

# Managing Non-Carious Cervical Lesions

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Quality Resource Guide



## INTRODUCTION

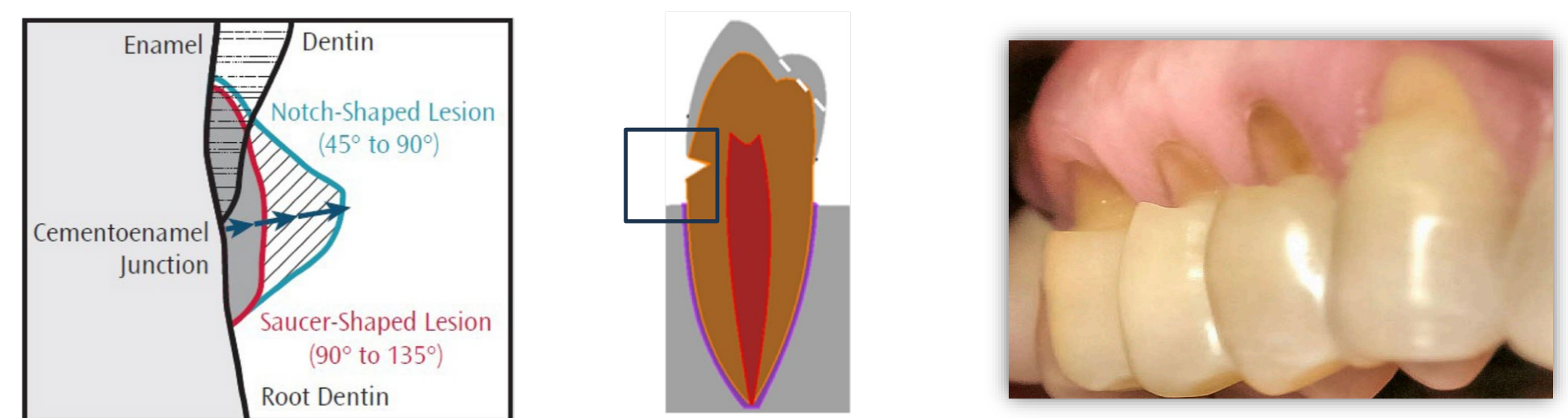
- ❑ *Non-Carious Cervical Lesions* (NCCLs) manifest as a loss of mineralized tooth structure near the gingival margin.
- ❑ They typically extend from the cemento-enamel junction (CEJ) onto the root surface and may negatively impact the dentition's structural integrity and esthetics.
- ❑ NCCLs form as smooth saucer-like depressions or V-shaped notches. Development generally progresses slowly over an extended period of time.

## Diagnostic Characteristics of NCCL

Characteristics	Descriptions
Shape	Rounded saucer or notch-shaped
Dimensions	Depth and width (< 2 mm)
The extent of dentin sclerosis	Mild to moderate
Sensitivity	No or mild sensitivity
Patient demographic information	Greater prevalence and severity in older patients
Most Common Tooth location	Maxillary premolars and molars

- The prevalence of NCCLs reported in population groups varies widely, ranging from as high as **90%** to as low as **10%**.
- NCCLs are most commonly found on facial surfaces, and studies have identified that maxillary premolars are the most affected teeth.
- NCCLs typically have a multifactorial etiology; traditional contributing factors were identified as:
  - **Abrasion** - usually attributed to excessive horizontal toothbrushing with stiff brushes and abrasive dentifrices

## Multiple NCCL lesions on the Maxillary Teeth



Schematics of a saucer-shaped non-carious cervical lesion that may progress toward a notch-shaped lesion. Left diagram - courtesy of the Journal of the American Dental Association

- **Erosion** - caused by consumption of acidic drinks and foods, gastroesophageal reflux disease, and medications or conditions that inhibit salivary flow
- **Occlusion** has been reported as a contributing factor; however, this remains controversial.
- **Abfraction** is discussed as a conceptual causative factor for NCCLs. However, no clinical evidence confirming anything other than association observations has been published.

## Prevention Protocol for Managing NCCLs

- ✓ The objectives of a preventive protocol are to stabilize existing NCCLs, prevent the progression of incipient lesions or the development of new ones, and assure the stability of restored lesions.
- ✓ Minimize intrinsic and extrinsic factors
- ✓ Initiate toothbrushing (soft bristles) with a fluoride-containing (low abrasive) dentifrice.

## OBJECTIVES

Following this unit of instruction, the learner should be able to:

- ✓ Discuss the risk factors of NCCLs.
- ✓ Analyze the diagnostic characteristics of NCCLs.
- ✓ Outline management approaches for NCCLs.
- ✓ Discuss the factors to consider when initiating a preventive protocol for NCCLs.
- ✓ Implement the clinical guidelines for restoring NCCLs.

## Restorative Therapy for NCCLs

- ✓ The clinical performance of Class V composite resin restorations demonstrate superior esthetic and clinical outcomes compared to restoration with glass ionomer cement or polyacid-modified composite resins. Composite resin restorations are thus widely recommended for restoring NCCLs as an effective method for preventing further deterioration.
- ✓ Goodacre et al., attempting to assist clinicians by assessing available evidence, have recently published *Proposed Clinical Guidelines for Restoring NCCLs*.

## Assessing and Managing NCCLs: Clinical Decision-Making

There is always a dilemma associated with the management of NCCLs; "when to monitor or when to restore.?" The clinician must assess the potential contributing factors to a patient's NCCLs before initiating a management plan.

- ❖ **Preventive Protocol** – adjust potential causative agents - introduce medicaments and agents to arrest or slow down progression – monitor carefully
- ❖ **Restorative Therapy** – replace missing tooth structure with a restorative material - monitor carefully

## CONCLUSION

- The dental provider must address the existing clinical condition. Generally, *restorative intervention* is typically best delayed as long as possible.
- A *preventive approach* should focus on adjusting potential causative agents, introducing medicaments and agents to arrest or slow down progression, and careful monitoring.
- If restoration is considered prudent, the *Proposed Clinical Guidelines for Restoring NCCLs* should be followed.