

# Carel's Pharmacy & Compounding Center

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Carel's Pharmacy & Compounding Center is dedicated to providing the absolute best compounded products to your patients. This commitment includes using only top of the line pharmaceutical grade chemicals and bases. One exceptional base is PCCA Lipoderm®. PCCA Lipoderm®, because of its superior transdermal properties, is used exclusively in our pain gels and most other transdermal compounds. The following study shows Promethazine HCl in PCCA Lipoderm® base was successfully transported through human skin, *in vitro*, and performed better than PLO.

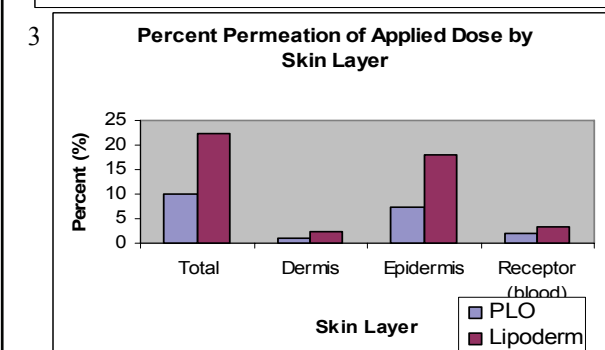
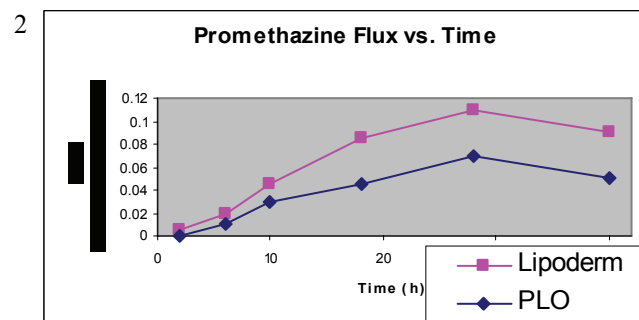
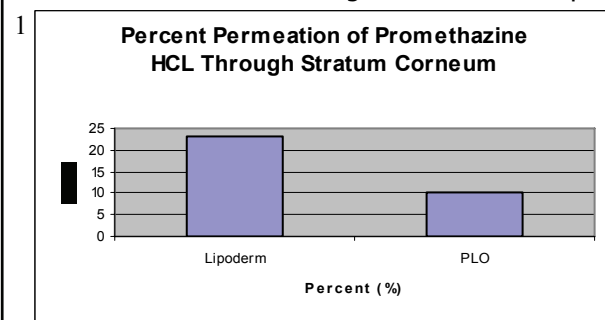
## Abstract of Study

**EVALUATION OF THE PERCUTANEOUS ABSORPTION OF PROMETHAZINE HCl, IN VITRO, USING THE HUMAN CADAVER SKIN MODEL** (Study performed by PRACS Institute, Ltd., an independent contract research facility.)

The study was designed to evaluate the percutaneous absorption pharmacokinetics of Promethazine HCl in PCCA Lipoderm® versus PLO (Pluronic Lecithin Organogel). Absorption was measured in human cadaver skin, *in vitro*, using the finite dose technique and Franz Diffusion Cells. All samples contained Promethazine HCl 25mg/gm, 1.6% W/W Vitamin E Acetate, 0.2% BHT and 0.2% EDTA for stability purposes. When PRACS Institute, Ltd. studied the ability of PCCA Lipoderm® to transport drugs through the skin, a molecule was intentionally chosen that would have difficulty penetrating the skin. Promethazine HCl, due to its molecular weight and polarity, presents a challenge in delivery across the skin. Percutaneous absorption was measured using the *in vitro* cadaver skin finite dose technique.

## Results

The data indicate that Promethazine HCl does penetrate into and through human cadaver skin *in vitro*. Based on total penetration (through the skin into the reservoir solution), the data rank orders the test formulations as: PCCA Lipoderm® > PLO. Chart 1 shows the percent of applied dose that penetrated past the Stratum Corneum with PCCA **Lipoderm® was 2.24 times greater than PLO**. Chart 3 shows the epidermal levels were found to be greater for PCCA Lipoderm® formulations than the other formulations.



For complete study, please call Carel's Pharmacy & Compounding Center at (580) 355-4540 or contact us by email at [carelsrx@sbcglobal.net](mailto:carelsrx@sbcglobal.net)