

Initial Therapy

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Non-surgical Therapy

Scaling:

Instrumentation of the crown and root surfaces of the teeth to remove plaque, calculus, and stains from these surfaces.

American Academy of Periodontology
Glossary of Periodontal Terms, 2001

Non-surgical Therapy

Root planning:

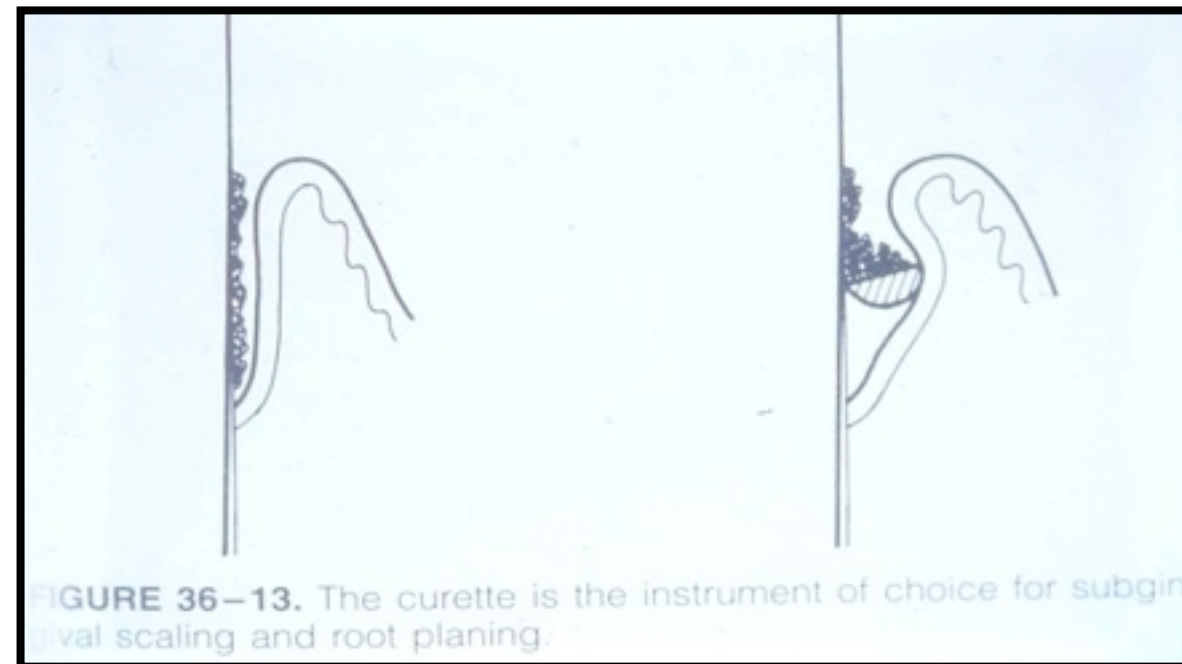
A treatment procedure designed to remove cementum or surface dentin that is rough, impregnated with calculus, or contaminated with toxins or microorganisms.

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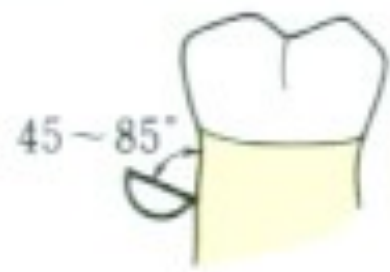
Non-surgical Therapy

The purpose of scaling and root planing is to restore gingival health by removing plaque and calculus that initiate gingival inflammation.

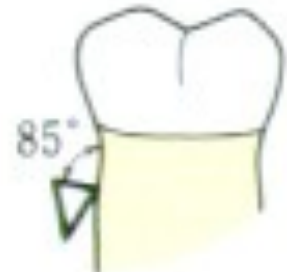
Scaling and Root Planing



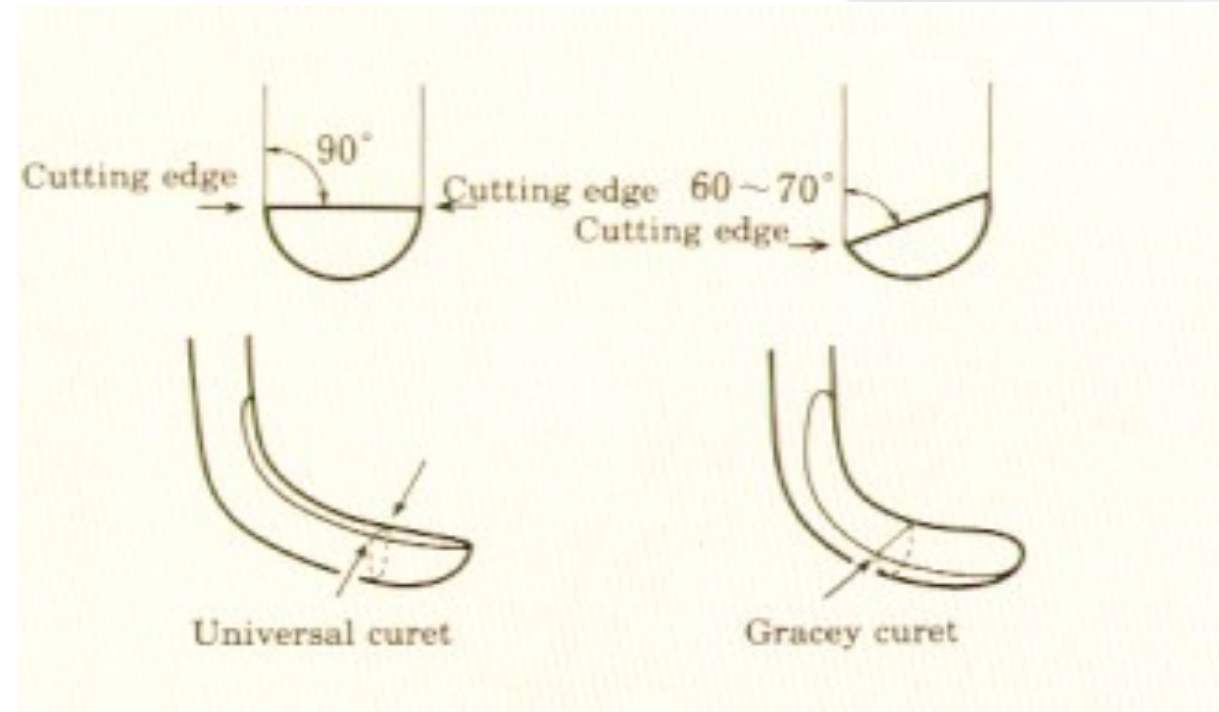
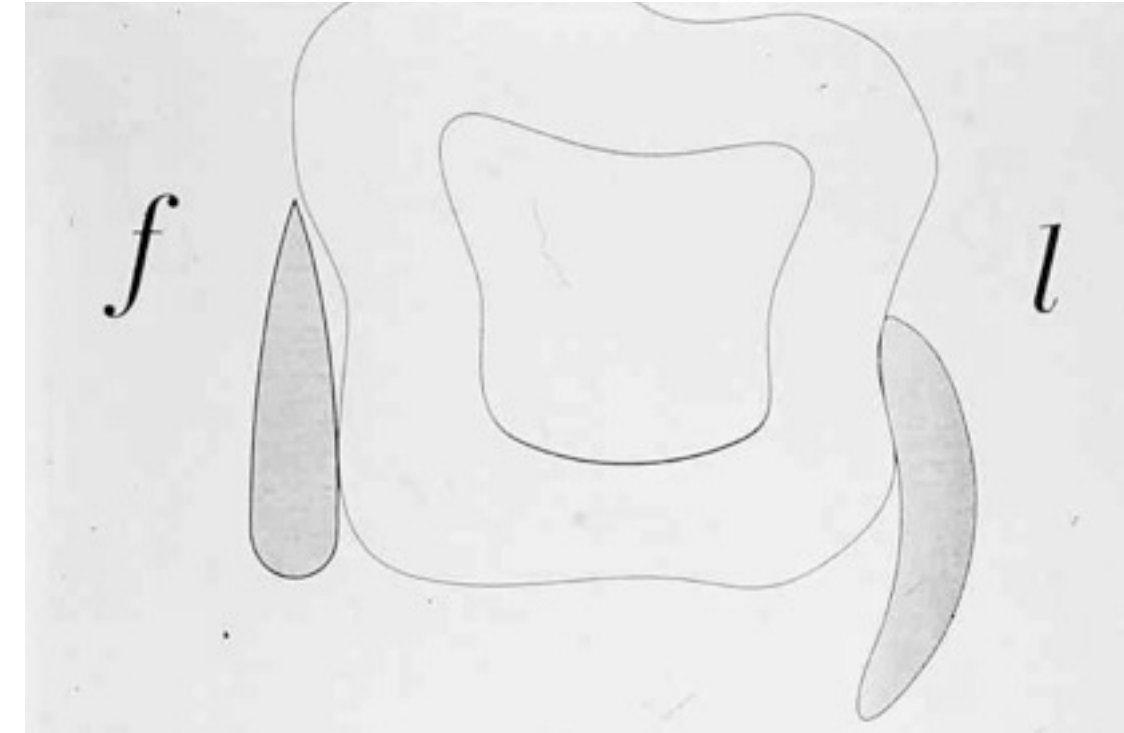
Scaling and Root Planing



Curet



Sickle scaler



Universal curet

Gracey curet

Instrument Sharpening

Sharp:

Fine line at the junction between face of blade and lateral surfaces running the length of the cutting edge
(does not reflect light)

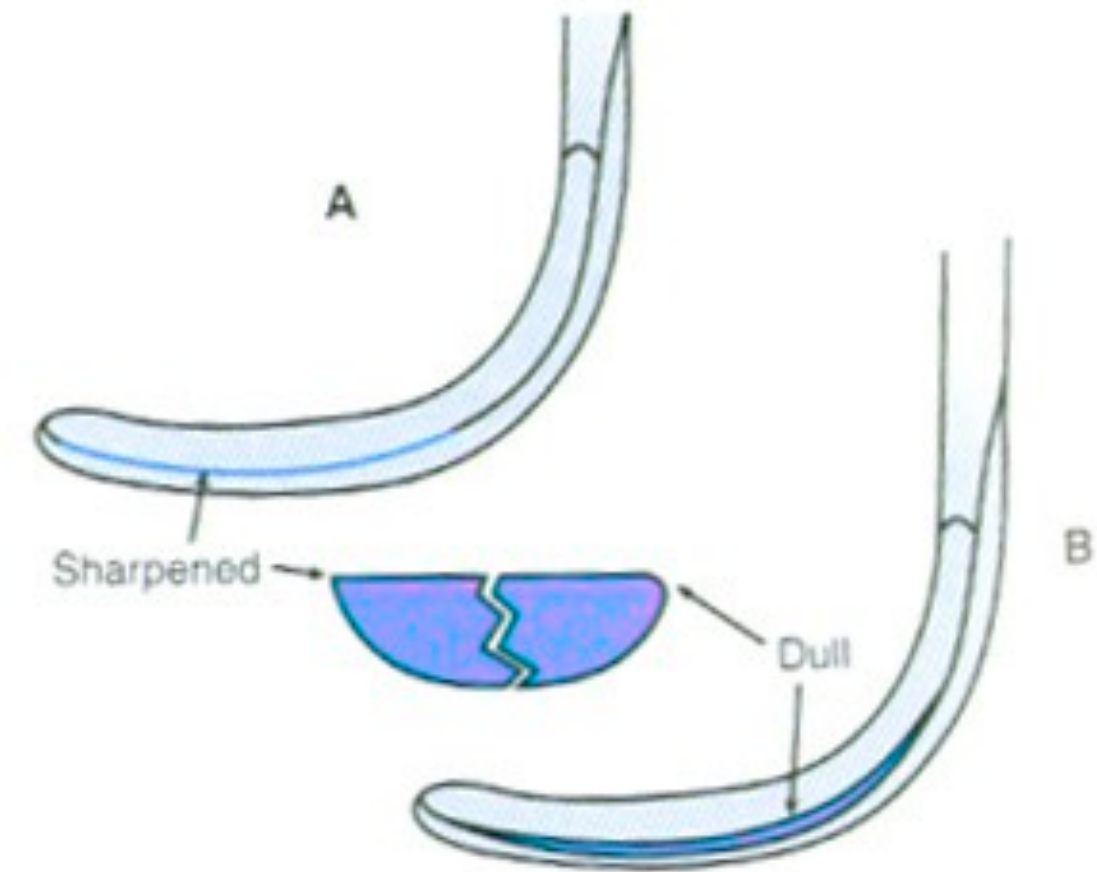
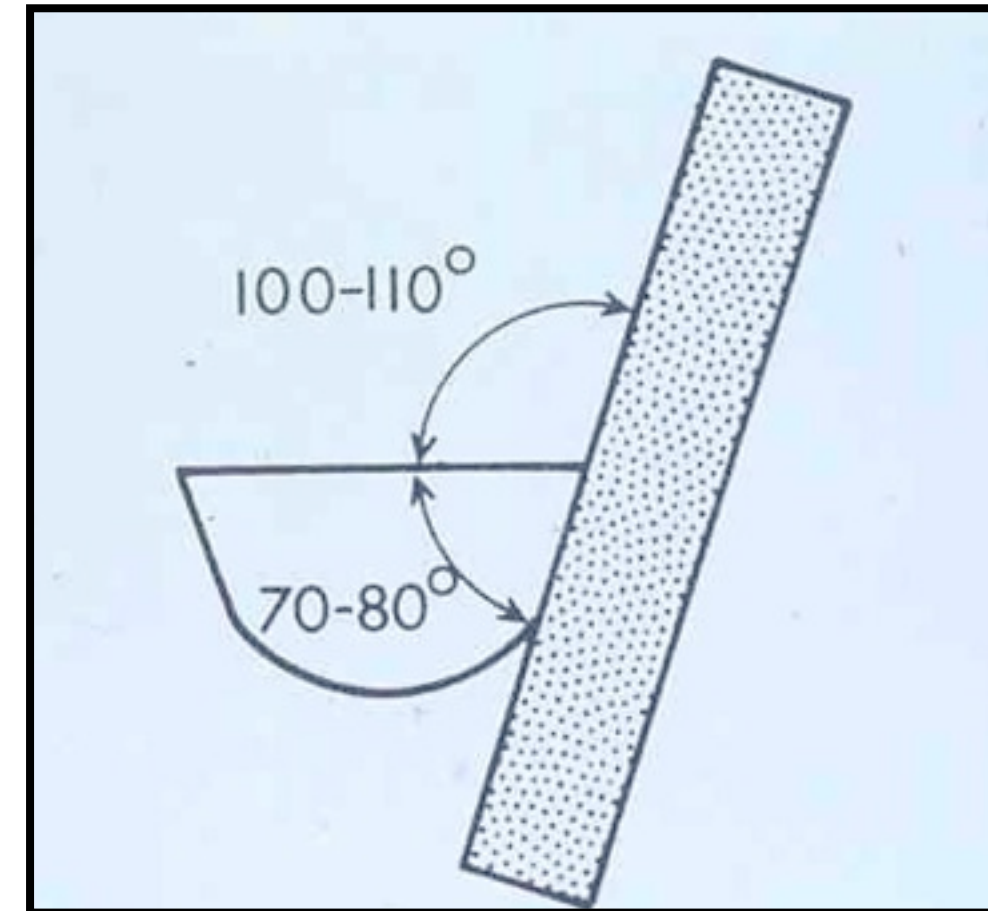


FIG. 8-2 A, A sharp cutting edge does not reflect light. B, A dull cutting edge appears as a bright area at the junction of the face and lateral surface.

Instrument Sharpening

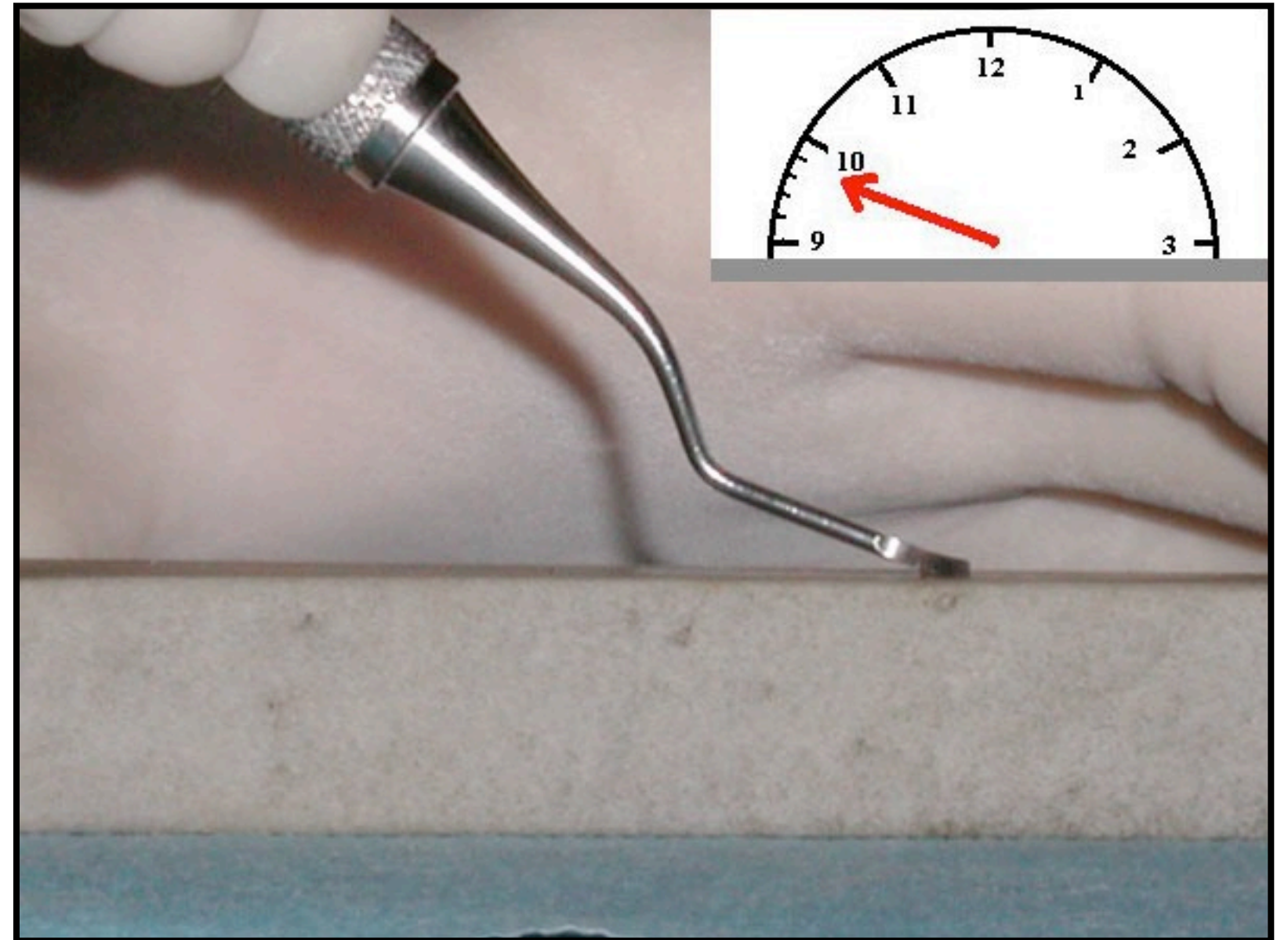
The angle between the face of the blade and the lateral surface of any curette is 70 to 85 degrees

Proper technique maintains a 100 to 110 degrees angle between the face of the blade and the surface of the stone.



Instrument Sharpening

- ☑ Maintain proper angle
- ☑ Use a controlled sharpening stroke
- ☑ Avoid excessive pressure
- ☑ Lubricate the stone
- ☑ Sharpen instruments at the first sign of dullness

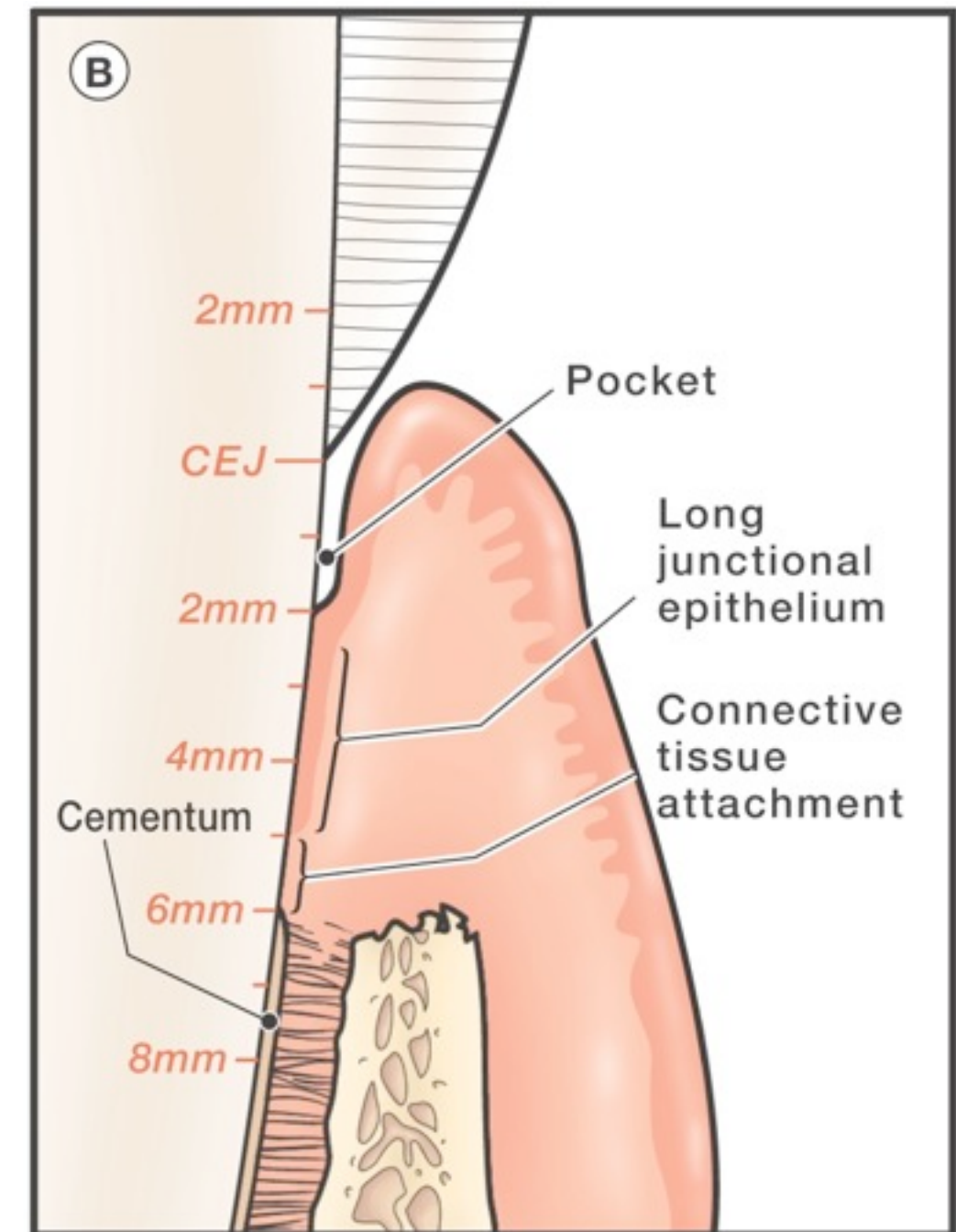


Non-surgical Therapy

Healing after SRP:

Pocket reduction due to gingival **recession**
after 1 week

Pocket reduction due to **gain of attachment**
after 3 weeks



Proyes 1981

Non-surgical Therapy

So... when should a re-eval appointment be?



Non-surgical Therapy

Tissue healing does not occur overnight, and in most cases, it is not possible to assess true tissue response for **at least one month after the completion of instrumentation.**

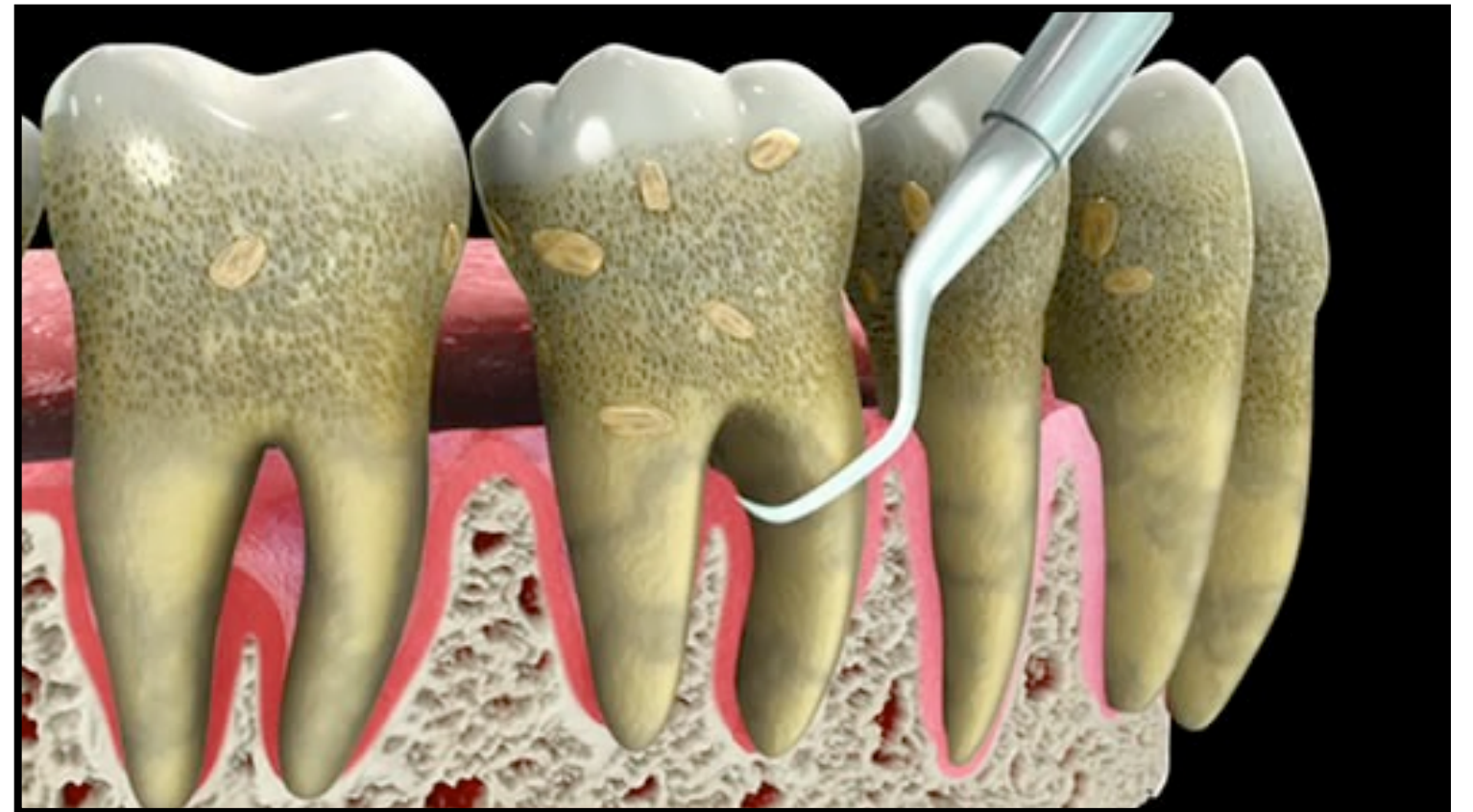


Non-surgical Therapy

The chances of removing all of the subgingival plaque are good if the pocket depth are **<3 mm**.

If the pocket depth range **from 3 to 5 mm** the chances of failure are greater than chances of success.

If the pocket depth is **>5 mm** the chances of failure dominate.



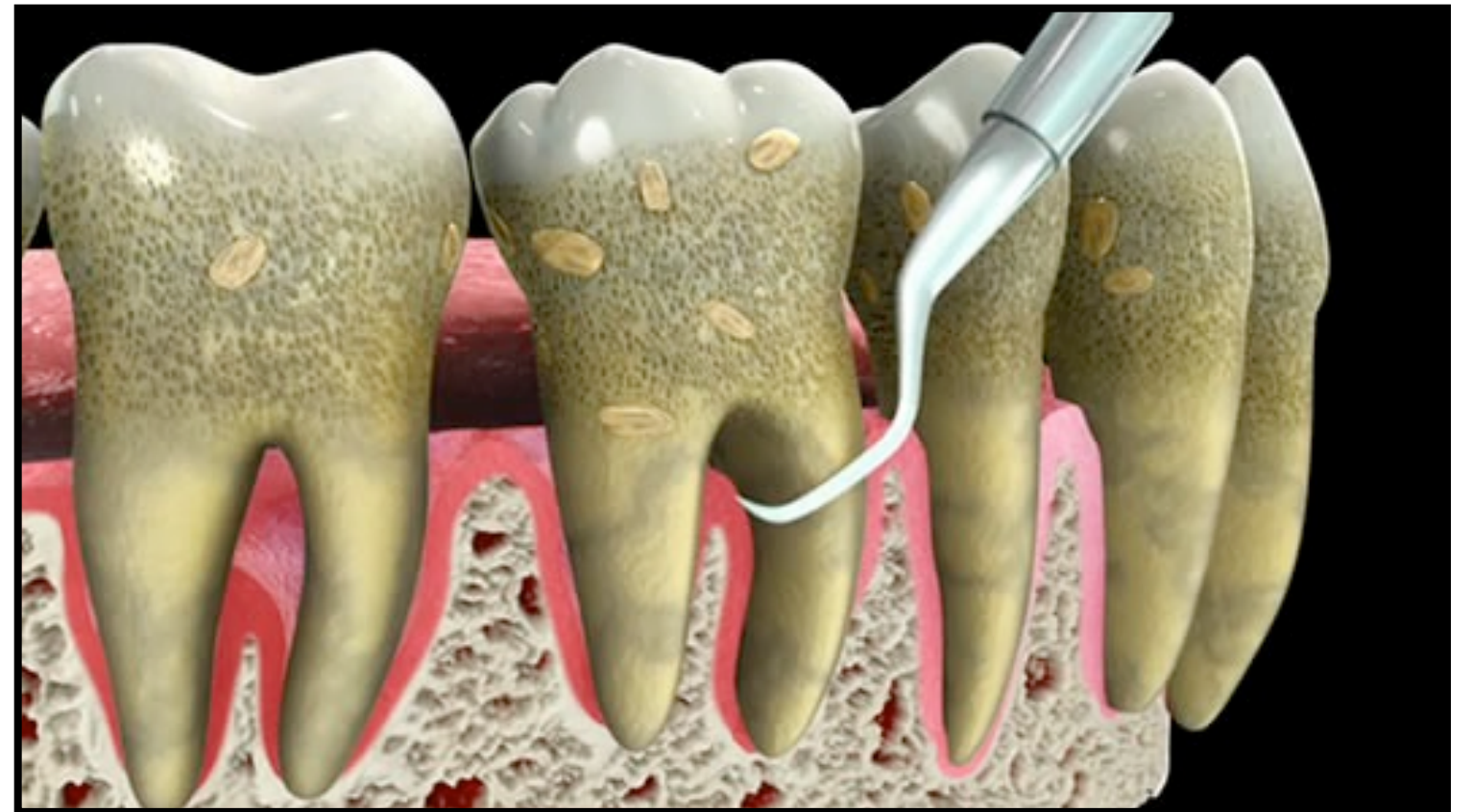
Non-surgical Therapy

Roots were **completely free of calculus:**

86% when probing depths were 1-3 mm

43% when pockets were 4-6mm

32% when pockets were >7 mm



Caffesse 1986

Non-surgical Therapy

Reduction in initial PD and attachment levels.

1-3 mm

reduction in PD is 0.03mm

loss of attachment is 0.34mm

4-6 mm

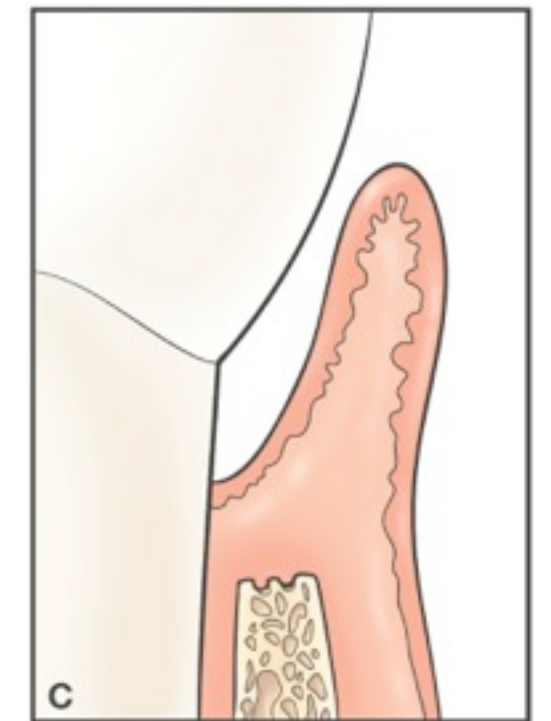
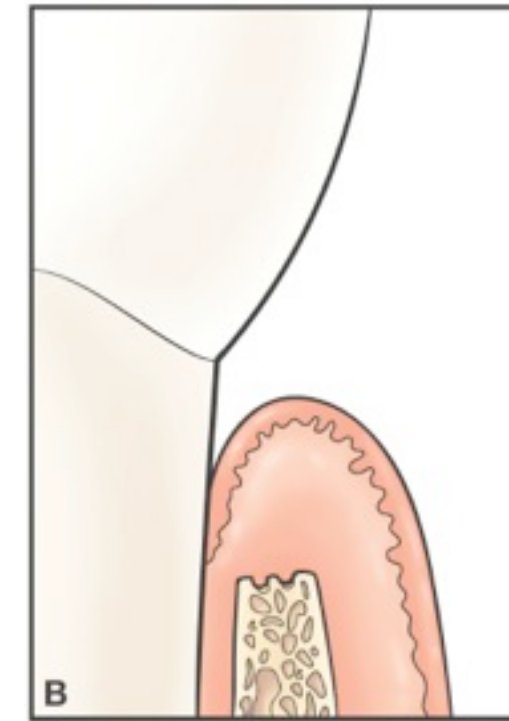
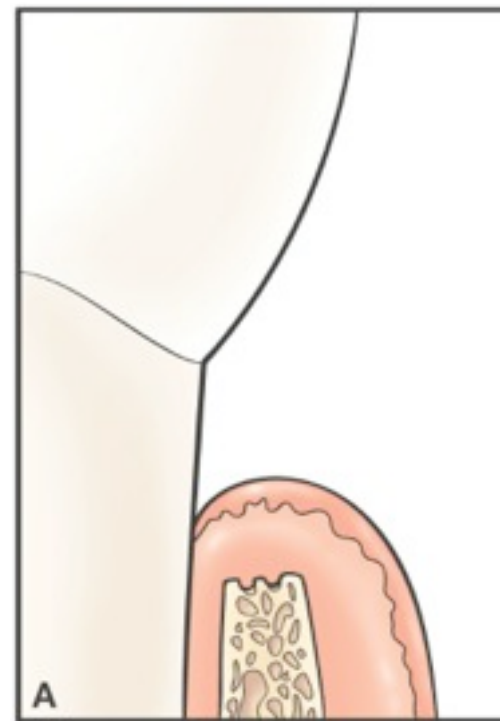
reduction in PD is 1.29mm

gain of attachment is 0.55mm

>7 mm

reduction in PD is 2.16 mm

gain of attachment is 1.19 mm



Cobb 1996

Non-surgical Therapy

What is the process of the reassessment appointment?

What are the reasons for a non-responsive area?



After Initial Therapy



Initial Situation



6 weeks after Initial Therapy

Dentinal Hypersensitivity

Dentinal Hypersensitivity:

The short, exaggerated, painful response elicited when exposed dentin is subjected to certain thermal, mechanical, or chemical stimuli.



American Academy of Periodontology
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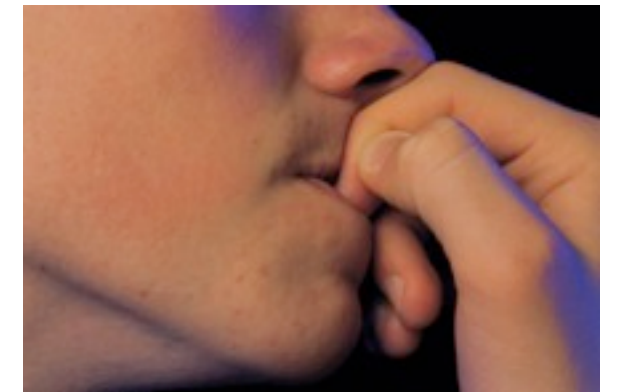
Dentinal Hypersensitivity

- Mechanical stimuli
 - Toothbrush bristles
 - Fingernail
- Thermal stimuli
 - Ice cream
 - Iced tea
- Chemical stimuli
 - Grapefruit



Dentinal Hypersensitivity

- Associated with exposed dentin
- Due to recession of gingival margin that normally covers the dentin
- May be localized or generalized
- Not all recession is hypersensitive.



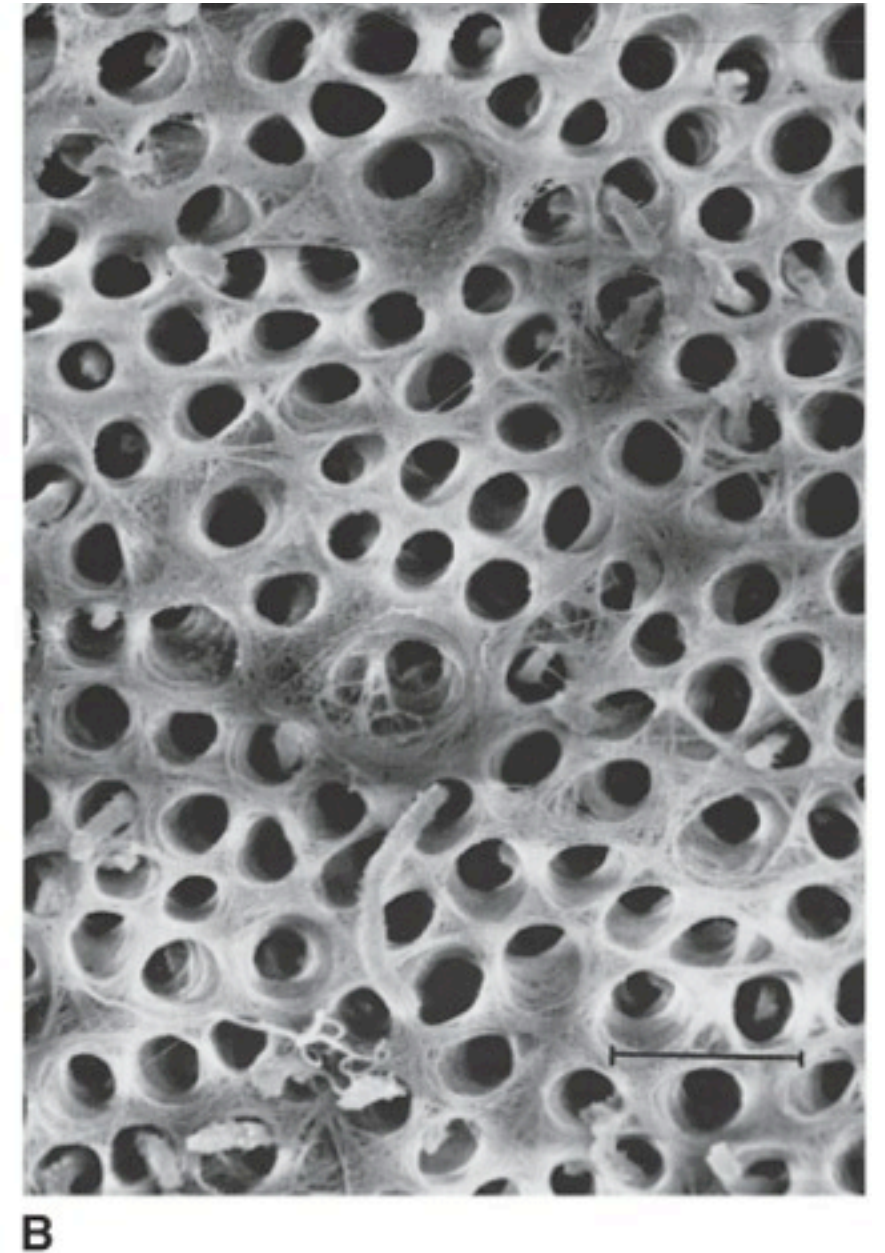
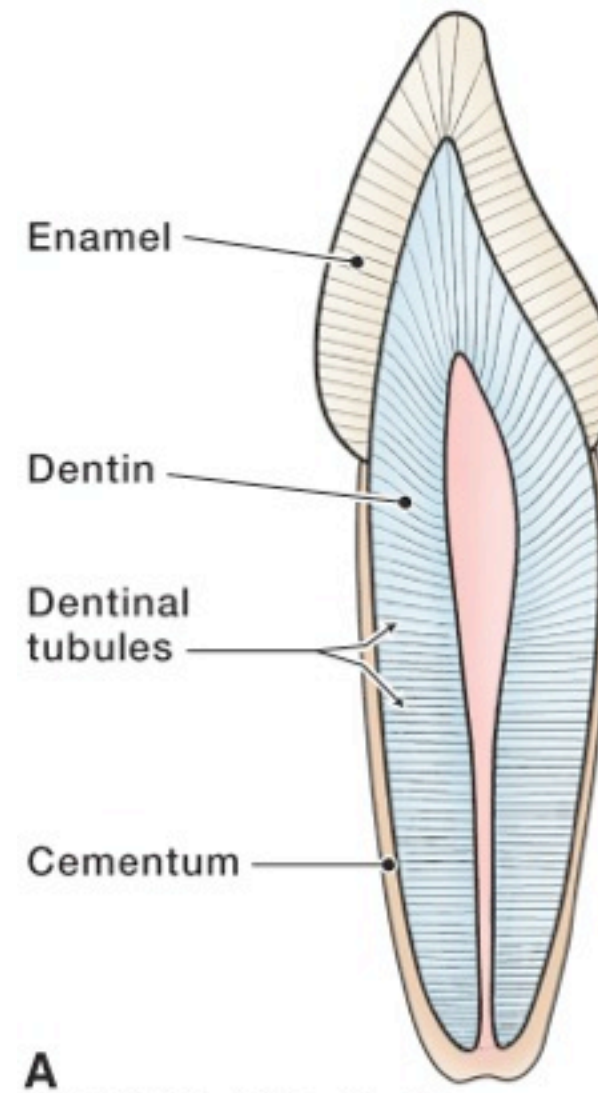
Dentinal Hypersensitivity

Dentinal tubules penetrate the dentin.

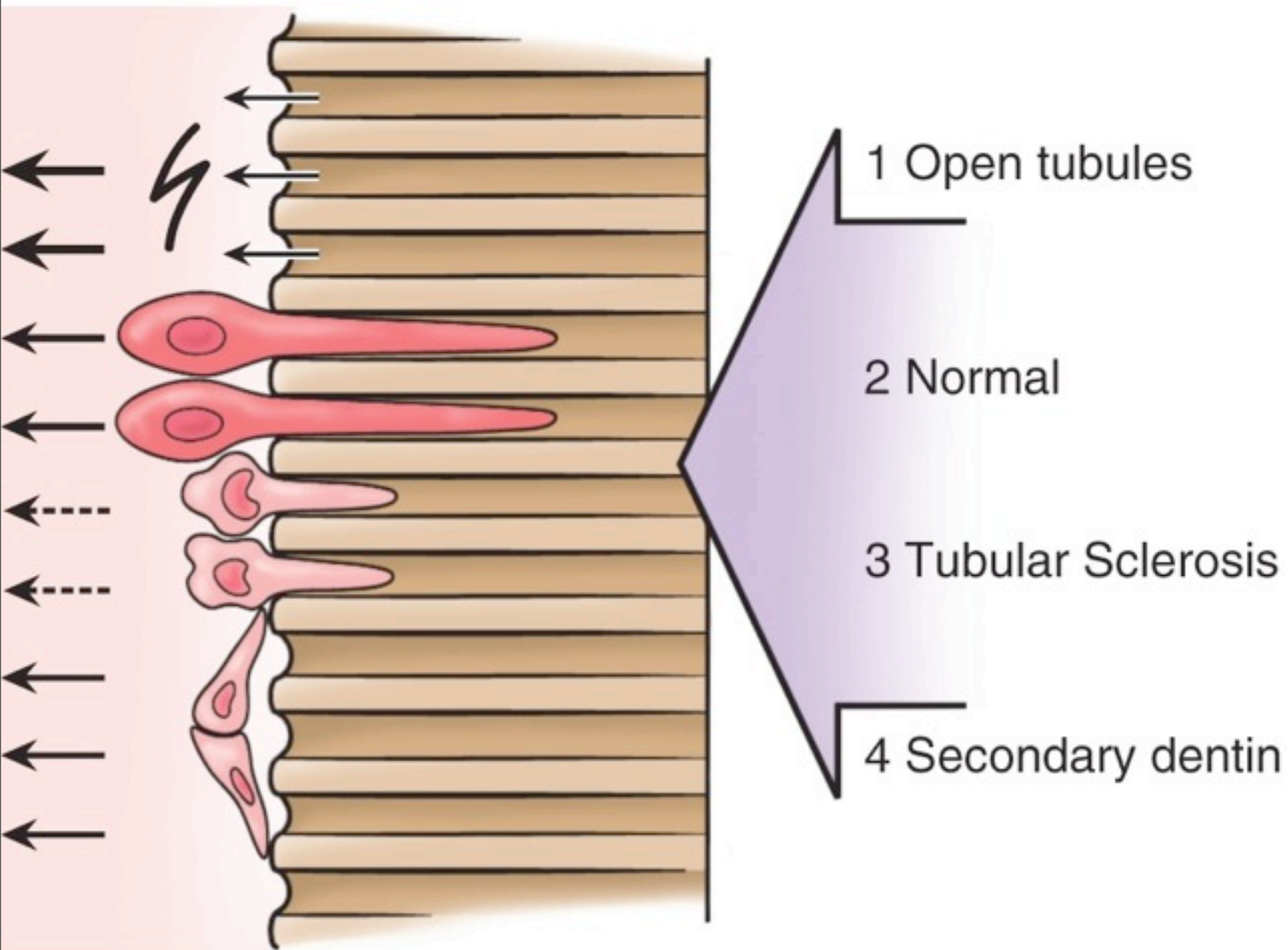
Tubules are long miniature tunnels extending through the dentin.

Tubules are partially filled with cytoplasm from pulp cells.

Changes in temperature create hydrodynamic forces in fluid-filled tubules that stimulate nerve endings.



Dentinal Hypersensitivity



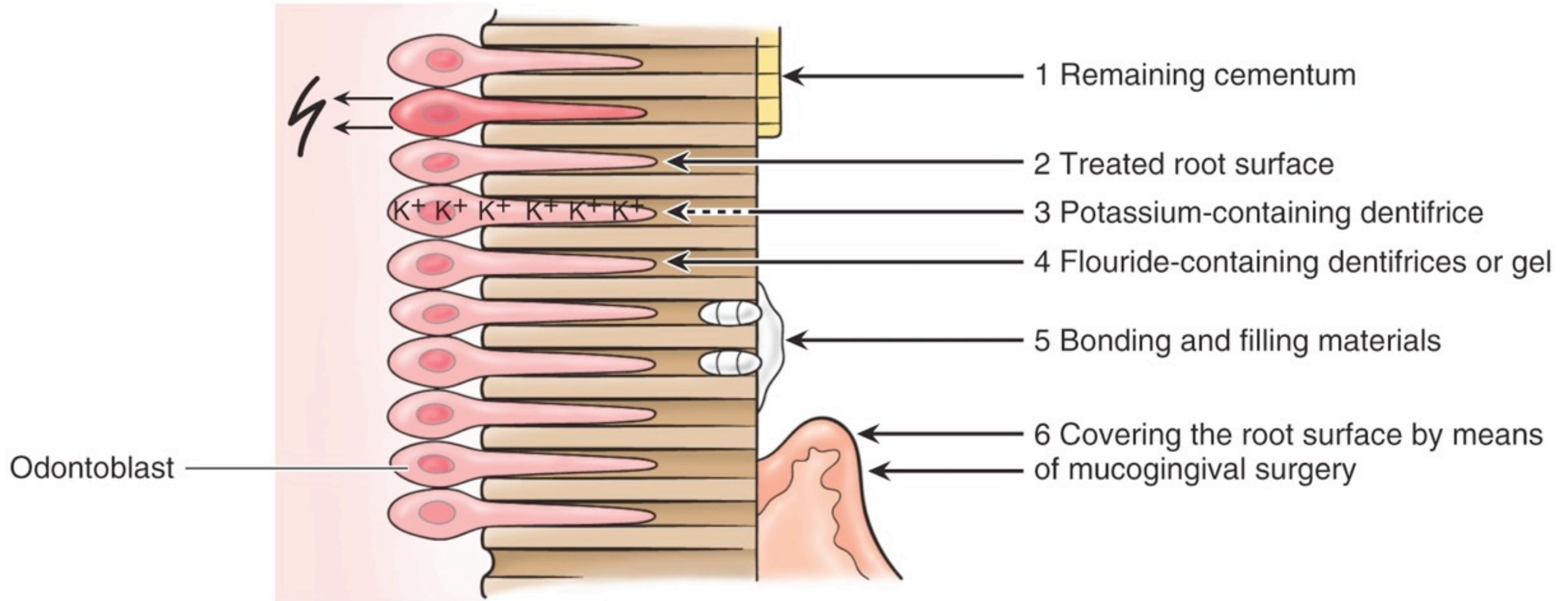
Instrumenting areas with existing hypersensitivity may result in sharp pain.

Local anesthesia may be necessary.

Most instrumentation of root surfaces does not cause dental hypersensitivity.

The **smear layer** is crystalline debris from the tooth surface that covers dentinal tubules inhibiting fluid flow, thus preventing sensitivity.

Dentinal Hypersensitivity



Dentinal Hypersensitivity

Management of patients undergoing nonsurgical periodontal therapy includes **warning patients** about the possibility of hypersensitivity **before** beginning any **treatment**.



Take Home Message

- ☑ Must determine what is the outcome you want for your patient - resective or regenerative therapy
- ☑ Non-surgical therapy can be effective
- ☑ There are patients and sites where non-surgical therapy may not be effective.
- ☑ This must be recognized at the **re-evaluation visit**



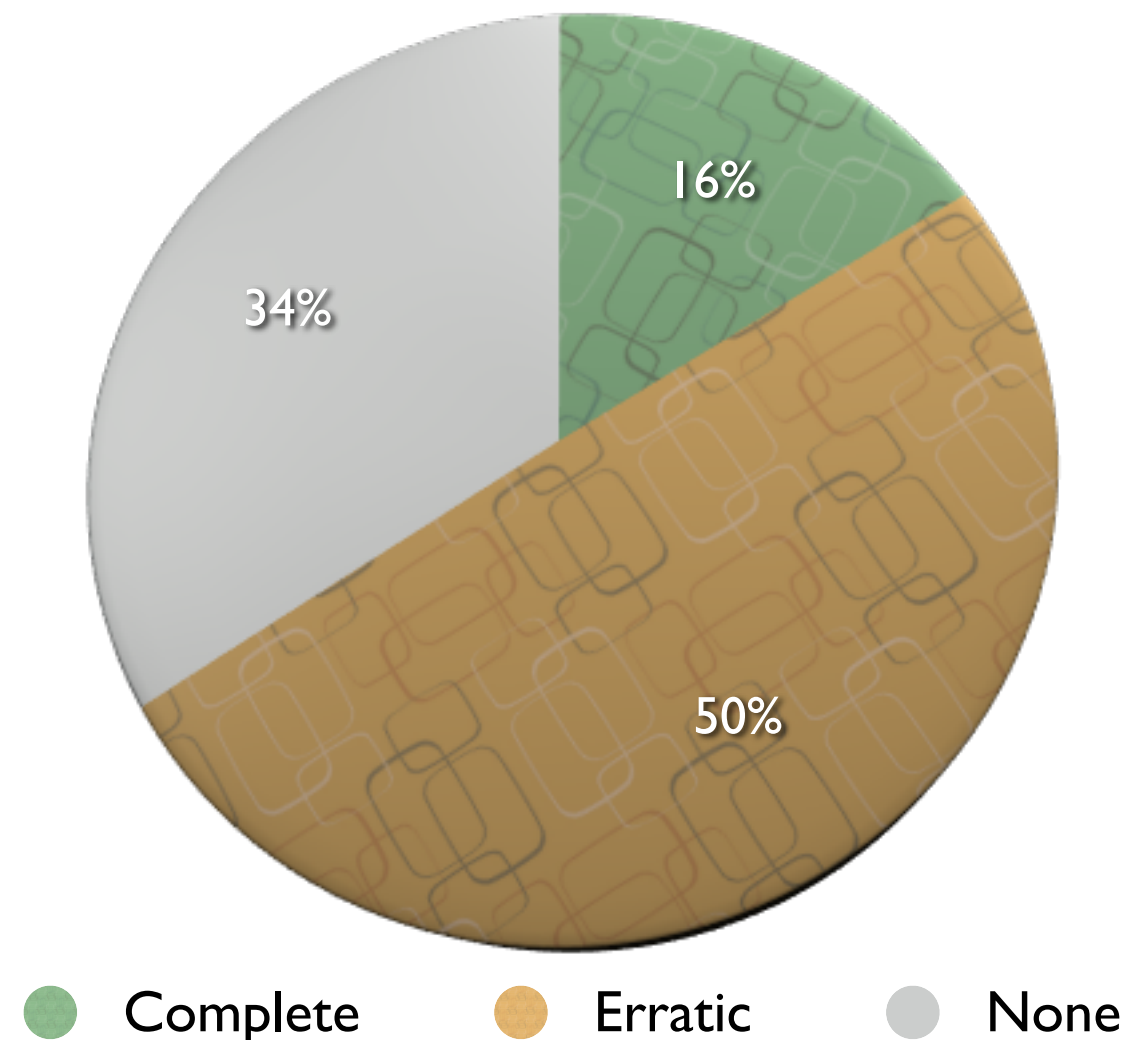
Take Home Message

Plaque-associated gingivitis	→	Surgery usually not indicated
Slight chronic periodontitis	→	Surgery usually not indicated
Moderate chronic periodontitis	→	Surgery sometimes indicated
Severe chronic periodontitis	→	Surgery usually indicated



Take Home Message

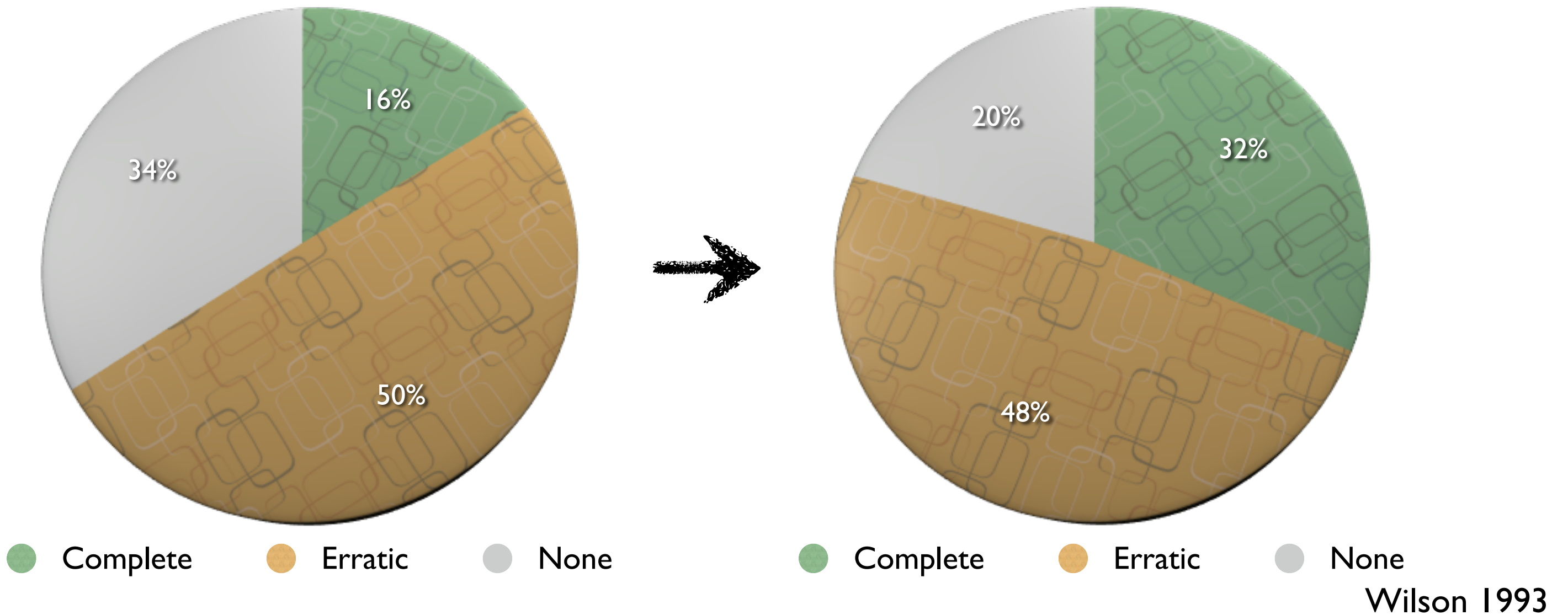
Long-term success is based on the patient's compliance.



Wilson 1987

Take Home Message

Long-term success is based on the patient's compliance.



Take Home Message

Methods to increase compliance:

- Accommodating patient's schedule.
- Communication with referring dentists.
- Making an appointment during the previous visit.
- Sending reminder card.
- Notifying the patient if failed to keep an appointment.
- Patient education explaining the need of maintenance.

Review Questions

1. Which of the following is NOT a goal of nonsurgical periodontal therapy?

- A. Minimize the bacterial challenge to the patient
- B. Eliminate the need for daily self-care
- C. Stabilize the attachment level on the teeth

2. Successful periodontal debridement always results in the complete removal of all cementum from a root surface exposed due to clinical attachment loss.

- A. True
- B. False

3. The end point for periodontal debridement is which of the following?

- A. Return of soft tissue health
- B. Increased pigmentation of the gingiva
- C. Decreased need for daily self-care

4. The type of healing that occurs following successful root instrumentation is a long junctional epithelium.

A. True

B. False

5. Pain caused by dentinal hypersensitivity can result from mechanical, thermal, or chemical stimuli.

A. True

B. False

6. Management of mild dentinal hypersensitivity following nonsurgical periodontal therapy can include all of the following EXCEPT:

A. Meticulous efforts at daily self-care

B. Using chemical agents in toothpastes to occlude (block) dentinal tubules

C. Applying acidic solutions to the exposed tooth roots

7. When considering a decision for referral to a specialist in periodontics which of the following types of patients should normally be referred?

- A. Patients with moderate plaque-induced gingivitis
- B. Patients with slight chronic periodontitis
- C. Patients with severe aggressive periodontitis

Thank You!