

CO-Gas Safety Unintentional Carbon Monoxide Poisoning Case Study

RACHEL BRADY, Survived in 2023



Rachel's gas cooker

Age: 47

Fuel: Mains gas

Appliance & Location: Cooker in her shared-ownership home.

Notes by CO-Gas Safety: Rachel, a former paediatric nurse, contacted Stephanie Trotter of CO-Gas Safety after discovering the charity through research into symptoms she was concerned about. She has suffered a number of ongoing chronic symptoms for several years. This account tells how Registered Gas Engineers from Cadent, who run the Gas Emergency Service in her area, discovered that carbon monoxide was being emitted by her gas cooker, and how her medics responded when that was found.

I have been suffering from long-term chronic conditions, including ME, since 2009. I have daily pain, exhaustion and mobility issues that have lead me to be on the Priority Services Register. This is a scheme that all the major utilities use to enable customers like me to receive priority help in the case of emergencies such as blackouts or water shut-offs.

Gas safety has always been a priority

Since 2008 I have been living in my current home, which is under a shared-ownership arrangement. This means that I am responsible for the maintenance and safety of the appliances in my house, although I still pay rent on the part of it that I don't yet own. I am very safety conscious and have always tried to regularly service my gas boiler and cooker. My latest boiler service, completed by a Gas Safe Registered (GSR) engineer, was at the beginning of 2023. Unsurprisingly, there weren't any problems noted then because my boiler is only 2 yrs old and had been installed by a GSR engineer.

My cooker is older; I bought it second hand in 2006, but it was installed in my current home just a short while later in 2008 by a GSR engineer. My health originally took a downturn in 2009, and now I am wondering if the installation of the cooker just a year before had any connection to that.

Suspecting a problem

My health has been deteriorating further since 2021. My daily symptoms are debilitating, including but not limited to, chronic fatigue, migraines, joint pain, muscle spasms, dizziness, tinnitus, palpitations, chest pain, dry mouth, balance issues and more. Internet research lead me to think that carbon monoxide poisoning may be a factor and eventually I followed online advice and called the Gas Emergency Service phone number (0800 111 999) on 25th Sept 2023. In my area, that service is provided by Cadent, who manage the region's mains gas network.

I was given some advice over the phone and then Cadent engineer Simon Roden arrived to check my home that same day. He was reassuring and concerned about my symptoms. He used a CO monitor to check various rooms in my house, and also my neighbours' properties, then made the gas supply to my house safe overnight and arranged for a fume follow-on check for the next day.

Significant amounts of CO found

The next morning, Simon's colleague Carl Ryan came to the house to do more checks. He tested the boiler and confirmed it was safe. When he checked the cooker, however, he found carbon monoxide emissions of 50 parts per million (ppm). He disconnected the cooker, told me it was classed as 'Immediately Dangerous', labelled it with 'DO NOT USE' and then re-connected my gas supply so

that I could still use the boiler. UK domestic CO alarms are set to sound when they detect 30ppm for two hours, and the World Health Organisation consider only 4ppm over 24 hours to be unsafe!

I have a CO alarm that is in date, has good batteries and is made by a reputable supplier to the EN50291 standard. I can only assume that it didn't sound because it wasn't close enough to the kitchen or because it would need the 50ppm level to be detected for a longer time before it would alert me. However, I am learning from research that this doesn't necessarily mean I won't have been affected by that level of exposure. Carl said the volume of my kitchen was not large enough for the cooker to be ventilated well enough to combust properly and without CO being generated, so I could have been exposed to CO each time I used the cooker, over many years. I will never know.

Difficulty getting medical help

I am suffering with a long list of non-specific symptoms. I have engaged with healthcare professionals and undergone various investigations over several years, with no clear cause or diagnosis. I am frequently subjected to medical gaslighting.

As soon as I was advised to by the Cadent engineer during his visit, I contacted NHS 111 for advice and to find out how to organise a blood test. Unfortunately, the person who took my call made a decision to get an ambulance out to me, which delayed things. The paramedic tested my blood pressure, pulse, temperature, oxygen saturation, and blood glucose. They were all within normal limits. A decision was made by the paramedics that a blood test was not necessary as the CO would most likely be out of my system and no further treatment was needed.

I actually felt that my requests were dismissed and my symptoms were put down to tension headache and my other current health conditions... I later called my GP to try and discuss my exposure and ask about a blood test, but I was told that only a call-back was necessary. After a further wait, that call was from a receptionist, telling me to attend and wait at A&E for a blood test, but that the GP couldn't provide me with relevant forms for a blood test or a letter to take with me. Since CO dissipates from blood once non-polluted air is breathed, and my cooker had been disconnected, a wait in A&E would surely result in a negative test for CO?!

It seems clear to me that more awareness of CO and training is needed in the medical professions. Also, surely ambulance crews and first responders should have access to CO-oximeters for early and correct detection at the scene*. I am still battling to find answers to my conditions and to try and determine if CO may have had a long term effect on my health.

Rachel Brady

**<https://web.archive.org/web/20110625021038/http://archive.rubicon-foundation.org/8084>*

CO-Gas Safety comments

Three of the four companies that together run the Gas Emergency Service across the UK are currently, at last, running schemes to relight gas appliances and test for CO in homes of vulnerable customers. Cadent is thankfully one of these and has lead this initiative. It is due to Cadent that Rachel's CO issue was discovered at all. We hope that cases like this will encourage all four of the Gas Distribution Networks to instigate this simple and effective process to all customers, as CO can affect *any* household, however healthy, wealthy or wise the occupants may be.

We also hope that, although Rachel's home is not bound by rental legislation, this example shows how unsatisfactory it is that the testing and recording of CO emissions from appliances is not a mandatory part of a service or required for a landlord's gas safety check/certificate. Nor is it required for landlords to provide a CO alarm in a room if the cooker is the only gas appliance.