

Mail Tribune, May 13, 2007

A physician's perspective on fluoridation

By *NICHOLAS H. DIENEL, M.D.*

May 13, 2007

Some years ago, I was asked, what did I think about fluoridation? Without hesitation I replied, "I think it's great, we should do it, it's safe and effective!" The next question stopped me cold: What did I know about it?

I realized I knew next to nothing about fluoride and fluoridation and only repeated what I had been told throughout my training and experience as a physician. This event triggered my research through the primary fluoridation scientific literature, beyond the usual endorsements by industry and associations.

Fortunately, The York Review was published, representing the largest, most rigorous meta-analysis of the primary fluoridation literature. Animal and biochemical studies were not included. A significant portion of the fluoridation efficacy studies had methodical flaws that rendered them worthless. But the conclusions as presented by Trevor Sheldon, chairman of the York Review, were significant:

Benefits of fluoridation are on the order of 15 percent (In absolute benefits this is less than 1 percent difference between a fluoridated and nonfluoridated community.) Fluoridation was not shown to be safe. The studies were too poor to draw that conclusion.

Fluoridation was associated with high levels of fluorosis, with 1 in 8 children experiencing objectionable damage, which would require expensive restorative dental care.

There was little evidence that fluoridation compensated for the lack of access to dental care for the socially and economically disadvantaged.

There is a "dearth of reliable evidence" to make policy decisions. High quality studies are needed to provide more definitive evidence.

Fluoridation remains a massive uncontrolled experiment and all of us are forced participants in this ongoing research regardless of our age, health history or genetic susceptibility. The potential for adverse and toxic affects are numerous and varied, as identified in the National Academy of Science, National Research Council 2006 review of "Fluoride in the Drinking Water". The NRC report identified potential impacts to the brain, children's IQ, endocrine, kidneys, thyroid,

reproductive, gastrointestinal, etc., with recommendations for further research because of gaps in the scientific knowledge.

What is unmistakably clear is that the most vulnerable members of society, infants and children, have the highest exposure in terms of dosage to a substance more toxic than lead and slightly less toxic than arsenic.

The most disturbing aspect of fluoridation are the primary fluoridation chemicals:

- There are no toxicological studies for the two principle fluoridation chemicals, hydrofluorosilicic acid and its sodium salt, fluorosilicate. Both are contaminated with heavy metals such lead and arsenic.
- The manufacturers specifically state in their product disclaimer, "Not responsible for the hazards inherent in the nature of the product." If they are not responsible, who is?
- Up to 90 percent of the arsenic from water additives comes from the fluoridation chemicals, which translates into five additional Oregon cancer deaths per year from bladder or lung cancer. Which would you choose?
- The Oregon Legislature over the past four sessions has failed to compel the manufacturers of the fluoridation waste products (Cargill Fertilizer, Lucier and Mosaic Chemicals) to provide outcome-based studies specific to their products which demonstrate safety and efficacy. Will any supporter of the public policy of fluoridation, including any agency, health department or trade association such as the American Dental Association, Oregon Dental Association or Oregon Department of Human Services make a written statement that a specific fluoridation product from a specific producer or manufacturer, when added to the water at 1 part per million, will effectively reduce tooth decay and neither cause nor contribute to any adverse health effects at the full expected range of human water consumption? Who is accountable? Who is responsible?
- When cities are fluoridated under the law proposed, they must sign a "hold harmless clause" for everyone connected to this massive fluoridation scheme.

Dr. Elise Bassin of the Harvard School of Dental Medicine reported in the journal *Cancer Causes and Control* (2006) that boys 6 to 8 years old exposed to fluoridated drinking water had a five-fold increased incidence of osteosarcoma, a rare and often fatal malignancy of bone. Studies in animals have also demonstrated a similar finding of increased risk for osteosarcoma when animals were exposed to fluoridated water.

If you find any of this troubling, then you are beginning to understand there are serious problems with fluoridation as a public health policy. I urge citizens and fellow colleagues to understand that fluoridation is profoundly flawed and exposes large segments of our population to many potential risks which to date have not been adequately studied.

Nicholas H. Dienel, M.D. is a Medford physician.

