

# **Immediate Implant Placement**

**Evidence Based Dentistry Rounds**

**Specialty: Periodontology**

**Group: 9**

**Date: 09/23/20**

# Rounds Team

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- **Group Leader: Dr. Derderian**
- **Specialty Leader: Dr. Brunner**
- **Project Team Leader: Joel Ledvina**
- **Project Team Participants:**
  - **D3: Carly Kirkpatrick**
  - **D2: Hanna Anderson**
  - **D1: Anna Langworthy**

# Patient

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- 29
- Male
- Asian
- “I want my crowns redone”
- Additional pertinent information

# Medical History

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- Current & past:
  - Diagnoses
  - Conditions
  - Medications
  - Medical Consults, if any
  - Treatment considerations

# Dental History

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- 1 slide describing past dental history

# Radiographs

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- Panoramic image (if available)

# Radiographs

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- Full mouth series (BWX & PAX)
- Although all BWX and periapical radiographs could be placed on this slide, it will be hard to read.
- Recommendations:
  - Show overall FMX on this slide
  - Show necessary close-up views on separate slide(s)
  - Zoom in on, or enlarge, relevant views of areas of interest.
  - Insert arrow, or other indicator, to draw attention to findings. Correlate with list of pertinent radiologic findings.

# Radiographic Findings

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- 1 slide summarizing pertinent radiologic findings
- Illustrate with radiograph and/or other graphics as needed



# Clinical Findings

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- 1 slide describing all clinical findings
- Clinical photos 1-2 slides
  - Relevant extraoral &/or intra-oral views
- Photos of casts 1-2 slides
  - Mounted on articulator
  - Same views as intraoral photos
    - Occlusal maxilla, mandible
    - Open, closed
      - Anterior, lateral
      - In occlusion, excursions
    - Show excursions from posterior to molar view

# Specific Findings

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- List findings specific to the Rounds discussion, 1 slide
- To enhance viewing, include close-ups of clinical photos, cast photos, radiographs, add slides as needed

# Periodontal Charting

- Ensure that the periodontal charting is readable.
- Highlight, surround, point to, or zoom in on areas of interest.



zoom in

# Diagnosis

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- Diagnosis pertaining to Rounds discussion,  
1 slide

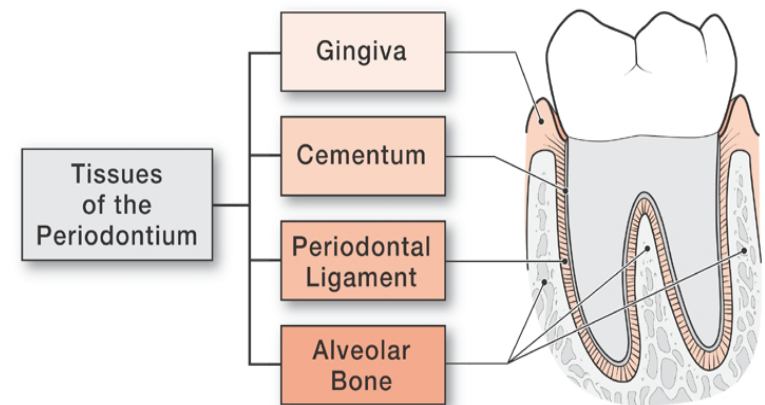
# Problem List

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- 1 slide
- Include graphics as needed

# Anatomy of the Periodontium

- Periodontium: The supporting structures of the tooth.
  - Gingiva (dentogingival junction)
    - Gingival, sulcular, and junctional epithelium
    - Connective tissue
  - Alveolar bone
    - Cortical and cancellous bone, alveolus
  - Periodontal ligament
    - Sharpey fibers
    - Cementoblasts, fibroblasts, osteoblasts
  - Root Cementum

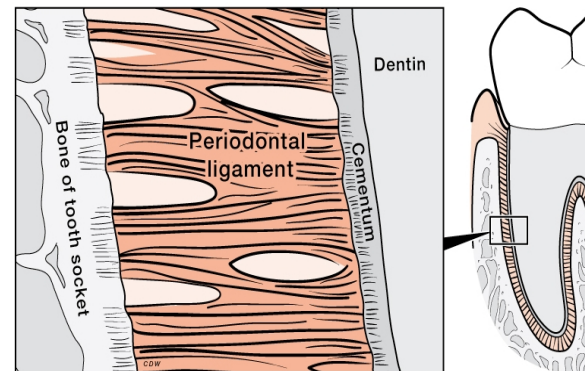
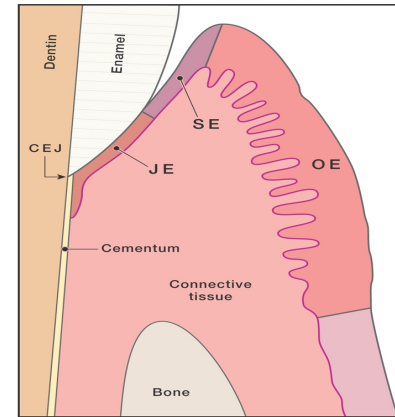


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Nanci, Antonio, and Dieter D. Bosshardt. "Structure of Periodontal Tissues in Health and Disease\*." *Periodontology 2000*, vol. 40, no. 1, 2006, pp. 11–28., doi:10.1111/j.1600-0757.2005.00141.x.

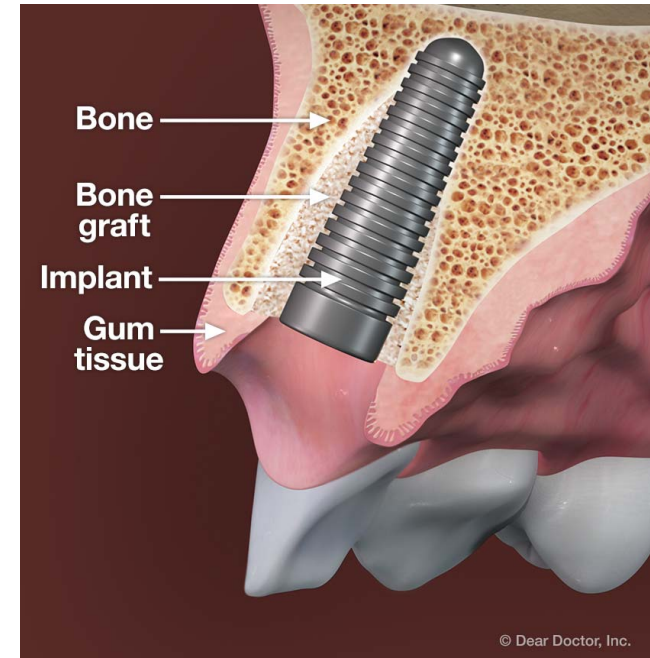
# Functions of the Periodontium

- **Gingiva** provides a barrier between the oral environment and the deeper periodontal tissues, and it plays a role in host defense.
- **Alveolar bone** contains sockets to hold teeth and undergoes resorption and bone formation.
- **Periodontal ligament** suspends and maintains tooth in alveolar socket.
- **Cementum** serves as an attachment area for the periodontal ligament fibers. This anchors the tooth.



# Pathology Associated with the Placement of Immediate Implants

- Overall, the survival is significantly worse than delayed implants
  - 98.38% vs 95.21%
- Placing the implant into an infected site is only minorly contraindicated
- Periodontal changes are the same between immediate and delayed implants
- Possible systemic contraindications: bisphosphonates, smoking habits, diabetes



Immediate Dental Implant. Retrieved September 16, 2020, from Dear Doctor website: <https://www.deardocor.com/articles/immediate-dental-implants/page2.php>

Gómez-de Diego, R., Mang-de la Rosa, M. del R., Romero-Pérez, M. J., Cutando-Soriano, A., & López-Valverde-Centeno, A. (2014). Indications and <https://doi.org/10.11607/jomi.4149> of dental implants in medically compromised patients: Update. *Medicina Oral, Patología Oral y Cirugía Bucal*, 19(5), e483–e489. <https://doi.org/10.4317/medoral.19565>

Zhao, D., Wu, Y., Xu, C., & Zhang, F. (2015). Immediate dental implant placement into infected vs. Non-infected sockets: A meta-analysis. *Clinical Oral Implants Research*, 27(10). <https://0-doi-org.libus.csd.mu.edu/10.1111/clr.12739>

Mello, C., Lemos, C. Verri, F., Dos Santos, D., Goiato, M., & Pellizzer, E. (2017). Immediate implant placement into fresh extraction sockets versus delayed implants into healed sockets: A systematic review and meta-analysis. *Int J Oral Maxillofac Surg*, 46(9), 1162–1177. <https://doi.org/10.1016/j.ijom.2017.03.016>

Turri, A., Rossetti, P., Canullo, L., Grusovin, M., & Dahlin, C. (2016). Prevalence of peri-implantitis in medically compromised patients and smokers: a systematic review. *The International Journal of Oral & Maxillofacial Implants*, 31(1). <https://doi.org/10.11607/jomi.4149>



# D3 PICO

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- **Clinical Question:**
  - Is an immediately placed implant indicated for this patient?

# PICO Format

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**P:**

**I:**

**C:**

**O:**

# PICO Formatted Question

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# Clinical Bottom Line

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# Search Background

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- **Date(s) of Search:**
- **Database(s) Used:**
- **Search Strategy/Keywords:**

# Search Background

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- **MESH terms used:**

# Article 1 Citation, Introduction

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- Citation: Authors, Title, Journal, Date, Volume, Page Numbers.
- Study Design:
- Study Need / Purpose:

# Article 1 Synopsis

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- 1-2 slides
- Method
- Results
- Conclusions
- Limitations



# Article 1 Selection

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- 1 slide
- Reason for selection
- Applicability to your patient
- Implications

# Article 2 Citation, Introduction

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- Citation: Authors, Title, Journal, Date, Volume, Page Numbers.
- Study Design:
- Study Need / Purpose:

# Article 2 Synopsis

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- 1-2 slides
- Method
- Results
- Conclusions
- Limitations

# Article 2 Selection

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- 1 slide
- Reason for selection
- Applicability to your patient
- Implications

# Levels of Evidence

- ☐ **1a** – Clinical Practice Guideline, Meta-Analysis, Systematic Review of Randomized Control Trials (RCTs)
- ☐ **1b** – Individual RCT
- ☐ **2a** – Systematic Review of Cohort Studies
- ☐ **2b** – Individual Cohort Study
- ☐ **3** – Cross-sectional Studies, Ecologic Studies, “Outcomes” Research
- ☐ **4a** – Systematic Review of Case Control Studies
- ☐ **4b** – Individual Case Control Study
- ☐ **5** – Case Series, Case Reports
- ☐ **6** – Expert Opinion without explicit critical appraisal, Narrative Review
- ☐ **7** – Animal Research
- ☐ **8** – In Vitro Research

Double click table to activate check-boxes

# Strength of Recommendation Taxonomy (SORT)

<input type="checkbox"/>	<b>A</b> – Consistent, good quality patient oriented evidence
<input type="checkbox"/>	<b>B</b> – Inconsistent or limited quality patient oriented evidence
<input type="checkbox"/>	<b>C</b> – Consensus, disease oriented evidence, usual practice, expert opinion, or case series for studies of diagnosis, treatment, prevention, or screening

Double click table to activate check-boxes

# Conclusions: D3

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How does the evidence apply to this patient?

- Consider/weigh:
  - Literature
  - Group Leader & Specialist experience
  - Patient circumstances & preferences

Based on the above considerations, how will you advise your D4?

# Conclusions: D4

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Based on your D3's bottom line recommendations, how will you ***advise*** your patient?

How will you ***help*** your patient?



# Discussion Questions

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- 1-2 slides
- List posted discussion questions
- Questions may also be from Group Leader or Specialist

# Discussion Questions

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# THANK YOU

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