

CO-Gas Safety Unintentional Carbon Monoxide Poisoning Case Study

EDNA LAWRENCE, Deceased in 1996



Age: 70

Fuel: Solid fuel

Appliance & Location: Boiler for hot water, in her own home

Notes by CO-Gas Safety: The number of unintentional deaths caused by carbon monoxide poisoning may be even higher than our figures suggest. We believe that it is highly possible that a number of deaths are not diagnosed as CO-related due to a lack of awareness among those involved in the recording of the death. This may be the case for elderly victims in particular, where other 'natural causes' of death may be more readily assumed. In this case, a heart attack was initially thought to be the medical cause of death.

The details of Edna's death were recounted to Stephanie Trotter by her daughter, Sue.

The discovery of Edna's passing

Edna died on 8th October 1996. She had lived in a council house in a village in Hampshire. Late one evening Edna's neighbour saw the curtains open, with the lights off but the TV on, and so went to investigate. He turned the lights on and found Edna dead in a chair. An ambulance was called. Edna's death was initially recorded as a heart attack.

Edna had had five children; three daughters and two sons. All five gathered next door and were eventually allowed in. Edna was still in the chair and the police were present. Eventually Edna was taken away. Sue and her husband left at about 4.00 am leaving just June, Sue's sister, in the house alone overnight.

A second casualty in the same house

The next morning, at about 7.30 am, Sue went to check on June at the house and couldn't get in. She looked through the window and saw June collapsed in a chair. Sue kept banging on the door. She then got a ladder from next door. Sue's daughter arrived and she went up the ladder, opened an upstairs window, got in and opened the front door. June slowly revived. Sue called the ambulance.

Edna's tablets were on the sideboard and it was assumed that June had taken an overdose, which Sue strongly disputed. The ambulance took June to hospital but never tested her for CO because the medics assumed June was suffering from shock after the death of her mother and instead checked her heart!

If the other family members had not been so late in retiring for the night, thus allowing precious ventilation back into the house as they left, and been so early in discovering June the next morning, there is no doubt that she would also have died.

Edna's true cause of death investigated

Edna had been to see her GP not more than ten days before her death. Edna's GP heard that she'd died of a heart attack and disputed this. At the post mortem it was found that her heart was very strong. It wasn't until this had been established that Edna's body was tested for carbon monoxide. It was then found that Edna had twice the lethal amount of CO in her blood.

A subsequent investigation showed that her solid fuel appliance was emitting large amounts of carbon monoxide. However, the family never really learned why the solid fuel appliance emitted so much CO that it killed Edna.

It is possible that Edna went to the doctor with symptoms of CO and this was not recognised. If so, this is sadly typical. However, CO-Gas Safety thinks it best to raise awareness of CO amongst the whole public generally, not just medics, and has been lobbying for a PR campaign, including prime-time TV warnings, since 1995.

CO-Gas Safety comments

The solid fuel boiler in Edna's house was obviously the cause of June's collapse and fall into unconsciousness, as well as Edna's death. If she had been left in that environment for longer than the three hours that she was, there could certainly have been a second fatality. We would hope that now, over twenty years later, increased awareness among emergency services employees would have resulted in this second incident triggering a realisation that carbon monoxide could be present, but in 1996 not even June's collapse lead to her, or Edna, being tested for CO exposure.

This is not the only case that CO-Gas Safety are aware of where an unknown appliance fault that caused a death was not identified as a result of that death, and other family members subsequently slept in the house and were thus exposed to mortal danger. Please see our case study of the 2003 death of Katie Overton (on our website and in our Press Pack 2018).

This is why CO-Gas Safety are still lobbying for increased testing of dead bodies for COHb (carboxyhaemoglobin, a recognised marker for CO exposure), not only in cases where there is an unexplained cause of death. How many more cases of unintentional carbon monoxide poisoning fatalities might be recorded if all deceased persons were tested routinely, not just where there is a suspicion of CO?

There is also a need to raise awareness that solid fuel appliances (as all appliances) need to be installed by properly qualified installers, regularly maintained, with good ventilation and an efficient chimney or flue which must be regularly swept by a sweep belonging to a recognised trade body, according to manufacturer's instructions.

An alarm to EN 50291, purchased from a reputable supplier, should also be installed as an extra safeguard. This is now required in rental properties where a solid fuel appliance is installed (in England; the laws vary across the nations of the United Kingdom), but the same is not legally required for properties that provide appliances powered by other fuels, and owner-occupied properties have even less legal stipulations. Where there is not legal regulation, there must surely be greater public awareness so that individuals can make better choices and keep themselves safe.