The Adverse Effects of Orthodontic Treatment

Introduction

Tooth Decay and Enamel Decalcification

Periodontal Disease

External Apical Root Resorption (EARR)

Decalcification and tooth decay associated with poor oral hygiene during orthodontic treatment

Crestal bone loss occurring with orthodontic treatment associated with poor oral hygiene

Pre-orthodontic treatment full-mouth radiographs

- Tooth Decay and Enamel Decalcification
- Periodontal Disease
- External Apical Root Resorption (EARR)
- Patient Injuries from Orthodontic Appliances
- Length of Treatment may vary from Estimate
- Temporo-Mandibular Joint Disorders may Occur
- Aspiration or Ingestion of Orthodontic Appliances
- Injury from Dental Instruments
- Abnormal Wear of Tooth Structure and Debonding Fractures
- Nickel Allergy
- Bacteremia after Orthodontic Banding
- Pain and Discomfort
- Impacted Teeth 3rd Molars may Still Occur
- Tooth Mass Discrepancies may not be Reached
- Extraction of Teeth and Supplemental Orthognathic Surgery may be Necessary
- Abnormal Growth Patterns of the Jaws
- Teeth with Questionable Vitality may be Adversely Affected
- Post Treatment Changes in Alignment
The Adverse Effects of Orthodontic Treatment

External Apical Root Resorption (EARR)

Post-orthodontic treatment full-mouth radiographs demonstrating EARR of incisors

External Apical Root Resorption (EARR)

Impacted maxillary canine in close proximity to lateral incisor apex

External Apical Root Resorption (EARR)

Resorption of the lateral incisor apex by the impacted maxillary canine

The Adverse Effects of Orthodontic Treatment

Patient Injuries from Orthodontic Appliances

Safety release mechanisms on head gear attachment

J-hook headgear

The Adverse Effects of Orthodontic Treatment

- Length of Treatment may vary from Estimate
- Temporo-Mandibular Joint Disorders may Occur
- Aspiration or Ingestion of Orthodontic Appliances
- Injury from Dental Instruments
- Abnormal Wear of Tooth Structure and Debonding Fractures
- Nickel Allergy
- Bacteremia after Orthodontic Bonding
- Pain and Discomfort
- Impacted Teeth 3rd Molars may Still Occur
- Tooth Mass Discrepancies may not be Resolved

The Adverse Effects of Orthodontic Treatment

Extraction of Teeth and Supplemental Orthognathic Surgery

Pre-surgical correction of severe Class II malocclusion
The Adverse Effects of Orthodontic Treatment
Extraction of Teeth and Supplemental Orthognathic Surgery

Pre-surgical correction of severe Class II malocclusion

Post-surgical correction of severe Class II malocclusion

The Adverse Effects of Orthodontic Treatment
Extraction of Teeth and Supplemental Orthognathic Surgery

Post-surgical correction of severe Class II malocclusion

The Adverse Effects of Orthodontic Treatment
Extraction of Teeth and Supplemental Orthognathic Surgery

Abnormal Growth Patterns of the Jaws

Pre-orthodontic treatment headplate demonstrating anterior open bite

Post-orthodontic treatment demonstrating relapse of open bite treatment

Final surgical correction due to abnormal mandibular growth

The Adverse Effects of Orthodontic Treatment
Abnormal Growth Patterns of the Jaws

The Adverse Effects of Orthodontic Treatment
Post Treatment Changes in Alignment

Pre-orthodontic treatment
Completion of orthodontic treatment
Post-orthodontic treatment relapse