

EMLA stands for Eutectic Mixture of Local Anesthetic and is an oil-based combination of lidocaine 2.5% and prilocaine 2.5% or a total of 5% local anesthetic (*note: this value is misrepresented in Clinical Anesthesiology as 5% of each anesthetic*). The cream is effective for most minor dermal procedures such as venipuncture when applied over the intended area and covered with an occlusive dressing. Satisfactory analgesia is typically obtained in one hour although the maximal effectiveness is reached in two to three hours.

When applied to abnormal or inflamed tissue, the onset is faster and duration is shorter, presumably due to an impairment of diffusion barriers and increased regional blood flow. The standard dose is 2.5 grams over an area of 20-25 cm². It should not be used in children under the age of 12 months. Overdose of EMLA can result in lidocaine or prilocaine toxicity (prilocaine can oxidize hemoglobin and produce methemoglobinemia).

The stratum corneum is the greatest barrier to the absorption of EMLA cream. Some studies indicate that applying a piece of tape over the skin and then removing it strips some of the dead skin cells away and improves the effectiveness of the drug in crossing this barrier.

