Disclaimer

This movie is an educational resource only and should not be used to manage your dental health. All decisions about the management of Gum Disease must be made in conjunction with your Dental Surgeon or a licensed healthcare provider.
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INTRODUCTION

“Gum disease” is a common term which includes both gingivitis as well as periodontitis. Gingivitis is simply the irritation caused to the gums because of bacterial plaque collected on the teeth and gums.

Periodontitis occurs when gingivitis progresses and affects the tissues that support the teeth resulting in loss of bone and the teeth itself. In order to know more about gum diseases, it is necessary to understand the normal anatomy of the gingiva (gums).
Normal Gingiva

Gingiva is the part of the oral cavity (mouth) that covers the root portion of all the teeth. It is commonly referred to as the gums. Normal Gingiva is divided into three parts:

- Marginal Gingiva
- Attached Gingiva
- Interdental Gingiva

(Refer fig. 1)

Marginal Gingiva

Border part of gingiva about 1mm wide

(Refer fig. 2)

Attached Gingiva

Firm and tightly bound to the bone overlying the teeth and has a orange-peel-appearance

(Refer fig. 3)

(Continued in next page)
Interdental Gingiva

Present in the gap in between two teeth

(Refer fig. 4)
Causes of Gingivitis

- The main cause of gingivitis is dental plaque which is a sticky substance made up of bacteria. Improper brushing results in plaque accumulation and thus gingivitis.
- Hormonal changes such as in pregnancy, puberty and menopause.
- Smoking
- Medicines such as Dilantin that reduce salivary flow
- Diseases such as diabetes, cancer, or HIV that suppress the immune system and ability to fight against Infections.

(Refer fig. 5 to 7)
Symptoms of Gingivitis

Symptoms of Gingivitis can include the following:

- Bleeding gums, even with gentle brushing, and flossing
- Painful gums
- Smooth and shiny gums (absence of orange peel appearance)
- Swollen gums
- Red, bluish–red to pale pink colored gums

Risk factors of Gingivitis

Factors that can increase the risk of developing gingivitis include:

- Improper brushing habits
- Bad habits such as smoking and chewing tobacco
- Dietary deficiency of Vitamin C
- Suppressed immunity from diseases like leukemia, HIV/AIDS, and organ transplants
- Dry mouth
- Ill fitting dental restorations or prosthesis

Causes of Periodontitis

If gingivitis is left untreated, it progresses to the more severe form of gum disease called periodontitis.
Symptoms of Periodontitis can include the following:- Bleeding gums while brushing teeth, using dental floss or biting into hard food such as an apple

- Bleeding gums while brushing teeth, using dental floss or biting into food as an apple.
- Recurrent gum swelling
- Bad breath
- Gums that have receded from the teeth
- Deep pockets between the teeth and the gums
- Loose teeth
- Pus exuding between the teeth and gums

(Refer fig. 9)

Risk factors of Periodontitis

Factors that can increase the risk of developing Periodontitis include:

- **Poor oral hygiene**: irregular brushing and flossing habits
- **Age**: the risk of periodontitis increases with age
- **Hormonal changes**: risk increases during menstruation, pregnancy and menopause
- **Heredity**: the risk is more if any of the family members suffer from the disease
- **Smoking**: the response to any treatment is reduced in smokers due to a high level of bacteria in their mouth
- **Certain diseases**: patients with HIV, diabetes or cancers present a higher risk
- **Nutritional deficiency**: Vitamin C is an antioxidant and lack of it leads to slower repair processes.
Diagnosis of Gingivitis
The dentist inspects the color and shape of the gums and if redness or bleeding occur upon probing.

The dentist uses a mouth mirror and a periodontal probe, a fine instrument calibrated in millimeters (mm), which is used to measure pocket depth. Pocket depths greater than 3 mm indicates disease.

Tooth mobility is tested by pushing each tooth between two instrument handles and observing for movement. Mobility indicates bone support loss.

(Refer fig. 10 to 14)

(Continued in next page)
X-rays are made to see if there is any loss of bone structure supporting the teeth.

(Refer fig. 10 to 14)

### Treatment for Gingivitis

- A thorough dental cleaning by a professional dental hygienist with ultrasonic scaling instruments
- Routine oral hygiene follow-up
- Use of an antiseptic mouthwash to rinse the mouth
- Severe cases may need to undergo gum surgery
Complications of Gingivitis

- Recurrence of gingivitis
- Loss of teeth due to weakening of bone support
- Gingival infection or abscess

Prevention of Gingivitis

Gingivitis is prevented through the maintenance of good oral hygiene as follows:

**Toothbrushing:**

- Use a soft-bristled brush
- Move the brush in a back and forth motion gently
- Brush the outer side of teeth followed by the inner side and then the chewing surfaces of the teeth.
- Use the tip of the brush in an up-and-down motion for the inside surfaces of the front teeth.

**Flossing**

- Take about 18 inches of dental floss and wind around the middle finger of one hand and the rest around the other middle finger.
- Hold the floss between the thumbs and forefingers and gently pass it between the teeth.

(Refer fig. 16 to 35)
Toothpastes and Mouthwashes

- Avoid abrasive toothpastes.
- Antimicrobial mouthwashes like chlorhexidine and Listerine help in reducing plaque.
- Rinse your mouth twice daily and after each meal.

Diet

- Eating a nutritional diet
- Drinking lots of water

Stop Smoking

- There are many options to quit smoking
- Talk to your health care provider about the option that is best for you.

Management of Periodontitis

- **Initial Therapy:** simple cleaning below the gum line with a procedure called scaling.
- **Re-evaluation:** 4-6 weeks after initial scaling and root planing to check if the treatment given has helped in reducing inflammation.
- **Surgery:** may be needed to stop bone loss and regenerate the lost bone, if non-surgical approach fails to stop inflammation.

Surgical approaches used are:

Open Flap Debridement

- The area is numbed with a local anesthetic.
- A scalpel is used to place incision and separate the gum portion from the teeth and lift the flap.
- This will enable a direct view of the roots of the teeth and the bone.

(Continued in next page)
• The inflammation is cleared and scaling and root planing is done.
• If any bony defects are found, they are eliminated by a procedure called osseous recontouring with the help of files or rotating burs.

(Refer fig. 16 to 35)
Osseous surgery is of two types:

- Resective osseous surgery
- Reconstructive osseous surgery

Reconstructive osseous surgery

- **Vertical Grooving**: done to reduce thickness of bony margins
- **Radicular Blending**: done to smooth the bone surface over the roots of the teeth

- **Flattening of the Interproximal Bone**: a small amount of bone is removed from between two teeth to obtain good flap closure.

- **Gradualizing Marginal bone**: Minimal bone is removed in order to provide a smooth base for gingival tissue to follow. Flap is repositioned and sutures placed.

(Refer fig. 16 to 35)
Reconstructive osseous surgery: Consists of Guided Tissue Regeneration and Bone Grafting.

Guided tissue regeneration: This procedure allows the periodontal cells to regenerate the defects of the bone, using membrane barriers.

- Step 1: A flap is raised to access the bone defect.
- Step 2: Bony defect is recontoured and root surface is cleaned.
- Step 3: The barrier membrane is cut according to the size of the defect.
- Step 4: The membrane is kept there and sutured.
- Step 5: The flap is placed back to its position and sutured.

(Refer fig. 16 to 35)
Bone grafting: Bone like materials are used to fill in bone defects. Grafted bone can be taken from your own mouth or from other regions of the body, from a synthetic source, or from a tissue bank.

(Refer fig. 16 to 35)

Post Operative Guidelines

- Bleeding
- Diet

(Continued in next page)
**Bleeding**
May be controlled by applying gentle pressure to the area with a piece of sterile cotton or wet gauze.

**Diet**
Soft and cold diet to be taken for a few days; chew from the other side which is not surgically treated.

**Smoking and Alcohol intake**
Should not be done during the first 48 hours.

**Medication**
To be taken as prescribed.

**Ice Packs**
Can be placed over a towel if swelling is present.

**Saltwater Rinse**
Put salt in warm water and rinse with it for the first twelve hours.

**Brushing**
Avoid brushing over the surgical area for at least 5 to 6 days after surgery.

**Surgical Dressing**
Will be placed over the treated area for 1 week.

**Maintenance**
Regular checkups and cleanings every three months are done.
Prevention of Periodontitis

- Daily oral-hygiene measures
- Brushing properly at least twice daily
- Flossing regularly
- Using interdental brushes
- Using antiseptic mouthwashes such as chlorhexidine gluconate or Listerine
- Eating well-balanced and nutritious food
Disclaimer

Although every effort is made to educate you on Gum Disease and take control, there will be specific information that will not be discussed. Talk to your Dentist or Periodontist about any concerns you have about Gum Disease.
YOUR SURGERY DATE
READ YOUR BOOK AND MATERIAL
VIEW YOUR VIDEO/CD/DVD/ WEBSITE
PRE - HABILITATION
ARRANGE FOR BLOOD
MEDICAL CHECK UP
ADVANCE MEDICAL DIRECTIVE
PRE - ADMISSION TESTING
FAMILY SUPPORT REVIEW

Physician's Name:  
Physician's Signature:  
Date:

Patient’s Name:  
Patient’s Signature:  
Date: