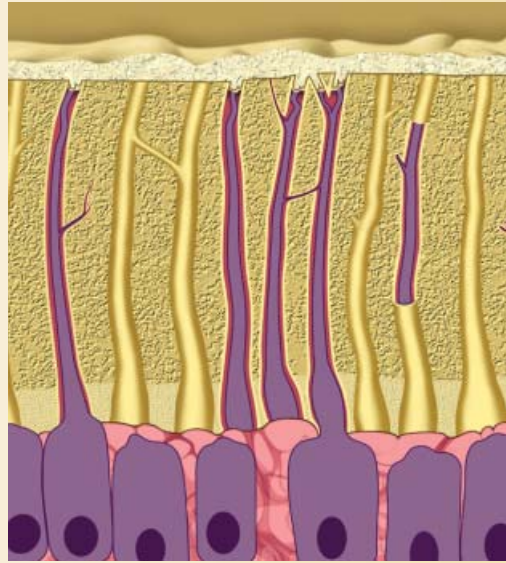



Adper™ Prompt™ Self-Etch Adhesive *Treating hypersensitive root surfaces.*

What causes sensitivity?

Fluid movement in dentinal tubules is the generally accepted cause of sensitivity. This movement can be stimulated by drying, temperature shifts, as well as by compounds such as sugar (Brannstrom 1986). Studies indicate that hypersensitive root surfaces can have 8 times as many open tubules as non-sensitive dentin.



- 
- Very low incidence of post-operative sensitivity.
 - Excellent bonding to dentin and enamel.
 - Available in two delivery systems:
 - Convenient, disposable 3M™ ESPE™ L-Pop™ that works well with small preparations and in hard-to-reach areas of the mouth.
 - 2-vial system that offers bulk-delivery and multiple restoration application.

Treating hypersensitive root surfaces

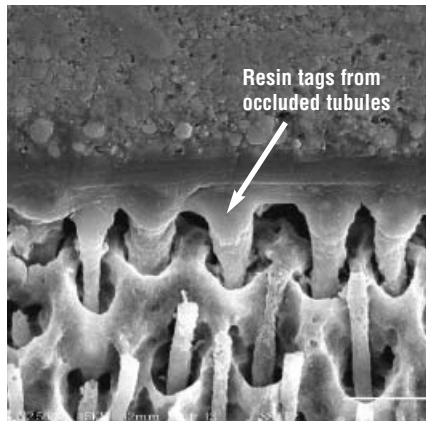


Photo courtesy of Dr. Patricia Pereira

If open tubules – which allow fluid movement – are a cause of sensitivity, it makes sense that treatments that occlude the tubules should be effective in preventing or treating sensitivity.

This SEM image illustrates the ability of Adper Prompt Adhesive to flow into and occlude open dentinal tubules.

In a dentin permeability study, Adper™ Prompt™ Adhesive scored consistently higher in its ability to reduce permeability

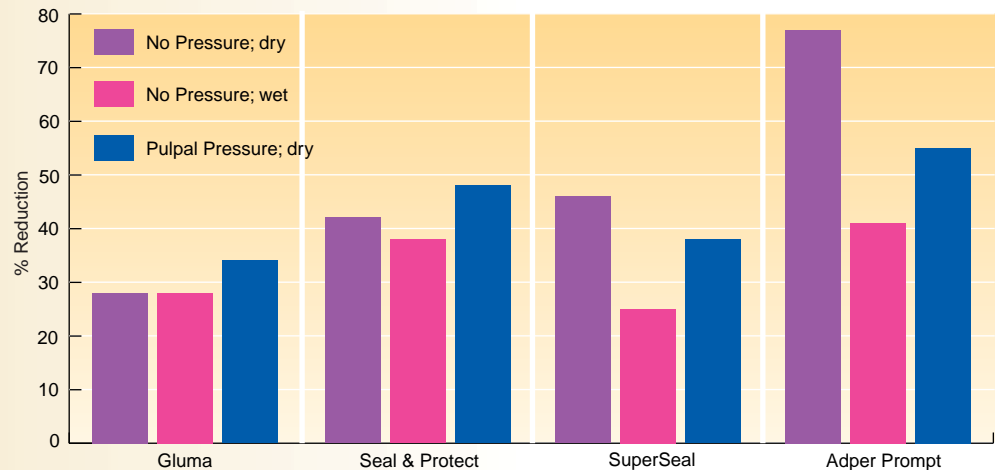
Dentin permeability studies can be used to measure the ability of a material to reduce fluid flow through the tubules. In a dentin permeability study at the University of Regensburg, Adper Prompt adhesive was compared to several commercial desensitizers. In this laboratory test, the teeth were subjected to three conditions:

First, a dry surface with no water pressure in the pulp chamber.

Second, a wet tooth surface, but again no water pressure in the pulp chamber.

Finally, a test condition with a dry surface where pressure was applied to the pulp chamber.

Under the conditions tested, Adper Prompt adhesive scored consistently higher in its ability to reduce permeability.



Results of a permeability study performed at the University of Regensburg comparing Adper Prompt adhesive with several commercial desensitizers.

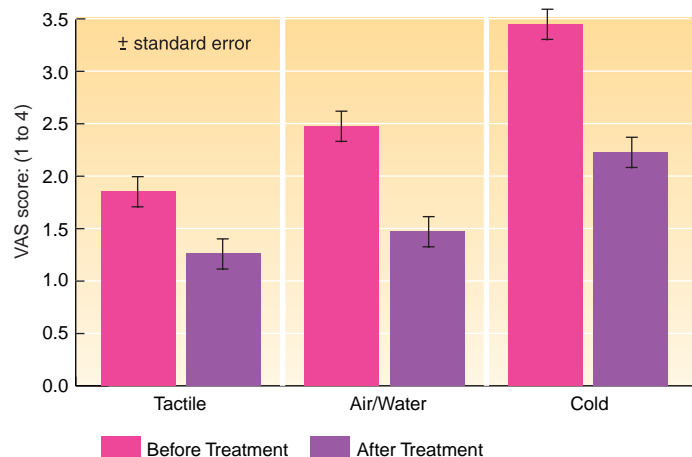
(Hiller KA, Schicker A, Schmalz G: "Effects of Dentin Desensitizing Agents on Dentin Permeability Under Different Application Conditions" 2003 AADR, Abstract 0632)

Clinical results

Of course, the real test is the clinical result. To measure effectiveness in treating hypersensitive root surfaces, a randomized, controlled clinical study was conducted with Dr. G. Kugel and Dr. R. Perry, Boston, MA. Sensitivity was rated on a scale of 1 to 4 with 4 being the most sensitive.

Application of Adper Prompt adhesive resulted in a statistically significant decrease in hypersensitivity induced by tactile, air/water, or cold stimulus.

Desensitization effect of Adper Prompt Adhesive at the 1-day recall.



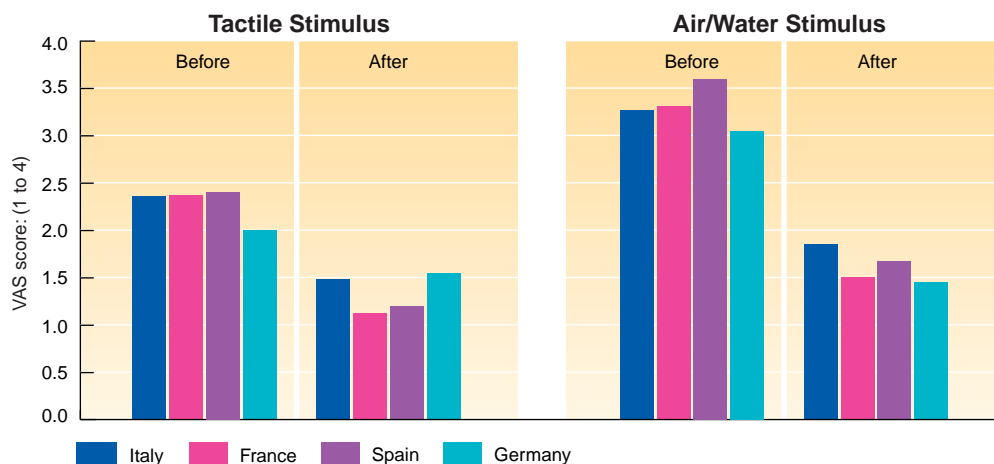
Effectiveness in treating hypersensitive root surfaces, measured in a randomized, controlled study.

DR. G. KUGEL and DR. R. PERRY (Boston, Massachusetts, USA)

Adper™ Prompt™ Adhesive reduces sensitivity to both tactile and air stimuli

In an additional evaluation, a total of 85 patients in Italy, France, Spain and Germany were treated for hypersensitive root surfaces. Immediately after application, sensitivity was rated on a 1-4 scale, with 4 being the most sensitive.

Reduction of sensitivity evaluation



As you can see, the application of Adper Prompt adhesive produced an immediate and dramatic reduction in sensitivity to both tactile and air stimuli.

Source: 3M ESPE Data

Application technique and time:

One of the primary advantages of Adper Prompt adhesive is that no etching step is needed. This not only makes for a faster procedure, it eliminates the rinsing and evacuation steps required for a separate etch.

From a timing perspective, the Adper Prompt adhesive L-Pop technique for desensitizing is quite efficient. This figure compares the time needed to apply Adper Prompt adhesive to the time needed to apply Gluma Comfort Bond & Desensitizer. Times are calculated based on the manufacturers' instructions, with estimates for drying and application times, and do not include the dispensing steps.

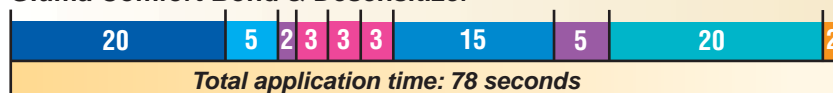
Comparison of Application Times

Adper Prompt Adhesive



As you can see, Adper Prompt adhesive can be applied and cured in 40 seconds!

Gluma Comfort Bond & Desensitizer



Apply Dry Light Cure Etching Rinse Wait Inhibition layer removal

Source: 3M ESPE Data

Using Adper™ Prompt™ Adhesive to treat hypersensitive root surfaces

Photos courtesy of Dr. Patricia Gatón Hernández



Clean the surface.



Apply Adper Prompt Adhesive for 15 seconds using a rubbing motion.



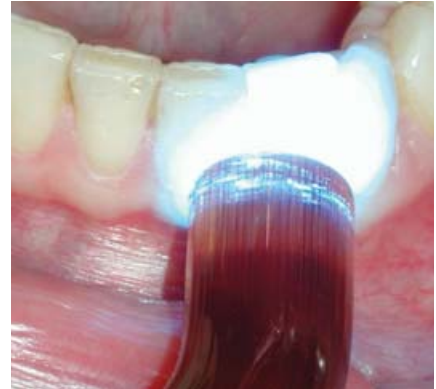
Air dry.



Apply a second layer (no rubbing or waiting time).



Air dry the second layer.



Light cure for 10 seconds and wipe off air inhibition layer.

3M ESPE

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