

Editorial : DEATH COMES TO MIDLAND

David L. Linhardt, publisher, MDN-Rejected.com October 5, 2005

Clinically, death is the permanent end of all life functions in a living organism. Often it is easier to discuss death when we personify the process or its outcome.

Death knows of Midland as it knows all communities. It may be more familiar with certain neighborhoods in Midland and, based on Dow's epidemiology studies, it may be a more frequent visitor to the homes of some of the company's employees than it would normally be.

In the spring, DioxinSpin.com placed an advertisement in the Midland Daily News requesting contact with persons who believed that their illnesses or the death of a family member were related to dioxin exposure. From time to time, an editorial will be written about a Midland resident whose illness or death may have been linked to dioxin exposure.

This is the story of "Sarah".

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It is well recognized that both the Dow Midland plant and the Midland community are heavily contaminated with dioxins and furans. Several regulatory agencies, including the World Health Organization, the U.S. EPA and the Michigan Department of Community Health have classified TCDD as a "known human carcinogen".

Various mortality studies, including those of employees of The Dow Chemical Company, have shown linkages between industrial dioxin exposure and several forms of cancer. Unfortunately, neither mortality nor health studies of Midland residents living in neighborhoods in close proximity to the Midland plant have ever been carried out by the company or any public health agency.

There is no conclusive evidence that dioxin exposure increases cancer mortality in exposed Midland residents. However, some of the residents that responded to the advertisement believe that there is a linkage.

"Sarah" was a lifelong resident of Midland. She was married and had a husband and two children. She died at the age of 35 from kidney cancer that had metastasized to other organs in her body. Her death certificate did not indicate the other organs that were affected. Since she died under the direct care of a physician, an autopsy was not required.

"Sarah" was diagnosed with cancer in the fall of one year... she died the following summer. Based on the rapid progress of her cancer, "Sarah" may have had renal sarcoma, a rare disease of the kidney's connective tissues that account for less than 1% of all kidney cancers. Unfortunately, "Sarah" died in the 1970's before the CT scans and MRI procedures were readily available to confirm a diagnosis.

If found early and with modern treatments, some kidney cancers have a 90% cure rate. In the 1970's, prognosis was much, much lower. Chemotherapy and radiation treatment were still very experimental – surgery was the only option available to “Sarah”. It was not successful.

Based on what we now know about the risk factors associated with kidney cancer, “Sarah” had an extremely low probability of contracting this type of cancer. Some forms of kidney cancer are genetic – “Sarah’s” was not. Cancer had not been present nor has it appeared in her family since her death.

The only risk factor that may have been abnormal was chemical exposure in her residential neighborhoods due to emissions from the Midland plant.

Scientific studies have linked kidney cancer to exposure to asbestos, cadmium and aniline dyes. The comprehensive NIOSH study of 5,172 dioxin exposed workers in 12 plants in the US reported a 40% elevation in the death rate from kidney cancer. A Dow study of its dioxin exposed workers in Midland found a 200% elevation in deaths from kidney cancer. Due to the small number of cases, it could not be determined if the dioxin related kidney cancers were “statistically significant”.

In general, Dow’s hourly work force has more chemical exposure than do the company’s salaried employees. A comprehensive, non-dioxin specific Dow study that examined worker deaths from 1940 to 1982 in more than 32,000 Midland Division employees reported that hourly employees had a 67% increase in deaths from kidney cancer over the death rates of the less exposed salaried work force (Corporate and Division).

Although a lifelong Midland resident, “Sarah” lived in only three Midland neighborhoods – as an infant, young child and young woman along Bay City Road, when first married on Larkin Street and during the last ten years of her life in the Corning Lane area.

Computer modeling of Midland plant and Midland community dioxin levels has been carried out and an estimate of the levels of dioxins potentially present in the three neighborhoods that “Sarah” lived in is shown below.

**Table 1
Potential Dioxin Exposure**

<u>Neighborhood</u>	<u>Time Period</u>	<u>TEQ Levels, ppt</u>
Bay City Road	1936 - 1957	15,300
	> 1957	91,800
Corning Lane Area	1968	6,700
Larkin Street	1968	1,900

Was the death of “Sarah” related to dioxin exposure that she incurred as an infant or young child? Or did the potentially fatal exposure occur after she was older and married? Dioxin related cancers may not occur in chemical workers until a latency period of 20 years or more has elapsed. If residential exposures follow this timetable, perhaps the dioxins that “Sarah” was exposed to when she was 15 years of age or younger and living on Bay City Road may have been responsible for the kidney cancer that ended her life.

Was dioxin exposure somehow related to her death? “Jack” believes so.

The advertisement was a very small ad in the personal section of the newspaper and it is possible that many persons may not have seen it. Anyone that would like to contact me to relate the circumstances of their illness or the death of a friend or family member can do so via the following link : www.mdn-rejected.com/contact_publisher.htm

DioxinSpin.com has compiled a summary of the elevated death rates for cancer and other diseases that were reported by NIOSH and The Dow Chemical Company in various dioxin related and general chemical exposure studies. Elevated death rates for the same disease reported in three or more studies have been shaded. A link to the study is [_PDF Files\DOW CHEMICAL - Death Matrix.pdf](#)

Perhaps future mortality studies of Midland residents that lived and still live in neighborhoods that are known to be heavily contaminated with dioxins may show a similar pattern of elevated death rates. However, until such studies are carried out, we shall never know how many more “Sarah’s” have lived and died in Midland.