LIST of MAJOR SYMPTOMS:  
CHRONIC FLUORIDE TOXICITY SYNDROME,  p392-393

Most of the following reversible ill effects caused by fluoride were first recognized among aluminum workers in the 1930s by the Danish health officer Dr. Kaj Roholm. Not all the symptoms are necessarily present at the same time. Their severity and duration (often episodic) depend on a person's age, nutritional status, environment, kidney function, amount of fluoride ingested, genetic background, tendency to allergies, and other factors.

To test for fluoride intoxication, the following procedures must be rigorously followed. Avoid all fluoridated water (substitute distilled or other nonfluoridated, low-fluoride water), fluoridated beverages, fluoride-rich foods (tea, ocean fish, gelatin, skin of chicken, etc.), fluoridated toothpastes, and any other source of environmental fluoride, including cigarette smoke and industrial pollution (see Chapter 19, pages 376-377, above). If symptoms are in fact caused by fluoride, they should diminish markedly within a week and largely disappear within several weeks. If symptoms persist, consult a physician for possible alternative problems. True fluoride toxicosis can be reproduced by re-exposure to fluorides from whatever source.

CAVEAT: The following list contains symptoms that can have other origins even in someone suffering from chronic fluoride poisoning:

- Chronic fatigue not relieved by extra sleep or rest
- Headaches
- Dryness of the throat and excessive water consumption
- Frequent need to urinate
- Urinary tract irritation
- Aches and stiffness in muscles/bones (arthritic-like pain)
  - In lower back
  - In neck area
  - In jaws
  - In arms, shoulders, legs
- Muscular weakness
- Muscle spasms (involuntary twitching)
- Tingling sensations in fingers (especially) and feet
- Gastrointestinal disturbances
  - Abdominal pains
  - Blood in stools
  - Diarrhea
  - Bloated feeling (gas)
  - Constipation
  - Tenderness in stomach area
- Feeling of nausea (flu-like symptoms)
- Pinkish-red or bluish-red spots (like bruises, but round or oval) on the skin that fade and clear up in 7-10 days.
- Skin rash or itching, especially after showers or bathing.
- Mouth sores (also from fluoridated toothpaste)
- Loss of mental acuity and ability to concentrate
- Depression
- Excessive nervousness
- Dizziness
- Tendency to lose balance
- Visual disturbances
  - Temporary blind spots in field of vision
  - Diminished ability to focus (possible retinal damage)
Some laboratory tests, however, may at least provide clues. For example, minor changes in the serum calcium, serum phosphorus, and alkaline and acid phosphatase are sometimes helpful, but these indicators are not a constant feature of the disease. Slight abnormalities in liver, kidney, and thyroid function may also be revealing, but urinary and even blood fluoride levels are not reliable indexes of fluoride illness. Twenty years ago the double-blind test was a sound method for confirming the diagnosis, but the unforeseen increase in the fluoride content of food effectively precludes complete elimination of fluoride and often jeopardizes the reliability of such tests. The greatest aid in the diagnosis, therefore, is a thorough case history - as in most other toxicological situations. Physicians also must carefully rule out other possible illnesses with mimicking symptoms before they consider the possibility of poisoning from fluoridated water.

Certain definite physical signs, characteristic of nonskeletal fluorosis, do exist. In the early stages in women and children, for example, the skin lesion called "Chizzola maculae" provides a useful, clearly visible clue to the diagnosis.91 The simultaneous occurrence of symptoms suggestive of stomach ulcer, arthritis (especially in the spine), and diarrhea, particularly when accompanied by headaches, muscular pains, and paresthesias, is almost always indicative of chronic fluoride poisoning. Excessive thirst, increased urination, and sudden episodes of acute abdominal pains often diagnosed as "intestinal flu" also point to fluoride intoxication. Temporary improvement during the patient's absence from a fluoridated community is another tell-tale sign. Progressive exhaustion associated with increasing general debility, even to the point of being completely bed-ridden, furnishes additional evidence for the diagnosis.

With respect to treatment, let me emphasize that the best remedy for chronic fluorosis is strict avoidance of fluoride in water, foods, beverages, drugs, dentifrices, and air. It is impossible, however, to eliminate the halogen completely from food, particularly in vegetables and fruits. The fluoride content of these foods is highly erratic, depending on where they were grown, how they were prepared, and to what extent they were fertilized and sprayed or exposed to atmospheric contamination. Furthermore, some foods like tea, ocean fish (especially with bones), chicken skin, chocolate (prepared in fluoridated water), prepared cereals, gelatin, and any item soaked or processed in fluoridated water are likely to have elevated levels of fluoride. Probably the foods most consistently low in fluoride are milk, eggs, red meats (excluding organs), produce having a protective rind (such as watermelon, lemons, bananas, and coconuts), fruits packed in their own juices (pineapples), and foods canned abroad in nonfluoridated, low-fluoride countries. In general, canned foods vary greatly in their fluoride content depending on many different factors. Persons intolerant to fluoride should watch their diet carefully and switch to other brands if symptoms occur after consuming a particular food.

Since fluoridated toothpaste has precipitated temporary recurrence of systemic symptoms in several of my patients, its use should be strictly avoided by afflicted persons. Drugs containing fluoride should not be used, particularly fluoride-containing anesthetics, such as Halothane and Enflurane. Sensitive persons should also stay away from areas having industrial air pollution, and they should never ingest large amounts of fluoride as a treatment for osteoporosis.

Some studies on the effect of certain vitamins, especially pyridoxine (B6) and ascorbic acid (C), suggest that they may be of some assistance in countering fluoride toxicity. The use of calcium and magnesium salts has also been recommended in order to decrease fluoride absorption from the stomach and thus assist in eliminating the halogen through the bowels. None of these measures, however, has proved to be as effective as strict avoidance of ingested, imbibed, and inhaled fluoride, an approach that always requires careful attention by patients.

If symptoms do not disappear or diminish markedly within two weeks, patients should consult their physicians for diagnosis of other possible causes. Patients who improve, on the other hand, may periodically suffer temporary setbacks when inadvertently subjected to small intakes of fluoride. Severely affected individuals may require several months or even longer for complete recovery.