



## Dental Procedure Information

### Periodontal Disease

#### Introduction

The toxins released by the bacteria in dental plaque that has accumulated along the gum margin for a period of time irritate the periodontal tissues (tooth supporting tissues) and lead to Periodontal Disease.



Causal Factors: 1. Accumulation of dental plaque

- 1.1 Wearing dentures that are not thoroughly cleaned
  - Dental plaque and food debris easily accumulate in the space between the denture and the gingivae (gum)
- 1.2 Accumulation of calculus - The rough surface of calculus allows dental plaque to build up more easily
- 1.3 Irregular teeth - The irregular alignment of teeth makes it difficult to clean these teeth

2. Smoking

Smokers have a five times greater chance of suffering from Periodontal Disease than non-smokers because:

- 2.1 Early symptoms of Periodontal Disease are less noticeable in smokers - Smoking makes early symptoms of Periodontal Disease such as swollen gums and bleeding while brushing less noticeable because chemicals in cigarettes such as nicotine cause blood vessel constriction. As the bleeding symptom is not obvious, it is difficult to discover that the gingivae have been inflamed. This could result in delayed diagnosis and treatment
- 2.2 Smoking lowers the body's immune system and therefore lowers the healing capability of patients with Periodontal Disease - Nicotine in cigarettes lowers the healing capability of oral tissues, retards the healing process and causes the Periodontal Disease to worsen

3. Stress

Stress lowers the body's resistance towards illnesses including Periodontal Disease.

4. Hormonal changes during pregnancy

Because of the hormonal changes during pregnancy, the periodontal tissue of an expectant mother is more susceptible to the irritation of toxins released by the dental plaque, resulting in red, swollen and bleeding gums. This is called "Pregnancy Gingivitis".

5. Systemic diseases

Systemic diseases such as Diabetes Mellitus, Leukaemia, and AIDS, lower the resistance of the periodontal tissues towards bacterial infection. Bacteria inside the dental plaque will intrude and cause Periodontal Disease if the oral cavity isn't thoroughly cleaned. Furthermore, the healing capability is also lowered in patients suffering from these diseases, and it is more difficult for them to recover from Periodontal Disease. Therefore, Periodontal Disease is more progressive and severe in these patients.

#### 6. Intake of medications

Intake of medications such as anti-hypertensive and anti-convulsant drugs stimulates the multiplication and activity of fibroblasts (a type of cell) in the gingivae and causes gingival swelling. Dental plaque that accumulates in the swollen gingivae is difficult to be cleaned, which leads to more gingival inflammation and further swelling.

- Consequences of Periodontal Disease:
1. Besides red, swollen gums and bad breath, people with periodontal disease will suffer from gum recession, widening of space between teeth (interdental space), mobile and drifting teeth, or even loss of affected teeth. On top of the adverse effect on the person's appearance, it also greatly lowers his/her self-esteem. It will interfere with his/her normal social life.
  2. Furthermore, gum recession will lead to exposed root surfaces, which makes the teeth sensitive when eating hot, cold, sweet, or sour food. Severe periodontal disease will also cause loosening, drifting or even loss of affected teeth, which makes chewing difficult and inefficient. It adversely affects the general health and the quality of life.
  3. If a person who wears a denture suffers from Periodontal Disease, the denture may become unfit because of the destruction of periodontal tissues. A new denture may need to be made.

Signs and Symptoms of Periodontal Disease: The early signs of Periodontal Disease are redness and swelling of the gingivae which also bleed easily. However, it should better be confirmed by the dentist's diagnosis.

- Symptoms:
- Gingival margin shows marked redness and swelling
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  - Gingivae always bleed during tooth brushing
  - Periodontal tissues recede markedly and the tooth appears longer
  - Periodontal pocket is formed, pus exudes from the gingival margins and periodontal abscess may be formed
  - Calculus is accumulated
  - Bad breath
  - The teeth or gingivae may be painful
  - The affected tooth becomes loose and drifts away from its original position
  - The affected tooth may even fall out

- Prevention and Care:
1. Thoroughly remove dental plaque
    - Clean your teeth thoroughly everyday in the morning and before bed at night, especially along the gum margin
    - Toothbrushing alone cannot effectively clean the adjacent surfaces of teeth. Therefore, it is necessary to use dental floss daily
    - People with a fixed bridge should also thoroughly clean their teeth; especially clean the areas underneath the fixed bridge with superfloss

- People with removable dentures must clean their teeth every night before bed, and then immerse the denture into a glass of water overnight
2. Have an oral check-up at least once a year  
The dentist will give you oral health instructions and suggestions on toothbrushing and flossing techniques to improve your oral health. Because toothbrushing cannot remove calculus, you can also have a scaling during the same appointment. After calculus removal, it will be much easier to clean the teeth. Initial stage of periodontal disease can also be discovered and treated.  
To avoid "Pregnancy Gingivitis", expectant mothers should receive a dental check-up during the fourth to sixth month of pregnancy because the infant is more stable at this time and it is more convenient for expectant mothers to receive treatment.
  3. Receive appropriate treatment for your condition:
    - Scaling
    - Root planing - Deep scaling of the root surface of a tooth by appropriate dental instruments
    - Periodontal surgery - A gingival flap is raised to expose the root of a tooth so that root planing is possible. This treatment is appropriate for managing very deep periodontal pockets
  4. To maintain good physical and mental health.
  5. Do not try the first puff of cigarette  
If you are already a smoker, you should quit smoking as soon as possible.

## **Outcomes**

The aim is to eliminate the periodontal pocket by removing the dental plaque and calculus in the periodontal pocket and on the root surface of the tooth so that the periodontal tissues may re-attach onto the root surface.

## **Procedures**

- See a dentist immediately for:
  - Scaling to remove the calculus
  - Root planing or periodontal surgery to remove the dental plaque and calculus on the roots of the teeth and in the periodontal pockets
  - Receive antibiotic therapy as needed
- Use oral care products such as toothbrush, dental floss, etc. to thoroughly remove dental plaque everyday in the morning and before bed at night to control the progression of the disease
- After being treated by a dentist, you must maintain good oral care habits and visit the dentist regularly for an oral check-up

## **Pre-procedure Preparations**

The doctor will explain the reason, the procedure and the possible complications to you.

## **Points to note after Scaling / Root Planing / Periodontal Treatment**

1. You may experience slight discomfort and gum bleeding for the first few days after scaling, especially applies to patients who have periodontal disease. Proper cleaning of teeth is important after the procedure. Bleeding will gradually stop.

2. After scaling, swollen gum may result in recession depending on the severity of periodontal disease. Gum recession may expose root surface which makes the teeth sensitive when eating hot / cold / sweet / sour food. If necessary, you can use desensitizing toothpaste to sooth the discomfort.
3. Gum recession may also cause widening of interdental space, in order to prevent periodontal disease, you should clean the intendetal space well.

Should there be any enquiries or concerns, please consult the dentist.

Under the professional care of the dentist, you will gradually recover. We wish you all the best during your treatment and recovery.

If you have any questions after reading the entire leaflet, please write them down in the spaces provided in order for the dentist to further follow-up.

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Compiled by Union Hospital Operating Theatre (OT) Governance Committee

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