

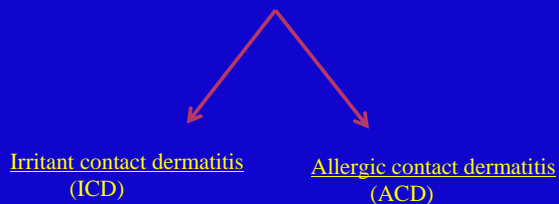
## Occupational Contact Dermatitis

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**NECOEM/MaAOHN Annual  
Meeting**  
December 4, 2008

## Disclosures

- American Contact Dermatitis Society- Board of Directors
- No conflicts of interest
- TRUE test is the only FDA approved device for patch testing in the US

## Occupational Contact Dermatitis



## History

- What exactly does patient do in his/her job?
- What materials does patient use?
  - Glues? Epoxies? Acrylates?
- Check Material Safety Data Sheets (MSDS)  
1-800 # at top is usually most helpful
- Literature search if necessary

## History

- Protective gloves/gear? What type?
- New product or new procedure in the workplace?
- Cleansers? Skin protectants (creams) used?
- Other workers affected?
- Better on weekends/vacations?
- Recreational exposures?

## Physical exam

- Is the exam consistent with likely exposure?
- Splash?
- Airborne?
- Systemic?

### What series?

- At a minimum: a Standard and Preservative series
- Rubber glove use (synthetic or natural): rubber series; piece of glove
- Vinyl glove use: plastic & glue series; epoxy series; piece of glove
- Epoxy use: epoxy series; if all neg, test actual epoxy used (dilute)

### Series/items to test (cont'd)

- Machinist : oil and cooling fluid series; metals; waterless cleansers; piece of glove
- Dilute soaps to 1-5%
- Health Care Workers (HCW): rubber series; soaps; piece of glove
- Nail salon: acrylate series
- Dentist/technician: rubber (gloves), dental series (acrylates, metals, some epoxies)
- Florist: plant series

### What not to test?

- Never put an unknown substance brought in by a patient under occlusion!!
- For known work substances only “stay on” products (creams, lotions) can be put under occlusion
- For appropriate concentration/vehicles, check De Groot's \*book
- Do literature search

\*De Groot AC; Patch testing: test concentrations and vehicles for 4350 chemicals. 3<sup>rd</sup> ed. The Netherlands: Acdegroot Publishing, 2008.

### High risk occupations

- Exposure to multiple repetitive hand washings, irritating and sensitizing chemicals, mechanical friction
- Glove use (nitrile and latex)
- Health care workers, machinists, mechanics, construction workers, florists, hair dressers

### Mathias criteria for diagnosis of Occupational Contact Dermatitis (OCD)

- 1) Clinical appearance c/w contact dermatitis?
- 2) Workplace exposure to allergens or irritants?
- 3) Anatomic distribution c/w job exposure?
- 4) Temporal relationship between exposure and onset c/w contact dermatitis?

### Mathias criteria for OCD (contd)

- 5) Non occupational sources excluded?
- 6) Improvement away from work?
- 7) Patch or provocation tests identify a probable cause?

4/7 needed to establish diagnosis of OCD

*Mathias CT; J Am Acad Dermatol 1989; 20: 842*

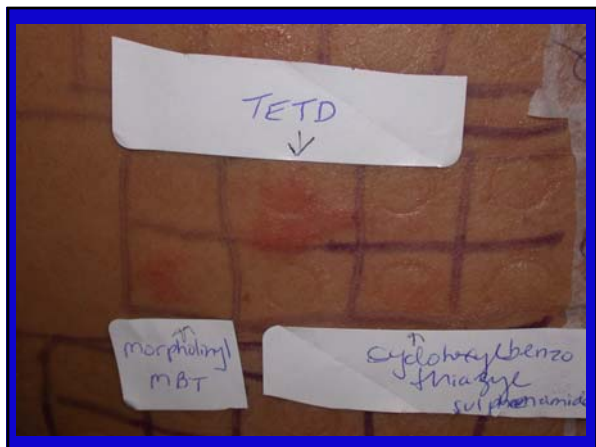
## Health Care Workers

### ACD in Health Care Workers

- Between 1998- 2004 ~ 16000 patch tested
  - 8% health care workers
- Female and hand involvement  $p < .05$
- 18% HCW had clinically relevant allergens
- Carba and thiuram mix most common occupationally related allergens
- Other allergens: glutaraldehyde, cocamide diethanolamine, and chloroxylenol .

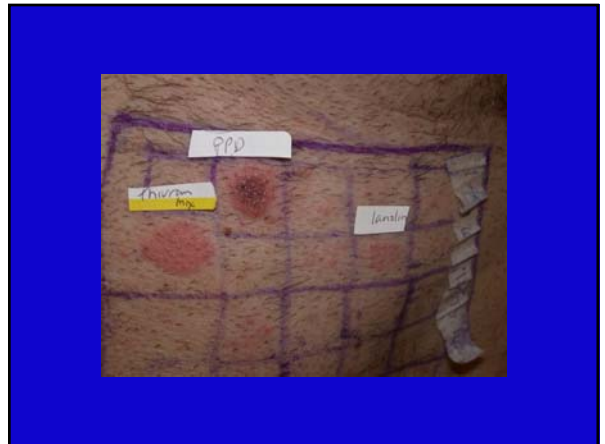
*Dermatitis 2008;19(5):261*







Hairdressers

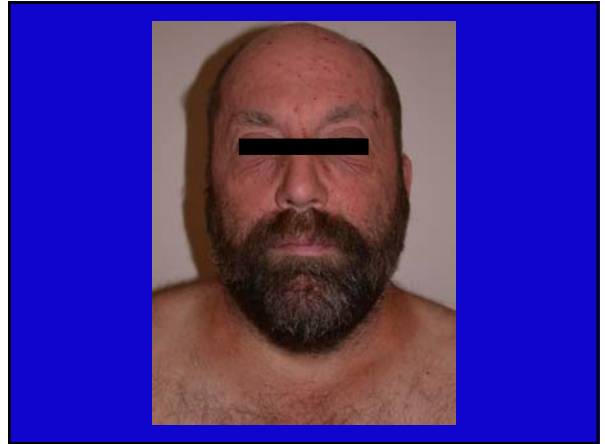




Nail Salon Worker



Construction Workers



Granite and laminate cutter





**Laminate worker**

