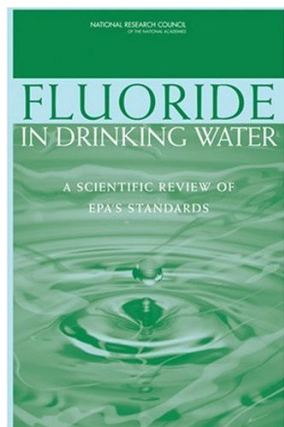


Fluoride and Thyroid Function

National Research Council 2006 Report on Fluoride in Drinking Water Fluoride is an “endocrine disruptor”



“Fluoride exposure in humans is associated with elevated TSH concentrations, increased goiter prevalence, and altered T4 and T3 concentrations; similar effects on T4 and T3 are reported in experimental animals.” p 218

As little as 0.7mg/L fluoride or 1 liter of artificially fluoridated water can suppress thyroid function if the individual is iodine deficient. (70kg person) “In humans, effects on thyroid function were associated with fluoride exposures of 0.05-0.13 mg/kg/day when iodine intake was adequate and 0.01-0.03 mg/kg/day when iodine intake was inadequate.” p 218

“Intake of nutrients such as calcium and iodine often is not reported in studies of fluoride effects. The effects of fluoride on thyroid function, for instance, might depend on whether iodine intake is low, adequate, or high, or whether dietary selenium is adequate.” p 218 Available to read free online: <http://www.nap.edu/catalog/11571.html>

How Prevalent is Iodine Deficiency?

36% of women in USA:

<http://www.cdc.gov/nchs/products/pubs/pubd/hestats/iodine.htm>

70% of women in Australia:

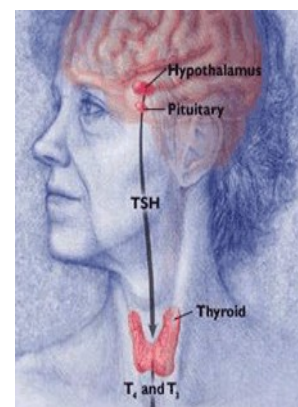
<http://www.abc.net.au/health/thepulse/stories/2008/11/06/2399550.htm>

~ 50% of children in Europe:

http://www.thyroid.org/professionals/education/documents/IDD_NL_Aug08.pdf

Australia, Germany, New Zealand, Switzerland

<http://www.canberratimes.com.au/news/local/news/general/iodine-to-be-added-to-bread-again/785140.aspx>



In 1946 the [Atomic Energy Commission](#) (Department of Pharmacology & Toxicology) headed by Harold Carpenter Hodge, who was also head of the International Association for Dental Research (IADR) acknowledged the German findings from 1930-1970 that all fluoride compounds - organic or inorganic - inhibit thyroid hormone activity, and declared this issue a research priority. No further research into this issue is conducted. http://poisonfluoride.com/pfpc/html/hodge_1946.html

Medical/Drug Costs for Thyroid Derangements

Synthroid is second most frequently dispensed medication in Canada in 2008, totalling over 11.4 million prescriptions – an increase of 9.8% from 2007.

http://www.imshealthcanada.com/vgn/images/portal/CIT_40000873/49/44/84335049IMSCanadaChartsENGLISH.pdf

Neurotoxicity of Fluoride on Maternal Thyroid Function & Unborn Child



“pregnant women with undiagnosed hypothyroidism gave birth to children with quantifiable deficits in various neurologic measures including IQ and measures of attention”

“subtle problems of cognition, attention, and behavior are over-represented in the offspring of mothers who were hypothyroid during pregnancy”

Source: Tom Muir and Mike Zegarac. Societal Costs of Exposure to Toxic Substances: Economic and Health Costs of Four Case Studies That Are Candidates for Environmental Causation.

Environmental Health Perspectives Supplements Volume 109, Number S6, December 2001 <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1240624>

“Excessive fluoride ingestion is known to lower thyroid hormone levels, which is particularly critical for women with subclinical hypothyroidism: decreased maternal thyroid levels adversely affect fetal neurodevelopment.”



“The primary concern is that multiple routes of exposure, from drinking water, food and dental care products, may result in a high enough cumulative exposure to fluoride to cause developmental effects.”

Source: Scientific Consensus Statement on Environmental Agents Associated with Neurodevelopmental Disorders released Feb 20, 2008, section 4.3.2. <http://www.iceh.org/pdfs/LDDI/LDDIStatement.pdf>

Fluorosis and Thyroid Gland Dysfunction in Children

“Primary cause of Iodine Deficiency Diseases and Thyroid derangements may not always be due to iodine deficiency. It may also be induced by fluoride poisoning.” AK Susheela 2005 free online: <http://www.fluorideresearch.org/382/files/382i-iii.pdf>

Damage to Brain and Thyroid Gland

“The thyroid gland appears to be the most sensitive tissue in the body to F-.”

“High F- increases the concentration of thyroid-stimulating hormone (TSH) and decreases the concentration of T3 and T4 hormones, thereby producing hypothyroidism in some populations. Consequently, prolonged consumption of high F- water is likely to suppress the function of both thyroid gland and brain.”

Source: Wang J, Ge Y, Ning H, Niu R. DNA Damage in Brain and Thyroid Gland Cells due to High Fluoride and Low Iodine. In: Preedy V, Burrow G, Watson R, editors. Comprehensive Handbook of Iodine. Elsevier; 2009. p. 643-9.