

# GEBAUER'S Ethyl Chloride®

Topical Anesthetic Skin Refrigerant

Gebauer's Ethyl Chloride is available in 3.5 fl. oz. familiar brown glass bottles and aerosol cans at less than one-dollar per application

## Fine Stream Spray Glass Bottle

P/N 0386-0001-04

## Medium Stream Spray Glass Bottle

P/N 0386-0001-03

## Medium Stream Spray Aerosol Can

P/N 0386-0001-06

## Mist Spray Aerosol Can

P/N 0386-0001-02



## Gebauer Company

The Most Trusted Name In Skin Refrigerants For Over 100 years!®

[www.gebauer.com](http://www.gebauer.com)

Products Made in the U.S.A.

4444 East 153rd. Street • Cleveland, Ohio 44128  
216-581-3030 • 1-800-321-9348

Gebauer

Patient Comfort  
SOLUTIONS™

## Why use Gebauer's Ethyl Chloride® prior to joint injections and podiatric procedures?

*A vapocoolant spray such as ethyl chloride...provides several seconds of local anesthetic effect that blocks the pain associated with needle injections."*

McNabb, J. (2005). A Practical Guide to Joint & Soft Tissue Injection & Aspiration. Philadelphia: Lippincott Williams & Wilkins, p. 5.

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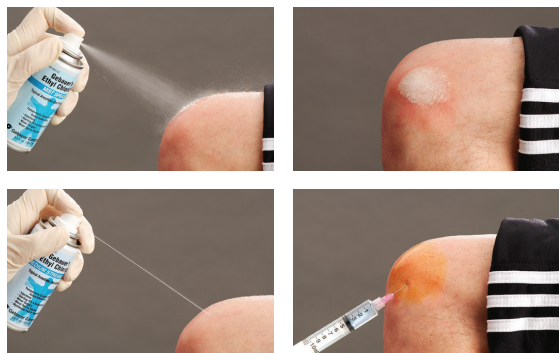
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## Why not.

- Gebauer's Ethyl Chloride topical anesthetic skin refrigerant is "The most trusted name in skin refrigerants" from the company with over 100 years of history in effective patient comfort solutions.
- An effective, fast, and easy way to temporarily control the pain associated with needle and minor surgical procedures.
- Gebauer Company products are the only topical anesthetic skin refrigerants FDA approved for pre-injection anesthesia and minor surgical procedures.
- Anxiety or fear of the pain associated with a procedure can interfere with patient satisfaction. Utilizing Ethyl Chloride prior to painful procedures lessens patient fear and anxiety, resulting in fewer cancelled appointments and confirms patient comfort, a standard of healthcare today.



*"Ethyl Chloride can be recommended as a method of producing instant skin anaesthesia."*

Armstrong P, Young C & McKeown D. Ethyl chloride and venepuncture pain: a comparison with intradermal lidocaine. Canadian Journal of Anesthesia, September 1990; Vol. 37, 656-658.

*"We found that pain was significantly reduced with the use of the vapocoolant spray..."*

Farion K, Splinter K, Newhook K, Gaboury I, Splinter W. The effect of vapocoolant spray on pain due to intravenous cannulation in children: a randomized controlled trial. Canadian Medical Association Journal, July 1, 2008; 179 (1), pp 31-6.

### Important Risk and Safety Information for Gebauer's Ethyl Chloride:

- Published clinical trial results support the use in children three years of age and older.
- Ethyl Chloride is **FLAMMABLE** and should never be used in the presence of an open flame or electrical cautery equipment.
- Inhalation should be avoided as it may produce narcotic and general anesthetic effects, and may produce deep anesthesia or fatal coma or cardiac arrest.
- Do not spray in eyes.
- Over spraying may cause frostbite.
- Freezing may alter skin pigmentation.
- The thawing process may be painful and freezing may lower resistance to infection and delay healing.
- Cutaneous sensitization may occur, but appears to be extremely rare.
- Long term exposure may cause liver or kidney damage.
- Rx only.

Please refer to the product insert for prescribing information.

## Gebauer's Ethyl Chloride is the suggested application preference for temporarily controlling the pain of:

### Needle Procedures:

- Orthopedic joint injections
- Podiatric blocks
- Immunizations
- IV starts
- Venipuncture
- Pre-lidocaine injections

### Minor surgical procedures:

- Ingrown toenails
- Incision and drainage of small abscesses
- Lancing boils

### Manipulative medicine:

- Trigger point therapy
- Minor sports injuries like bruises, contusions, swelling, and sprains

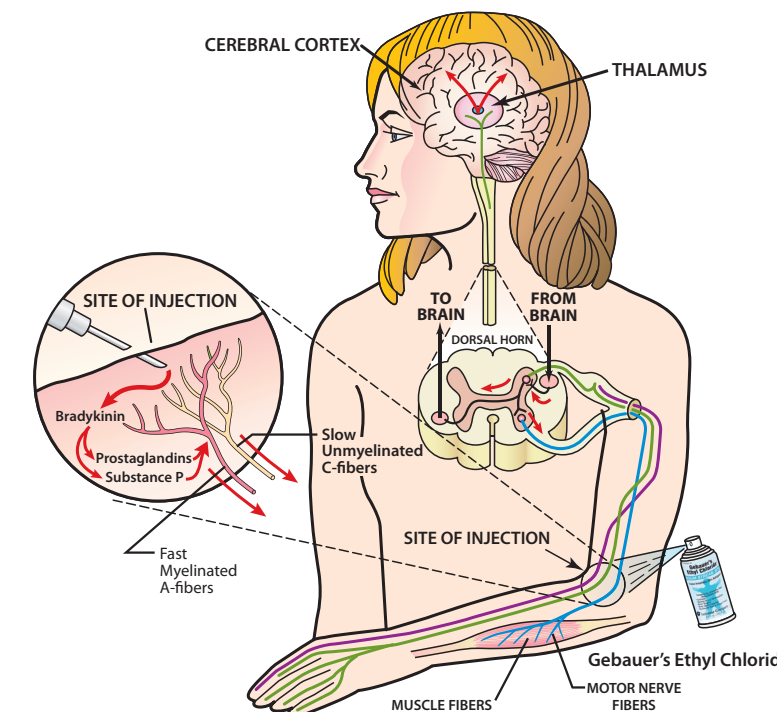
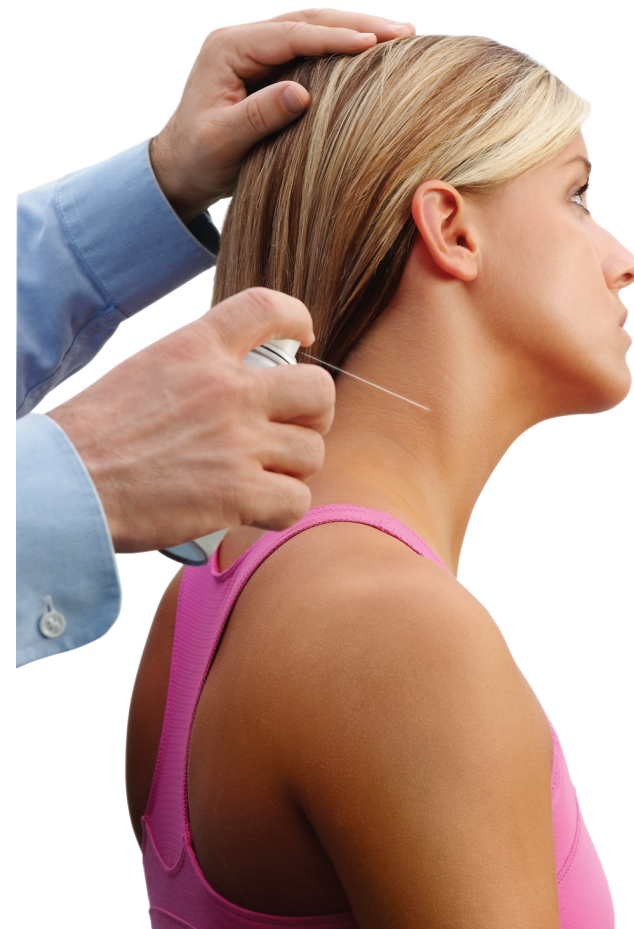


## How does Gebauer's Ethyl Chloride work?

Mechanism of Action: Ethyl Chloride creates an instantaneous significant temperature drop on the skin surface, working through rapid evaporation to produce a temporary anesthetic effect.

Ethyl Chloride's vapocoolant effect rapidly decreases nerve conduction velocity of the C fibers and A-delta fibers that make up the peripheral nervous system, thus interrupting the nociceptive inputs to the spinal cord. The result: procedural pain reduction.

Lehman, J. & Delateur, B. Therapeutic Heat and Cold, 4th Edition; Baltimore, Williams and Wilkins; 1990.



## Topical anesthetic skin refrigerant clinical efficacy.

F. Ralph Berberich and Zachary Landman  
Reducing Immunization Discomfort in 4-to 6-Year Old Children: A Randomized Clinical Trial  
Pediatrics 2009; 124; e203-e209; originally published online Jul 13, 2009; DOI: 10.1542/peds.2007-3466

K Abbott and S Fowler-Kerry  
The use of a topical refrigerant anesthetic to reduce injection pain in children.  
Journal of Pain and Symptom Management, November 1, 1995; 10(8): 584-90.

Armstrong P, Young C & McKeown D.  
Ethyl chloride and venepuncture pain: a comparison with intradermal lidocaine.  
Canadian Journal of Anesthesia, September 1990; Vol. 37, 656-658.

CR Cannon and B Replogle  
Fine-needle aspiration biopsy: is anesthesia necessary?  
Otolaryngology-Head and Neck Surgery, April 1999; 120(4): 458-9.

KJ Farion, KL Splinter, K Newhook, I Gaboury, WM Splinter  
The effect of vapocoolant spray on pain due to intravenous cannulation in children: a randomized controlled trial.  
Canadian Medical Association Journal, July 2008; Volume 179 (1):31-36.

SJ Fetzer  
Reducing the pain of venipuncture.  
Journal of PeriAnesthesia Nursing, April 1999; Vol. 14, No. 2: 95-101

S Mawhorter, L Daugherty, A Ford, R Hughes, D Metzger, and K Easley  
Topical vapocoolant quickly and effectively reduces vaccine-associated pain: results of a randomized, single-blinded, placebo-controlled study.  
Journal of Travel Medicine, September 1, 2004; 11(5): 267-72.

SC Russell and E Doyle  
A risk-benefit assessment of topical percutaneous local anaesthetics in children.  
Drug Safety, April 1997; 16(4): 279-87.

E Cohen Reis and R Holubkov  
Vapocoolant spray is equally effective as EMLA cream in reducing immunization pain in school-aged children.  
Pediatrics, December 1997; 100(6): E5.

IR Selby and BJ Bowles  
Analgesia for venous cannulation: a comparison of EMLA (5 minutes application), lignocaine, ethyl chloride and nothing.  
Journal of the Royal Society of Medicine, May 1995; 88(5): 264-7.

SC Zappa and SB Nabors  
Use of ethyl chloride topical anesthetic to reduce procedural pain in pediatric oncology patients.  
Cancer Nursing, April 1, 1992; 15(2): 130-6.

The FDA has determined that each of the Gebauer family of skin refrigerants is substantially equivalent (SE) to each other in terms of efficacy. Therefore, these clinical references and abstracts are relevant to all Gebauer skin refrigerants.