

Display Settings: Abstract

Dermatitis. 2009 Jan-Feb;20(1):14-20.

## Positive patch-test reactions to propylene glycol: a retrospective cross-sectional analysis from the North American Contact Dermatitis Group, 1996 to 2006.

Warshaw EM, Botto NC, Maibach HI, Fowler JF Jr, Rietschel RL, Zug KA, Belsito DV, Taylor JS, DeLeo VA, Pratt MD, Sasseville D, Storrs FJ, Marks JG Jr, Mathias CG.

North American Contact **Dermatitis** Group.

### Abstract

**BACKGROUND:** Propylene glycol (PG) may cause allergic or irritant contact **dermatitis**. It primarily functions as a vehicle, solvent, or emulsifier in cosmetics and topical medications.

**OBJECTIVES:** To characterize the prevalence of positive patch-test reactions to PG and the epidemiology of affected patients.

**METHODS:** Retrospective analysis of cross-sectional data compiled by the North American Contact **Dermatitis** Group (NACDG) from 1996 to 2006.

**RESULTS:** Of 23,359 patients, 810 (3.5%) had allergic patch-test reactions to 30% PG; 12.8% of the reactions were of definite clinical relevance (positive reaction to a personal product containing PG), 88.3% were considered to be currently relevant (definite, probable, or possible relevance), and 4.2% of reactions were occupation related, most commonly to mechanical and motor vehicle occupations. Common sources of PG were personal care products (creams, lotions, and cosmetics, 53.8%), topical corticosteroids (18.3%), and other topical medicaments (10.1%). In patients positive only to PG (n = 135), the face was most commonly affected (25.9%), followed by a scattered or generalized pattern (23.7%). The most common concomitant reactions included reactions to Myroxilon pereirae, fragrance mix, formaldehyde, bacitracin, methylidibromoglutaronitrile/phenoxyethanol, carba mix, and tixocortol pivalate.

**CONCLUSIONS:** In this select population of patients referred for patch testing, allergic reactions to PG were often currently clinically relevant but were rarely related to occupation. The most common sources were personal care products and topical corticosteroids.

PMID: 19321115 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms, Substances

LinkOut - more resources