

## Hidden tooth infections may predispose people to heart disease

*Date:* August 2, 2016

*Source:* University of Helsinki

*Summary:* An infection of the root tip of a tooth increases the risk of coronary artery disease, even if the infection is symptomless. Hidden dental root tip infections are very common: as many as one in four in Finland suffer from at least one. Such infections are usually detected by chance from X-rays.

### FULL STORY

---

According to a study carried out at the University of Helsinki, an infection of the root tip of a tooth increases the risk of coronary artery disease, even if the infection is symptomless. Hidden dental root tip infections are very common: as many as one in four Finns suffers from at least one. Such infections are usually detected by chance from X-rays.

"Acute coronary syndrome is 2.7 times more common among patients with untreated teeth in need of root canal treatment than among patients without this issue," says researcher John Liljestrand.

The study was carried out at the Department of Oral and Maxillofacial Diseases of the University of Helsinki, in cooperation with the Heart and Lung Centre at Helsinki University Hospital. Its results were published in the latest issue of the *Journal of Dental Research*.

Dental root tip infection, or apical periodontitis, is a bodily defence reaction against microbial infection in the dental pulp. Caries is the most common cause of dental root tip infection.

Today, information is increasingly available about the connection between oral infections and many common chronic diseases. For example, periodontitis, an inflammatory disease affecting the tissues that surround the teeth, causes low-grade inflammation and is regarded as an independent risk factor for coronary artery disease and diabetes. Dental root tip infections have been studied relatively little in this context, even though they appear to be connected with low-grade inflammation as well.

The study consisted of 508 Finnish patients with a mean age of 62 years who were experiencing heart symptoms at the time of the study. Their coronary arteries were examined by means of angiography, and 36 per cent of them were found to be suffering from stable coronary artery disease, 33 per cent were undergoing acute coronary syndrome, and 31 did not suffer from coronary artery disease to a significant degree. Their teeth were examined using panoramic tomography of the teeth and jaws, and as many as 58 per cent were found to be suffering from one or more inflammatory lesions.

The researchers also discovered that dental root tip infections were connected with a high level of serum antibodies related to common bacteria causing such infections. This shows that oral infections affect other parts of the body as well. The statistical analyses took account of age, gender, smoking, type 2 diabetes, body mass

index, periodontitis and the number of teeth as confounding factors.

Cardiovascular diseases cause more than 30 per cent of deaths globally. They can be prevented by a healthy diet, weight control, exercise and not smoking. With regard to the health of the heart, measures should be taken to prevent or treat oral infections, as they are very common and often asymptomatic. Root canal treatment of an infected tooth may reduce the risk of heart disease, but more research is needed.

---

### Story Source:

The above post is reprinted from materials provided by **University of Helsinki**. *Note: Content may be edited for style and length.*

---

### Journal Reference:

1. J.M. Liljestrand, P. Mäntylä, S. Paju, K. Buhlin, K.A.E. Kopra, G.R. Persson, M. Hernandez, M.S. Nieminen, J. Sinisalo, L. Tjäderhane, P.J. Pussinen. **Association of Endodontic Lesions with Coronary Artery Disease**. *Journal of Dental Research*, 2016; 0022034516660509 DOI: 10.1177/0022034516660509

---

### Cite This Page:

MLA	APA	Chicago
-----	-----	---------

---

University of Helsinki. "Hidden tooth infections may predispose people to heart disease." ScienceDaily. ScienceDaily, 2 August 2016. <[www.sciencedaily.com/releases/2016/08/160802104159.htm](http://www.sciencedaily.com/releases/2016/08/160802104159.htm)>.

---

### Recommended Articles

Gizli diş enfeksiyonları kalp hastalığı için bir kişi yatkınlık  
Helsinki Üniversitesi, ScienceDaily, 2016

Link Between Oral Infections And Cardiovascular Disease Morbidity Explained  
Academy of General Dentistry, ScienceDaily, 2009

Shared Genetic Link Between Dental Disease Periodontitis And Heart Attack Discovered  
European Society of Human Genetics, ScienceDaily, 2009

Chronic Gum Disease Associated With Tongue Cancer  
JAMA and Archives Journals, ScienceDaily, 2007

Further Evidence Reveals The Association Between Periodontal Disease And Coronary Artery Disease  
American Academy Of Periodontology, ScienceDaily, 2004

Fluoride and a physical: Patients see docs at the dentist  
STAT

Oral Medicine: A Handbook for Physicians  
Eric T.Stoopler and Thomas P. Sollecito, ExpertConsult

Should you floss your teeth? The evidence is surprisingly weak

STAT

This smells promising: Nasal bacteria pump out a new antibiotic that kills MRSA

STAT

Could a drug that tamps down inflammation lift the fog of depression?

STAT

---

Powered by