



## Revolutionizing Practice Efficiency & Patient Experience Through Utilizing **Buffered Anesthetics**

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On occasion products are developed in dentistry that have the potential to change the way we provide care on a day to day basis. Diagnostically, we have 3D scanning and many options of digital imaging. Restoratively, we have advanced adhesives and long term restorative materials that have changed our paradigms and expectations for results. Tooth replacement with dental implants and guided surgery has changed our long term outcomes and adds new alternatives to endodontically treated teeth. Today we have a new product that presents us with an often overlooked opportunity to take our patient care to a new level. Anutra Medical the developer and distributor of the Anutra anesthetic delivery system has given us the opportunity to not only change the way we provide a service, but improve our professional image. How often do we hear our patients say they fear getting

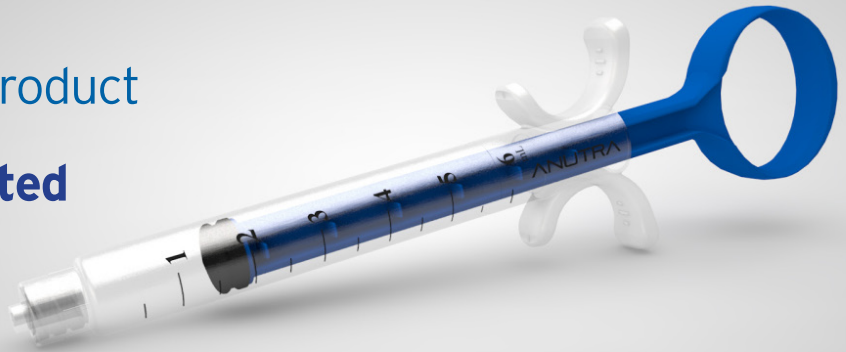
a shot? It's common knowledge that a significant portion of the population avoid the dentist due to their fear of pain and needles. What if there was a product that virtually eliminated the discomfort of a dental injection? What if there was a product that could reduce overhead and increase your production by saving you time on each procedure that requires anesthetic? Would you want to know more about this technology? Of course. Anutra Medical has designed a product that will change the way we provide care.

Anutra Medical has developed a "buffering" anesthetic system that is taking the dental profession by storm. Buffering anesthetic has been around for decades in the medical field. However, only a few progressive dentists over the years have recognized the benefits of buffered anesthetic, some have even gone through the trouble of manufacturing their own buffered anesthetic

solutions. Anutra has made buffering simplified with their ground-breaking system for buffering and delivering local anesthetic.

The science of buffering anesthetic for use in the oral cavity is quite simple. The human body maintains a pH of 7.4. A slight change in even a tenth of a pH unit can cause serious health consequences. An increase in blood pH is called Alkalosis. A decrease in blood pH is called Acidosis. There are three ways the body regulates pH. First, with bone, 40% percent of buffering of an acute acid load in the body is from bone. Chronic Acidosis can have very adverse effects on bone mineralization. Secondly, the body regulates pH Inter-cellularly, buffering within red blood cells with the hemoglobin. Thirdly, the body regulates pH Extra-cellularly. This is how Anutra works. The Anutra system uses a bicarbonate solution mixed in with lidocaine. The lidocaine typically used in dentistry has a pH of

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3.9, which is very similar to a lemon. Buffering lidocaine by mixing sodium bicarbonate with lidocaine raises the pH close to 7.4.

The benefits of the simplified Anutra buffering system derives its success from science. First, reduced patient pain during injection. Buffering lowers the high level of acid typically found in local anesthetics which in turn reduces the burning pain after injection. 44% of patients reported zero pain with buffered anesthetic when compared to only 6% that used a controlled anesthetic (Stanley F. Malamed). This is accomplished when the Anutra delivery system produces a CO<sub>2</sub> micro-bubble. This micro-bubble solution is dispensed on the mucosal tissue surface prior to injection. Within 10 seconds the CO<sub>2</sub> micro-bubble passes into the tissue through a process called diffusion trapping. This diffusion trapping numbs the surface and draws the anesthetic into the tissue. Once diffusion trapping has occurred the dentist can then inject into that sight with an expectation of being pain free. Diffusion trapping is also beneficial for hygiene visits. The CO<sub>2</sub> micro-bubble draws the buffered solution into the sulcus without ever making an actual injection. Non-buffered lower pH anesthetics contribute to inconsistency in numbing patients and reduces confidence. Second benefit of the simplified Anutra buffering system is Efficiency. Buffering saves time. There is no pre-numbing period with topical. The CO<sub>2</sub> micro-bubble accomplishes the pre-numb in less than ten seconds. Once the actual

injection is complete many patients will state that they are already numb. Many dentists will delegate injections to trained staff, or the dentist delivers unbuffered anesthetic and leaves for several minutes to provide an additional service elsewhere. With Anutra buffered solutions the dentist can virtually start a procedure in moments. If the efficiency of Anutra saves 5-10 minutes per patient, feasibly a dentist could have an additional hour of productive time available per day.

A third benefit of the Anutra system is lower overhead. Although time efficiency also has an impact on overhead, the Anutra system is supplied as a complete system. With purchase of the Anutra product the dentist will receive all the syringes, needles (both 27 and 30 gauge), Lidocaine and sodium bicarbonate solutions. Again, no need for topical or swabs for topical application. The provided syringes are disposable and recyclable. There is no need to autoclave or wrap syringes in sterilization pouches. The Anutra delivery syringe is uniquely special. The Anutra syringe has an audible and hepatic feedback design that allows the dentist to hear and feel the "click click"

as each mL of solution is delivered. The syringe is large enough to deliver 6mL of buffered anesthetic (traditional lidocaine contains 1.8mL per carpule). The syringe has double sided volume labeling, one handed aspiration and a ergonomic design with optimized diameter and length.

As was mentioned prior, many progressive dentists have developed their own techniques for buffering anesthetic and there are some competitive advantages for dentists to choose Anutra over other products on the market. Anutra is about half of the cost of its competitors. The Anutra system includes everything... needles, syringes, and anesthetic. The simple "click-pull" system of the Anutra dispenser can provide any dose of anesthetic you would like... not limited to 1.8mL, this cuts back on waste. The Anutra system follows the medical model and is a closed system. As many LVI dentists can confirm... this is a product that is consistent with dentists that put their patient comfort and positive office experience as a priority in their office. **Consider checking our system at [www.anutramedical.com](http://www.anutramedical.com), I know I am glad I did.**

