



Dr. Linda Golden—Fluoride Alternatives

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For many years, fluoride has been the most popular component in dental gels, dentifrices and mouthwashes. It is known to combine with the calcific components of the teeth to form a stronger tooth structure in a process called re-mineralization. This helps prevent tooth decay. Although fluoride occurs naturally as calcium fluoride, synthetic fluoride is the preferred form in dental applications.

The problem, however, is that synthetically formed fluoride, when ingested, may be absorbed and bound to tissues in the body outside the oral region, resulting in adverse effects. even within the mouth, too much ingestion of fluoride leads to fluorosis, which causes teeth to weaken and discolor.

Currently, there are several alternatives to synthetic fluoride in dental products and applications.

Amorphous calcium phosphate (ACP) is one of these substitutes. It contains the basic building blocks for tooth re-mineralization. It is thus directly incorporated into the tooth substance when the tooth demineralizes due to bacterial activity. In this way, ACP turns the tooth back to its original form, preventing tooth decay. It also eliminates the need for dental restorations when incipient cavities occur.

Xylitol is a naturally occurring sugar substitute, which also helps prevent decay by its anti-bacterial properties. It is known to aid the absorption of naturally occurring fluoride into the teeth, and thus can aid tooth re-mineralization.

Ozone is an unstable gas with an oxidative ability, which destroys harmful bacteria when applied in the oral cavity. It is also able to stimulate blood circulation and thus an immune response as well.

Fluoride is beneficial in dental application, but its adverse effects make it prudent for individuals to try safer and equally effective alternatives.

