

SS WHITE

# Caries Treatment That Maximizes Tooth, Dentin Preservation

*Minimally invasive dentistry tool kit from SS White can catch incipient decay early, save more tooth structure, and protect healthy dentin*

**F**or most people, dental caries are a small, yet ever-present part of life. But caries occupy an even larger piece of a dentist's life because they're daily events in our workflow. Knowing that minimally invasive dentistry techniques, such as fissurotomy, are key to preventing serious future caries—and maintaining healthy teeth for years to come—Dr. Robert Lowe says he's never more than an arm's reach from SS White's Comfortable Cavity Prep Kit. And, in his busy Charlotte, NC, practice, he reaches for it several times each day.

"This isn't like any other kit that I've ever used before," Dr.

Lowe said. "It's the perfect choice for minimally invasive cavity preparation and I use it in conjunction with early detection and diagnosis of caries," he continued.



## Healthier Teeth Long Term

Comfortable Cavity Prep Kit features SS White's patented Fissurotomy Burs, the hallmark of minimally invasive dentistry, which are designed to preserve a maximum amount of original tooth structure. It is now common knowledge that patients have healthier teeth as they age when less invasive procedures have been used in earlier years.

"If you had a pinpoint melanoma on your hand, would you want that taken off as soon as it's found when it's less invasive and easier to remove, or would you want to wait for it to grow till it gets bigger, then have it removed, and possibly have more complications because it was left to grow for years?" he asked. "With minimally invasive dentistry, we are striving for early diagnosis to allow minimal instrumentation because that means healthier tissue for a longer period of time. I tell my patients two things: we can either treat it now, or we can treat it later, but that lesion is never going to be smaller than it is today—it's only going to get bigger."



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## More Dentin Preserved

Additionally, Comfortable Cavity Prep Kit includes SS White's exclusive Smart Burs II rotary instruments, which provide a less invasive and more comfortable caries preparation for patients, especially when compared to conventional carbide burs. Smart Burs II deform when they contact healthy tooth structure, ensuring that it's preserved. Conventional instruments aren't designed to do that. The remaining affected dentin that's left behind by the Smart Burs II can be remineralized with a bioactive filling material that provides calcium and phosphate.

"This kit is uniquely designed for minimally invasive cavity preparation and excavation," Dr. Lowe explained. "The Fissurotomy Burs are specially designed to limit the amount of tooth

structure removed, and the Smart Burs II are excavation burs that are made of plastic polymer that's the specific hardness of healthy dentin, so it only removes carious dentin, not affected or healthy dentin."

## 'Comfortable' Instruments

In addition to the Fissurotomy Burs and the Smart Burs II rotary instruments, the Comfortable Cavity Prep Kit includes task-specific rotary instruments designed to diagnose hidden pit and fissure caries and address composite restoration trimming, finishing, and polishing. The kit also includes tools for enameloplasty when it's needed before sealant placement and finishing.

"The product is called 'comfortable' because enamel doesn't have nerve endings, so if you're performing a fissurotomy or a minimally invasive cavity preparation into enamel only, anesthesia is not needed," Dr. Lowe pointed out. "Additionally, using Smart Burs II to remove carious dentin oftentimes can be done without anesthesia, as well."

For both posterior and anterior applications, Comfortable Cavity Prep Kit contains all the tools necessary for removing incipient decay—even decay undetected by conventional explorers.

## Finding the Undetectable

"One way to identify early carious lesions before they 'stick' with an explorer is to use the caries detection mode of an intra-oral camera," he explained. "We know that explorers are really blunt probes and the fissures in teeth are often much too narrow for even a sharp explorer to get to the base. We get a false sense of security when we see discoloration and we don't get a catch—there certainly could be a cavity starting, and the lesions aren't big enough to stick to an explorer, and that's where these types of diagnoses come into play, because the lesions are minimally invasive," he continued.

"In the end, we are trying to maintain as much original tooth structure as possible—that's the goal, and minimally invasive dentistry using tools such as the Fissurotomy Bur and the entire Comfortable Cavity Prep Kit are what we use to accomplish that goal," Dr. Lowe concluded.