

CO-Gas Safety Unintentional Carbon Monoxide Poisoning Case Study

REBECCA SCARLETT, Long-term exposure in 2014



Rebecca Scarlett

Fuel: Mains gas

Appliance & Location: Central heating boiler in her Edinburgh home

Notes by CO-Gas Safety: This case study was kindly written by Rebecca for our 2019 press pack. Her experience shows that few medical professionals think to test a patient for carbon monoxide poisoning when they present with symptoms. Over several months Rebecca had serious health issues and numerous tests, but none were for CO. Years after removing the source of the poison, Rebecca had increasing after-effects of exposure and became one of many survivors to benefit from the support and advice of CO-Gas Safety.

One morning, in October 2014, I woke up with the most excruciating headache I'd ever had and felt extremely drowsy – much more so than normal for a weekday morning. It was different from just feeling tired after waking up, my body felt like it was shutting down. When I got out of bed to take a shower, my legs gave out from under me and I collapsed.

Increasing symptoms

From then on, I suffered a series of unexplained symptoms over a period of three months – from piercing headaches, muscle weakness, collapsing and electric shock type pains all over my body, to vomiting, losing consciousness and even incontinence. It was absolutely terrifying, but no one could tell me what was wrong with me. I had MRI scans, blood tests, even a lumbar puncture. The GP hypothesised that I was suffering from migraines, and that when I collapsed that first time, it had turned on and amplified all my nerve pain receptors.

On one hospital visit after another episode, the nurse seemed surprised after I breathed into some equipment. She asked if I was a smoker or had COPD, as my oxygen levels were very low. I said no, so she waited a bit and did the test again, and this time my oxygen levels came back normal. She was satisfied with that. That was probably one of the key times a medical professional had the opportunity to spot what was really wrong with me, but again, it was missed. I found out later that there were further indications in my blood tests that I had been exposed to CO but, again, no link was made.

Inspection of my boiler

Finally, on Christmas Eve, a few days after another episode, I decided to call a gas safety engineer out to my flat. I did this, because every time my sister was in my flat, she said she could smell gas, and told me I really needed to check it out. I ignored her the first few times, because I had an old boiler, and sometimes it played up a bit and gas could be smelled in the air from time to time. It didn't strike me for a second that it could be the origin of my illness. But as soon as the gas safety engineer walked into my flat, his carbon monoxide alarm started to go off.

He said there were moderate levels of CO in the air, and when I told him about my illness, he suggested there was a good chance I was suffering from carbon monoxide poisoning. I was in disbelief. I didn't even know it was possible to survive after breathing CO, I just thought it was an immediate killer. He condemned my boiler then and there.

My boiler was 20 years old at the time and I owned the flat, so it was my responsibility. I had smelled gas 18 months previously and called a gas engineer out then. He checked it over but couldn't find anything wrong with it; he said there was a hole in the roof and that when it was really windy, it was probably just blowing the gas light out with a backlash of gas, causing the smell. Perhaps something was missed then, I don't know, but I just didn't realise the importance of having annual gas safety checks and boiler servicing. I'd lived there for 10 years, it was the first flat I'd owned, and I'm ashamed to say I'd never had my boiler serviced, even though it used to cut out all the time.

Immediate improvement, long-term consequences

After the boiler was condemned, all my symptoms just stopped – it was miraculous. No more sudden collapses, or being shocked in my toes or excruciating headaches.

But three years later, my life had changed dramatically. I had started suffering from a multitude of mental health problems that were getting worse and worse over time. I felt like my personality had completely changed, I was anxious all the time and felt unable to cope with anything that life threw at me; unable to do my job, stressed, emotionally unstable and, latterly, very nihilistic. I wasn't suicidal, but I was struggling to see the point in anything. I put it all down to life circumstances at first as things started to get out of control earlier last year, after a close friend of mine died by suicide. But eventually I realised this went way beyond my friend's death, it had been building up ever since I was exposed to carbon monoxide.

The difficulties in finding help and support

I continued to struggle to get support from medical professionals; one Community Psychiatric Nurse told me to 'take up a hobby' and advised I couldn't access any NHS psychological services as my condition wasn't severe enough. She'd spent 10 minutes with me. Eventually I went in search of my own answers and carried out extensive in-depth research into the long-term effects of carbon monoxide.

I found growing evidence to suggest long-term exposure can cause brain damage, manifesting as anxiety, depression, personality changes, mood disorders, cognitive impairment. It all made sense to me, but I didn't know how to broach it with my GP, so I searched for a charity that supports victims of CO poisoning, and eventually I found CO-Gas Safety (but it wasn't easy to find and I wish someone had signposted me there earlier). Stephanie replied to me immediately, was extremely empathetic, but explained she specialised in law and was not a medic, so would pass my email on (with my permission) to a fellow victim, who may be able to offer me some support and advice based on her own experience.

Understanding and answers

A few weeks later, Belinda called me. She had also been exposed to CO 5 years earlier and when I told her my story, she said it completely mirrored hers, and she was convinced I was suffering from the effects of CO poisoning. She was empathetic, reassuring and gave me a lot of emotional support. She also gave me a lot of practical advice though, sending me links to reports and research and giving me instructions for engaging with the GP. She explained to me that she had found something that had really helped her – an antidote to CO poisoning – B12 injections. She told me that B12 is commonly used to treat cyanide poisoning as it's a powerful toxin scavenger, but there was emerging evidence over its use for CO poisoning as well.

Belinda empowered me to engage with the GP and I managed to convince her to take me seriously and agree to further investigation. She agreed to read the research I'd found and to send it on to the

neurology department to request a referral. She also agreed to test my B12 levels as it was a simple blood test. Amazingly, I got a call three days later to be informed I was indeed deficient in B12. I started injections straight away and will now have them every three months for life.

Hope for the future

Four weeks after the injections started, I felt like a different person. I feel like a heavy cloak has been lifted from me, like I can breathe properly for the first time in years. I feel capable, and resilient and ready to cope with life. The change in me has been nothing short of amazing.

If it wasn't for my own proactivity and research, and the help and support of CO-Gas Safety and Belinda, I may never have found out that there was a link between CO poisoning and mental health issues – or of course with B12.

There is clearly still so much work to be done around awareness raising, both with the public on gas safety and with the medical profession around diagnosing CO poisoning and treating the long term effects of it. Most doctors just presume if CO doesn't kill you or cause immediate obvious damage, it will just leave your blood stream and that's the end of it. On reflection, I was breathing in CO for two winters in a row, as I had milder but similar symptoms a year before I started to become very ill, I just never made the link. It's scary to think how many people might be out there slowly getting poisoned from breathing in CO, without anyone ever picking up on it.

Rebecca Scarlett

CO-Gas Safety comment

We do not know if the first engineer that visited to check Rebecca's boiler did any emission testing or checked the flue, which may have picked up the real fault with the boiler 18 months earlier. Such checks are not even a mandatory part of the Gas Safety Certification required by landlords and there is no requirement for them in a private home. Homeowners should always ask for testing with a flue gas analyser when an engineer looks at a gas appliance, and check that the Gas Safe Registered engineer has the correct qualifications to work on that specific appliance – this will be specified on their Gas Safe Register card.

What we do know is that it is fortunate that the second engineer to be called to the boiler had some kind of CO alarm device with him. Personal Alarm Monitors are not always carried by engineers (please see our case study by John Courtney; a First Call Operative who narrowly escaped carbon monoxide poisoning on a callout to a boiler in an office basement and whose case helped CO-Gas Safety lobby for PAMs for CO to be carried by Gas Emergency Service engineers. <https://www.co-gassafety.co.uk/case-studies/non-fatal/>). John's case study was published in our 2018 press pack.

Please also follow this link to learn more about vitamin B12 and the information that British B12 deficiency sufferer Tracey Witty has gathered on the subject. She is incredibly helpful and dedicated. <https://www.b12deficiency.info/b12-the-antidote/>