

Dental Anesthetic Gel Instructions



Dental Anesthetic Gel Formulations

TAC 20: Lidocaine 20%, Tetracaine 4%, Phenylephrine 2%

Profound: Lidocaine 10%, Tetracaine 4%, Prilocaine 10%

BTT 12.5: Lidocaine 12.5%, Tetracaine 12.5%, Prilocaine 3%,
Phenylephrine 3%



Dental anesthetic gel

Directions

1. Clean and dry the area where topical anesthetic gel will be applied.
2. Apply dental anesthetic gel **sparingly** to the mucosa.
3. Rinse off **within 2-3 minutes** to avoid sloughing of tissue.
4. Full anesthesia will occur in about 5 minutes and last around 20-30 minutes.

Tips

- ▶ If dental anesthetic gel will be used on the entire mouth for cleaning, anesthetize quadrants separately. Do not use on the entire mouth at once.
- ▶ Apply dental anesthetic gel with a cotton-tipped applicator or with gauze. Anesthetic can be placed on the gauze and held on the area to be numbed.
- ▶ Many dentists take 3g/3ccs of the anesthetic gel and divide it among 4 strips of gauze that will each fit one quadrant, which comes to about 0.75g per quadrant.

WARNING:

DENTAL ANESTHETIC GELS MAY CAUSE NECROSIS (SLOUGHING OF TISSUE).
DO NOT LEAVE GEL ON MUCOSA LONGER THAN 2-3 MINUTES.

Storage

Store away from sunlight and protect from freezing. Close tightly after each use.

Expiration Date

Dental anesthetic gel has an expiration date of 6 months. Do not use beyond expiration date.



Safety When Using Compounded Topical Anesthetics

Since compounded anesthetic gel formulations can be more powerful than commercially available products, they also can have a higher chance for adverse effects. There are a few important considerations that every dental professional should take note of before using a compounded topical anesthetic.

- Hypersensitivity and cross-sensitivity to ingredients can occur. Each patient can have unique sensitivities to particular ingredients. This can be either due to individual anesthetic ingredients, to the vehicle, or to a combination of ingredients that interact together.
- It is easy to use more gel than is needed thinking it will improve the anesthetic effects. Using a consistent amount will help reduce the chances of a reaction. The majority of adverse effects from topical anesthetic gels come from using too much gel and leaving it on too long.
- Dental anesthetic gels may cause necrosis (sloughing of tissue) if left on the oral mucosa more than 2-3 minutes. The gel should always be removed before sloughing can occur.
- The anesthetic ingredients in topical anesthetics are vasodilators. The use of a vasoconstrictor helps reduce how quickly the anesthetics are absorbed and also reduces bleeding. Phenylephrine is included as a vasoconstrictor in most of our compounded topical anesthetic gels.
- Pediatric patients, depending on their weight, may need a topical anesthetic gel that is not as strong as TAC 20 alternate, Profound, or BTT gels. We make a Profound "Lite" gel that halves the percentages of ingredients in Profound gel. Dentists frequently use this for some of their younger pediatric patients, and it includes lidocaine 5%, prilocaine 5%, and tetracaine 2%.

Possible Adverse Effects

The majority of patients will not experience any adverse effects from dental anesthetic gel. The most common adverse reaction patients experience is a headache, which is still rare when the gels are applied appropriately. With excessively high concentrations, a patient can also experience heart palpitations and excitation. Some of the possible adverse effects associated with topical anesthetic gels include:

- Sloughing of tissue if gel is left on mucosa too long.
- High plasma concentrations can induce central nervous system excitation.
- Cardiovascular symptoms including hypertension, tachycardia, and arrhythmias.
- Allergic reaction to particular anesthetic ingredients.
- Suppression of gag reflex.
- Methemoglobinemia with prilocaine and benzocaine. Symptoms can include shortness of breath, a bluish discoloration of the skin, headache, fatigue, and dizziness.