

Press release

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Basic information

Name: Line Staun Larsen Email: line.staun@dent.au.dk Phone:

Department of: Dentistry

Main supervisor: Bente Nyvad

Title of dissertation: Fluoride in dental biofilm and saliva

Date for defence: October 10th 2017 at (time of day): 2:30 pm Place: Auditorium 4 Department of Dentistry and Oral Health (Building 1613, room 135)

Press release (Danish)

Skal vi bruge tandpasta med mere fluorid i fremtiden?

Vi ved at fluorid i fluortandpasta hæmmer udviklingen af caries (huller i tænderne). Det har været påstået at tandpasta med en meget høj koncentration af fluorid har bedre effekt på caries end almindelig fluortandpasta. Et nyt ph.d.-projekt fra Aarhus Universitet, Health, har fokuseret på denne problemstilling. Projektet er gennemført af Line Staun Larsen, Institut for Odontologi og Oral Sundhed, og forsvares den 10. oktober 2017.

Projektet bidrager med viden om forekomst og fordeling af fluorid i tandbelægninger og spyt og viser, at der hos mennesker findes en sammenhæng mellem fluorid i tandbelægninger og spyt. Desuden viser projektet, at der er mest fluorid i tandbelægninger forrest i undermundens – hvor man normalt får mindst caries. Brug af tre gange højere koncentration af fluorid end i almindelig tandpasta øger kun mængden af fluorid i tandbelægninger til det dobbelte. Dette fund kan måske forklare at høj-fluorid tandpasta ikke er så effektivt mod huller i tænderne som forventet. Resultaterne er et vigtigt videnskabeligt skridt på vejen til at finde ud af hvordan fluorid virker.

Projektet indeholdt et forskningsophold i Brasilien for at lære en metode, der kan måle fluorid i meget små mængder tandbelægning.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 10. oktober kl. 14:30 i Auditorium 4 på Institut for Odontologi og Oral Sundhed, Aarhus Universitet, Vennelyst Boulevard 9, 8000 Aarhus C. Titlen på projektet er "Fluoride in dental biofilm and saliva". Yderligere oplysninger: Ph.d.-studerende Line Staun Larsen, e-mail: line.staun@dent.au.dk.

Bedømmelsesudvalg:

Bedømmere:

Professor Emeritus Jan Ekstrand, DDS, Odont. Dr.
Department of Medicine (Solna), Karolinska Institutet, Sverige

Professor Cor van Loveren, DDS, PhD
Department of Preventive Dentistry, ACTA, Holland

Formand:

Viceinstituttleder for forskning og talent,
Lektor Lene Baad-Hansen, Tandlæge, PhD, Dr. Odont

Institut for Odontologi og Oral Sundhed, Aarhus Universitet

Press release (English)

Should we use high-fluoride toothpaste in the future?

It is well known that fluoride in toothpaste slows down the development of caries. It has been alleged that toothpaste with a very high concentration of fluoride is more effective against caries than conventional toothpaste. A new PhD project from Aarhus University, Health, centres on this issue. The project was carried out by Line Staun Larsen, Department of Dentistry and Oral Health, who is defending her dissertation on the 10th of October 2017.

The project provides information on the occurrence and distribution of fluoride in dental plaque and saliva and shows that in humans a correlation exists between fluoride in dental plaque and saliva. Furthermore, the project demonstrates that most fluoride is present in the front region of the lower jaw - which usually has the least caries. The use of a fluoride concentration three times that of conventional toothpaste only doubles the fluoride concentration in dental plaque. This finding may explain why high-fluoride toothpaste is not as effective against caries as expected. The results constitute a significant step towards understanding the mechanism of action of fluoride.

The project included a research stay in Brazil to learn a method for measuring fluoride in minute amounts of dental plaque.

The defence is public and takes place on the 10th of October at 2:30 pm in Auditorium 4 (Department of Dentistry and Oral Health, Building 1613, room 135), Aarhus University, Vennelyst Boulevard 9, 8000 Aarhus C. The title of the project is "Fluoride in dental biofilm and saliva". For more information, please contact PhD student Line Staun Larsen, email: line.staun@dent.au.dk.

Assessment committee:

Opponents:

Professor Emeritus Jan Ekstrand, DDS, Odont. Dr.
Department of Medicine (Solna), Karolinska Institutet, Sweden

Professor Cor van Loveren, DDS, PhD
Department of Preventive Dentistry, ACTA, the Netherlands

Chairman:

Deputy Head for Research and Talent,
Associate Professor Lene Baad-Hansen, DDS, PhD, Dr. Odont
Department of Dentistry and Oral Health, Aarhus University, Denmark

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