PHOSPHATDIABETES E.V.
NETZWERK INFORMATION AUSTAUSCH

Oral hygiene information for patients with hypophosphatemia

Contents

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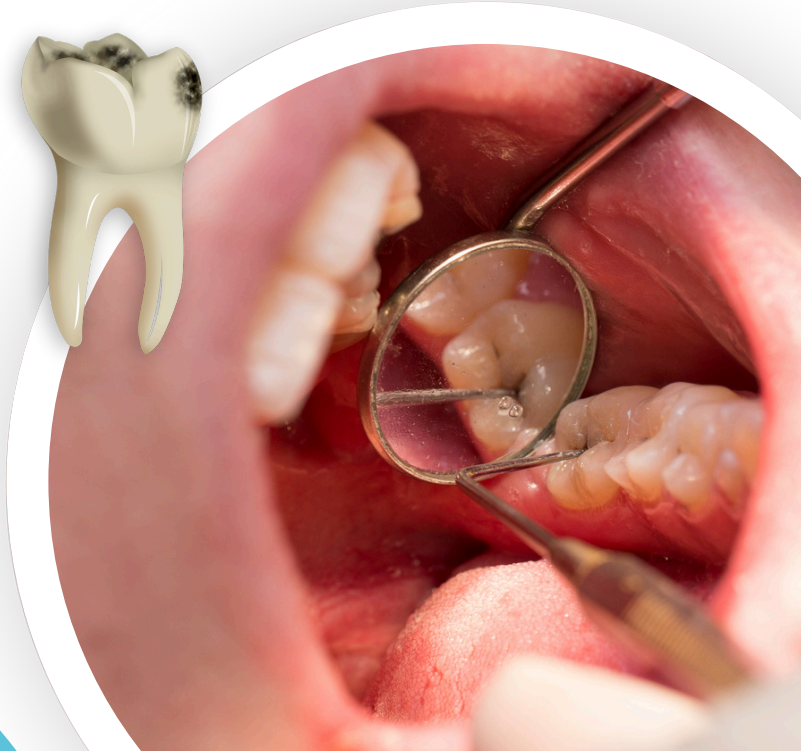
Oral hygiene information for patients with hypophosphatemia

Caries

Caries is one of the infectious diseases caused by cariogenic microorganisms that everyone carries in their oral cavity. If fermentable carbohydrates (e.g. sugar) are consumed frequently, acid-forming and acid-tolerant bacteria can multiply to excess in the natural biofilm.
The natural biofilm forms shortly after brushing your teeth and initially consists of saliva components to which bacteria and food residues can deposit. As a result, the hydrofluoric acid produced by the bacteria lowers the pH value and minerals are dissolved out of the tooth surface.

This creates a cavity ('hole'). These cavities must be treated by a dentist as part of a filling therapy. However, this is only a 'palliative' treatment and does not address the actual cause.
Every individual can help to prevent tooth decay through effective oral hygiene measures. Oral hygiene is a comprehensive term that is not just about toothbrushes and toothpaste. An effective tooth brushing technique and an appropriate brushing time are of great importance.



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NETZWERK INFORMATION AUSTAUSCH

Oral hygiene information for patients with hypophosphatemia

Toothbrush

The single bristles should be made of a chemically resistant plastic and be rounded at the ends.
As bacteria multiply less with well-dried toothbrushes, two toothbrushes could be used, one for the morning and one for the evening.
The bristle field of the toothbrush must consist of bristle tufts of different lengths (e.g. stepped or X arrangement) to optimally reach the interdental spaces.
The handle should fit comfortably in the hand to make it easier to guide the toothbrush.
In the case of arthritis, the handle may need to be wrapped with foam, polystyrene or cork to improve grip.

Modern electric toothbrushes have additional features such as a timer and a pressure sensor to facilitate correct performance of the cleaning process.
In addition to the total time, a timer also shows the brushing time for each of the four quadrants so that no one is ‘neglected’.
The pressure sensor warns with acoustic or visual signals if the toothbrush is pressed too hard against the tooth structure and/or gums.
Electric toothbrushes are generally easier to handle and easier to learn to use.

PHOSPHATDIABETES E.V.
NETZWERK INFORMATION AUSTAUSCH

Oral hygiene information for patients with hypophosphatemia

Toothpaste

To recommend a toothpaste, a special medical history must be taken for each patient. During this examination, particular attention is paid to oral hygiene behaviour, discolouration, tartar, allergic predispositions or existing periodontitis.

Dental floss /interdental brushes

You can use dental floss or small interdental brushes to reach the interdental spaces where the toothbrush has no effect. To choose the right product, you should consult a dentist.

Mouth rinse

Basically, mouth rinses can only be an extension of oral hygiene. They in no way replace brushing and flossing. Mouth rinses are often necessary after surgical interventions or for patients with limited oral hygiene.

Dietary guidance

Dietary guidance is less about banning certain foods, such as sweets or acidic foods, than recommending their consumption at a certain time. Sticky sweet foods (e.g., chocolate, caramel, etc.) or sugary drinks (e.g., lemonade) should not be consumed spread throughout the day, but ideally once a day followed by brushing the teeth. On the other hand, there should be at least 30 minutes waiting time between drinking acidic drinks (e.g., orange juice) and tooth cleaning to allow the saliva components to remineralise the tooth surface demineralised by acid.

PHOSPHATDIABETES E.V.
NETZWERK INFORMATION AUSTAUSCH

Oral hygiene information for patients with hypophosphatemia

Fluorides and their effect

Fluorides have become an essential part of today's prophylaxis. Many studies have shown that regular mechanical removal of soft dental plaque in combination with fluoridation can significantly reduce the risk of tooth caries. Fluorides are very effective in various areas. On the one hand, they can have both a bacteriostatic (inhibition of bacterial reproduction) and a bactericidal (bacteria-killing) effect on cariogenic bacteria.

Fluoride ions can be stored in the tooth enamel and protect the tooth from renewed acid attacks due to their high charge density (small ion with a strong charge).

Professional dental cleaning

To prevent carious lesions and/or inflammation of the periodontium, professional dental cleaning should be carried out twice a year to thoroughly remove tartar and soft plaque.

Oral hygiene information for patients with hypophosphatemia

What to do if the caries has already caused a cavity?

In caries therapy, it was long assumed that a complete extraction (removal) of the infected and demineralised dentine was necessary. When preparing a cavity, there is no method to determine whether caries is present. Therefore, depending on the situation, a small amount of healthy tooth substance (enamel and dentine) may also need to be removed.

Current studies show that if a saliva-resistant filling is placed correctly, a small amount of caries that is still present is inactivated by a lack of substrate (e.g. fermentable carbohydrates) and therefore cannot progress any further. In order not to open the tooth cavity (pulp) with its blood vessels and nerve tissue, it is therefore decided today in individual cases not to remove the caries completely. In this way, root canal treatment can be avoided.

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NETZWERK INFORMATION AUSTAUSCH

Oral hygiene information for patients with hypophosphatemia

Periodontitis

Periodontitis is an inflammatory disease of the periodontium. It can lead to bone loss in the horizontal and/or vertical plane with irreversible loss of tooth anchorage. Without periodontal therapy, this pathological process can lead to the loss of teeth. The cause of this disease is subgingival plaque, which can be triggered by certain pathogenic bacteria (e.g. Actinobacillus actinomycetemcomitans, Prevotella intermedia, Porphyromonas gingivalis, Eikenella corrodens).

The so-called periodontal screening index should therefore be recorded at every check-up appointment to recognise possible disease at an early stage and initiate targeted treatment. Optimum oral hygiene and regular professional dental cleanings are the pillars of a state-of-the-art preventive strategy.

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Authors of the original German text

Univ.-Prof. Dr med. dent. J. Jackowski
Dental School, Department of Oral Surgery and Outpatient Polyclinic
Faculty of Health
Witten/Herdecke University
Alfred-Herrhausen-Str. 50
D - 58448 Witten
T.: +49 (0)2302-926691
F.: +49 (0)2302-926667
and
CeSER - Centre Rare Diseases Ruhr
Competence centre of the Ruhr-University Bochum und
Witten/Herdecke/University

PD Dr. med. dent. Korbinian Benz, MHBA
Dental School, Department of Oral Surgery and Outpatient Polyclinic
Faculty of Health
Witten/Herdecke University
Alfred-Herrhausen-Str. 50
D - 58448 Witten
T.: +49 (0)2302-926691
F.: +49 (0)2302-926667
and
CeSER - Centre Rare Diseases Ruhr
Competence centre of the Ruhr-University Bochum und
Witten/Herdecke/University

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This document was translated from German to English by Martha Kirchhoff, a medical layman.

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