

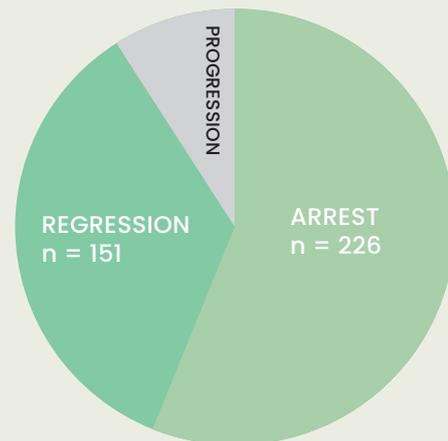
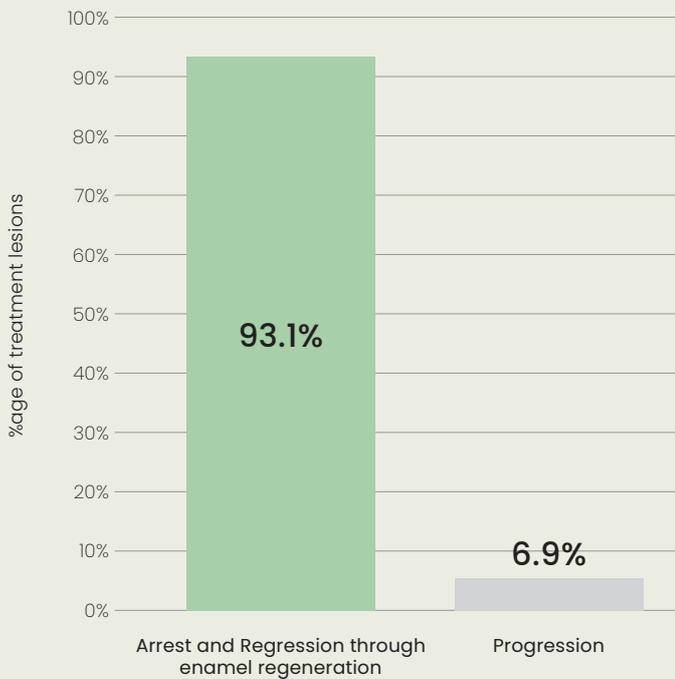


Curodont™ Repair (CR), followed by Curodont™ Protect (CP), leads to 93% success rate defined as arrest and regression of early (proximal) caries through enamel regeneration with up to 6 years clinical follow up

## RESULTS

93% clinical success (377/405 lesions) in caries management was demonstrated in a retrospective cohort study in Switzerland involving 219 adolescents aged 10 -19 years. 405 early proximal-surface caries lesions treated with CR and followed up with CP were analyzed through bite-wing X-rays. Clinical follow up was obtained for up to 6 years.

### CHANGES AT LAST FOLLOW UP COMPARED TO BASELINE



151 lesions (37%) regressed to a smaller stage, the vast majority regressed 1 stage (145 lesions, 95%), while 8 lesions regressed 2 stages (from RA3 to RA1 and from RA2 to no radiolucency).

## STUDY ESSENTIALS



219 children aged 10 - 19 years



Retrospective cohort study



0.4 - 6 years



Schulzahnklinik, Chur, Switzerland

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

CR and CP are an ideal combination to treat initial caries lesions in children, remineralizing to the depth of the lesion over time. This treatment poses no risk and high regeneration benefit. The introduction of CR and CP in routine dental practice is clearly feasible and advantageous for both the clinic and the patient.

## STUDY INFORMATION

**Title:** Remineralizing potential of the biomimetic P<sub>11</sub>-4 self-assembling peptide on noncavitated caries lesions



**Treatments Tested:** Curodont™ Repair (CR) and Curodont™ Protect (CP)



**Scope & Methodology:** Caries lesions in permanent teeth treated with monomeric (CR) and polymeric (CP) P<sub>11</sub>-4 self-assembling peptide from May 2015 through October 2020 were retrospectively analyzed at lesion and child levels by means of bite-wing radiography for changes in stage and cavitation.



**Study participants:** Adolescents 10-19 years having a baseline radiograph showing at least 1 proximal initial caries lesion belonging to RA1, RA2, RA3 or RB4 stage [according to the International Caries Classification and Management System (ICCMS)].



RA1

Radiolucency in the outer 1/2 of enamel



RA2

Radiolucency in the inner 1/2 of enamel



RA3

Radiolucency limited to the outer 1/3 of dentin



RB4

Radiolucency reaching the middle 1/3 of dentin, non-cavitated

### INTERVENTIONS:

The caries lesions were pre-treated as per the manufacturer's recommended protocol before CR application into the interdental space. CR was allowed to diffuse and self-assemble for 5 minutes before CP was applied. The patient was instructed not to rinse, eat, or drink for 1 hour after treatment. CP was provided for self-administration once per week.

### OUTCOMES:

Primary outcomes: the change in stage

Secondary outcomes: cavitation and restoration

### COMPARISONS:

Uncontrolled



**Conclusion:** A one-time application of CR followed by the at-home use of CP can prevent the progression of over 90% of early caries, through arrest and regression, in real-life clinical settings.

### References

Godenzi D, Bommer C, Heinzl-Gutenbrunner M, Keeper JH, Peters K. Remineralizing potential of the biomimetic P<sub>11</sub>-4 self-assembling peptide on noncavitated caries lesions. J Am Dent Assoc. 2023 Aug 28:S0002-8177(23)00416-6.

#### Supporting Studies:

1. Doberdoli, D. et al (2020) "Randomized Clinical Trial investigating Self-Assembling Peptide P<sub>11</sub>-4 for Treatment of Early Occlusal Caries" Scientific Rep | 2. Alkilzy M, Tarabaih A, Santamaria RM, Splieth CH. Self-assembling Peptide P<sub>11</sub>-4 and Fluoride for Regenerating Enamel. J Dent Res. 2018 Feb;97(2):148-154. | 3. Sedlakova Kondelova P., Mannaa A, Bommer C, Abdelaziz M., Daeniker L., di Bella E., Krejci I. Efficacy of P<sub>11</sub>-4 for the treatment of initial buccal caries: a randomized clinical trial. Sci Rep 2020;10:20211