

JOIN US (#)**DONATE**

[Basics \(http://fluoridealert.org/basics/\)](http://fluoridealert.org/basics/)
 [FAN.tv \(http://fluoridealert.org/fan-tv/\)](http://fluoridealert.org/fan-tv/)
 [F.A.Q. \(http://fluoridealert.org/faq/\)](http://fluoridealert.org/faq/)
 [RESEARCHERS \(http://fluoridealert.org/researchers/\)](http://fluoridealert.org/researchers/)
 [STUDY TRACKER \(http://fluoridealert.org/studytracker/\)](http://fluoridealert.org/studytracker/)
 //

/DONATE

[News \(http://fluoridealert.org/news/\)](http://fluoridealert.org/news/)
 [About FAN \(http://fluoridealert.org/about/\)](http://fluoridealert.org/about/)

Inorganic plasma fluoride concentrations and its renal excretion in certain physiological and pathological conditions in man (http://fluoridealert.org/studytracker/16741/)
 (<http://fluoridealert.org>
[/wp-content/uploads/hanhijarvi-19751.pdf](http://fluoridealert.org/wp-content/uploads/hanhijarvi-19751.pdf))

Author: Hanhijarvi H.

[https://twitter.com](https://twitter.com/FluorideAction)

Journal Name: Fluoride

[/FluorideAction](https://twitter.com/FluorideAction)

Publish Date: October 1975

Volume/Page: 8(4):198-207.

Type: [Human Study \(http://fluoridealert.org/studytracker/?type=human\)](http://fluoridealert.org/studytracker/?type=human)

Categories: [Diabetes \(http://fluoridealert.org/studytracker/?effect=diabetes-2\)](http://fluoridealert.org/studytracker/?effect=diabetes-2), [Heart \(http://fluoridealert.org/studytracker/?effect=cardio-2\)](http://fluoridealert.org/studytracker/?effect=cardio-2), [Total Body Burden \(http://fluoridealert.org/studytracker/?effect=body-burden\)](http://fluoridealert.org/studytracker/?effect=body-burden), [Tissue F Levels \(http://fluoridealert.org/studytracker/?effect=body-burden&sub=tissue-f-levels\)](http://fluoridealert.org/studytracker/?effect=body-burden&sub=tissue-f-levels), [Serum-F \(http://fluoridealert.org/studytracker/?effect=tissue-f-levels&sub=serum-f\)](http://fluoridealert.org/studytracker/?effect=tissue-f-levels&sub=serum-f)

[Download PDF](#)

ABSTRACT

In a study involving 2200 patients the inorganic plasma fluoride concentration (IPFC) increased with increasing age. In a fluoridated (1 ppm) community this increase was more pronounced than in a low fluoride (0.2 ppm) community. The mean renal clearance of fluoride and the daily amounts excreted also increased slightly until age fifty, after which a slow decrease was observed. During pregnancy, IPFC decreased significantly until delivery in both fluoridated and non-fluoridated areas. The daily fluoride excretion was also lower during pregnancy than in controls. Patients with renal insufficiency had a mean IPFC of 3.0 ± 0.45 $\mu\text{mol/l}$ in the fluoridated and 2.0 ± 0.14 in the low fluoride community. Their daily fluoride excretion was less than half of that of the control groups. Regularly hemodialyzed patients showed the highest

Filter By Health Category:

Select One

Filter By Health Sub-Category:

Select One

By Type:

IPFC. In a 6 year-old boy with diabetes insipidus, the IPFC was four times as high as in the corresponding controls. In diabetes mellitus with renal complications, the IPFC was also elevated. Increased water consumption did not cause greater retention of fluoride. In cardiac insufficiency, with normal serum creatinine the IPFC was only slightly elevated.

RELATED STUDIES :

The relationship between human ionic plasma fluoride and serum creatinine concentrations in cases of renal and cardiac insufficiency in a fluoridated community

Previous studies have shown that renal and cardiac insufficiency cause an elevation of ionic plasma fluoride (IPF) concentration in patients suffering from these diseases. The relationship between serum or plasma fluoride concentration and the degree of renal impairment has been tested only twice: with somewhat contrasting results, although some previous

[\(http://fluoridealert.org/studytracker/16745/\)](http://fluoridealert.org/studytracker/16745/)

Ionic plasma fluoride concentrations related to some diseases in patients from a fluoridated community

Little data is available concerning the relationship between variations in ionic plasma fluoride (IPF) concentrations and some diseases, and that which exists is inconclusive. The effect of renal insufficiency is known best, but the relationship between IPF levels and some oedematous diseases and diabetes has hardly been studied at all

[\(http://fluoridealert.org/studytracker/16743/\)](http://fluoridealert.org/studytracker/16743/)

Hemodialyzability of ionizable fluoride in hemodialysis session

The fluoride ion content in serum and in dialysate medium was determined by means of a fluoride ion-selective electrode in 29 patients undergoing hemodialysis treatment. Abnormally high serum fluoride of 65.9 +/- 28.3 microg l(-1) at the beginning and 46.5 +/- 26.7 microg l(-1) at the completion of the hemodialysis

[\(http://fluoridealert.org/studytracker/17054/\)](http://fluoridealert.org/studytracker/17054/)

Ionic serum fluoride concentrations and age in a low-fluoride community

Some previous studies indicate extra fluoride retention in human bones caused by severe renal insufficiency. Plasma and serum fluoride concentrations may also be elevated in a fluoridated community. The results from low-fluoride areas are less consistent. The first aim of the present study was thus to test the relation between

[\(http://fluoridealert.org/studytracker/16746/\)](http://fluoridealert.org/studytracker/16746/)

Select One

From Date:

Select Year

To Date:

Select Year

Advanced Filters:

Full Text

FAN Translation

APPLY FILTERS

Serum fluoride and skeletal fluorosis in two villages in Jiangsu Province, China

Serum fluoride in relation to the prevalence of skeletal fluorosis was investigated in two villages in Jiangsu Province, China. In the high-fluoride village of Wamiao, 132 adults (average age 52.36 years; water fluoride 2.18±0.86mg/L; range 0.85–4.50mg/L) were surveyed. In the low-fluoride village of Xinhuai, 35 adults (average age 48.11 years;

[\(http://fluoridealert.org/studytracker/18001/\)](http://fluoridealert.org/studytracker/18001/)

RELATED FAN CONTENT :

NRC (2006): Fluoride's Effect on Glucose Metabolism

The following discussion is from pages 258-260 of the NRC's report's "Fluoride in Drinking Water: A Scientific Review of EPA's Standards." Animal Studies (Normal Animals) Turner et al. (1997) reported a 17% increase in serum glucose in female rabbits given fluoride in drinking water at 100 mg/L for 6 months. IGF-1 was also

[\(http://fluoridealert.org/studies/diabetes04/\)](http://fluoridealert.org/studies/diabetes04/)

Fluoride Sensitivity Among Diabetics

"The present study showed that aortae and mesenteric arteries from streptozotocin-induced diabetic rats exhibited greater contractions in response to NaF at higher concentrations (>7.5 mM) compared with the corresponding blood vessels from age-matched control rats. This observation is consistent with the recent results reported by other investigators." SOURCE: Hattori Y, et

[\(http://fluoridealert.org/studies/diabetes03/\)](http://fluoridealert.org/studies/diabetes03/)

Fluoride & Impaired Glucose Tolerance

The proper regulation of blood glucose levels is essential to good health. When the body's ability to regulate blood glucose levels falters, as occurs in diabetes mellitus, chronic elevated glucose levels (hyperglycemia) can lead to serious complications. These consequences include damage to the kidneys, nervous system, cardiovascular system, retina, legs

[\(http://fluoridealert.org/studies/diabetes01/\)](http://fluoridealert.org/studies/diabetes01/)

Fluoridated Water Causes Severe Dental Fluorosis in Children with Diabetes Insipidus

Excessive exposure to fluoride causes a defect of the tooth enamel known as dental fluorosis. In its most severe form, dental fluorosis is a seriously disfiguring condition, marked by brown and black staining of the teeth, often with extensive pitting, chipping, and crumbling of the enamel. Based on the most

[\(http://fluoridealert.org/studies/diabetes-insipidus/\)](http://fluoridealert.org/studies/diabetes-insipidus/)

Fluoride & Electrocardiogram Abnormalities

An electrocardiogram (ECG) is a diagnostic test that measures the electrical activity of the heart. An ECG can reveal heart rate, heart rhythm (i.e. steady or irregular), and the strength and timing of the heart's natural electrical signals. ECGs are described in terms of "waves" (e.g. amplitude and duration). Problems

[\(http://fluoridealert.org/studies/cardio04/\)](http://fluoridealert.org/studies/cardio04/)

[Issues \(http://fluoridealert.org/issues/\)](http://fluoridealert.org/issues/)

[FAN.tv \(/\)](#)

[News \(http://fluoridealert.org/news/\)](http://fluoridealert.org/news/)

[F.A.Q. \(http://fluoridealert.org/faq/\)](http://fluoridealert.org/faq/)

[About FAN \(http://fluoridealert.org/about/\)](http://fluoridealert.org/about/)

[JOIN US \(HTTP://FLUORIDEALERT.ORG/TAKE-ACTION/JOIN-FAN-MOVEMENT/\)](http://fluoridealert.org/take-action/join-fan-movement/)
[/DONATE.ASPX?NPOSUBSCRIPTIONID=2553\)](http://fluoridealert.org/donate.aspx?NPOSUBSCRIPTIONID=2553)

[DONATE \(HTTPS://NPO NETWORK FOR GOOD.ORG/DONATE](https://www.facebook.com/FluorideActionNetwork)
[/FluorideActionNetwork\)](https://www.facebook.com/FluorideActionNetwork)

[/FluorideActionNetwork\)](https://www.facebook.com/FluorideActionNetwork)

© Fluoride Action Network 2012. All Rights Reserved.

[/FluorideAction\)](https://twitter.com/FluorideAction)