

Fluoridation Revisited

by Murray N. Rothbard

Yes, I confess: I'm a veteran anti-fluoridationist, thereby – not for the first time – risking placing myself in the camp of "right-wing kooks and fanatics." It has always been a bit of mystery to me why left-environmentalists, who shriek in horror at a bit of Alar on apples, who cry "cancer" even more absurdly than the boy cried "Wolf," who hate every chemical additive known to man, still cast their benign approval upon fluoride, a highly toxic and probably carcinogenic substance. And not only let fluoride emissions off the hook, but endorse uncritically the massive and continuing dumping of fluoride into the nation's water supply.

First: the generalized case for and against fluoridation of water. The case for is almost incredibly thin, boiling down to the alleged fact of substantial reductions in dental cavities in kids aged 5 to 9. *Period.* *There are no claimed benefits for anyone older than nine!* For this the entire adult population of a fluoridated area must be subjected to mass medication!

The case against, even apart from the specific evils of fluoride, is powerful and overwhelming.

(1) Compulsory mass medication is medically evil, as well as socialistic. It is starkly clear that one key to any medication is *control of the dose*; different people, at different stages of risk, need individual dosages tailored to their needs. And yet with water compulsorily fluoridated, the dose applies to everyone, and is necessarily proportionate to the amount of water one drinks.

What is the medical justification for a guy who drinks ten glasses of water a day receiving ten times the fluorine dose of a guy who drinks only one glass? The whole process is monstrous as well as idiotic.

(2) Adults, in fact children over nine, get no benefits from their compulsory medication, yet they imbibe fluorides proportionately to their water intake.

(3) Studies have shown that while kids 5 to 9 may have their cavities

reduced by fluoridation, said kids ages 9 to 12 have *more* cavities, so that after 12 the cavity benefits disappear. So that, *at best*, the question boils down to: are we to subject ourselves to the possible dangers of fluoridation *solely* to save dentists the irritation of dealing with squirming kids aged 5 to 9?

(4) Any parents who want to give their kids the dubious benefits of fluoridation can do so *individually*: by giving their kids fluoride pills, with doses regulated instead of haphazardly proportionate to the kids' thirst; and/or, as we all know, they can brush their teeth with fluoride-added toothpaste. How about freedom of individual choice?

(5) Let us not omit the long-suffering taxpayer, who has to pay for the hundreds of thousands of tons of fluorides poured into the nation's socialized water supply every year. The days of private water companies, once flourishing in the U.S., are long gone, although the market, in recent years, has popped up in the form of increasingly popular private bottled water even though far more expensive than socialized free water.

Nothing loony or kooky about any of these arguments, is there? So much for the general case pro and con fluoridation. When we get to the specific ills of fluoridation, the case against becomes even more overpowering, as well as grisly.

During the 1940s and 50s, when the successful push for fluoridation was underway, the pro-forces touted the controlled experiment of Newburgh and Kingston, two neighboring small cities in upstate New York, with much the same demographics. Newburgh had been fluoridated and Kingston had not, and the powerful pro-fluoridation Establishment trumpeted the fact that ten years later, dental cavities in kids 5 to 9 in Newburgh were considerably lower than in Kingston (originally, the rates of every disease had been about the same in the two places). OK, but the antis raised the disquieting fact that, after ten years, both the cancer and the heart disease rates were now significantly higher in Newburgh. How did the Establishment treat this criticism? By dismissing it as *irrelevant*, as kooky scare tactics. Oh?

Why were these and later problems and charges ignored and overridden, and why the rush to judgment to inflict fluoridation on America? Who was behind this drive, and how did the opponents acquire the "right-wing kook" image?

THE DRIVE FOR FLUORIDATION

The official drive began abruptly just before the end of World War II, pushed by the U.S. Public Health Service, then in the Treasury Department. In 1945, the federal government selected two Michigan cities to conduct an official "15-year" study; one city, Grand Rapids, was fluoridated, a control city was left unfluoridated. (I am indebted to a recent revisionist article on fluoridation by the medical writer Joel Griffiths, in the left-wing muckraking journal *Covert Action Information Bulletin*: "Fluoride: Commie Plot or Capitalist

Ploy?" [Fall 1992], pp. 26–28, 63–66.) Yet, before five years were up, the government killed its own "scientific study," by fluoridating the water in the second city in Michigan. Why? Under the excuse that its action was caused by "popular demand" for fluoridation; as we shall see, the "popular demand" was generated by the government and the Establishment itself. Indeed, as early as 1946, under the federal campaign, six American cities fluoridated their water, and 87 more joined the bandwagon by 1950.

A key figure in the successful drive for fluoridation was Oscar R. Ewing, who was appointed by President Truman in 1947 as head of the Federal Security Agency, which encompassed the Public Health Service (PHS), and which later blossomed into our beloved Cabinet office of Health, Education, and Welfare. One reason for the left's backing of fluoridation – in addition to its being socialized medicine and mass medication, for them a good in itself – was that Ewing was a certified Truman Fair Dealer and leftist, and avowed proponent of socialized medicine, a high official in the then-powerful Americans for Democratic Action, the nation's central organization of "anti-Communist liberals" (read: Social Democrats or Mensheviks). Ewing mobilized not only the respectable left but also the Establishment Center. The powerful drive for compulsory fluoridation was spearheaded by the PHS, which soon mobilized the nation's establishment organizations of dentists and physicians.

The mobilization, the national clamor for fluoridation, and the stamping of opponents with the right-wing kook image, was all generated by the public relations man hired by Oscar Ewing to direct the drive. For Ewing hired none other than Edward L. Bernays, the man with the dubious honor of being called the "father of public relations." Bernays, the nephew of Sigmund Freud, was called "The Original Spin Doctor" in an admiring article in the *Washington Post* on the occasion of the old manipulator's 100th birthday in late 1991. The fact that right-wing groups such as the John Birch Society correctly called fluoridation "creeping socialism" and blamed Soviet Communism as the source of the fluoridation campaign (no, not *Bolsheviks*, guys: but a Menshevik-State Capitalist alliance, see below) was used by the Bernaysians to discredit all the opposition.

As a retrospective scientific article pointed out about the fluoridation movement, one of its widely distributed dossiers listed opponents of fluoridation "in alphabetical order reputable scientists, convicted felons, food faddists, scientific organizations, and the Ku Klux Klan." (Bette Hileman, "Fluoridation of Water," *Chemical and Engineering News* 66 [August 1, 1988], p. 37; quoted in Griffiths, p. 63) In his 1928 book *Propaganda*, Bernays laid bare the devices he would use: Speaking of the "mechanism which controls the public mind," which people like himself could manipulate, Bernays added that "Those who manipulate the unseen mechanism of society constitute an invisible government which is the true ruling power of our country...our minds are molded, our tastes formed, our ideas suggested, largely by men we have never heard of..." And the process of manipulating leaders of groups, "either with or without their

conscious cooperation," will "automatically influence" the members of such groups.

In describing his practices as PR man for Beech-Nut Bacon, Bernays tells how he would suggest to physicians to say publicly that "it is wholesome to eat bacon." For, Bernays added, he "knows as a mathematical certainty that large numbers of persons will follow the advice of their doctors because he (the PR man) understands the psychological relationship of dependence of men on their physicians." (Edward L. Bernays, *Propaganda* [New York: Liveright, 1928], pp. 9, 18, 49, 53. Quoted in Griffiths, p.63) Add "dentists" to the equation, and substitute "fluoride" for "bacon," and we have the essence of the Bernays propaganda campaign.

Before the Bernays campaign, fluoride was largely known in the public mind as the chief ingredient of bug and rat poison; after the campaign, it was widely hailed as a safe provider of healthy teeth and gleaming smiles.

After the 1950s, it was all mopping up – the fluoridation forces had triumphed, and two-thirds of the nation's reservoirs were fluoridated. There are still benighted areas of the country left however (California is less than 16 percent fluoridated) and the goal of the federal government and its PHS remains as "universal fluoridation."

DOUBTS CUMULATE

Despite the blitzkrieg victory, however, doubts have surfaced and gathered in the scientific community. Fluoride is a non-biodegradable substance, which, in people, accumulates in teeth and bone – perhaps strengthening kiddies' teeth; but what about human bones? Two crucial bone problems of fluorides – brittleness and cancer – began to appear in studies, only to be systematically blocked by governmental agencies. As early as 1956, a federal study found nearly twice as many premalignant bone defects in young males in Newbergh as in unfluoridated Kingston; but this finding was quickly dismissed as "spurious."

Oddly enough, despite the 1956 study and carcinogenic evidence popping up since the 1940s, the federal government never conducted its own beloved animal carcinogenicity test on fluorides. Finally, in 1975, biochemist John Yiamouyiannis and Dean Berk, a retired official of the federal government's own National Cancer Institute (NCI), presented a paper before the annual meeting of the American Society of Biological Chemists. The paper reported a 5 to 10 percent increase in total cancer rates in those U.S. cities which had fluoridated their water. The findings were disputed, but triggered congressional hearings two years later, where the government revealed to shocked Congressmen that it had never tested fluoride for cancer. Congress ordered the NCI to conduct such tests.

Talk about foot-dragging! Incredibly, it took the NCI twelve years to finish its tests, finding "equivocal evidence" that fluoride caused bone

cancer in male rats. Under further direction of Congress, the NCI studied cancer trends in the U.S., and found nationwide evidence of "a rising rate of bone and joint cancer at all ages," especially in youth, in counties that had fluoridated their water, but no such rise was seen in "non-fluoridated" counties.

In more detailed studies, for areas of Washington state and Iowa, NCI found that from the 1970s to the 1980s bone cancer for males under 20 had increased by 70 percent in the fluoridated areas of these states, but had *decreased* by 4 percent in the non-fluoridated areas. Sounds pretty conclusive to me, but the NCI set some fancy statisticians to work on the data, to conclude that these findings, too, were "spurious." Dispute over this report drove the federal government to one of its favorite ploys in virtually every area: the allegedly expert, bipartisan, "value-free" commission.

The government had already done the commission bit in 1983, when disturbing studies on fluoridation drove our old friend the PHS to form a commission of "world-class experts" to review safety data on fluorides in water. Interestingly, the panel found to its grave concern that most of the alleged evidence of fluoride's safety scarcely existed. The 1983 panel recommended caution on fluoride exposure for children. Interestingly, the panel strongly recommended that the fluoride content of drinking water be no greater than two parts per million for children up to nine, because of worries about the fluoride effect on children's skeletons, and potential heart damage.

The chairman of the panel, Jay R. Shapiro of the National Institute of Health, warned the members, however, that the PHS might "modify" the findings, since "the report deals with sensitive political issues." Sure enough, when Surgeon General Everett Koop released the official report a month later, the federal government had thrown out the panel's most important conclusions and recommendations, without consulting the panel. Indeed, the panel never received copies of the final, doctored, version. The government's alterations were all in a pro-fluoride direction, claiming that there was no "scientific documentation" of any problems at fluoride levels below 8 parts per million.

In addition to the bone cancer studies for the late 1980s, evidence is piling up that fluorides lead to bone fractures. In the past two years, no less than eight epidemiological studies have indicated the fluoridation has increased the rate of bone fractures in males and females of all ages. Indeed, since 1957, the bone fracture rate among male youth has increased sharply in the United States, and the U.S. hip fracture rate is now the highest in the world. In fact, a study in the traditionally pro-fluoride *Journal of the American Medical Association (JAMA)*, August 12, 1992, found that even "low levels of fluoride may increase the risk of hip fracture in the elderly." *JAMA* concluded that "it is now appropriate to revisit the issue of water fluoridation."

Clearly, it was high time for another federal commission. During 1990–91, a new commission, chaired by veteran PHS official and

long-time pro-fluoridationist Frank E. Young, predictably concluded that "no evidence" was found associating fluoride and cancer. On bone fractures, the commission blandly stated that "further studies are required." But no further studies or soul-searching were needed for its conclusion: "The U.S. Public Health Service should continue to support optimal fluoridation of drinking water." Presumably, they did not conclude that "optimal" meant zero.

Despite the Young whitewash, doubts are piling up even within the federal government. James Huff, a director of the U.S. National Institute of Environmental Health Sciences, concluded in 1992 that animals in the government's study developed cancer, especially bone cancer from being given fluoride – and there was nothing "equivocal" about his conclusion.

Various scientists for the Environmental Protection Agency (EPA) have turned to anti-fluoridation toxicologist William Marcus's warning that fluoride causes not just cancer, but also bone fractures, arthritis, and other disease. Marcus mentions, too, that an unreleased study by the New Jersey Health Department (a state where only 15 percent of the population is fluoridated) shows that the bone cancer rate among young males is no less than six times higher in fluoridated than in non-fluoridated areas.

Even coming into question is the long-sacred idea that fluoridated water at least lowers cavities in children five to nine. Various top pro-fluoridationists highly touted for their expertise were suddenly and bitterly condemned when further study led them to the conclusion that the dental benefits are really negligible. New Zealand's most prominent pro-fluoridationist was the country's top dental officer, Dr. John Colquhoun.

As chairman of the Fluoridation Promotion Committee, Colquhoun decided to gather statistics to show doubters the great merits of fluoridation. To his shock, he found that the percentage of children free of dental decay was *higher* in the non-fluoridated part than in the fluoridated part of New Zealand. The national health department refused to allow Colquhoun to publish these findings, and kicked him out as dental director. Similarly, a top pro-fluoridationist in British Columbia, Canada, Richard G. Foulkes, concluded that fluoridation is not only dangerous, but that it is not even effective in reducing tooth decay. Foulkes was denounced by former colleagues as a propagandist "promoting the quackery of anti-fluoridationists."

WHY THE FLUORIDATION DRIVE?

Since the case for compulsory fluoridation is so flimsy, and the case against so overwhelming, the final step is to ask: why? Why did the Public Health Service get involved in the first place? How did this thing get started? Here we must keep our eye on the pivotal role of Oscar R. Ewing, for Ewing was far more than just a social democrat Fair Dealer.

Fluoride has long been recognized as one of the most toxic elements found in the earth's crust. Fluorides are by-products of many industrial processes, being emitted in the air and water, and probably the major source of this by-product is the aluminum industry. By the 1920s and 1930s, fluorine was increasingly being subject to lawsuits and regulations. In particular, by 1938 the important, relatively new aluminum industry was being placed on a wartime footing. What to do if its major by-product is a dangerous poison?

The time had come for damage control; even better, to reverse the public image of this menacing substance. The Public Health Service, remember was under the jurisdiction of the Treasury Department, and treasury secretary all during the 1920s and until 1931 was none other than billionaire Andrew J. Mellon, founder and head of the powerful Mellon interests, "Mr. Pittsburgh," and founder and virtual ruler of the Aluminum Corporation of America (ALCOA), the dominant firm in the aluminum industry.

In 1931, the PHS sent a dentist named H. Trendley Dean to the West to study the effects of concentrations of naturally fluoridated water on people's teeth. Dean found that towns high in natural fluoride seemed to have fewer cavities. This news galvanized various Mellon scientists into action. In particular, the Mellon Institute, ALCOA's research lab in Pittsburgh, sponsored a study in which biochemist Gerald J. Cox fluoridated some lab rats, decided that cavities in those rats had been reduced and immediately concluded that "the case (that fluoride reduces cavities) should be regarded as proved." Instant science!

The following year, 1939, Cox, the ALCOA scientist working for a company beset by fluoride damage claims, made the first public proposal for mandatory fluoridation of water. Cox proceeded to stump the country urging fluoridation. Meanwhile, other ALCOA-funded scientists trumpeted the alleged safety of fluorides, in particular the Kettering Laboratory of the University of Cincinnati.

During World War II, damage claims for fluoride emissions piled up as expected, in proportion to the great expansion of aluminum production during the war. But attention from these claims was diverted, when, just before the end of the war, the PHS began to push hard for compulsory fluoridation of water. Thus the drive for compulsory fluoridation of water accomplished two goals in one shot: it transformed the image of fluorine from a curse to a blessing that will strengthen every kid's teeth, and it provided a steady and substantial monetary demand for fluorides to dump annually into the nation's water.

One interesting footnote to this story is that whereas fluorine in naturally fluoridated water comes in the form of *calcium* fluoride, the substance dumped into every locality is instead *sodium* fluoride. The Establishment defense that "fluoride is fluoride" becomes unconvincing when we consider two points: (a) calcium is notoriously good for bones and teeth, so the anti-cavity effect in naturally fluoridated water might well be due to the calcium and not the

fluorine; and (b) sodium fluoride happens to be the major by-product of the manufacture of aluminum.

Which brings us to Oscar R. Ewing. Ewing arrived in Washington in 1946, shortly after the initial PHS push began, arriving there as long-time counsel, now chief counsel, for ALCOA, making what was then an astronomical legal fee of \$750,000 a year (something like \$7,000,000 a year in present dollars). A year later, Ewing took charge of the Federal Security Agency, which included the PHS, and waged the successful national drive for water fluoridation. After a few years, having succeeded in his campaign, Ewing stepped down from public service, and returned to private life, including his chief counselship of the Aluminum Corporation of America.

There is an instructive lesson in this little saga, a lesson how and why the Welfare State came to America. It came as an alliance of three major forces: ideological social democrats, ambitious technocratic bureaucrats, and Big Businessmen seeking privileges from the State. In the fluoridation saga, we might call the whole process "ALCOA-socialism." The Welfare State redounds to the welfare not of most of society but of these particular venal and exploitative groups.