollution.

The so-called ‘green’ hydrogen boilers could create health costs comparable to those caused by oil boilers.

Indoor air pollution carries health risks

With European citizens spending on average 90% of their time indoors, indoor air quality plays a significant role in their general state of health.

Children living in a home with a gas stove have:

- **42%** Higher chance of having current asthma
- **24%** Higher chance increased risk of lifetime asthma

(Weiwei Lin et al., 2013)

Good working ventilation and exhaust hoods are crucial to filter out air pollutants.

Air pollution is damaging to health

Air pollution continues to be a significant burden of disease and premature death in the EU Member States.

- Aggravated asthma
- Reduced lung function
- Increased mortality

In 2019, +300,000 premature deaths in the EU were attributed to chronic exposure to fine particulate matter \( (PM_{2.5}) \).

(European Environmental Agency, 2021)

Cleaner heating alternatives exist

There are no direct emissions when using heat pumps or solar thermal heating, or induction stoves for cooking.

Main health, social and economic costs of air pollution

Restricted activity and working days

Increased mortality risk

Reduced life expectancy

Respiratory hospital admissions

Work loss days

Total health costs due to residential heating were higher than those due to residential road transport for most of the EU27 states + the UK.

€27 billion are due to fossil fuel and wood burning

Coal: 88B€

Wood: 12.6B€

Oil: 2.9B€

Gas: 3.5B€

Health-related impacts of outdoor air pollution from domestic heating and cooking cost the EU €29 billion.

The average European €130 in 2018.

The highest costs are in Central and Eastern Europe.

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Read more about the CE Delft report HERE

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