

The curious case of magnesium deficiency: a case study

In 1964, Birmingham City Council began fluoridating the drinking water of its constituents – without consulting them. To justify this move, tooth decay was probably quite prevalent in the City. Could the decay rate have had anything to do with the change in the water supply after 1952 when the Claerwen Reservoir and Dam in Powys became operational? The reservoir, then and now, provides soft Welsh water to Birmingham’s **Frankley** Water Treatment Works. An analysis of drinking water provided by Claerwen/**Frankley** in 2017 shows almost non-existent magnesium.

The recommended dose of magnesium/day is 270mg for a 19-year-old woman so children ought to ingest between **100** and **200** mg/day. Frankley Reservoir provides an average of **1.95** mg/l :

22	FRANKLEY	05/04/2017	1.67	mg/l	Magnesium as Mg
23	FRANKLEY	10/05/2017	1.99	mg/l	Magnesium as Mg
24	FRANKLEY	06/06/2017	2.19	mg/l	Magnesium as Mg
25	FRANKLEY	03/07/2017	1.84	mg/l	Magnesium as Mg
26	FRANKLEY	03/08/2017	2.70	mg/l	Magnesium as Mg
27	FRANKLEY	07/08/2017	2.40	mg/l	Magnesium as Mg
28	FRANKLEY	08/09/2017	2.04	mg/l	Magnesium as Mg
29	FRANKLEY	05/10/2017	1.78	mg/l	Magnesium as Mg
30	FRANKLEY	09/11/2017	1.95	mg/l	Magnesium as Mg
31	FRANKLEY	01/12/2017	1.56	mg/l	Magnesium as Mg
32		Average	1.95		

The need to find a source of fresh water, post war, would have been foremost in the minds of City Councillors with an expanding population and inadequate provision from reservoirs and rivers in England. As long as the raw water was potable, no account would have been taken of the lack of magnesium which is credited with aiding hundreds of processes in the human body. There is ample research on how magnesium helps to transport calcium into hard tissues, thus making bones and teeth strong. A deficiency in <https://www.westonaprice.org/health-topics/abcs-of-nutrition/magnificent-magnesium/#gsc.tab=0> magnesium > causes disruption throughout the body in the form of many diseases including dental decay.

Even though they measure magnesium levels, Severn Trent does not publish these levels. That’s because there is no maximum allowable level for the mineral and the Drinking Water Inspectorate (DWI) does not have to police the mineral. However, this is not a widespread omission by other English water companies.

It is an intriguing thought that if Severn Trent had published magnesium concentration in its water quality reports, would the sharp-eyed amongst us have realised years ago that dental decay in West Birmingham was due to a lack of magnesium?

Unfortunately, by 1964, and nine years after the beginning of the “Fluoridation Studies”, the Water Fluoridation band wagon was revving up speed. The Government’s report by the *Committee on Research into Fluoridation* entitled “*The 1969 Fluoridation Studies in the United Kingdom and the Results Achieved after Eleven Years*”, and the earlier report in 1962

had praised the results of the demonstration trials in the towns which had been compulsorily enrolled.

Aided by grants from the US Government in 1958, 1960 and 1963 totalling \$3,884,000, Birmingham was the first city in the United Kingdom to add sodium fluoride to its drinking water.

In the 1969 report, the Chief Medical Officer, a Dr G. E. Godber, stated: "Five years ago the City of Birmingham decided that it [dental decay] should be reduced and already children of the age of three show the anticipated benefit." Evidence discovered by Chris Bryson and published in *The Fluoride Deception* questions the claim that fluoride prevents dental decay. Since fluoride is a metabolic disruptor, research evidence written before fluoride became commonplace showed that fluoride delayed the growth of teeth. At the time of oral health examinations by research teams, there would have been less decay because the teeth were younger.

However, this case study has not been written solely to argue the case for or against fluoride reducing dental decay. It serves mainly to point out how the "Fluoridation Studies" which began in 1955 were experiments on human beings without consent. Memories of the atrocities of World War II were seemingly short-lived and no-one seems to have connected the Nuremberg Code's principles with the experimental addition of sodium fluoride to drinking water for entire populations without individual consent.

People in Anglesey, Andover, Watford and Kilmarnock were not asked if they wanted to be enrolled in a "demonstration trials" – they were automatically enrolled. What could have persuaded the Chief Medical Officer that this was ethical?

Certainly, the people of Andover had their own decided thoughts on the issue and in 1958, some rebelled and threw out the Council after having been elected in its place. Their first deed was to instruct the Water Board to stop adding fluoride to drinking water.

The other three demonstration towns subsequently ceased adding fluoride to their drinking water although Anglesey did not get reprieved until 1991 when Dwr Cymru unilaterally ceased fluoridation, ostensibly on the basis that the Government would not indemnify the company if fluoride in their treated water caused harm. Anglesey is now supplied with water containing virtually no fluoride.

It is ironic that the demonstration towns are no longer fluoridated whilst those towns and cities which were not the guinea pigs are now the guinea pigs! And it is undoubtedly true that water fluoridation continues to be an experiment because there has been no high quality research into the safety or otherwise of swallowing fluoride on a long-term basis. Moreover, the fluoridating acid and the resultant fluoride solution (i.e. fluoridated tap "water") does not have a clinical licence even though it is a medicine and can be nothing other than a medicine.

And what of fluoridated Birmingham today in 2023 and its dental decay? From the Startwell website (<https://startwellbirmingham.co.uk/dental-decay-in-children-in-birmingham-latest-statistics/>):

“The most recent data shows that the incidence of dental decay in children in Birmingham is higher than the national average and the West Midlands region.

- Birmingham (29%)
- West Midlands Region (23%)
- England (23%)

Over a quarter of children in Birmingham have dental decay and the breakdown of prevalence by area is as follows:

- West 30%
- East 34%
- North 22%
- South 21%
- Central 18%

This shows that West and East Birmingham have higher rates compared to North, South and Central. Within the West and East localities, the highest levels of experience of dental decay are in the constituencies of:

- Ladywood **50%**
- Hodge Hill 38%
- Yardley 29%

Ladywood (ZBR10) and Hodge Hill (ZBR14) receive water from the Elan Valley. This water contains 1.73 mg magnesium/litre. Acocks Green (Yardley) also receives water from the Elan Valley and it has an even lower magnesium content of 1.4 mg magnesium/litre.



Birmingham (UK) showing location of Ladywood, Hodge Hill and Yardley
http://photos.wikimapia.org/p/00/02/31/03/24_full.jpeg

The recommended dose of magnesium/day is 270mg for a 19-year-old woman so children and teenagers ought to ingest between **100** and **200** mg/day.

We're in the situation we are in today because back in the early 1950s the UK believed in the efficacy of fluoride for the prevention of dental decay because the US told them so. However, the belief that fluoride prevented dental decay was based on flawed science which had been produced and massaged by vested interests.

The situation is outrageous, of course. Who gave anyone permission to experiment on British citizens without even telling them that they were about to be fluoridated. Water Boards, prior to the privatisation of the water industry, were under the control of local authorities and probably had no say in the matter. In the early 1950s there was no inclination by anyone to check to see if it was safe to swallow fluoride. The US demonstration trials found harm caused by the fluoride in drinking water but kept it hushed up because industrialists needed to get rid of their hazardous waste in the cheapest way possible.

The practice of water fluoridation was born out of industrial greed. It is still benefiting industry. That being the case, there should be no hesitation by anyone opposed to the practice to employ the "lack of medical ethics" argument to put up a strong case against the practice.

The NHS Constitution and the Code of Medical Ethics both help us to unravel the issue. Note, however, that the NHS policy-makers are strongly in favour of Water Fluoridation.

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