### **CLEANING AND SHAPING**

### **OBJECTIVES I**

- Cleaning (Débridement)
  - Technique
  - Limitations
  - Criteria

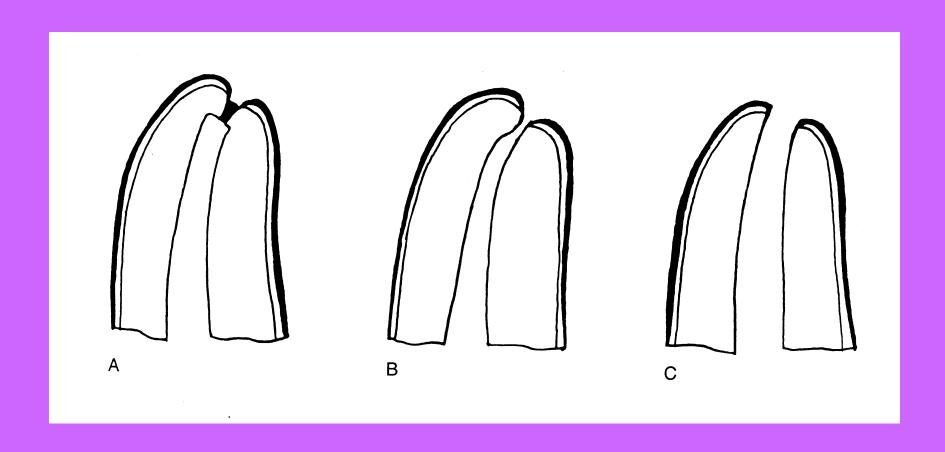
### **OBJECTIVES II**

- Shaping
  - Enlargement
  - Taper
  - Criteria

# Master Apical File Determination

# **Apical Preparation**

- Variations
  - Apical Stop
  - Apical Seat
  - Open Apex
- Criteria

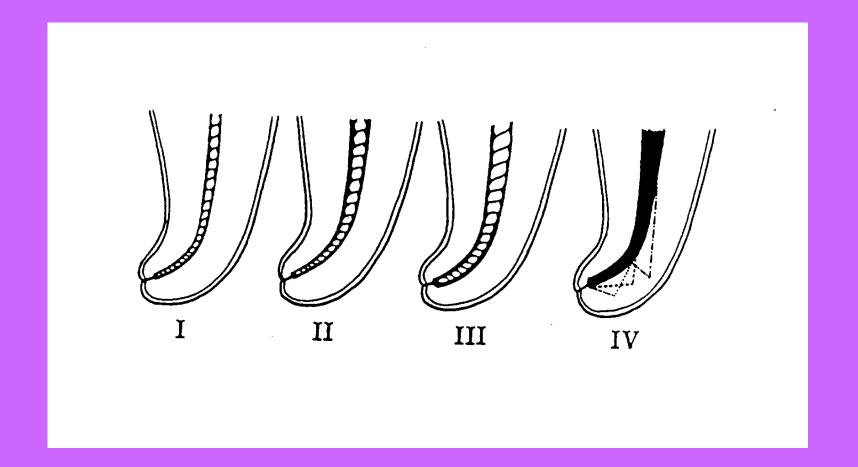


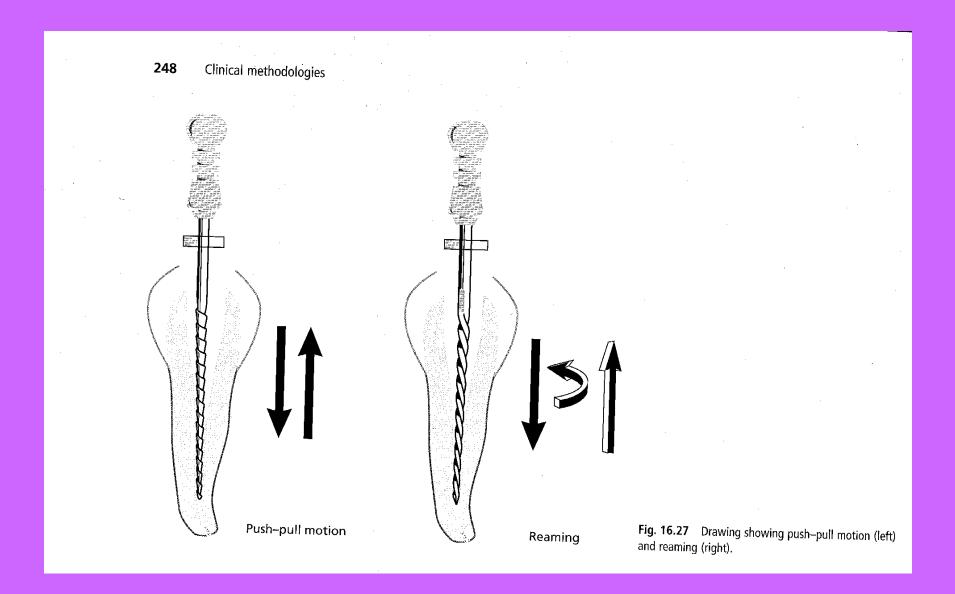
## **TECHNIQUES I**

- Pulp Extirpation
  - Bulk Removal
  - Technique

## TECHNIQUES II

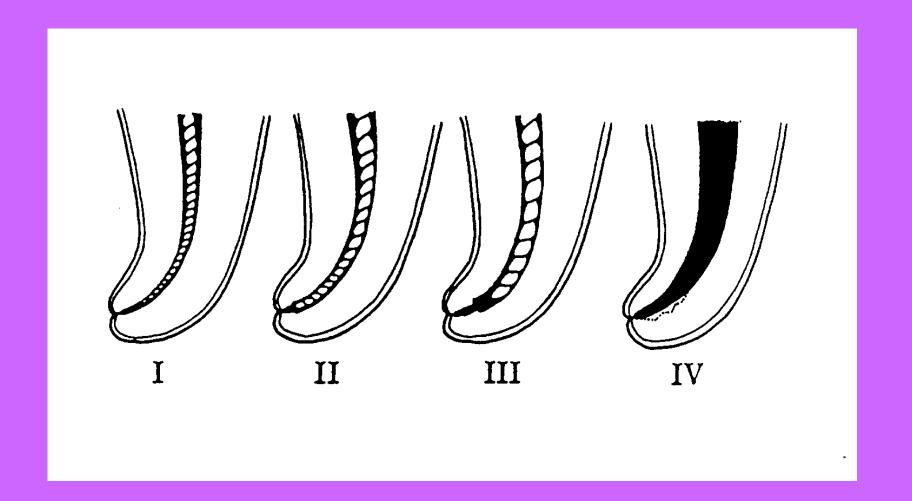
- Standardized Preparation
  - Objective
  - Method

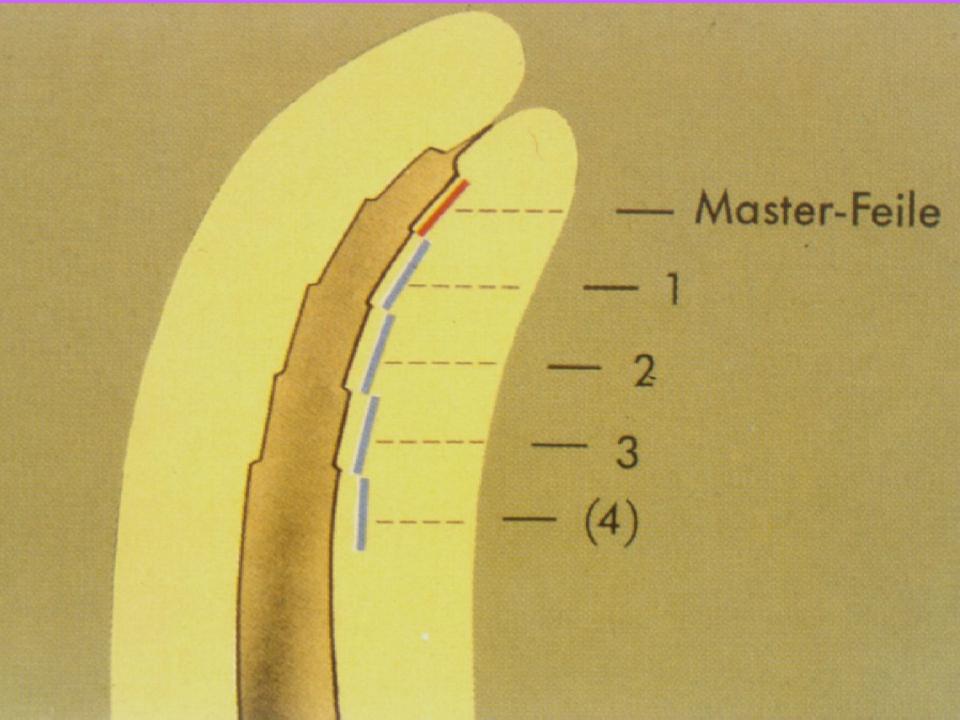


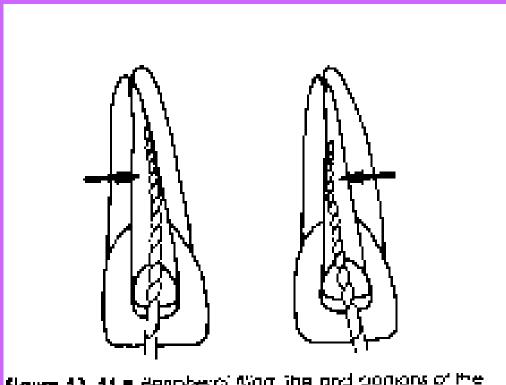


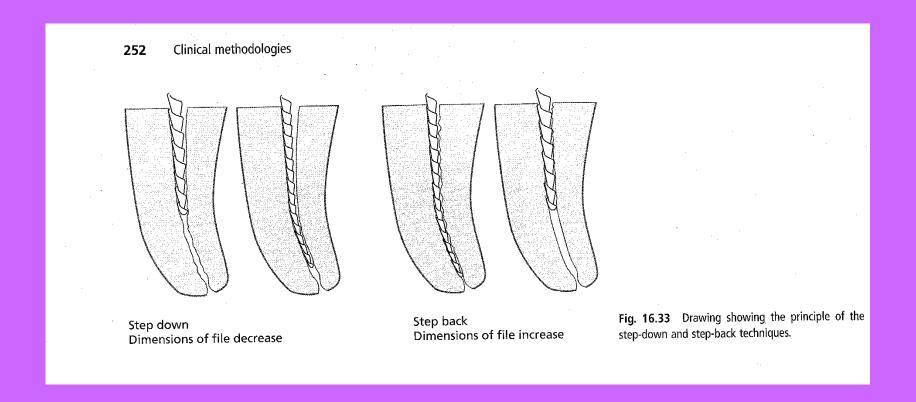
#### TECHNIQUES III

- Flaring preparations: Step-Back Preparation
  - Objective
  - Method
    - Initial Apical Preparation
    - Taper
    - Recapitulation
    - Irrigation
    - Size of Preparation
    - Final Apical Enlargement
  - Crown-down









#### **TECHNIQUES IV**

- Passive step-back
  - Instruments
  - Clinical techniques and rationale(six steps).
  - Evaluation criteria

#### **TECHNIQUES V**

- Apical Clearing
  - -Final Apical Enlargement
  - Dry Reaming

## **TECHNIQUES VI**

- Anatomic Aberrations
  - Types
  - Significance

## CHEMICAL ADJUNCTS

- Irrigation
  - -Irrigants
    - Properties of Ideal Irrigant
      - -Solutions
      - -Recommendation
    - Technique
      - -Needles
      - -Usage
      - -Safety

### CHEMICAL ADJUNCTS

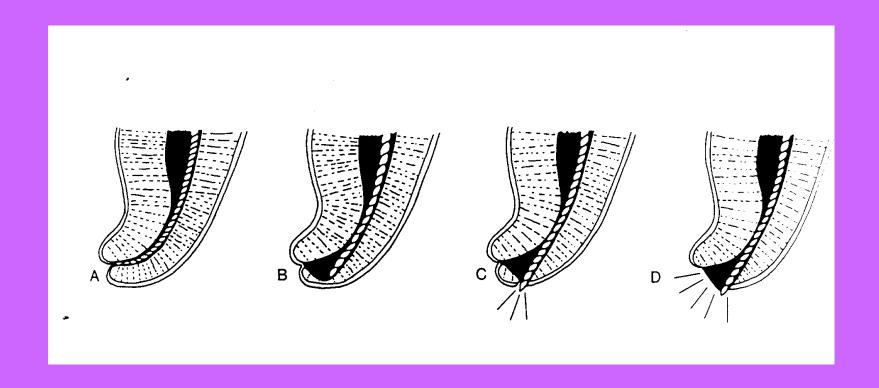
- Dentin Softening
  - Chelators
    - Types
    - Action
    - Effectiveness
  - Decalcifiers
    - Acids

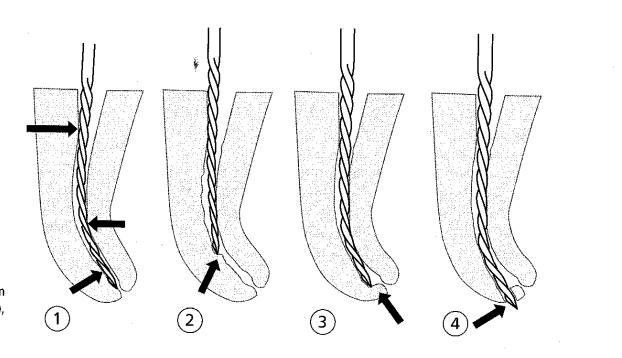
## CHEMICAL ADJUNCTS

- Lubricants
  - -Types
  - -Usage
- Desiccants

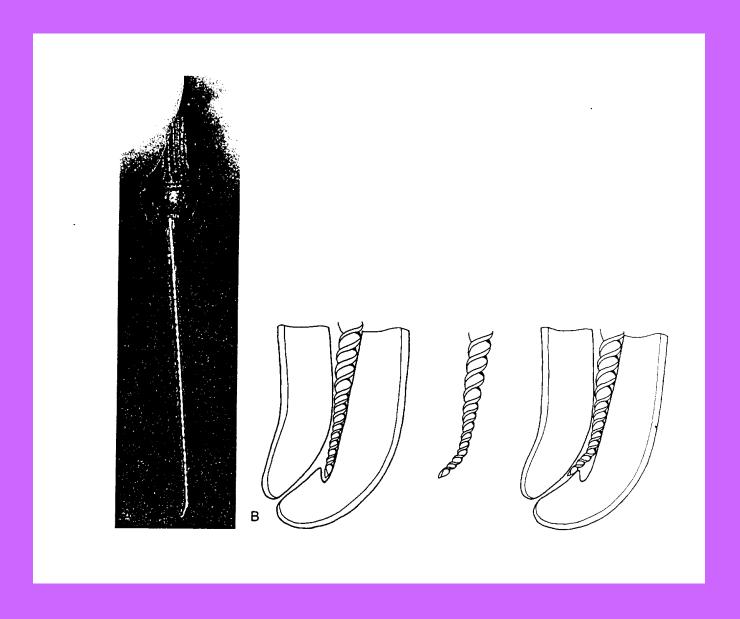
# AVOIDANCE OF PREPARATION ERRORS

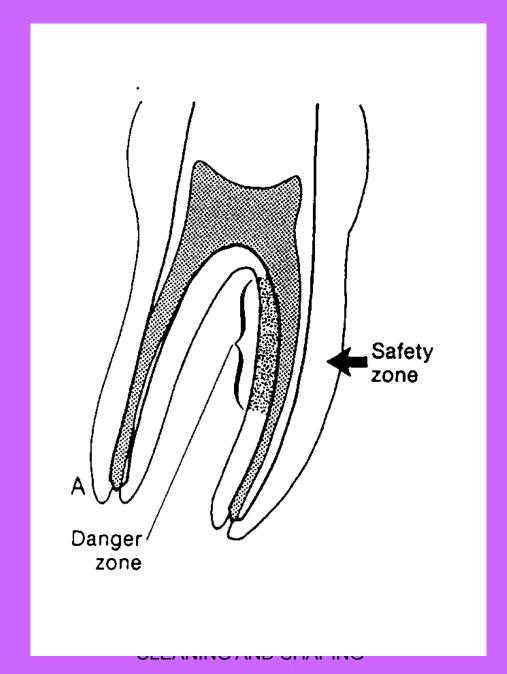
- Problems
  - Overinstrumentation
  - Ledge Formation
  - Zipping of the Apical Canal
  - Stripping perforation
- Prevention

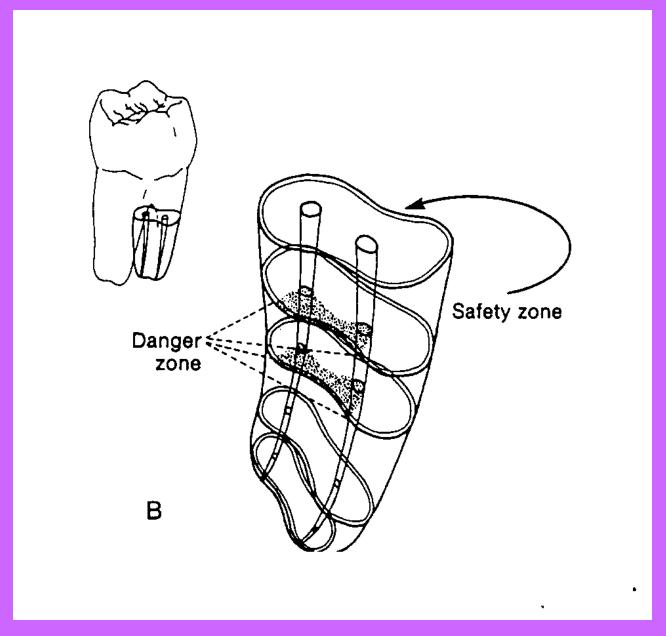




**Fig. 16.19** The stiff instrument tends to straighten within the canal (1), causing ledge formation (2), zipping (3) or perforation (4).

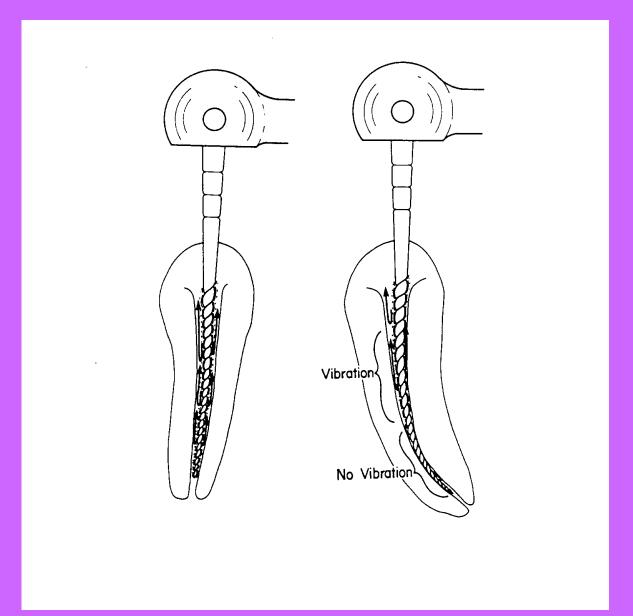


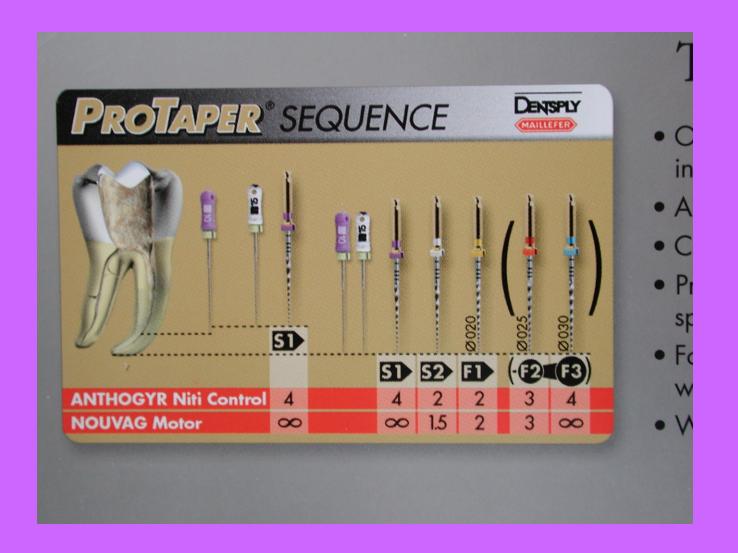


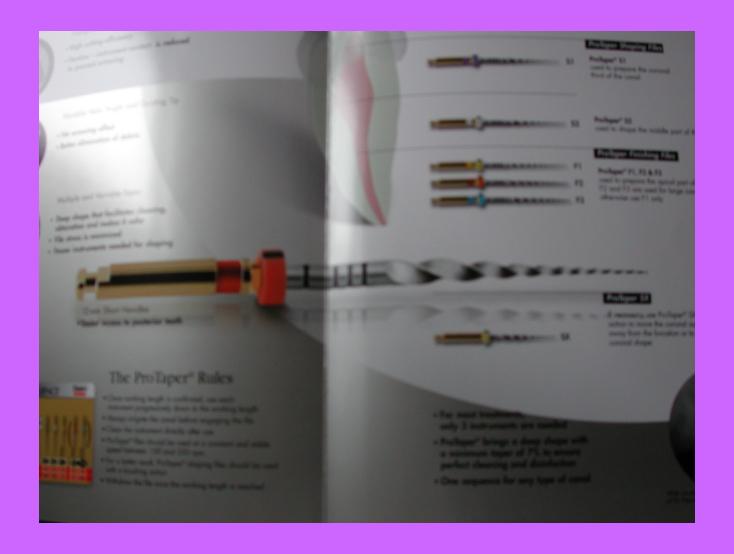


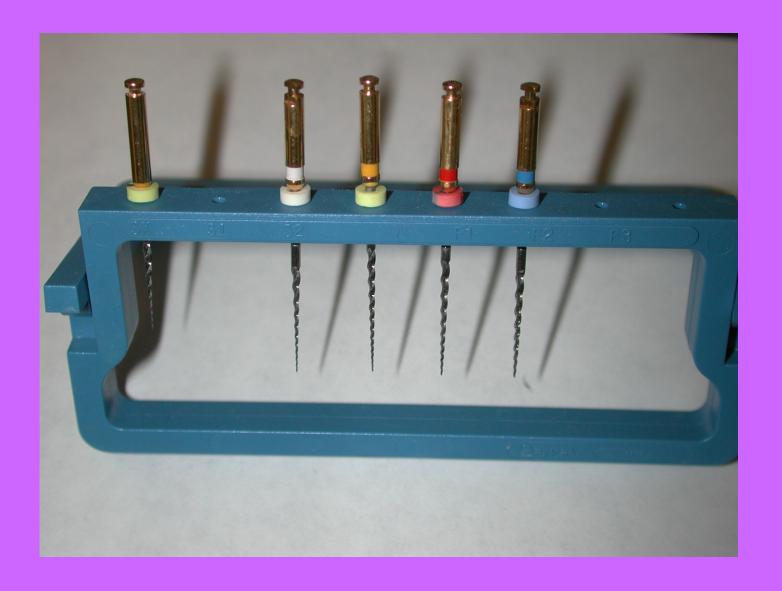
# ALTERNATIVE TECHNIQUES OF CLEANING AND SHAPING

- Balanced Forces
- Energizes vibratory systems
  - Ultrasonic instruments
  - Application
  - Effectiveness
  - Sonic instrumentation
- Engine-Driven Instruments









#### INTRACANAL MEDICAMENTS

- Chemical Classification
  - Phenolics
  - Fixatives
  - Steroids
  - Antibiotics
  - Combinations
  - Calcium Hydroxide
- Usage
  - Antibacterial Action
  - Pain Relief
  - Canal Contents Rendered Inert

#### INTRACANAL MEDICAMENTS

- Limitations and Contraindications
  - Intracanal Environment
  - Duration
  - Toxicity
  - Distribution
  - Taste and Smell

