

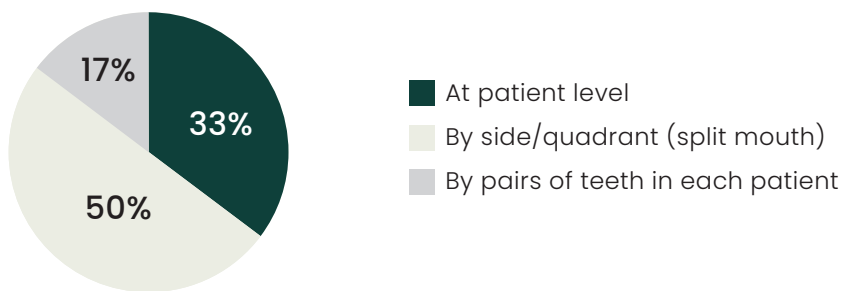


## Curodont Repair (CR) leads to arrest and shrinkage of early caries lesions.

### RESULTS

The systematic review and meta-analysis of 6 randomized controlled trials (RCTs) found that CR is a promising treatment for initial carious lesions. In total, the outcomes for 132 carious lesions treated with CR were assessed and compared with a parallel group.

#### Randomization in included studies



#### Results for assessed outcomes

##### Caries arrest



The use of CR, both alone and with fluoride varnish, led to a large increase in caries arrest.

##### Cavitation



The use of CR is related to a large reduction in the progression of lesions towards cavitation.

##### Lesion size



CR shrinks initial carious lesions.

No studies reported any adverse esthetic change, such as **discoloration or staining**.

### STUDY ESSENTIALS



6 RCTs in systematic review  
5 RCTs combined for meta-analysis

#### How can you use these results in your practice?

- CR is proven to be a viable treatment option for early caries that not only arrests initial caries but also prevents cavitation and reduces the sizes of lesions.
- This easy and quick treatment can be performed by dentists and hygienists and can be done within 10 minutes with no associated adverse effects.

## STUDY INFORMATION

**Title:** Systematic review and meta-analysis on the effect of self-assembling peptide P11-4 on arrest, cavitation, and progression of initial caries lesions\*



**Products/Treatments Tested:** Curodont REPAIR (CR)



**Scope & Methodology:** A literature search on PubMed and EMBASE identified 193 relevant articles. Articles compliant with the criteria developed by the ADA Center for Evidence-Based Dentistry were included in this study.

**INCLUSION CRITERIA:**

**Participants:** Patient of any age with initial, non-cavitated carious lesions in at least 1 permanent tooth

**Intervention:** Topical application of CR

**Comparisons:** Placebo, fluoride varnish, or no intervention

**OUTCOMES ON WHICH RESULTS WERE REPORTED:****Primary outcomes:**

- Caries arrest
- Cavitation (including restoration)

**Secondary outcomes:**

- Decrease in merged ICDAS scores
- Lesion size by radiography or digital photography (continuous measures)



**Conclusion:** This systematic review and meta-analysis provides evidence that **CR is effective** for **arresting** initial, non-cavitated caries lesions and **reducing lesion size**. CR is a valuable addition to the pharmacopeia for the most common disease in humans, caries.

**References**

\*Keeper JH, Kibbe LJ, Thakkar-Samtani M, Heaton LJ, Desrosiers C, Vela K, Amaechi BT, Jablonski-Momeni A, Young DA, MacLean J, Weyant RJ, Zandona AF, Sohn W, Pitts N, Frantsve-Hawley J. Systematic review and meta-analysis on the effect of self-assembling peptide P11-4 on arrest, cavitation, and progression of initial caries lesions. J Am Dent Assoc. 2023;154:580-591.e11.

**Supporting studies:**

1. Doberdoli D et al. Randomized Clinical Trial Investigating Self-Assembling Peptide P11-4 for Treatment of Early Occlusal Caries Sci Rep 2020;10:4195
2. Alkilzy M, Tarabaih A, Santamaria RM, Splieth CH. Self-assembling Peptide P11-4 and Fluoride for Regenerating Enamel. J Dent Res. 2018;97:148-154.
3. Sedlakova Kondelova P, Mannaa A, Bommer C, Abdelaziz M, Daeniker L, di Bella E, Krejci I. Efficacy of P11-4 for the treatment of initial buccal caries: a randomized clinical trial. Sci Rep 2020;10:20211