

CO-Gas Safety Unintentional Carbon Monoxide Poisoning Case Study

SUSAN HENRY, Deceased in 2018



Susan Henry

Age: 66

Fuel: Solid

Appliance & Location: Wood-burning stove in her home

Notes by CO-Gas Safety: This case study is written by Susan's daughter, also called Susan. Thankfully, another of Susan's daughters survived this incident, as did her husband, although his health is still affected by his exposure to carbon monoxide. The family pets alerted them to the fumes that were spreading through the house and undoubtedly saved two lives, but a carbon monoxide alarm and greater knowledge of the dangers of CO would almost certainly have prevented this tragedy. We are extremely grateful to Susan's family for their work on this account so soon after such a deep loss.

My mum

My mum, Susan Henry, was 66 years old when she died at Craigavon Area Hospital in Northern Ireland, on August 14th 2018 from carbon monoxide (CO) poisoning. The CO poisoning was caused by a wood-burning stove situated in the living room of the family home, which was installed approximately 15 years ago.

It was found that she had 53% carboxyhaemoglobin in her blood; a level of around 30% or less can be fatal. My mum had a kind and gentle nature. Although she was inflicted with ill health, she still found a lot of pleasure in life. Her great loves were gardening and looking after her beloved pets, whom she treated like members of the family. They provided her with a lot of comfort and relief at night when she struggled to sleep due to stress or pain. Her favourite hymn, which she would hum while she tended to her potted plants, was 'All things Bright and Beautiful'; which I feel sums up her personality and passion for nature perfectly.

My mum had four children, Olive, Hester, Thomas and me

My mum suffered from poor health, namely mental illness, insomnia, diabetes, blindness in her right eye and arthritis which lead to limited mobility. Due to this she barely ventured far beyond her home so her family was her whole world. She was the proud mother of four children: Olive the eldest, followed by Hester, then her son Thomas and finally me, whom she named after herself. She was also the grandmother to three beautiful grandsons: Reece, Adam and Jake.

The incident in 2018 that caused her death from carbon monoxide

Along with my mother, my father Desmond and my sister Hester lived at the family home, which is a privately-owned terraced house. My mother's health would disrupt her sleep frequently and she would often go downstairs during the night to sleep on the sofa. She took comfort from the company of her dog, Freddie, and cat, Gizmo, who also slept in the living room. My father lit the wood-burning stove for her and Hester before he went to bed at around 10.30 p.m. Hester stated the fire was almost out, just glowing ashes, when she and mum retired to bed after midnight.

How Hester was roused

The family cat woke my sister Hester up by clawing at the bedclothes and generally going berserk. Hester was reluctant to wake up because she felt really sleepy but she realised something was terribly wrong from the cat's behaviour, particularly when she heard my father's breathing coming

from the next room, which sounded very strange. Hester woke my father up and he went downstairs, collapsing at the bottom step. Hester then rang me. She wasn't making a lot of sense, so I told her I would come around right away but would be ringing 999, instructing her to answer the house phone as I would get them to ring it. I rang the emergency services thinking this was about my father collapsing and not realising the full tragedy unfolding. I also rang my brother, who was heading to work at the time and was 5 minutes away. I had no car and it was a 15 minute walk. Through the panic, adrenaline kicked in so I ran to my family home. While my sister was on the phone to the emergency services, she discovered our mum unconscious on the sofa and was guided by the operator to commence CPR.

When I arrived at the house

When I arrived at the house, Hester was at the door getting air as she felt unwell. There was a paramedic in the hallway, attending to my dad who was drifting in and out of consciousness. I witnessed my brother carrying out CPR on my mother. The paramedic asked me to take over from my brother, which I did until a police officer (from the Police Service Northern Ireland) arrived, who then assisted the paramedic in helping mum. More emergency services kept arriving, including the fire service.

The Fire Service Group Commander, Max Joyce, suspecting carbon monoxide poisoning due to two unconscious/collapsed people, rang through and told everyone to leave the house. The paramedics, who were still performing CPR on my mother and treating my father, refused to stop so Mr Joyce ordered every door and window to be opened immediately.

Hester, Thomas (who had grabbed the dog; the cat, refusing to leave my dad's side, was kindly removed by the fire service later) and myself, were told that for our safety we had to leave the house. The next-door neighbours were also evacuated by the fire service, as they were concerned that with the gas rising it could possibly enter into the house next door through the attic.

At the Hospital

My mother, father and sister Hester were taken via ambulance to Craigavon Area Hospital for treatment. Sadly, my mother did not survive. My father and Hester recovered in hospital. My father later recalled that he remembered hearing the dog barking and going downstairs to investigate but didn't remember anything after that until he awoke in hospital.

The inquest

At the inquest in Omagh, Mr Joyce's investigation showed gaps around the wood-burning stove and debris in the flue which would have allowed carbon monoxide to build up. There was also soot in the living room.

CO is odourless, colourless and hard to detect, and Mr Joyce was asked if animals could sense CO. Why did they survive as both were in the living room with mum? Mr Joyce could not explain the family pets' reactions as he stated animals, like humans, wouldn't have been able to detect it. A possible theory was a reaction to fear they may have felt from a lack of oxygen. He believed the cat and dog survived mainly because they were lower to the ground and the CO was rising, with the highest levels being found in the loft.

The Coroner's conclusions

The Coroner, Mr McGurgan, said that there is 'a pressing need for legislation' regarding the fitting of carbon monoxide alarms. He stated he would write to the head of the Civil Service about this but urged householders to fit a working smoke alarm and CO alarm. He also said he would write to the chief executive of the ambulance service about personnel putting themselves at risk by entering premises to save lives.

My mum's death could so easily have been prevented

It's heart-breaking to think that my mother's death could so easily have been prevented if we had known about the dangers of CO and had a CO alarm. We are thankful that my father and sister survived. However, my father has ongoing health issues and it's not known for certain how long my parents were exposed to CO.

We as a family just cannot understand why there is so little education or awareness of the dangers of carbon monoxide. The only cases we were aware of in the past were due to gas cookers/faulty boilers, which was not relatable to us. Gas heating and appliances were uncommon in Northern Ireland, and up until recent years our main source of fuel was oil central heating, with the burner being situated outside. We now know oil appliances produce CO too, but didn't at the time.

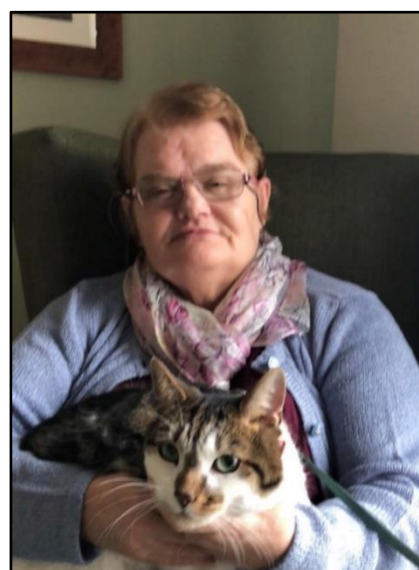
We never once had considered that we had a need for a CO alarm to monitor our solid fuel-burning and wood-burning stove. When Dad got the wood-burning stove installed; which was 15 years ago, there was little guidance or legislation. He was never aware of the serious dangers of CO and the importance of a working alarm. Dad believes if he had been educated and advised he would have bought an alarm once he got the stove installed. He stated he wouldn't have given it a second thought to get a CO alarm as he values his family's safety. This still causes him deep regret and upset.

Why hasn't there been a PR campaign to raise awareness about CO and the need for alarms?

My mother's death was widely reported on local TV and it caused mass fear locally. The only comfort we can take from this as a family was that people learnt from this tragedy and purchased CO alarms. Why hasn't there been a PR campaign to raise awareness about CO and the need for alarms? Surely, they are just as important as smoke alarms, which have been highlighted in numerous campaigns. My vision for the future is that everyone has the opportunity to be educated on the dangers of CO and it becomes mandatory to own a CO alarm. Everyone should be informed about the potential dangers and that many fuel types can have CO implications. There should be a campaign informing/reminding the public of the dangers from different fuels (for example, seasonal factors; petrol generators and engines on boats in summer, solid fuel fires and gas boilers in winter etc.). I work as a nurse in the health service and we receive fire training every 6 months; it would be helpful if every workplace had mandatory training including CO education and the danger posed, how quickly it can kill, the symptoms it can cause and its after effects.



Desmond Henry



Susan Henry