

## 牙髓病學 Endodontics

# Endodontic Treatment In Interdisciplinary I



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## 學習目標

All students must be familiar with the development of endodontic theory and practice and an evidence-based approach that permits an intelligent evaluation of current and future technologies and materials.

## 參考資料

- Principle of Endodontics Pathway of the pulp

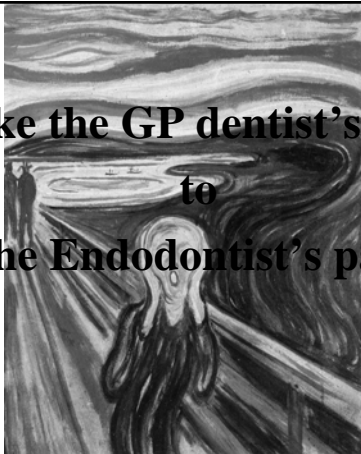
## Summary

- Rationale of Endodontics  
Anatomy and Embryology of the Pulp  
Pretreatment and Rubber Dam
- Diseases of the Pulp
- Endodontic diagnosis and emergency management  
Endodontic Radiography
- Endodontic Instruments and materials
- The Art and Science of Cleaning and Shaping
- The device and application of the Ni-Ti instrument in the endodontic treatment
- The Art and Science of Obturation—
  - Vertical Compaction of Warm GP Technique
  - Lateral Compaction Technique

## Summary

- Surgical Endodontics
- Apexogenesis and Apexification
- Endodontic Traumatology
- Diagnosis and Management of Combined Perio-endo Problem  
Treatment planning /Endodontic Mishap /retreatment
- Apex Locator  
Tooth Bleaching
- Laser endodontics  
digital radiography / CT in Endodontic treatment
- 醫療環境與心理層面  
Treatment planning /Endodontic Mishap /retreatment

Take the GP dentist's pain  
to  
the Endodontist's pain



## Should this tooth be saved?

- Evaluate the periodontal status
- Evaluate restorability before retreatment
- Consider the impact of retreatment on the overall treatment plan
- Assess the patient's concerns
- Consider practice productivity

### **Evaluate the periodontal status**

pocket depth,  
mobility  
crown-to-root ratios

Be sure that the attachment apparatus is sound.

Periodontal disease ➡ Pocket  
Even an excellent retreatment result will not improve a questionable periodontal prognosis.

Failing endodontic therapy ➡ Pocket  
An excellent retreatment result will improve a periodontal prognosis.

### **Evaluate restorability before retreatment**

Except in cases of a fractured or split root, most teeth can be successfully retreated. It is important, however, to have a predictable restorative treatment plan.

If retreatment is chosen, this decision should be as good or better than any other treatment options.

Crowns must not be cemented on core foundations without completely covering the core and extending at least 2 mm onto sound tooth structure—the ferrule effect.

### **Consider the impact of retreatment on the overall treatment plan**

If this tooth were extracted, how would the overall treatment plan change?

Will the restored tooth function for this patient?

If the patient is a bruxer or clencher, will the additional burden on the dentition be detrimental?

Will the retreated tooth be an adequate support for the final restoration?

Post placement errors can cause the loss of teeth with otherwise successful root canal treatments.

### **Assess the patient's concerns**

Will the patient be happy with the outcome following treatment?

The treatment results should also justify the expense both from your perspective and from the patient's point of view.  
Retreatment can be more cost-effective and time-saving than extraction and replacement.

### **Consider practice productivity**

There are no shortcuts.

Difficulty---  
removal of crowns, posts, gutta-percha or silver points during retreatment.

separated instruments, perforations, ledges and obstructions.

Refer to an endodontist

### **Evaluate the challenges**

Can you perform the necessary procedures at an adequate skill level?

Have you mastered the technology that will assure the best result?

## **TO DO OR NOT TO DO**

**PROSTHESIS CONSIDERATION  
SYNPTOM ?  
SIGN ?  
LEAKAGE ?**

### **Four reasons of non-surgical endodontic failure**

- Inadequate cleaning and sealing of the root canal system
- Apical extension of periodontal disease
- Diagnostic errors
- Fractured teeth

### **Fracture Teeth**

- Dental History
- Subjective Examination
- Tactile examination
- Bite test
- Periodontal probing

### **Fracture Teeth**

- Restoration removal
- Staining
- Transillumination
- Surgical assessment

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### **Why this tooth needs retreatment ?**

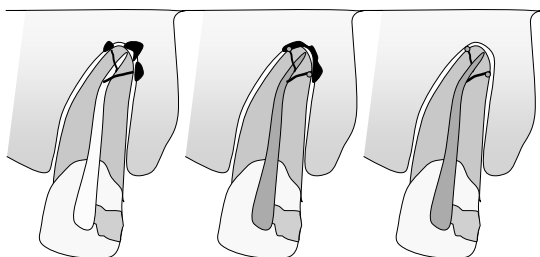
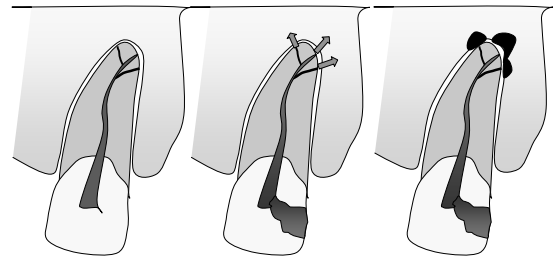
#### **Analyzing what happened**

- Cleaning and Shaping ?
- Sterilization ?
- Three-dimensional Obturation ?

### **Predictably Successful Endodontic Treatment**



**Dr. Herbert Schilder 1962**



### **The Schilder Study - 1962 Conclusion**

**Healing capacity is 100%**

**100% -X = Healing Capacity**

**“X” is our ability  
to cope with  
the root canal system**