

CARISOLV®

DISTRIBUTED BY STRAUMANN



Minimally invasive
caries treatment

MINIMALLY INVASIVE CARIES TREATMENT

A Swedish innovation, Carisolv[®], is a unique method for removing caries effectively while leaving healthy dental tissue intact¹.

Carisolv enables a minimal invasive treatment that selectively softens necrotic tissue in affected dentine and preserves healthy tissue¹.

INTENDED USE

Carisolv softens demineralized carious dentine prior to mechanical removal during chemo-mechanical minimal invasive treatment of patients diagnosed with caries¹.

APPLICATIONS

- ✓ CARIES IN THE DENTINE²
- ✓ OPEN LESIONS, FOR EXAMPLE ROOT CARIES³
- ✓ DEEP CARIES LESIONS CLOSE TO THE PULP²
- ✓ CARIES IN DIFFICULT PLACES E.G. CROWN JOINTS
- ✓ CARIES IN FISSURES BEFORE APPLICATION OF SEALANTS⁴
- ✓ CLEANING CAVITIES: SMEAR LAYER REMOVAL/OPEN TUBULES⁵

"Using Carisolv I am able to work with precision, and can report that cavities are caries free after my work has been completed"

Dr. Peter Wilhelmsson, Dentist at the Implant Clinic in Linköping, Sweden

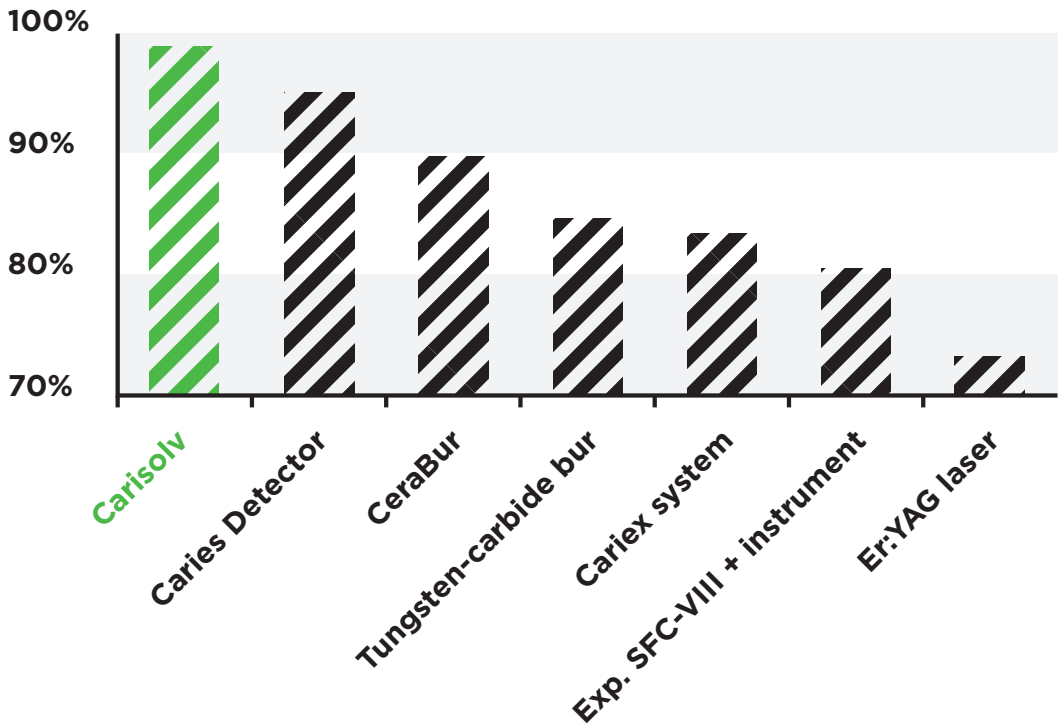


"Carisolv has enabled me to provide less invasive treatment and better control when treating deep cavities"

Dr. Stefan Edgren, Dentist at the Partille Implant Centre, Sweden

A UNIQUE SURFACE AND SMALL CAVITIES RESULTS IN STRONG BONDING

Researchers have also studied how different methods of preparation affect the strength of the attachment of the filling to the dentine. Preparing with the Carisolv technology results in the strongest bond in these tests.



The diagram shows the bonding strength achieved with different caries removal techniques in relation to sound dentine⁶

MODE OF ACTION

Carisolv is an innovative, effective, tissue friendly product based on a buffered hypochlorite technology. Carisolv softens the affected dentine allowing for easy removal of effected dentine whilst leaving healthy tissue intact¹.

CARISOLV CONSISTS OF TWO COMPONENTS

GEL COMPONENT

- Water
- Carboxy methylcellulose (CMC)
- Sodium chloride
- Amino acids

LIQUID COMPONENT

- Water
- Sodium hypochlorite

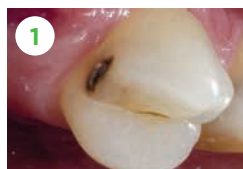
CLINICAL ADVANTAGES OF CARISOLV

- ✓ MINIMAL INVASIVE AND TISSUE PRESERVING¹
 - ✓ SELECTIVE FOR REMOVAL OF CARIES IN THE DENTINE AND SAVES TOOTH SUBSTANCE¹
 - ✓ NO NEGATIVE SIDE EFFECTS ON HEALTHY TISSUE¹
 - ✓ TECHNIQUE RESULTS IN STRONGER BONDING⁶
 - ✓ LESS EXPERIENCE OF PAIN COMPARED TO CONVENTIONAL METHODS⁷
 - ✓ REDUCES PATIENT ANXIETY AND THE NEED FOR LOCAL ANAESTHESIA CAUSED BY DRILL NOISE⁸
-

HOW TO TREAT A CARIES LESION WITH CARISOLV - STEP BY STEP

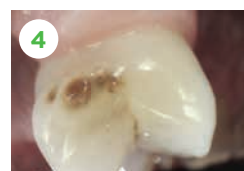
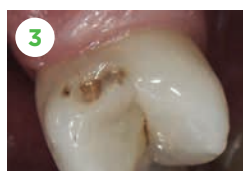
Case treated by Dr. Stefan Edgren, Dentist, Partille Implantat Center. Carisolv can be used in any case with caries in the dentine. It could be hard to solve situations, like deep cavities or crown joints or a daily case with an easy access

1. The patient has an approximal caries lesion on the first upper premolar (tooth no 24). The adjacent premolar has previously been extracted.

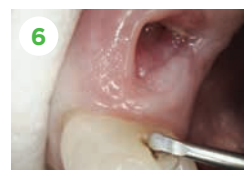


2. Carisolv gel is applied to the lesion. Wait for 30 seconds.

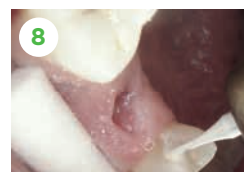
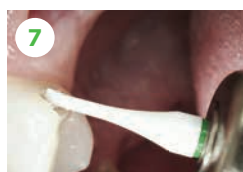
3-4. The gel becomes cloudy. This is an indication of remaining carious tissue.



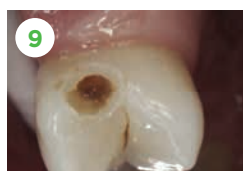
5-6. Hand instruments are used to remove the bulk of the infected dentine. Clean the cavity of cloudy gel. Apply more gel and continue the mechanical treatment. Repeat until cavity is caries free. When the added gel does not get cloudy any longer this indicates that no more infected caries dentine is remaining. Use a regular probe to evaluate the caries free surface.



7-8. At the discretion of the dentist, ceramic minimal wave drills may be used to remove the infected dentine.

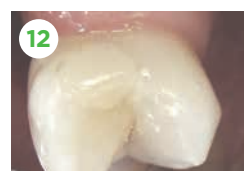
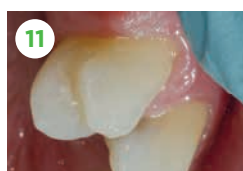


9. Cavity after treatment is completed. All affected dentine has been removed and the dentine surfaces now has a leathery appearance. The surface has an uneven topography that increases the surface area available for retention of the restorative material.



10. Regular procedures prior to application of restorative material is performed.

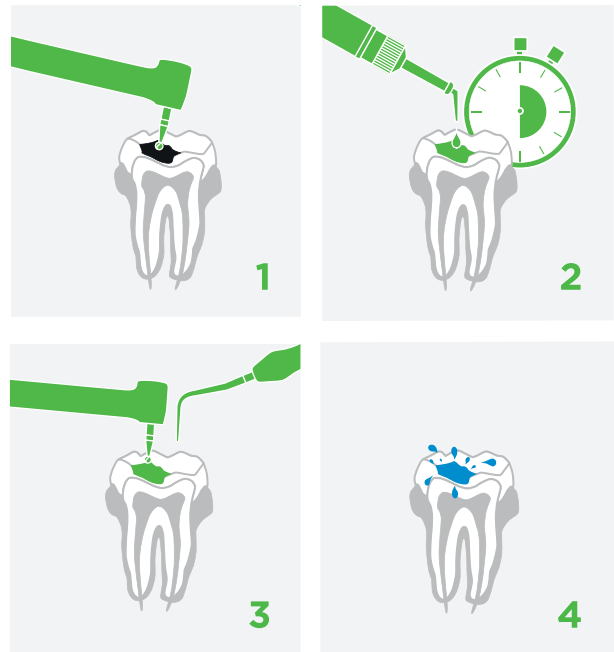
11-12. The final result.



HOW TO TREAT CARIES WITH CARISOLV

1. If necessary open the cavity using a conventional bur.
2. Apply Carisolv directly into the cavity. After 30 seconds the carious dentine has softened.
3. Remove the softened, carious tissue using a hand excavator or a minimally invasive bur.
4. Rinse and blow the cavity dry for inspection.

The cavity is free of caries and traditional filling treatment can commence.



CARISOLV

Carisolv dual syringe, 2 x 2.5ml

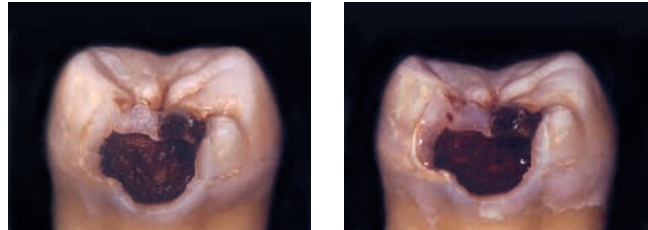
Static mixer 10 pcs plus 10 intra-oral tips



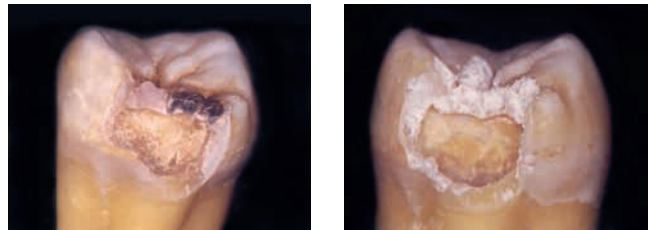
A DEEP CARIES LESION CLOSE TO THE PULP

Carisolv works well in caries lesions close to the pulp. Here shown with a red stained Carisolv for a better visibility. Carisolv gives the dental professional a better control in treating a deep cavity, since Carisolv is selective in tissue removal. Carisolv softens necrotic tissues, healthy tissues stays hard. The conventional drill, lasers and air abrasives are non-selective in removing tissue.

1-2. It may sometimes be necessary to use a regular drill to create access to the cavity. Once the access is established Carisolv is applied, wait for 30 seconds and start the treatment.



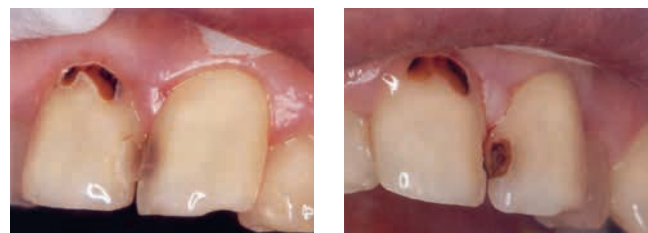
3-4. In the final stage, always apply light pressure to the instrument. The enamel may have to be adjusted by rotary instruments for an optimal result.



ROOT CARIES

For open lesions like root caries, Carisolv gives an opportunity to work in multiple quadrants simultaneously if no anesthetic is used.

1-2. Usually in root caries, no access needs to be established. Just apply Carisolv, wait 30 seconds and start removing the softened, necrotic tissue.



3-4. One advantage with Carisolv in root caries is the possibility to work in multiple quadrants simultaneously as no local anesthesia is needed.



REFERENCES

1. Neves, Coutinho, De Munck, Van Meerbeek. Caries-removal effectiveness and minimal-invasiveness potential of caries-excitation techniques: a micro-CT investigation. J Dentistry 2011;39:154-162.
2. Fure, Lingström. Evaluation of the chemomechanical removal of dentine caries in vivo with a new modified Carisolv gel. Clin Oral Investig 2004;8:139-144.
3. Fure, Lingström, Birkhed. Evaluation of Carisolv for the chemo–mechanical removal of primary root caries in vivo. Caries Res 2000;34:275-280.
4. Yamada, Hossain, Shimizu, Kimura, Masuda, Nakamura, Matsumoto. Analysis of surface roughness and microleakage of fissure sealants following organic debris removal with Carisolv. J Dent 2008;36:130-137.
5. Pai, Nadig, Jagadeesh, Usha, Karthik, Sridhara. Chemical analysis of dentin surfaces after Carisolv treatment. J Conserv Dent 2002;12:118-122.
6. Neves, Coutinho, Cardoso, De Munck, Van Meerbeek. Micro-tensile bond strength and interfacial characterization of an adhesive bonded to dentin prepared by contemporary caries-excitation techniques. Dent Mater 2011;27:552-562.
7. Bohari, Chunawalla, Ahmed. Clinical evaluation of caries removal in primary teeth using conventional, chemomechanical and laser technique: an in vivo study. J Contemp Dent Pract 2012;13:40-47.
8. Peric, Markovic, Petrovic. Clinical evaluation of a chemomechanical method for caries removal in children and adolescents. Acta Odontol Scand 2009;67:277-283.

Carisolv® is a registered trademark

MANUFACTURED BY

RLS GLOBAL

RLS Global AB
Neongatan 5 / SE-431 53 Mölndal/Sweden
Tel +46 31 780 68 20
E-mail customer@rlsglobal.se / www.rlsglobal.se

DISTRIBUTED BY

 **straumann**

Institut Straumann AG
Peter Merian-Weg 12 | 4002 Basel | Switzerland
Tel +41 61 965 11 11 | Fax +41 61 965 11 01
E-mail: info@straumann.com | www.straumann.com