

The Importance of Studying the Health Effects of Hexafluorosilicic Acid and Sodium Hexafluorosilicate

Presentation to National Toxicology Program, Sept. 18, 2002

Janet Reed Pettit, president
Concerned Citizens for Pure Water
77 Montessori Circle
Saluda, NC 28773
ph. 828-749-9769; fax: 828-749-9789
e mail: jpettit@tds.net

*Oral public comments
→ N20129 history file*

INTRODUCTION

I want to thank the National Toxicology Program for allowing me, as a citizen of unimpressive credentials, to enter a voice in your considerations.

My name is Jan Pettit, I live in a small town in the western part of NC. Our town is forced to buy its water supply from our larger neighbor, Hendersonville, which began adding silicofluorides to its water supply 5 years ago. I present my views not as a scientist but as an ordinary citizen concerned about the lack of research on the health effects of ingesting hexafluorosilicic acid and sodium hexafluorosilicate. These are the chemicals used for fluoridating the water supplies of my town and that of about half the population of America.

These chemicals have permeated our nation's foodstuffs and drinks so our exposure is not limited merely to drinking tap water.

Because most of our processed foods are produced in America's large cities, and most large cities are fluoridated, virtually all processed foods are now contaminated with silicofluorides as well as other fluorides from pesticide residue. Some of these foods have fluoride levels higher than is allowed in public water supplies. Yet, no one knows the average level of ingestion and NO STUDIES HAVE EVER PROVEN SILICOFLOURIDES SAFE TO INGEST (1).

I represent millions of other concerned citizens around the U.S. who have questioned the logic, no matter how well intentioned, of using the public water supply to deliver an untested, known cumulative poison and directly or indirectly exposing the entire population to unknown effects with no regard to consumers' state of health, or whether pregnant, elderly or a vulnerable infant.

CHEMICAL SOURCE

Most people are unaware that fluoridation chemicals are not refined sodium fluoride as is used in tooth pastes but the unrefined toxic waste products of phosphate fertilizer mining operations, WHICH HAVE NEVER BEEN TESTED.

These mining operations, primarily in Florida, must have EPA-mandated chimney scrubbers to collect the effluent from the phosphate mines to prevent air pollution. This pollution sludge is then removed from the chimneys, mixed with water and sold to cities

for water fluoridation. They are contaminated with trace amounts of heavy metals and the radioactive carcinogens, radium and uranium. All of these chemicals tend to accumulate in the body throughout a lifetime of ingestion.

The sludge is so radioactive that the companies are denied disposal rights in national dump sites called, N.O.R.M.s for "Normally Occurring Radioactive Materials." They are, therefore, contained in mile-wide holding pits in Florida hoping enough cities will remain fluoridated to provide a dispersal method to allow for their disposal (2).

We, the public, and our nation's fragile environment have become the dump sites.

THE SWITCH TO SILICOFLUORIDES FOR FLUORIDATION

The chemical previously used for fluoridation was sodium fluoride, also contaminated but which dissociates into free fluoride ions and was considered relatively safe at the concentration normally used for fluoridation. ALL STUDIES HAVE BEEN DONE USING REFINED SODIUM FLUORIDE.

When the switch to silicofluoride chemicals was made decades ago, it was wrongly assumed that silicofluorides, like sodium fluoride, also completely dissociated into free fluoride ions and would have essentially the same effects. They do not.

SIF 's PROVE NOT TO DISSOCIATE COMPLETELY

Recently, a 1975 PhD thesis by Westendorf (3) of Germany was rediscovered which shows that in physiological conditions the dissociation of hexafluorosilicates in a concentration like that generally used for fluoridation is substantially below the 100% assumed. Although the chemical species resulting from this incomplete dissociation are not certain, follow-up research by another researcher (4) confirmed that residues include siloxanes which could explain epidemiological differences between communities using sodium fluoride and silicofluorides.

SIFs INCREASE UPTAKE OF HEAVY METALS

It is generally known among experts that blood lead levels are strongly associated with brain damage resulting in aberrant behavior and learning problems. It now appears that silicofluorides facilitate the uptake of lead and other heavy metals such as aluminum through the gut-blood barrier and through the blood-brain barrier into the brain.

Rats fed aluminum fluoride show brain lesions essentially identical with those found in Alzheimers disease (5). Fluoridated water is known to react with aluminum pans in cooking and processed drinks are sold in aluminum cans.

MASTERS/COPLAN STUDIES

With official data from every county in the U.S. Dr. Roger Masters, PhD and chemical engineer, Myron Coplan, found highly significant correlations in every comparison between the use of silicofluorides in public water supplies and higher blood lead levels in children. These elevated levels manifest in higher incidences of learning disabilities, ADHD, cocaine use by criminals, and rates of violent crimes.

I would like to present some charts to illustrate these effects:

(#1) This first chart is from a 1935 study showing the relative absorption values for the silicofluorides, sodium fluoride and the naturally occurring calcium fluoride.

Calcium fluoride is largely insoluble and generally passes through the gut unabsorbed. The silicofluorides, however, are largely all metabolized with approximately half being excreted through the kidneys. The rest retained.

The following are Masters' and Coplan's charts from their published studies (6).

(#2) This one compares the blood lead levels of 3 to 5 year old African Americans, Hispanics and whites in large counties showing the differential between lead levels in silicofluoride treated and non-silicofluoride treated communities. Note that African Americans have over twice the blood levels of lead as do white children in the same communities.

(#3) This is a Massachusetts study. The 2 filled-in bars are silicofluoridated areas (point them out). They include the one on the right from the Boston metropolitan area and the one on the left are the combined results of other Massachusetts cities. These show significantly higher blood lead levels in those areas using silicofluorides compared with fluoridated areas (point them out) using sodium fluoride or not fluoridated at all.

(#4) These are informal data on learning disabilities from a sample of 15 Massachusetts towns. The bars on the left compare the percentage of learning disabled children in communities with low lead levels with or without silicofluoride treatment.

On the right are the percentage of learning disabled children where water contains a high level of lead, showing the association between silicofluoride usage and learning disabilities

Although this sample is too small for statistical reliability, it indicates a trend in keeping with other findings.

(#5) These next 2 charts concern rates of violent crime. This one contains data from 1985 on the rate of violent crime per 100,000 population. On the left is the least fluoridated areas, on the right the areas over 80% fluoridated. The pink bars are nonfluoridated. As you can see there is a significant increase in violent crime as the degree of fluoridation increases.

(#6) This last chart is a study from New Jersey of violent crime rate from 1998 and 1999.

On the left is a comparison of nonfluoridated and fluoridated small towns. The bars on the right are from somewhat larger towns. Again in this and every other comparison made by Masters and Copland, the Sif's contributed to negative effects in children's learning abilities and in the incidence of violent crime.

CONCLUSION

The disturbing trends seen in these published, peer-reviewed studies cry out for research to confirm or disprove their findings. Scientifically valid studies free of political influence, done by independent, unbiased researchers such as the National Toxicology Program scientists must be conducted. Research must use THE SAME CONTAMINATED SILICOFLOURIDES THAT ALL AMERICANS ARE SUBJECTED TO.

We, the parents and grandparents of the next generation, the law abiding citizens distressed and perplexed by the growing learning and behavior problems of our children, of the violent nature of our society, ask that you recommend in strong terms that our government CALL A HALT TO ALL FLUORIDATION PROGRAMS IN THIS COUNTRY pending the results of studies that, if possible, can disprove the connections so graphically shown in the previous charts. We owe it to our children!

Fluoridation with untested chemicals constitutes an experiment of epic proportions with an entire population compelled largely involuntarily to ingest an untested, unrefined, and contaminated pollution sludge.

Testing is long overdue.

Thank you.

References

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- 2. SEE: <http://www.fluoridealert.org/phosphate/overview.htm>**
- 3. Westendorf, Johannes. Doctoral thesis presented at Univ. of Hamburg, Germany translated at: <http://www.dartmouth.edu/~rmasters/ahabs>.**
- 4. Rastädter K-A; "Untersuchungen zur Hydrolyse von Na₂SiF₆ und (NH₄)₂SiF₆ mittels Fluoroelektrode und Gelchromatographie"; Dissertation zur Erlangung des Doktorgrades der Universität Hamburg im Fachbereich Chemie; Hamburg, 1978; 127 pages.**
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