

FLUORIDE – AN ELEMENTARY WAY TO REDUCE TOOTH DECAY

Q. What is fluoride anyway?

A. Fluoride is the ionised form of Fluorine, like Chlorine, a halogen gas.

			2 He
7 N	8 O	9 F	10 Ne
15 P	16 S	17 Cl	18 Ar
33 As	34 Se	35 Br	36 Kr
51 Sb	52 Te	53 I	54 Xe

Q. Where does it come from naturally?

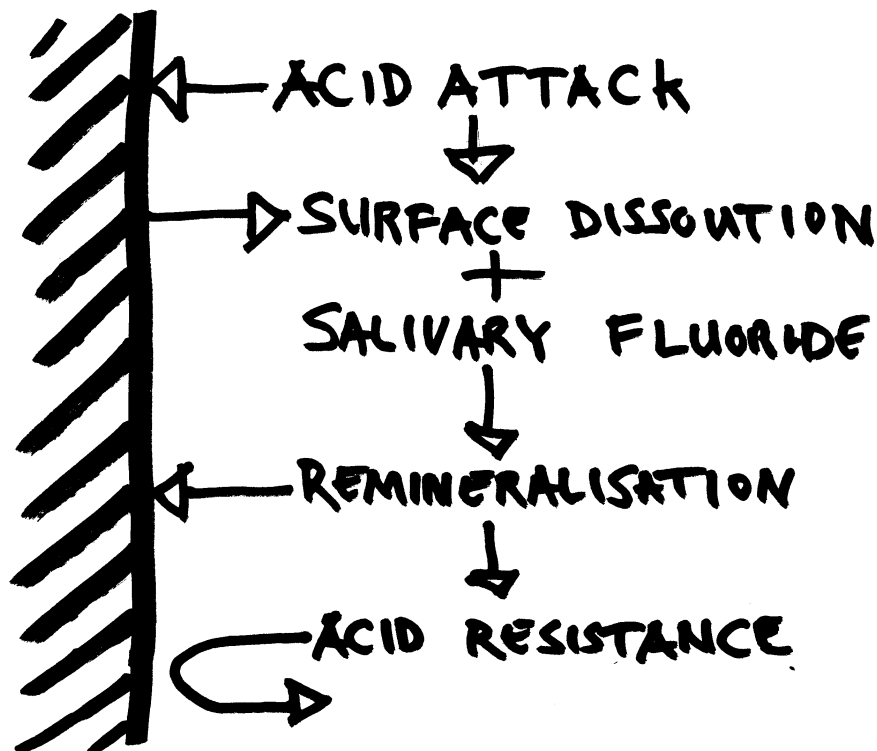
A. It is mined as the mineral Fluospar (Calcium Fluoride).

Q. Apart from adding it to water and toothpaste what is it used for?

A. It is widely used in manufacturing drugs, plastics and microelectronics.

Q. How does it prevent tooth decay?

A. Fluoride ions replace hydroxyl ions in the tooth structure (calcium hydroxyapatite) forming calcium fluorapatite, which is much more resistant to acid attack.



Q. How effective is fluoride in stopping decay.

A. Estimates vary. A recent meta-study [1] found reductions between 30% and 60%.

[1] <http://www.ncbi.nlm.nih.gov/pubmed/19772843>.

Q. So it reduces decay, but does it do any harm?

A. At normal levels there are no health effects. A slight increase in the occurrence of mottling for SOME people is a known side effect.

Test

1. What is fluoride

- a. A mineral.
- b. An element.
- c. An ion.

Where does fluoride come from?

- a. The shops.
- b. A mined mineral
- c. A by-product of microelectronic manufacturing.

3. Fluoride and teeth.

- a. A good way to prevent decay.
- b. A bad way to prevent decay.
- c. A way to make teeth whiter.

4. Fluoride in water reduces decay by?

- a. Between 0 and 5 percent.
- b. Between 5 and 20 percent
- c. Between 15 and 60 percent.