

Series Editor: William W. Huang, MD, MPH

## Allergic Contact Dermatitis, Part 3

William W. Huang, MD, MPH

Dr. Huang is Assistant Professor and Associate Program Director of Dermatology, Wake Forest University School of Medicine, Winston-Salem, North Carolina. The author reports no conflict of interest.

Allergen	Common Sources	Other Information <sup>a</sup>
Hydrocortisone butyrate	Anti-inflammatory medications including topical formulations (ie, creams, lotions, ointments), eardrops, eyedrops, nasal sprays	Group D2 steroid; cross-reacts with group B steroids; if positive patch test, avoid desonide, fluocinonide, triamcinolone, and other group D2 and B steroids; allergen of the year 2005 (corticosteroids) <sup>b</sup>
Imidazolidinyl urea	Topical products including cosmetics, personal care products, cleansers, and detergents	Can cross-react with formaldehyde-releasing agents (eg, diazolidinyl urea, DMDM hydantoin, tris[hydroxymethyl] nitromethane, quaternium-15, bronopol)
Iodopropynyl butylcarbamate	Topical products including cosmetics and personal care products; industrial products including paints, coolants, lubricants, and weed/insect killers	Possible toxicity if inhaled acutely (respiratory distress)
Lidocaine	Topical and injectable local anesthetics	Amide-type anesthetic; allergy to lidocaine often is caused by the preservative methylparaben; class 1B antiarrhythmic drug
Mercapto mix	Products containing rubber (eg, shoes, gloves, sports equipment, rubber bands, masks, tubing, hoses)	Contains <i>N</i> -cyclohexyl-2-benzothiazyl-sulfenamide, dibenzothiazyl disulfide, and morpholinylmercaptobenzothiazole; can have cosensitization (coreaction) with chemicals involved in rubber production (eg, thiurams, carbamates)
Mercaptobenzothiazole	Products containing rubber (eg, shoes, gloves, sports equipment, rubber bands, masks, tubing, hoses)	Can have cosensitization (coreaction) with chemicals involved in rubber production (eg, thiurams, carbamates, mercapto mix)
Methylchloroisothiazolinone	Topical products including cosmetics, personal care products, cleansers, and detergents; acrylic paints	Biocide and preservative; common cause of contact dermatitis from diaper wipes; commonly used in products combined with methylisothiazolinone
Methyldibromo glutaronitrile	Topical products including cosmetics and personal care products	
Methylisothiazolinone	Topical products including cosmetics, personal care products, cleansers, and detergents; acrylic paints	Commonly used in products combined with methylchloroisothiazolinone; allergen of the year 2013 <sup>b</sup>
Neomycin sulfate	Topical antibiotics for the skin, ears, and eyes	Can have cosensitization (coreaction) with other topical antibiotics (eg, gentamicin, bacitracin) and systemic antibiotics (eg, streptomycin, kanamycin); allergen of the year 2010 <sup>b</sup>
Nickel sulfate	Clothing, jewelry, tools, metal alloys, and certain foods (eg, soybeans, shellfish, canned foods, nuts, raisins, tea, chocolate)	Dietary exposure can cause dermatitis in sensitized individuals; allergen of the year 2008 <sup>b</sup>

<sup>a</sup>Cross-reactions occur between 2 allergens that are chemically similar, whereas cosensitization (or coreaction) occurs between 2 chemically unrelated substances that are commonly found together in the same preparation or product.

<sup>b</sup>Allergen of the year is awarded by the American Contact Dermatitis Society.

## Practice Questions

- 1. Which of the following is an amide-type anesthetic?**
  - a. benzocaine
  - b. cocaine
  - c. lidocaine
  - d. procaine
  - e. tetracaine
- 2. A patient is referred for patch testing for suspected allergic contact dermatitis and is found to have positivity to hydrocortisone butyrate. The patient should try to avoid all of the following, *except*:**
  - a. desonide
  - b. desoximetasone
  - c. fluocinolone
  - d. fluocinonide
  - e. triamcinolone
- 3. A patient with a documented contact allergy to neomycin sulfate should avoid all of the following medications, *except*:**
  - a. bacitracin
  - b. gentamicin
  - c. kanamycin
  - d. mupirocin
  - e. streptomycin
- 4. Imidazolidinyl urea can cross-react with all of the following, *except*:**
  - a. diazolidinyl urea
  - b. DMDM hydantoin
  - c. para-aminobenzoic acid
  - d. quaternium-15
  - e. tris(hydroxymethyl)nitromethane
- 5. Mercaptobenzothiazole can coreact with all of the following, *except*:**
  - a. carbamates
  - b. dibenzothiazyl disulfide
  - c. mercapto mix
  - d. methyl dibromo glutaronitrile
  - e. thiurams

*Fact sheets and practice questions will be posted monthly. Answers are posted separately on [www.cutis.com](http://www.cutis.com).*