**Chemo-mechanical caries removal with Carisolv® – FAQs**

1. **What is the indication for Carisolv®?**

Carisolv® softens demineralised carious dentine prior to mechanical removal during minimally invasive treatment of patients. Using **chemo-mechanical excavation avoids AGPs** (aerosol generating procedures). Anxious adults and children are also more likely to tolerate less noisy and less wet procedures.

1. **Does it need to be refrigerated?**

Carisolv® needs to be kept in the refrigerator in its original packaging when not in use. If the refrigerator is in a different room, the product can be brought to the surgery just before the morning session starts and kept at ambient temperature. Put the product back in the refrigerator over the lunch break and take it out again for the afternoon session. The more Carisolv® is kept in the refrigerator the better its handling properties i.e. more a gel, less a fluid.

1. **Why does the gel smell like a swimming pool?**

Sodium hypochlorite is an important active ingredient in Carisolv®. Trying to mask the smell lessens its efficacy. Patients may not tolerate/not notice the smell if informed before treatment.

## **Do I have to use specific instruments?**

## No, you can use regular hand instruments. Use excavators by scraping bluntly to minimise the risk of cutting into healthy dentine.

## Ceramic burs have also been proven, used together with Carisolv®, to be effective in achieving a caries free cavity. These can be used in a slow speed handpiece along with high volume suction (classified as a Non-AGP). Non-ceramic burs in a slow speed handpiece are also suitable if ceramic burs are not available.

## **How do I get access to the cavity?**

## A low-speed, high torque electric handpiece running dry with a tungsten carbide or diamond bur or hand chisel can be used in the majority of cases. However, in a very small number of cases, access may require the use of a high-speed handpiece (classified as an AGP).

## **How do I know when the cavity is free from carious decay?**

## Gentle probing is still an adequate approach. An indication that the cavity is caries free is that the gel stays clear when it has worked, but if there is still decay present the gel will turn opaque. The dentine has a “frosty” appearance after removing the gel if the cavity is free from decay.

## **Must I use a specific bonding system?**

## No. Make sure that you have completely cleaned the cavity from Carisolv® gel and debris, then follow the manufacturer’s instructions for the bonding system you are using.

## **Is one Carisolv® syringe for single patient use?**

## No. The syringe shall be wrapped with a disposable barrier sleeve for infection control purposes and then re-used. However, the static mixer and the intra-oral tip are single-use and need to be discarded after use. Seal the syringe with the end cap immediately after use. For the next treatment, the sealing cap is removed, a new static mixer, a new intra-oral tip and a new barrier wrap is applied.

## **How many treatments can I use one syringe for?**

## Depending on the size of the cavity - up to 5 treatments. The Carisolv® box contains 2 syringes so from one box - up to 10 treatments.

## **Why is there less pain?**

## In general:

• There are no large temperature variations

• The dentine is covered with an isotonic gel of body temperature

• The pH value is high.

• A slight anesthetic effect from the gel has been observed (Braun et al.)

Using manual excavators:

* Healthy dentine is not removed by the instruments
* There are no vibrations from drilling
* The method is quiet and pleasant

## **What can I do to minimise pain during treatment?**

## Patient perception is influenced by factors such as the force applied to the instruments and flushing with cold water. It is important that the carious lesion is thoroughly covered with gel during the entire procedure. Do not work with a half-filled/half-dry cavity. Use hand instruments and light pressure rather than excessive force. Initially, gently probe for a caries-free lesion by going through the gel. If the probe does not give a tug-back feeling, clean out with instrument tip and then use a wet cotton pellet. Avoid spraying with water or blasting with air (this will also keep the procedure Non-AGP). It is important that the patient is well informed.

## **Can I use Carisolv® in connection with prosthetic work?**

## Carisolv® is ideal for removing caries at crown margins as it minimises the risk of fracturing the crown/bridge. Carisolv ® can also be used to “clean” the dentine after using a temporary crown to improve the bonding properties of the cement.

## **What should I tell patients about possible side effects?**

## Inform them that the method is well documented – there are more than 160 different studies – and no harmful side effects have been reported.

## **Is it dangerous if the patient accidentally swallows the gel?**

## No. Not the amount of gel that is used for a treatment.

## **How many patients have been treated using Carisolv®?**

## More than 58,000 treatments have been performed with Carisolv® since 1997.



