

Iontophoresis

Iontophoresis is a non-invasive method of propelling high concentrations of a charged substance, normally medication or bioactive agents, transdermally by repulsive electromotive force using a small electrical charge applied to an iontophoretic chamber containing a similarly charged active agent and its vehicle.

To clarify, one or two chambers of a holding pad are filled with a solution containing an active ingredient and its solvent, termed the vehicle. The positively charged chamber, termed the anode, will repel a positively charged chemical, while the negatively charged chamber, termed the cathode, will repel a negatively charged chemical into the skin.

Iontophoresis is well classified for use in transdermal drug delivery. Unlike transdermal patches, however, this method relies on active transportation within an electric field. In the presence of an electric field electromigration and electroosmosis are the dominant forces in mass transport.

One of the most dramatic uses of iontophoresis is in the treatment of the herpes simplex virus, commonly known as the "cold sore." In this situation, an antiviral medication is placed in the holding pad and placed directly over the cold sore. As the virus has been shown to reside in the trigeminal ganglion (fifth cranial nerve), it is theorized that the medication is driven up the various branches of the trigeminal nerve into the nerve root, inactivating any remaining viruses.

Although this procedure has proven successful for many patients, the effectiveness for you depends on many factors, including, but not limited to: status of your immune system, status of your lymph system, stage of herpes infection, conductivity of your skin, hydration of your body, etc. Complete eradication may require multiple treatments.

By signing below, I show that I understand that there is no guarantee that iontophoresis will be completely effective for my condition, and that I absolve TMJ Dental Health Center of responsibility if the condition being treated persists.

Name: _____

Cost: _____

Signature: _____

Date: _____