

The Effects of Fluoride on the Pineal Gland.

The Pineal Gland is the Center of our higher Consciousness.

The pineal gland is one of the most researched glands. We know that bright light stimulates the production of serotonin and melatonin in the pineal, but there are other neurochemicals produced by the pineal that have more profound effects than just the mood, sleep, reproductive and body temperature effects of serotonin and melatonin.

Scientists refer to the pineal gland as the “atrophied third eye.” Indeed, it, along with the pituitary, is the third eye chakra or energy center, but they’re just dormant, not atrophied. In the distant past, man was in touch with the inner worlds through an activated pineal and pituitary gland. Considered the most powerful and highest source of ethereal energy available to humans, the third eye has always been important in initiating psychic powers (e.g. clairvoyance and seeing auras). The pineal gland is the center of our spirituality and our consciousness.

To activate the 'third eye' and perceive higher dimensions, the pineal and the pituitary gland must vibrate in unison, which is achieved through meditation, prayer or sun gazing. When a correct relationship is established between the personality, operating through the pituitary, and the soul, operating through the pineal, a magnetic field is created.

When we receive sunlight through the eye, there is a pathway from the retina, to the hypothalamus, called the retinohypothalamic tract. This brings information about the dark & light cycles to the suprachiasmatic nucleus (SCN) of the hypothalamus. From the SCN, impulses along the nerve travel via the pineal nerve (Sympathetic nervous system) to the pineal gland. These impulses inhibit the production of melatonin. When these impulses stop (at night or in dark, when the light no longer stimulates the hypothalamus) pineal inhibition ceases, and melatonin is released.

The pineal gland is therefore a photosensitive organ and an important timekeeper for the human body. The unexplored process of energy absorption, transformation, and processing from the Sun may occur here. ***The activation of pineal gland is a key step in psychic, spiritual and energy transformation processes.*** Suffice it to say that in this gland, energy processing and distribution can take place. The pineal gland is the subtle controller of all endocrine glands, therefore controlling the endocrine system. Through secretion of melatonin, it also regulates the circadian rhythm, sleep wake cycle and it also slows down aging process. It has psychic properties and it is said to be the seat of soul or mind. When sunlight enters the eyes it is directly stored in the pineal.

Pineal activation and charging through solar energy could be a vital step in higher evolution. Once activated and charged by the pineal gland, solar energetic factors may be transformed into electrical magnetic or chemical energies in the body. Once processed, this energy must be transported and stored somewhere. If the initial processing of this energy starts in the pineal gland, how does it get to the rest of the body?

The Hypothalamus is the controller of autonomic nervous system. The pineal gland is connected to it through a net of autonomic nerves. The new energy that is derived from the sun may be transported via this system of nerves into the hypothalamus.

The role of temporal lobe and limbic system also may be important. It may work as a regulator, if not receptor and may be psychically involved in directing the energy in proper pathways. The medulla oblongata contains many centers vital to life and may also store some of this energy. Other parts of the brain may play as yet undiscovered roles.

For further information please read the book "The Sunlight the Miracle of the Ages." It is a free e-book on the www.bookofkindness.info website.

Pineal Gland Damage through Fluoride

*Fluoride Residuals - Pineal Gland - Affect on Melatonin
Alzheimer - Autism*

Melatonin in the pineal Gland by Dr. Jennifer Luke

Melatonin is a hormone that helps regulate the onset of puberty and helps protect the body from cell damage caused by free radicals. It is now known - thanks to the meticulous research of Dr. Jennifer Luke from the University of Surrey in England -

that the pineal gland is the primary target of fluoride accumulation within the body.

The soft tissue of the adult pineal gland contains more fluoride than any other soft tissue in the body - a level of fluoride (~300 ppm) capable of inhibiting enzymes.

The pineal gland also contains hard tissue called hydroxyapatite crystals, and this hard tissue accumulates more fluoride (up to 21,000 ppm) than any other hard tissue in the body (e.g. teeth

and bone).

After finding that the pineal gland is a major target for fluoride accumulation in humans, Dr. Luke conducted animal experiments to determine if the accumulated fluoride could impact the functioning of the gland - particularly the gland's regulation of melatonin.

Luke found that animals treated with fluoride had lower levels of circulating melatonin, as reflected by reduced levels of melatonin metabolites in the animals' urine. This reduced level of circulating melatonin was accompanied – as might be expected - by an earlier onset of puberty in the fluoride-treated female animals.

Dr. Luke summarized her human and animal findings as follows:

"In conclusion, the human pineal gland contains the highest concentration of fluoride in the body. Fluoride is associated with depressed pineal melatonin.

If the pineal accumulates fluoride at an earlier age than in previous decades, one would anticipate that a high local concentration of fluoride within the pineal would affect the functions of the pineal, i.e., the synthesis of hormonal products, specifically melatonin.

Sleep disturbances in children with neuro-psychiatric disorders.

There are multiple trials investigating melatonin use in children with various neuro-psychiatric disorders, including mental retardation, autism, psychiatric disorders, visual impairment, or epilepsy. Studies have demonstrated reduced time to fall asleep (sleep latency) and increased sleep duration.

It has been reported that natural melatonin levels are altered in people with Alzheimer's disease.

There are several early-phase and controlled human trials of melatonin in patients with various advanced stage malignancies, including brain, breast, colorectal, gastric, liver, lung, pancreatic, and testicular cancer, as well as lymphoma, melanoma, renal cell carcinoma, and soft-tissue sarcoma.

Fluoride accumulates in the Pineal Gland (University of Surrey in England)

In the year 1969, the summer of love, when thousands of 'hippies' and left wing intellectuals were having their third eyes (pineal glands) opened using techniques like meditation, yoga, and entheogens, Boulder citizens voted to add fluoride to the municipal drinking waters¹.

In 1997, Dr. Jennifer Luke of the University of Surrey conducted a study² and determined (in an animal study) that fluoride accumulates most significantly in the pineal gland.

In fact, her research showed that 'the pineal gland may sequester fluoride from the bloodstream'. Fluoride appeared to alter melatonin production and alter the timing of sexual maturity. It also seems contribute to 'calcifying' the pineal gland.

You know, we have very high rates of depression, anxiety, chronic pain, etc. in this country. And people would most likely not vote to add anti-depressants to the public drinking water. I sure hope not, at least.

But in any case, fluoride is a drug, and doctor's supply drugs with prescriptions or you buy them somewhere and dose yourself. With fluoride, your voting neighbor is now your doctor, and everyone's got the same prescription. Seems a bit strange to me.

I've made my decision to not drink fluoride and am still struggling with...

* Boulder's infrastructure and policy keeps adding fluoride.

* People believe fluoride is actually healthy to drink for their teeth.

* And, according to this research the UR is being poisoned by people continuing to drink this stuff (*the pineal gland of the body is damaged*).

I'd personally like to see fluoride out of the public drinking supply for good.

What the City of Boulder adds to the water supply is anything but natural, it is a chemical compound³.

http://www.bouldercolorado.gov/index.php?option=com_content&task=view&id=2751&Itemid=1189

² www.fluoridealert.org/health/pineal/#summ

³ www.cdc.gov/niosh/ipcsneng/neng1233.html

You can rid your body of most fluorides with some easy natural remedies.

www.naturalnews.com

Fluorides have been linked to a variety of severe chronic, even acute health issues. First a quick review summary of fluoride.

Fluoride Toxicity

Fluoride is a soluble salt, not a heavy metal. There are two basic types of fluoride. Calcium fluoride appears naturally in underground water sources and even seawater. Enough of it can cause skeletal or dental fluorosis, which weakens bone and dental matter. But it is not nearly as toxic, nor does it negatively affect so many other health issues as sodium fluoride, which is added to many water supplies.

Sodium Fluoride is a synthetic waste product of the nuclear, aluminum, and phosphate fertilizer industries. This fluoride has an amazing capacity to combine and increase the potency of other toxic materials. The sodium fluoride obtained from industrial waste and added to water supplies is also already contaminated with lead, aluminum, and cadmium.

It damages the liver and kidneys, weakens the immune system, possibly leading to cancer, creates symptoms that mimic fibromyalgia, and performs as a Trojan Horse to carry aluminum across the blood brain barrier. **The latter is recognized as a source of the notorious "dumbing down" with lower IQ's and Alzheimer's effects of fluoride.**

Another not commonly known organ victim of fluorosis is the pineal gland, located in the middle of the brain. ***The pineal gland can become calcified from fluorides***, inhibiting its function as a melatonin producer. Melatonin is needed for sound, deep sleep, and the lack of it also contributes to thyroid problems that affect the entire endocrine system. The pineal gland is also considered the physical link to the upper chakras or third eye for spiritual and intuitive openings.

Various permutations of Sodium Fluoride are also in many insecticides for homes and pesticides for crops. Sometimes it is even added to baby foods and bottled waters. If you live in a water fluoridated area, purchase commercially grown fruits, especially grapes, and vegetables that are chemically sprayed and grown areas irrigated by fluoridated water, you are getting a triple whammy! Better skip that fluoridated toothpaste!

Avoiding Fluoride Contamination

As always, the first step in detoxifying is to curb taking in toxins. Purifying water by reverse osmosis or distillation in fluoridated water communities is a good start to slowing down your fluoride contamination. Distillation comes with a bit of controversy, as all the minerals are removed. A great mineral supplement such as Fulvic Acid (not folic acid) or unsulfured blackstrap molasses is recommended if you distill your water.

Avoiding sprayed, commercially grown foods while consuming organic or locally grown foods is another big step. Watch out for processed foods such as instant tea, grape juice products, and soy milk for babies. They all contain high concentrations of sodium fluoride. So

do many pharmaceutical "medicines". By minimizing your sodium fluoride intake, your body can begin eliminating the fluorides in your system slowly.

Magnesium is a very important mineral that many are lacking. Besides being so important in the metabolism and synthesis of nutrients within your cells, it also inhibits the absorption of fluoride into your cells! Along with magnesium, calcium seems to help attract the fluorides away from your bones and teeth, allowing your body to eliminate those toxins. So during any detox efforts with fluoride, it is essential that you include a healthy supplemental dose of absorbable calcium/magnesium as part of the protocol.

So Now Let's Speed Up the Fluoride Detox

This author received a comment stating that an earlier article's source reference to sunlight for decalcifying the pineal gland was inaccurate. He said that darkness, not light, is needed to stimulate the pineal gland into melatonin production, which should lead to breaking up the calcification of that gland. Besides being logical, further source research indicates the critic is correct!

Day time exercise, a healthful diet, not over eating, and meditation all contribute to higher melatonin production from the pineal gland. Though very helpful to many for getting a full night's deep sleep, it appears inconclusive whether melatonin supplements will help decalcify the pineal gland. But it does seem logical that it might.

Iodine supplementation has been clinically demonstrated to increase the urine irrigation of sodium fluoride from the body as calcium fluoride. The calcium is robbed from your body, so make sure you are taking effective calcium and magnesium supplements. Lecithin is recommended as an adjunct to using iodine for excreting fluorides.

Iodine is another nutrient lacking in most diets and causing hypothyroid symptoms of lethargy or metabolic imbalances. Eating lots of seafood for iodine has it's constantly rising mercury hazards. Seaweed foods and iodine supplements that combine iodine and potassium iodide are highly recommended over sea food by most.

Tamarind, originally indigenous to Africa but migrated into India and Southeast Asia, has been used medicinally in Ayurvedic Medicine. The pulp, bark, and leaves from the tree can be converted to teas and strong tinctures, which have also shown the ability to eliminate fluorides through the urine.

Liver Cleanses are considered effective for eliminating fluorides and other toxins. There are two types of liver cleansing, both of which can be performed easily at home over a week or two of time. One of the protocols focuses on the liver itself, and the other cleanses the gall bladder, which is directly connected with liver functions.

Boron was studied in other parts of the world with pronounced success for fluoride

detoxification. Borax, which contains boron, has a history of anecdotal success for detoxifying sodium fluoride. Yes, this is the borax you can find in the laundry aisles of some supermarkets. It needs to be taken in with pure water in small quantities.

As little as 1/32 of a teaspoon to 1/4 of a teaspoon in one liter of water consumed in small quantities throughout the day is what has been demonstrated as safe and effective. Around 1/8 of a teaspoon with a pinch of pure sea salt in a liter consumed in small quantities daily has been reported to have dramatic results. There is the possibility of a food grade version with sodium borate, if you can find it.

Dry Saunas combined with exercise releases sodium fluoride stored in fatty tissues. It can be intense enough to cause side effects or an occasional healing crisis. So keep the pure water intake high and drink some chickweed tea to protect the kidneys while using a highly absorbable cal/mag supplement. Lecithin is another useful adjunct to this protocol for fluoride detoxification.

Those Adjuncts to the Listed Remedies

Vitamin C in abundance was not mentioned as a helpful adjunct. It is now. But do not use ascorbic acid as your vitamin C source for an adjunct to any of the fluoride detox methods. Do take in as much other types of vitamin C as you can tolerate, along with a couple of tablespoons of lecithin daily. Add those to your absorbable calcium and magnesium supplements with plenty of pure water, get good sleep and rest, and the detox should be relatively smooth.

Chelation therapies are recommended primarily for heavy metal removals. Though fluorides are salts, the synthetic waste product variety, sodium fluoride, comes with a cargo of toxic heavy metals. And these pernicious salts have a way of combining more heavy metals. So including any one of several chelation therapies may be beneficial for overall health improvements while applying your chosen fluoride remedy or remedies.

Those include bentonite clay internally or externally, fulvic acid (NOT folic acid), cilantro pesto with chlorella, and even DMSA or any other chelation therapy with which you are familiar.

Sources:

Boron Testing

<http://www.liquidzeoliteplus.com/fl...>

List of foods with fluoride contamination

<http://poisonfluoride.com/pfpc/html...>

<http://www.slweb.org/ftcr.html>

Sauna remedy <http://www.tldp.com/issue/202/Notes...>

<http://www.encognitive.com/node/3083>

Earth Clinic Folk Remedies
<http://www.earthclinic.com/CURES/fl...>

Great comprehensive overview of fluoride
<http://www.tuberose.com/Fluoride.html>

[HEALTH](#)
[EFFECTS](#)
[HOMEPAGE](#)

[Accidents](#)[Allergy](#)[Arthritis](#)[Bone Disease](#)[Brain](#)[Cancer](#)[Dental Fluorosis](#)[EPA](#)
[Standards](#)[Gastrointestinal](#)[Infant Exposure](#)[Immune System](#)[Kidney](#)[Pineal](#)
[Gland](#)[Respiratory](#)[Reproductive](#)[Tshyroid Gland](#)[Tooth Decay](#)[Database](#) [Site Map](#)[Glossary of](#)
[Terms](#)[Bibliography](#)[Newsletter](#)[Useful Links](#)[Question?](#)

HEALTH EFFECTS:

Fluoride & the Pineal Gland

Summation - Fluoride & Pineal Gland:

Up until the 1990s, no research had ever been conducted to determine the impact of fluoride on the pineal gland - a small gland located between the two hemispheres of the brain that regulates the production of the hormone melatonin. Melatonin is a hormone that helps regulate the onset of puberty and helps protect the body from cell damage caused by free radicals.

It is now known - thanks to the meticulous research of [Dr. Jennifer Luke](#) from the University of Surrey in England - that the pineal gland is the [primary target of fluoride accumulation within the body](#).

The [soft tissue](#) of the adult pineal gland contains more fluoride than any other soft tissue in the body - a level of fluoride (~300 ppm) capable of inhibiting enzymes.

The pineal gland also contains [hard tissue](#) (hydroxyapatite crystals), and this hard tissue accumulates more fluoride (up to 21,000 ppm) than any other hard tissue in the body (e.g. teeth and bone).

After finding that the pineal gland is a major target for fluoride accumulation in humans, Dr. Luke conducted [animal experiments](#) to determine if the accumulated fluoride could impact the functioning of the gland - particularly the gland's regulation of melatonin.

Luke found that animals treated with fluoride had lower levels of circulating melatonin, as reflected by reduced levels of melatonin metabolites in the animals' urine. This reduced level of circulating melatonin was accompanied - as might be expected - by an [earlier onset of puberty](#) in the fluoride-treated female animals.

Dr. Luke summarized her human and animal findings as follows:

"In conclusion, the human pineal gland contains the highest concentration of fluoride in the body. Fluoride is associated with depressed pineal melatonin synthesis by prepubertal gerbils and an accelerated onset of sexual maturation in the female gerbil. The results strengthen the hypothesis that the pineal has a role in the timing of the onset of puberty. Whether or not fluoride interferes with pineal function in humans requires further investigation."

Online Papers - Fluoride & the Pineal Gland:

FULL TEXT - html: [Luke J. \(2001\). Fluoride deposition in the aged human pineal gland. Caries Research 35:125-128.](#)

FULL TEXT- pdf: • [Luke J. \(1997\). PhD Thesis: The Effect of Fluoride on the Physiology of the Pineal Gland](#) (298 pages)

EXCERPT - html: [Luke J. \(1997\). The Effect of Fluoride on the Physiology of the Pineal Gland. Ph.D. Thesis. University of Surrey, Guildford.](#)

Articles of Interest - Fluoride & the Pineal Gland:

[Fluoride & the Pineal Gland: Study Published in Caries Research IFIN Bulletin, March 2001](#)

[Fluoride & Oxidative Stress: Yet more evidence](#) *FAN Science Watch* September 30, 2004

Summation - Fluoride & Pineal Gland: ([back to top](#))

“The single animal study of pineal function indicates that fluoride exposure results in altered melatonin production and altered timing of sexual maturity. Whether fluoride affects pineal function in humans remains to be demonstrated. The two studies of menarcheal age in humans show the possibility of earlier menarche in some individuals exposed to fluoride, but no definitive statement can be made. Recent information on the role of the pineal organ in humans suggests that any agent that affects pineal function could affect human health in a variety of ways, including effects on sexual maturation, calcium metabolism, parathyroid function, postmenopausal osteoporosis, cancer, and psychiatric disease.” □SOURCE: National Research Council. (2006). [Fluoride in Drinking Water: A Scientific Review of EPA's Standards](#). National Academies Press, Washington D.C. p221-22.

"In conclusion, the human pineal gland contains the highest concentration of fluoride in the body. Fluoride is associated with depressed pineal melatonin synthesis by prepubertal gerbils and an accelerated onset of sexual maturation in the female gerbil. The results strengthen the hypothesis that the pineal has a role in the timing of the onset of puberty. Whether or not fluoride interferes with pineal function in humans requires further investigation." SOURCE: Luke J. (1997). *The Effect of Fluoride on the Physiology of the Pineal Gland*. Ph.D. Thesis. University of Surrey, Guildford. p. 177.

Fluoride & Pineal Gland - Never Studied before 1990s: ([back to top](#))

"It is remarkable that the pineal gland has never been analysed separately for F because it has several features which suggest that it could accumulate F. It has the highest calcium concentration of any normal soft tissue in the body because it calcifies physiologically in the form of hydroxyapatite (HA). It has a high metabolic activity coupled with a very profuse blood supply: two factors favouring the deposition of F in mineralizing tissues. The fact that the pineal is outside the blood-brain barrier suggests that pineal HA could sequester F from the bloodstream if it has the same strong affinity for F as HA in the other mineralizing tissues. The intensity of the toxic effects of most drugs depends upon their concentration at the site of action. The mineralizing tissues (bone and teeth) accumulate high concentrations of F and are the first to show toxic reactions to F. Hence, their reactions to F have been especially well studied. If F accumulates in the pineal gland, then this points to a gap in our knowledge about whether or not F affects pineal physiology. It was the lack of knowledge in this area that prompted my study."

SOURCE: Luke J. (1997). *The Effect of Fluoride on the Physiology of the Pineal Gland*. Ph.D. Thesis. University of Surrey, Guildford. p. 1-2.

Fluoride & Pineal Gland - Accumulation of Fluoride in Soft Tissue of Pineal Gland: ([back to top](#))

"After half a century of the prophylactic use of fluorides in dentistry, we now know that fluoride readily accumulates in the human pineal gland. In fact, the aged pineal contains more fluoride than any other normal soft tissue. The concentration of fluoride in the pineal was significantly higher ($p < 0.001$) than in corresponding muscle, i.e., 296 ± 257 vs. 0.5 ± 0.4 mg/kg (wet weight) respectively."

SOURCE: Luke J. (1997). *The Effect of Fluoride on the Physiology of the Pineal Gland*. Ph.D. Thesis. University of Surrey, Guildford. p. 167.

Fluoride & Pineal Gland - Accumulation of Fluoride in Calcified Tissue of Pineal Gland: ([back to top](#))

"In terms of mineralized tissue, the mean fluoride concentration in the pineal calcification was equivalent to that in severely fluorosed bone and more than four times higher than in corresponding bone ash, i.e., $8,900 \pm 7,700$ vs. $2,040 \pm 1,100$ mg/kg, respectively. The calcification in two of the 11 pineals analysed in this study contained extremely high levels of fluoride: 21,800 and 20,500 mg/kg."

SOURCE: Luke J. (1997). *The Effect of Fluoride on the Physiology of the Pineal Gland*. Ph.D. Thesis. University of Surrey, Guildford. p. 167.

Fluoride & Pineal Gland - Analogous to Dental Fluorosis? ([back to top](#))

"Fluoride is now introduced at a much earlier stage of human development than ever before and consequently alters the normal fluoride-pharmacokinetics in infants. But can one dramatically increase the normal fluoride-intake to infants and get away with it? The safety of the use of fluorides ultimately rests on the assumption that the developing enamel organ is most sensitive to the toxic effects of fluoride. The results from this study suggest that the pinealocytes may be as susceptible to fluoride as the developing enamel organ." □ SOURCE: Luke J. (1997). *The Effect of Fluoride on the Physiology of the Pineal Gland*. Ph.D. Thesis. University of Surrey, Guildford. p. 176.

"Alongside the calcification in the developing enamel organ, calcification is also of enzymatic reactions within the pinealocytes converts the essential amino acid, tryptophan, to a whole family of indoles. The main pineal hormone is melatonin (MT)... If F accumulates in the pineal gland during

early childhood, it could affect pineal indole metabolism in much the same way that high local concentrations of F in enamel organ and bone affect the metabolism of ameloblasts and osteoblasts." □SOURCE: Luke J. (1997). *The Effect of Fluoride on the Physiology of the Pineal Gland*. Ph.D. Thesis. University of Surrey, Guildford. p. 5.

"Any adverse physiological effects of fluoride depend upon the concentration at various tissue sites. Can pinealocytes function normally in close proximity to high concentrations of fluoride? One would predict that a high local fluoride concentration would affect pinealocyte function in an analogous way that a high local fluoride concentration affects: i) bone cells, since histological changes have been observed in bone with 2,000 mg F/kg (Baud et al, 1978); ii) ameloblasts, since [dental fluorosis](#) develops following fluoride concentrations of 0.2 mg F/kg in the developing enamel organ (Bawden et al, 1992). The consequences are disturbances in the functions of bone and enamel, i.e., changes in structure (poorly mineralized bone and enamel). If the pineal accumulates fluoride at an earlier age than in previous decades, one would anticipate that a high local concentration of fluoride within the pineal would affect the functions of the pineal, i.e., the synthesis of hormonal products, specifically melatonin... The controlled animal study carried out in this study produce compelling evidence that fluoride inhibits pineal melatonin output during pubertal development in the gerbil."

SOURCE: Luke J. (1997). *The Effect of Fluoride on the Physiology of the Pineal Gland*. Ph.D. Thesis. University of Surrey, Guildford. p. 168-169.

Fluoride & Pineal Gland - Earlier Puberty in Animals: ([back to top](#))

"The section on the effects of fluoride on the physiological signs of sexual maturity in the gerbil was a preliminary, pilot study. There were not enough subjects to make any firm conclusions so an interpretation of the data is conjectural. However, the results do suggest that the HF (High-Fluoride) females had an accelerated onset of puberty as judged by several indices of pubertal development in rodents. At 7 weeks, the HF females were significantly heavier than the LF females ($p < 0.004$); as heavy as the HF males and LF males. The ventral gland in the HF female developed significantly earlier than in the LF female ($p < 0.004$). Vaginal opening occurred earlier in the HF female than in the LF female ($p < 0.03$)."

curring in the child's pineal. It is a normal physiological process. A complex series

SOURCE: Luke J. (1997). *The Effect of Fluoride on the Physiology of the Pineal Gland*. Ph.D. Thesis. University of Surrey, Guildford. p. 173-174.

Fluoride & Pineal Gland - Earlier Puberty in Humans? ([back to top](#))

"The first step in assessing a health risk by a substance to humans is the identification of its harmful effects on animals. A health risk to humans is assessed using results from human epidemiological studies in conjunction with results from animal studies. The Newburgh-Kingston Study (Schlesinger et al, 1956) showed an earlier age of first menarche in girls living in the fluoridated Newburgh than in unfluoridated Kingston. The current animal study indicates that fluoride is associated with an earlier onset of puberty in female gerbils. Furthermore, more research was recommended on the effects of fluoride on animal and human reproduction (USPHS, 1991). This project has contributed new knowledge in this area."

SOURCE: Luke J. (1997). *The Effect of Fluoride on the Physiology of the Pineal Gland*. Ph.D. Thesis. University of Surrey, Guildford. p. 177.

Fluoride & Pineal Gland - Mechanism of Action: ([back to top](#))

"The most plausible hypothesis for the observed significant decrease in the rate of urinary aMT6s excretion by the HF (High-Fluoride) group is that fluoride affects the pineal's ability to synthesize melatonin during pubertal development in the gerbil. Fluoride may affect the enzymatic conversion of tryptophan to melatonin. Although melatonin was the hormone investigated in this project, fluoride may also affect the synthesis of melatonin precursors, (e.g., serotonin), or other pineal products, (e.g., 5-methoxytryptamine). This would depend on the position(s) of the susceptible enzyme(s). For some unknown reason, pineal calcification starts intracellularly. Calcium has been demonstrated in pinealocyte mitochondria. Therefore, it may be a mitochondrial enzyme that is sensitive to the effects of fluoride, e.g., tryptophan-5-hydroxylase. Alternatively, fluoride may affect pinealocyte enzymes which require a divalent co-enzyme because such enzymes are particularly sensitive to fluoride."

SOURCE: Luke J. (1997). *The Effect of Fluoride on the Physiology of the Pineal Gland*. Ph.D. Thesis. University of Surrey, Guildford. p. 172-173.

Fluoride & Pineal Gland - Discussion: ([back to top](#))

"Fluoride is now introduced at a much earlier stage of human development than ever before and consequently alters the normal fluoride-pharmacokinetics in infants.

But can one dramatically increase the normal fluoride-intake to infants and get away with it? The safety of the use of fluorides ultimately rests on the assumption that the developing enamel organ is most sensitive to the toxic effects of fluoride. The results from this study suggest that the pinealocytes may be as susceptible to fluoride as the developing enamel organ. The possibility of a species difference between humans and gerbils does not allow the extrapolation of the gerbil data to humans. However, if increased plasma-fluoride levels cause a decline in the levels of circulating melatonin during early human development, significant physiological consequences may have already occurred. Changes in plasma melatonin concentrations are serious functional disturbances because melatonin has many functions in the organism. The pinealologists have not completely unravelled the mechanisms by which the pineal gland performs its tasks in the brain. The neurochemical phenomenon elicited by melatonin in CNS are unclear.

The first step in assessing a health risk by a substance to humans is the identification of its harmful effects on animals. A health risk to humans is assessed using results from human epidemiological studies in conjunction with results from animal studies. The Newburgh-Kingston Study (Schlesinger et al, 1956) showed an earlier age of first menarche in girls living in the fluoridated Newburgh than in unfluoridated Kingston. The current animal study indicates that fluoride is associated with an earlier onset of puberty in female gerbils. Furthermore, more research was recommended on the effects of fluoride on animal and human reproduction (USPHS, 1991). This project has contributed new knowledge in this area.

I do not intend to discuss the relative merits of the claims made by the anti-fluoridationists that chronic ingestion of low levels of fluoride has harmful effects on human health, i.e., increases the risk of cancer, affects the immune system, and hastens the aging process. These claims could be associated with the effects of fluoride on the pineal because the gland has been linked to oncogenesis, immunocompetence, and, in recent years, to the process of aging.

[In conclusion, the human pineal gland contains the highest concentration of fluoride in the body. Fluoride is associated with depressed pineal melatonin synthesis by prepubertal gerbils and an](#)

accelerated onset of sexual maturation in the female gerbil. The results strengthen the hypothesis that the pineal has a role in the timing of the onset of puberty. Whether or not fluoride interferes with pineal function in humans requires further investigation." □SOURCE: Luke J. (1997). The Effect of Fluoride on the Physiology of the Pineal Gland. Ph.D. Thesis. University of Surrey, Guildford. p. 176-177

Water fluoridation controversy

From Wikipedia, the free encyclopedia

Water fluoridation controversy refers to moral, ethical, and safety concerns regarding the [fluoridation](#) of public [water supplies](#). The controversy occurs mainly in English-speaking countries, as [Continental Europe](#) does not practice water fluoridation, although some continental countries fluoridate salt.^[1]

Those opposed argue that water fluoridation imposes ethical issues,^[2] may cause serious health problems^{[3][4][5][6]} and is not effective enough to justify the costs. Dosage cannot be precisely controlled.^{[7][8][9]} Compared with their healthier counterparts, senior citizens, people with calcium and magnesium deficiencies, and people with impaired renal clearance are more susceptible to the negative effects of fluoride.^{[10][11]}

Opposition to fluoridation has existed since its initiation in the 1940s.^[1] During the 1950s and 1960s, some opponents of water fluoridation suggested that fluoridation was a [communist](#) plot to undermine public health.^[12] [Sociologist](#) Brian Martin states that sociologists have typically viewed opposition to water fluoridation as irrational, although critics of this position have argued that this rests on an uncritical attitude toward scientific knowledge.^[1]

Ethics

Many who oppose water fluoridation consider it to be a form of compulsory mass [medication](#).^[13] They argue that consent by all water consumers cannot be achieved, nor can water suppliers accurately control the exact levels of fluoride that individuals receive, nor monitor their response.

In the [United Kingdom](#) the [Green Party](#) refers to fluoride as a poison, claims that water fluoridation violates Article 35 of the [European Charter of Fundamental Rights](#), is banned by the UK poisons act of 1972, violates Articles 3 and 8 of the [Human Rights Act](#) and raises issues under the [United Nations Convention on the Rights of the Child](#).^[14]

Water fluoridation has also been criticized by Cross and Carton for violating the [Nuremberg Code](#) and

the Council of Europe's Biomedical Convention of 1999.[2] Dentistry professor David Locker and philosopher Howard Cohen argued that the moral status for advocating water fluoridation is "at best indeterminate" and could even be considered immoral because it infringes upon autonomy based on uncertain evidence, with possible negative effects.[15]

Statements against

Since 1985, the [United States Environmental Protection Agency](#) (EPA) headquarters' union has expressed concerns about fluoride. In 2005, eleven EPA employee unions, representing over 7000 environmental and public health professionals of the Civil Service, called for a halt on drinking water fluoridation programs across the USA and asked EPA management to recognize fluoride as posing a serious risk of causing [cancer](#) in people. [39]

In 1992, speaking on the Canadian television program [Marketplace](#), former [EPA](#) scientist Robert Carton claimed that "fluoridation is the greatest case of scientific [fraud](#) of this century." The practice was described as the "longest running public health controversy in North America" in the broadcast. [40]

In addition, over 3,038 health industry professionals, including one Nobel prize winner in medicine ([Arvid Carlsson](#)), doctors, dentists, scientists and researchers from a variety of disciplines are calling for an end to water fluoridation in an online petition to Congress.[41] The petition signers express concern for [vulnerable](#) groups like "small children, above average water drinkers, [diabetics](#), and people with poor [kidney](#) function," who they believe may already be [overdosing](#) on fluoride.[41] Another concern that the petition signers share is, "The admission by federal agencies, in response to questions from a Congressional subcommittee in 1999-2000, that the industrial grade waste products used to fluoridate over 90% of America's drinking water supplies (fluorosilicate compounds) have never been subjected to [toxicological](#) testing nor received FDA approval for human ingestion." [41] The petition was sponsored by the [Fluoride Action Network](#). [42][43][44][45]

Dr. [Hardy Limeback](#), BSc, PhD, [DDS](#) was one of the 12 scientists who served on the [National Academy of Sciences](#) panel that issued the aforementioned report, *Fluoride in Drinking Water: A Scientific Review of the EPA's Standards*. Dr. Limeback is an associate professor of dentistry and head of the preventive dentistry program at the [University of Toronto](#). He detailed his concerns in an April 2000 letter titled, "*Why I am now officially opposed to adding fluoride to drinking water*". [46]

In a presentation to the [California Assembly](#) Committee of Environmental Safety and Toxic Materials, Dr. Richard Foulkes, B.A., M.D., former special consultant to the Minister of Health of [British](#)

[Columbia](#), revealed:

The [water fluoridation] studies that were presented to me were selected and showed only positive results. Studies that were in existence at that time that did not fit the concept that they were "selling," were either omitted or declared to be "bad science." The endorsements had been won by coercion and the self-interest of professional elites. Some of the basic "facts" presented to me were, I found out later, of dubious validity. We are brought up to respect these persons in whom we have placed our trust to safeguard the public interest. It is difficult for each of us to accept that these may be misplaced.[47]

A 2001 study found that "*fluoride, particularly in toothpastes, is a very important preventive agent against dental caries,*" but added that "*additional fluoride to that currently available in toothpaste does not appear to be benefiting the teeth of the majority of people.*"[48]

On April 15, 2008, the United States [National Kidney Foundation](#) (NKF) updated their position on fluoridation for the first time since 1981.[49] Formerly an endorser of water fluoridation, the group is now neutral on the practice. The report states, "*Individuals with CKD should be notified of the potential risk of fluoride exposure by providing information on the NKF website including a link to the report in brief of the NRC [21] and the Kidney Health Australia position paper.*" [50] Calling for additional research, the foundation's current position paper states, however, that there is insufficient evidence to recommend fluoride-free drinking water for patients with renal disease.[51]

The [International Chiropractor's Association](#) opposes mass water fluoridation, considering it "possibly harmful and deprivation of the rights of citizens to be free from unwelcome mass medication." [52]

In the United States, the Sierra Club opposes mandatory water fluoridation. Some reasons cited include possible adverse health effects, harm to the environment, and risks involving sensitive populations.[53] In 2006, the Massachusetts legislature decided not to consider a bill that would have mandated water fluoridation throughout the state, because of concerns about health effects.[54]

Use throughout the world

Water fluoridation is used in the [United States](#), [United Kingdom](#), [Ireland](#), [Canada](#), and [Australia](#), and a handful of other countries. The following [developed nations](#) previously fluoridated their water, but stopped the practice, with the years when water fluoridation started and stopped in parentheses:

Federal Republic of Germany (1952–1971)

Sweden (1952–1971)

Netherlands (1953–1976)

Czechoslovakia (1955–1990)

German Democratic Republic (1959–1990)

Soviet Union (1960–1990)

Finland (1959–1993)

Japan (1952–1972)^{[[citation needed](#)]}

In 1986 the journal [Nature](#) had a commentary, "*Large temporal reductions in tooth decay, which cannot be attributed to fluoridation, have been observed in both unfluoridated and fluoridated areas of at least eight developed countries.*"^{[[55](#)]}

In areas with complex water sources, water fluoridation is more difficult and more costly. Alternative fluoridation methods have been proposed, and implemented in some parts of the world.

The [World Health Organization](#) (WHO) is currently assessing the effects of fluoridated toothpaste, milk fluoridation and salt fluoridation in [Africa](#), [Asia](#), and [Europe](#). The WHO supports fluoridation of water in some areas, and encourages removal of fluoride where fluoride content in water is too high.^{[[56](#)]}

History

The first large fluoridation controversy occurred in Wisconsin in 1950. Fluoridation opponents questioned the ethics, safety, and efficacy of fluoridation.^{[[57](#)]} New Zealand was the second country to fluoridate, and similar controversies arose there.^{[[58](#)]}

Fears about fluoride were likely exacerbated by the reputation of fluoride compounds as insect poisons and by early literature which tended to use terms such as "toxic" and "low grade chronic fluoride poisoning" to describe mottling from consumption of 6 mg/L of fluoride prior to tooth eruption, a level of consumption not expected to occur under controlled fluoridation.^{[[59](#)]}

When voted upon, the outcomes tend to be negative, and thus fluoridation has had a history of gaining through administrative orders in North America.^{[[57](#)]} Theories for why the public tends to reject fluoridation include "alienation from mainstream" society, but evidence for that is weak.

Another interpretation is confusion introduced during the referendum.^{[[57](#)]} Some studies of the sociology of opposition to water fluoridation have been criticized for having an uncritical attitude toward scientific knowledge.^{[[1](#)]}

Outside of [North America](#), water fluoridation was adopted in European countries, but in the late 1970s and early 1980s, [Denmark](#) and [Sweden](#) banned fluoridation when government panels found insufficient evidence of safety.

[The Netherlands banned water fluoridation when "a group of medical practitioners presented evidence" that it caused negative effects in a percentage of the population.](#)^{[[5](#)]}