

# Association of Down's syndrome and water fluoride level: a systematic review of the evidence

## ABSTRACT

There is no conclusive evidence to suggest an association between water fluoride levels and the incidence of Down's syndrome.

## INTRODUCTION

Introduction The association between Down syndrome and fluoride has been known for a long time.

In the late 1990s, the first studies were published that linked Down syndrome to the level of fluoride in the water supply [1]. This research was carried out in Sweden, where the water supply was fluoridated. The Swedish National Board of Health (NBBH) was involved in this research. The NBBH published a report in 2000 that concluded that the average level of fluoride in the water supply in the Swedish population was 0.01 ppm. This level was significantly below the US National Health and Environmental Examination Survey (NHEP) average of 0.02 ppm [2].

A second study that followed up on this association was carried out in the UK [3]. The average level of fluoride in the water supply Approximately 90% of Down's syndrome occurs due to the non-disjunction of chromosome 21, which can occur during two distinct periods: before meiosis or around ovulation. It is important to measure any risk factors at the time of the abnormality, such as with maternal age. Other risk factors include race, paternal age, ionising radiation, increased parity (although not associated with any association with patrimony), and season. Any study of potential risk components, including water fluoride, should take into account The risk of Down's syndrome is linked to water fluoride exposure, which has been investigated by various studies. If this is true, then other sources of fluoridation may also play a role in increasing the likelihood of developing the condition. The purpose of this report is to investigate the connection between water fluoride concentration and Down's syndrome, and to evaluate the quality of the studies examining this link.

## CONCLUSION

Remarkable conclusions There is no definitive evidence that a specific water fluoride level has an impact on Down's syndrome, but this information is of limited value. Future research on the connection between Down's Syndrome and hydrofluoridation should take into account various confounding factors such as maternal age, incidence of termination of pregnancies, and exposure to other sources of fluoridation. The study area should be randomly selected and investigators should blind themselves to the fluoridated status of mothers when identifying cases. Case determination should match the total number of birth, regardless of the same