



DENTAL MEDICINE

DENTAL CARIES

A NEVER ENDING STORY?

What is dental caries?

Dental caries is a wide-spread disease in all world populations and is the main responsible for oral pain and tooth loss.

It is a multi-factorial infectious transmissible disease caused by bacteria present in the oral cavity that feed on certain dietary sugars. Other contributing factors can also influence the course of the disease such as salivary flow, type of oral microflora, education, attitude, behavior, etc....

When bacteria are allowed to remain over teeth surfaces for a certain period of time, they will process dietary sugars and produce acids that can destroy dental tissues, causing carious lesions. These lesions can occur at different teeth or teeth areas and can vary in appearance, size, color, depth, extension, speed of progression, hardness, etc... Presence of bacteria over dental surfaces does not necessarily result in a carious lesion but is an indispensable factor for it to occur.

In the absence of treatment, dental caries will progress until the complete destruction of teeth.

What are the main risk factors?

1. High dietary refined sugar intake, both in quantity and frequency
2. Inadequate fluoride topical exposure of teeth
3. Poor oral hygiene habits and dental plaque accumulation over teeth surfaces
4. Reduced salivary flow which can have different causes (medication, diabetes, immune conditions, etc...)
5. Exposed root surfaces
6. Physical or cognitive disability

What are the main protective factors?

1. Reduced dietary sugar intake, both in quantity and frequency
2. Adequate fluoride topical exposure of teeth
3. Correct oral hygiene habits and removal of dental plaque of teeth surfaces
4. Salivary stimulation when required

How do we prevent and treat the disease?

Treatment and prevention of dental caries must maximize protective factors and minimize risk factors. Each therapeutic intervention should address each patient's specific circumstances and needs and usually requires some kind of modifications of daily oral hygiene or dietary habits.

Teeth restorations alone performed by the dentist are a very important part of the treatment process but an insufficient measure to adequately treat the disease.

Comprehensive treatment of dental caries calls for team work – patient, dentist, oral hygienist – in which part plays a specific role. The final success of prevention and treatment depends on each element's performing to their best ability!