

Hazard Alert

No: 1609/003
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CAMs Number: 051366

Welding Fume Fever

Incident:

Earlier this year an apprentice welder was tasked with creating spreader bars for a mould. This involved cutting galvanised pipe to length, grinding off the galvanising and using a mig welder to weld a 16mm nut to each end of the pipe.

The following morning the welder has woken up feeling unwell. His symptoms were diagnosed as being metal fume fever and resulted in three days off work and therefore a lost time injury.

Factors:

Metal fume fever is a condition in which the sufferer has influenza type symptoms. It is caused by exposure to the fume of certain metals - commonly zinc which is the protective coating on galvanised steel. Other metals that have been reported to bring on the symptoms of metal fume fever include copper and cadmium or welding a painted surface.

The symptoms start to appear several hours after exposure. Metal fume fever arising from exposure to zinc fume is transient, and recovery is usually complete within a few days. However exposure to some metal fume, such as cadmium, can cause more serious illness, or even death.

Investigation:

- There was no pre-start tailgate or hazard / risk assessment completed for the task
- The control checklist for hot work had not been completed prior to undertaking the task
- There was a reliance on natural ventilation provided by an open door
- The apprentice had only welded galvanised steel on one other occasion under very different circumstances and was unaware of the potential effects of welding fume
- There was no active supervision of the task

Recommendations:

- No work is to commence without the completion of a hazard / risk assessment and pre-start tailgate
- To complete the control checklist for hot work for all tasks that are completed outside designated hot works areas
- For managers to ensure that all welders and supervisors are aware of the risk of welding fume fever particularly when welding galvanised steel
- To review ventilation for welding in workshops. The Worksafe Fact Sheet – [Welding and Local Exhaust Ventilation](#) can be used for guidance
- To provide active supervision to workers when they are learning new tasks.



STAY SAFE

What am I doing?

What could go wrong?

How could I do it safer?