Faster Recovery, and No Dripping

A technological breakthrough may soon lead to a more effective local anesthesia for dental procedures. Researchers at Harvard Medical School and Massachusetts General Hospital in Boston—led by Dr. Clifford Woolf, professor of anesthesia research at Harvard Medical School—have used a combination of capsaicin, the flavoring that makes chili peppers hot, and a derivative of lidocaine to block pain-sensing nerve cells without interfering with other sensations or movement.

Rats injected with the compound were unable to feel pain in their paws but could move normally and react to touch, Woolf notes in a study in the journal Nature.

Woolf expects chili-derived anti-itch creams and local anesthetics to come on the market in a few years. He notes that the capsaicin-lidocaine combination could lead to sophisticated new anesthesia for a range of medical procedures, including childbirth and chest surgery. For dental procedures, it would help patients recover faster while avoiding the embarrassment of drooling.

The idea behind the drug combination is that capsaicin triggers TRPV1, a protein that acts as a gatekeeper in nerve cells that sense pain. The lidocaine derivative, which cannot normally enter cell membranes, is then able to enter the pain neurons and deactivate them.

Zinc Lozenges INeffective Against Colds

Although zinc is commonly recommended as a treatment for colds and flu, zinc lozenges appear to provide no relief for symptoms of the common cold, according to an article in the journal Clinical Infectious Diseases. However, zinc nasal gels may help stuffy and runny noses. The article reviewed 14 clinical trials in which participants were randomly assigned to take zinc lozenges, zinc nasal spray or gel, or a placebo.

Half the trials found that zinc limited cold symptoms, but half found no benefits. And of the 14 trials, only four met the quality-control criteria laid out by the review’s authors. Three of those four trials found no benefits from zinc lozenges or nasal sprays.

The one positive test showed that a zinc nasal gel lessened cold symptoms. But Dr. Jack M. Gwaltney, Jr., of the University of Virginia School of Medicine, a senior author of the study, cautions that one successful trial is not enough to recommend their use. With regard to zinc lozenges, he says they simply do not work.

Zinc is gaining wider use in dentistry. Last year Dental Tribune America reported that a new zinc-based coating for orthodontic brackets and wires, developed by New York University’s College of Dentistry, may inhibit the decalcification and plaque growth commonly found among patients wearing braces while not weakening the bond strength between brackets and teeth.