

Toxic Heavy Metal Remediation of the Sculptors Workshop

Working on my public art commission with the help of a family-owned machine shop, I witnessed a young father teaching his 5 or 6-year-old daughter how to Tungsten-electrode, Inert Gas (TIG) weld steel. It is not easy to handle “the magic wand” of a TIG torch. The TIG uses a high frequency electric arc, glowing white hot through an envelope of Argon gas flowing around and protecting the melting metal. I observed the daughter across the room, as she was shrouded in helmet and protective clothing. Her gloved hands agilely maneuvered the thin welding rod into a white-hot glow. The bright electric arc light illuminated the room with contrasting bright white surfaces and the darkest shadows. I have known genius child artists before, and their freedom from over-intellectualizing the creative act is notable. Child artists are not worried about commissions. Their works “come from the heart”.

A couple days later, as I was cleaning up my work area, collecting my tools and preparing to depart, the brother of the girl’s father approached me to say a “good bye”; however, his face expressed great loss and shock. He proceeded to tell me that the young girl was dying in a hospital; her digestive tract stopped working and was breaking down. My heart collapsed.

It was not until a year later that I realized she may have been accidentally poisoned by toxic metal vapor coming from the welding lessons. Most people are not aware that young children are many times more susceptible than adults to toxic substances. In addition, it is important to note that in the past, Chinese-made welding rods may have contained higher percentages of toxic heavy metals.

Over the years, many of the machine shops where I worked on sculpture commissions had welders who were getting sick. Upon occasion, I would be allowed by the shop foreman to weld and grind on my own sculpture. After a few days of grinding smooth the welded steel joints of a sculpture, I would become slightly ill. I always carried a bottle of Grape Seed Extract liquid to eyedropper under my tongue. I discovered that this anti-inflammatory herb, used for my old injury pain, would also stop the illness born out of grinding the welded metal joints. Welding rods sometimes contain small amounts of toxic heavy metals such as lead and cadmium. These heavy metals vaporize during welding and grinding much more easily than the iron in steel. A cloud of very fine iron and heavy metal dust swirls around the metal shop worker. I believe that many machine shops can become hazardous waste sites for the lead and other heavy metals that leach out of fine steel powder and dust.

Let's clean up metal sculptors' studios and machine shops. Clean with chelators for heavy metals, and keep the children away from these toxic dusts. I would also treat the sculptors' clothing as dangerous to children until the clothing is washed with chelators. I suggest that sculptors remove their workplace clothes before entering the homes where children or pregnant women reside. For those of us who are already carrying heavy metals in our bodies, there are heavy metal tests and oral chelator treatments available through medical practitioners. The symptoms in children whom have been exposed to heavy metals may be the inability to focus on school work. In the interest of preserving humanity, we must protect our children. She was born to someone like you.

Toxic Fumes From Welding Rods:

<https://www.cdc.gov/niosh/pel88/welding.html>

<https://www.cdc.gov/niosh/topics/welding/default.html>

<http://www.welding-rod-dangers.com/exposure/exposure.htm>

http://www.elcosh.org/document/1726/d000595/Welding%2Band%2BManganese%2BPoisoning.html?show_text=1

Heavy Metal Poisoning in Children:

<https://healthfreedomidaho.org/heavy-metal-toxicity-facial-signs-in-children>

<https://rarediseases.org/rare-diseases/heavy-metal-poisoning/>

The use of Lead in Steel:

https://en.wikipedia.org/wiki/Toxic_heavy_metal

https://en.wikipedia.org/wiki/Alloy_steel

https://en.wikipedia.org/wiki/Free_machining_steel

<http://old.post-gazette.com/healthscience/19990719steel1.asp>

Heavy Metal Poisoning:

<https://www.healthline.com/health/lead-poisoning>

<file:///C:/Users/owner/Downloads/LYME%20and%20HEAVY%20METAL%20TOXICITY%20by%20Dr%20Jay%20Davidson%20eBook%202017.pdf>

Radio Frequency Radiation Harm to Children:

<https://www.ncbi.nlm.nih.gov/pubmed/30025338>

<https://www.ncbi.nlm.nih.gov/pubmed/24192494>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3780531/>

<https://www.sciencedirect.com/science/article/pii/S0013935118305024>

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