



Rialtas na hÉireann
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FAQ on Solid Fuel and Clean Air

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FAQ on Solid Fuel and Clean Air

Many things increase the pollutants we produce when heating our homes with solid fuels. These include what we burn, how we burn it and the maintenance of our heating appliance and chimney.

A – Ask yourself “do I need to light a fire?”

Why should I think twice before lighting a fire?

In Ireland, household fires are the main source of an air pollutant called fine particulate matter (also known as PM2.5). This pollutant is linked to approximately 1,300 deaths in Ireland each year, with a total of some 16,200 Years of Life Lost.

Exposure to PM2.5 can spark asthma attacks and can cause a range of respiratory problems such as bronchitis, bronchiolitis (which affects one in four children under the age of two), pneumonia, chronic obstructive pulmonary disease (COPD), lung cancer and other illnesses. It can also cause short-term health such as eye, nose, throat and lung irritation, coughing, sneezing, runny nose and shortness of breath. People with asthma, children, and the elderly are most at risk.

By choosing not to light a fire if you have other heating sources available, you can help reduce the levels of PM2.5 in our air. This will help you and your community to enjoy better health and live longer.

I don't have any heating in my home other than a fireplace/stove. What am I supposed to do?

If you don't have any alternative, continue to light your fire when you need to. We simply ask that you consider your choice of fuel and use low smoke options as outlined in the EPA infographic below.



What should I do instead of lighting a fire?

The EPA infographic highlights a range of heating options from most to least polluting. We would ask you to consider if possible using what other less polluting heating methods available to you, before thinking of lighting a fire.

If you sometimes light a fire for cosiness or ambience in addition to using one of these other heating sources, it might be useful to check the air quality in your area before you do particularly on days where the air is still and there is no wind to help disperse the smoke from your chimney. Information on air quality in a number of local areas is available on www.Airquality.ie

Are there other steps I can take?

In the longer term, retrofitting your home so that it's better insulated and more heat efficient may be an option for you. You can do this in stages focusing on the best options for your own home to help keep as much heat in your home as possible.

Advice, grants and supports are all available from the Sustainable Energy Authority of Ireland (SEAI). See www.seai.ie for more details.

B – Burn cleaner fuels if you do light a fire

What are cleaner fuels?

While there is no such thing as a smokeless fuel, approved low smoke fuels and properly dried wood generally produce less air pollution than the following fuels:

- Loose peat, also known as sod turf. This is also the least efficient in terms of heat output.
- Bituminous coal, also known as “smoky” coal.
- Green/wet wood. This is typically newly-felled wood which has not yet been properly dried, either by air drying or in a kiln. It also produces less heat than properly dried wood and can cause a build up of waste material in your chimney.



I've heard that low smoke coal is more expensive, and doesn't give off as much heat. Is this true?

The price of solid fuels can vary at a local level, the most recent survey of costs carried out [by the SEAI](#) shows that low smoke coal can sometimes be a little more expensive to buy per bag than “regular” bituminous coal. However, it is generally no more expensive than “premium” bituminous coal.

With regard to heat output, the SEAI ranks low smoke coal as the best coal of all in terms of heat delivered per cost spent. Using the right low smoke fuel for your appliance will allow

your fire to burn as hot as other types of coal, and for longer too, therefore making it cheaper overall to heat your home.

The smaller flame you may notice from low smoke coal does not mean it is not burning as well. It instead means it is burning more efficiently. This is another sign of it giving off more heat.

Is there a better way to light my fire when using low smoke fuel?

Ensure your appliance (i.e. stove/fireplace) is clean by removing all ash and small cinders from the grate as this will restrict the air flow.

Place a layer of low smoke coal on the grate followed by dry kindling and firelighters. Once the fire has started burning add more low smoke coal. Generally, union nuggets will catch fire more quickly than ovoids.

I live in what's already a Low Smoke Zone. Does this mean I don't need to make any changes?

Not necessarily. The current Low Smoke Zone designations just prohibit the burning of bituminous coal in those areas.

However, some people in Low Smoke Zones continue to burn other smoky fuels we ask that you refrain from burning these materials, and use lower smoke fuels instead to ensure better air quality for your community.

It is also important to note that scrap timber and household waste are illegal to burn in all circumstances, right across the country.

In addition, please remember our first request – which you think twice about lighting a fire at all, if you also have other forms of heat available to you.

I live outside the current Low Smoke Zones. Why should I make changes?

For the benefit of you, your family, and your community. If everybody makes cleaner choices in heating their home, they can help bring better air quality for everybody.

In smaller towns and villages, smoke from neighbouring houses can accumulate and cause significant levels of localised air pollution. Even pollutants from isolated rural homes can gather in the air and be carried over time to more densely populated areas.

In addition, burning solid fuel - particularly in an open fireplace but also in stoves – releases pollutants inside your home as well as outside. This means that making better choices with regard to lighting your fire will be better for you and those you hold most dear to you.

New regulations currently being developed will ensure that only better quality fuels, low smoke fuels can be burned in future years. In advance of the regulations coming into effect, we urge everyone to start to voluntarily make these changes now.

C – Clean your chimney once a year, and make sure stoves are properly maintained too

How does cleaning my chimney help to tackle air pollution?

Soot builds up in your chimney every time you light your fire. Other materials can build up too, if the fuel is not being burned properly. Over time, this build-up restricts the airflow through your chimney. This impacts the fire's ability to burn inefficiently – and an inefficient fire releases more pollutants into the atmosphere.

By simply making sure your chimney is cleaned regularly, you can prevent this from happening.



What's involved in maintaining a stove?

A good chimney sweep should also check your stove when visiting your home, and advise if any essential maintenance is needed.

There are also some steps you can take to get the best from your stove while using it:

DO

- Bring the stove to operating temperature quickly, and try to keep it there
- If burning wood, make sure it's 25% moisture or less
- Use low smoke fuels
- Use a thermometer, moisture meter and stove fan to help improve efficiency, save money, and reduce pollution
- Consider replacing older inefficient models with a more efficient model.

DON'T

- Don't close off the air to "slumber" the fuel for long periods overnight. This causes the fuel to burn less efficiently, and therefore releases more pollutants.
- Don't use large logs if burning wood. A diameter of 100 to 150 mm (4 to 6 inches) is best.
- Don't be tempted to fit or alter any part of a solid fuel system yourself – it's far too easy to get something wrong!
- Don't mix low smoke coal and wood in a stove. You won't get the best from either fuel.
- Don't burn plastic, waste, or treated timber. It's toxic and it's illegal too.