

Erin Brockovich

When the people of Hinkley, CA experience a variety of health issues, with the help of Erin Brockovich, the company PG&E is held responsible for these conditions. The Hinkley residents and the small firm that Brockovich works for believes that the cause of these medical illnesses is due to the hexavalent chromium (chromium VI, or chrome 6) in the water. Such accusations are surely false, for Hinkley can not be held responsible for such problems as miscarriages, birth defects and all types of cancer, for chromium VI is not proved to be liable for such extreme situations. "No one agent could possibly have caused more than a handful of the symptoms described, and Chromium 6 in the water almost certainly couldn't have caused any of them," states author, attorney and science/health issues specialist, Michael Fumento.

First, many studies have shown that only significant amounts of chromium VI can cause serious injury. The water in Hinkley had a mere .58 parts per million in their water, while rodents have been tested for illness and only with more than 200 ppm have their been dramatic malfunctions in these testings. In a laboratory testing done by the U.S. Environmental Protection Agency (EPA) rats were given water with 25 ppm of chromium VI, and a second set of rats were given distilled water and "no significant adverse effects were seen in appearance, weight gain, or food consumption, and there were no pathologic changes in the blood or other tissues in any treatment group," (U.S. Environmental Protection Agency, integrated risk information system). Dogs dosed at 11.2 ppm showed no sign of illness, while Hinkley's water dosage of chromium 6 was a mere .58, and studies from EPA report that even a dosage of 400ppm, chromium VI has no toxic effect on the reproductive system in mice and rats.

In the movie when Brockovich seeks professional scientific advice from a professor at a local college, the expert informs her that repeated exposure of chromium VI can be held responsible for liver failure, chronic headaches or nosebleeds, respiratory disease, heart failure, liver failure, reproductive failure, bone or organ deterioration and any type of cancer. Obviously this can not be accurate, considering that "repeated studies of communities adjacent to landfills packed with chromium 6, including that detectable in residents' urine, have found no ill health effects, cancer or otherwise," (Michael Fumento, "Erin Brockovich Exposed"). Residents near a New Jersey landfill evaluated by a panel are revealed to be at 1/1million risk of cancer. The "expert" in Erin Brockovich, however, describes the situation rather differently, that exposure to chromium 6 can cause ANY type of cancer, and after careful and accurate research and testings we can plainly conclude that these statements are incorrect according to science. "It's (chromium 6) linked to cancer of the lung and of the septum," says Fumento in "Erin Brockovich Exposed." Also, to contradict the expert from the film who informs Ms. Brockovich that chromium VI is extremely carcinogenic, EPA considers it a carcinogen only when inhaled, therefore its impossible for chromium 6 to be liable for the medical conditions of the people of Hinkley who have ingested the chromium in the water.

Also, many, many testings on animals have been done to help research and discover the power and danger of chromium exposure. Testings show that malfunctions only come from inhalation of the chromium. "Groups of eight male and eight female Sprague-Dawley rats were supplied with drinking water containing 0.45-11.2 ppm (0.45-11.2 mg/L) hexavalent chromium (as K_2CrO_4) for 1 year. The control group (10/sex) received distilled water.No significant adverse effects were seen in appearance, weight gain, or food consumption, and there were no pathologic changes in the blood or other tissues in any treatment group," this experiment shows that no harm came to the rats given a dosage over 10ppm, when in the movie the chromium 6 was supposedly responsible for the medical conditions of residents exposed to a dosage of .58, a tiny fraction of what was used on these rats. A study also done by EPA showed that not even at a dosage of 400ppm did the hexavalent chromium "is not a reproductive toxicant in either sex of BALB/C mice or Sprague-Dawley rats," (EPA, integrated risk information system). In the film Mrs. Jensen is reported to have breast cancer at an ingestional exposure of .58 and another couple blame their miscarriages on the chromium, compared to the ineffective exposure to the rat reproductive system at a whopping dosage of up to 400 ppm. Another study done by EPA shows that "Similar no-effect levels have been observed in dogs. Anwar et al. (1961) observed no significant effects in female dogs (2/dose group) given up to 11.2 ppm chromium(VI) (as K_2CrO_4) in drinking water for 4 years. The calculated doses were

0.012-0.30 mg/kg of chromium(VI).” Countless studies show that at a dosage of over 11 ppm (again compared to the .58ppm in Hinkley’s water) tested on animals show no level of effect.

Next, throughout the movie many of the plaintiffs have blamed breast cancer, Hodgkin’s disease, brain cancer, heart failure, reproductive failure and more on the hexavalent chromium in Hinkley’s water, there is no scientific proof that chromium VI causes any of the previously listed conditions. “Stossel found that while chromium is indeed a carcinogen, blamed for lung and sinus cancer when inhaled, there is no proof that chromium in drinking water can cause cancer,” (Stossel Questions Cancer Claims). Stossel also discovered that not only was there no proof that the chromium in the water caused cancer, but that compared to surrounding counties there was not an increased or abnormal amount of cancer in the town of Hinkley. Also, while the plaintiffs blamed the chromium in the water Fumento finds that “no data were located in the available literature that suggested that (Chromium 6) is carcinogenic by the oral route of exposure.” (Michael Fumento, “The Truth About ‘Erin Brockovich’”). Fumento raises a very good point concerning the death rate of PG&E workers, “...the overall PG&E worker death rate was significantly much lower than those of other Californians. Are we to believe that something causing no harm at the plant itself is nonetheless wreaking havoc on those living nearby?” (Michael Fumento, “The Truth About ‘Erin Brockovich’”). This is something to take into consideration, not only is the death rate not either the same or higher at the PG&E plant, but its significantly lower when compared to other Californians. If this is happening at the source of the chromium VI, then what is the reason and where is the proof that it is responsible for the illnesses that the plaintiffs in Hinkley claim? Another report given by the Monday Morning Briefing (Associate of Metropolitan Water Agencies) tells us that “There is no evidence that hexavalent chromium causes cancer in humans when ingested in drinking water, according to an expert panel convened by the California Office of Environmental Health and Hazard Assessment (OEHHA).” Study and report after report shows that there is no reason for hexavalent chromium to be blamed for most of the medical conditions in the film because there is no proof that this is so. The plaintiffs in Hinkley complain of being diagnosed with their illnesses through the chromium in the water, how can this be so when “only a small amount can dissolve in water and move deeper in the soil to underground water,” (Agency for Toxic Substances and Disease Registry) and when it has already been made clear that there is no scientific proof that this substance causes cancer when ingested.