

Value of vigilant teeth brushing may be muted by genetic factors

Why do some thorough tooth-brushers develop tooth decay while other people who take a more relaxed attitude to dental hygiene don't have any holes? Researchers from the University of Zurich have for the first time pinpointed a gene complex responsible for the formation of tooth enamel.

Two teams from the [Centre of Dental Medicine](#) and the [Institute of Molecular Life Sciences](#) used mice with varying mutations of the enamel proteins involved in the so-called Wnt signalling pathway.

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"[W]e demonstrated that there is a direct link between mutations in the genetic blueprints for these proteins and the development of tooth enamel defects," said Pierfrancesco Pagella, one of the study's two first authors.

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"If the signal transmission [in the Wnt signalling pathway] isn't working properly, the structure of the tooth enamel can change," said co-first author Claudio Cantù..

The hardness and composition of the tooth enamel can affect the progression of [tooth decay].

"We revealed that tooth decay isn't just linked to bacteria, but also the tooth's resistance," added Thimios Mitsiadis, professor of oral biology at the Center of Dental Medicine.

[The study can be found [here](#).]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Mutated genes lead to tooth decay](#)