

# CONTACT DERMATITIS

## Dermatitis

- Erythema
- Papule-vesicles
- Scaling

# Classification

- Irritant C.D.
  - Acute Irritant
  - Irritant reaction
  - Cumulative

- Allergic Contact Dermatitis
- Photo contact Dermatitis
  - Photo toxic
  - Photo Allergic
  - Photo Aggravated
- Immediate type contact reaction

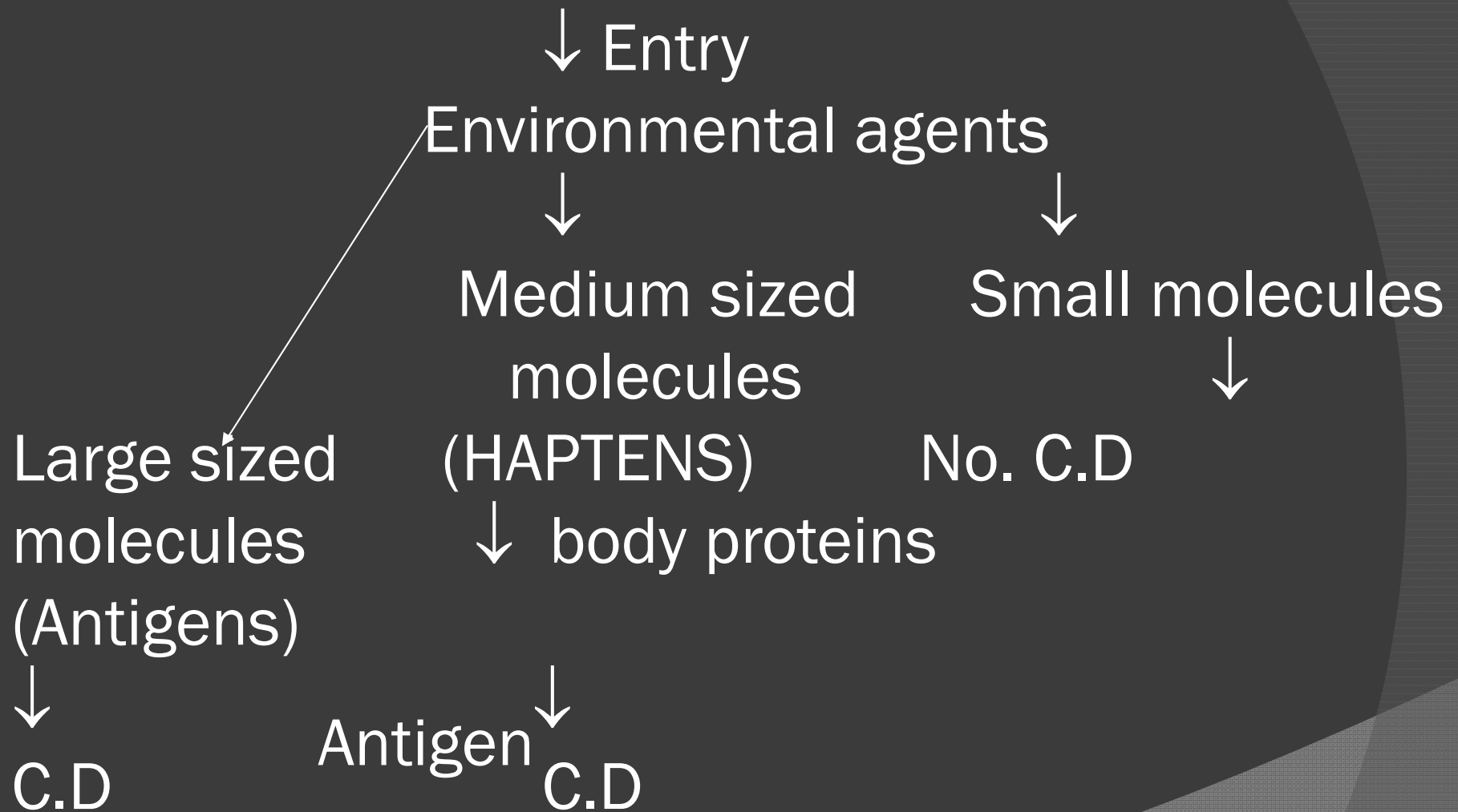
# Allergic Contact Dermatitis

- Type IV
- Immunological

- Primary Sensitization
  - High dose
  - Repeated exposure
  - No dermatitis on first exposure
  - Continues

# PATHOGENESIS

- Break in skin barrier function  
- surface film



- Individual susceptibility
  - Associated factors
- Repeated exposure

- Occupation
- Seasonal factors
- Immune status

# ALLERGENS

- Metals - Ni, Co, Cu, Cr
- Rubber - Carba-mix,  
Thiuram Mix-Shoe
- Chemical - Formaldehyde  
Textile dye

Drugs

-

Nitrofurantoin

Neomycin

Framycetin

Cosmetics

-

Nail polishes

Perfumes

Shaving cream

Deodorants

Plants

-

Compositae

Poison ivy

# SITE

## FACE

- Cosmetics, face
- Nail polish
- Scalp cosmetics

- Eye drops
- Ear drops
- Air borne contact dermatitis
- Photo contact

# HANDS

- Household
  - Detergents
  - Veg. Juices
  - Soaps



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- Occupational
  - Chemical
  - Cement
  - Type writing

- Cosmetics
- Drugs
- Metals
- Plastic

# HIGH RISK OCCUPATIONS

- Household work
- Catering
- Cleaning

- Nursing
- Building – construction
- Hair dressing
- Auto mobile work

- Engineering
- Gardening
- Horticulture
- Dairy farming

# Allergic Contact Dermatitis

## Common sources

Jewellery

Clothing *Nickel*

Wristwatch *cobalt*

Scissors

Cooking utensils



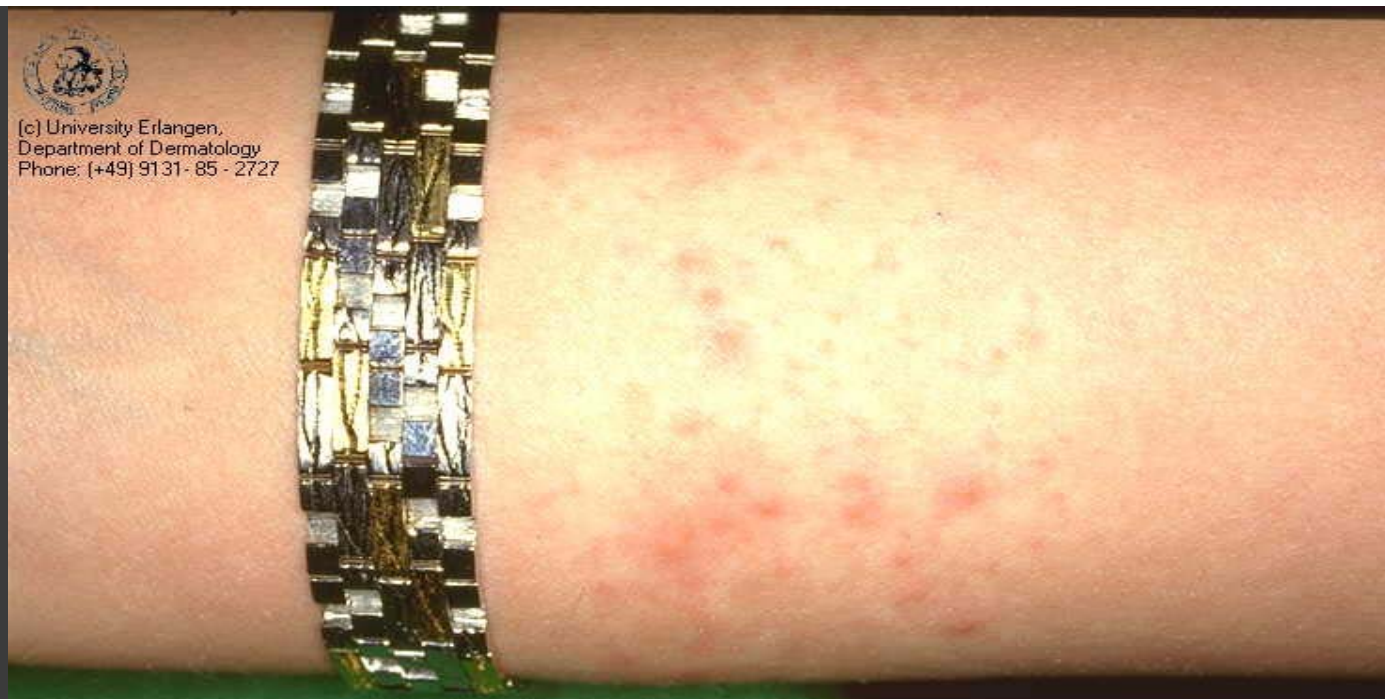


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Cement

Leather

Hair dyes

Shoes

*Chromate*

*Paraphenylenediamine*

rubber gloves *Rubber*  
boots *Preservative*  
*Chemicals*



reams  
intments  
osmetics

*Preservatives  
(parabenzquarternium)  
Balsam of Peru  
Fragrances  
Lanolin*



Medicated ointments

*Neomycin*

*Benzocaine*



# DIAGNOSIS

- Dermatitis - Localized
- SITE - Pattern
- Identify allergens
- Patch testing

# PATCH TESTING

in chambers

O

O

O

O

O

O

O

O

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O



# CLOSED PATCH TEST

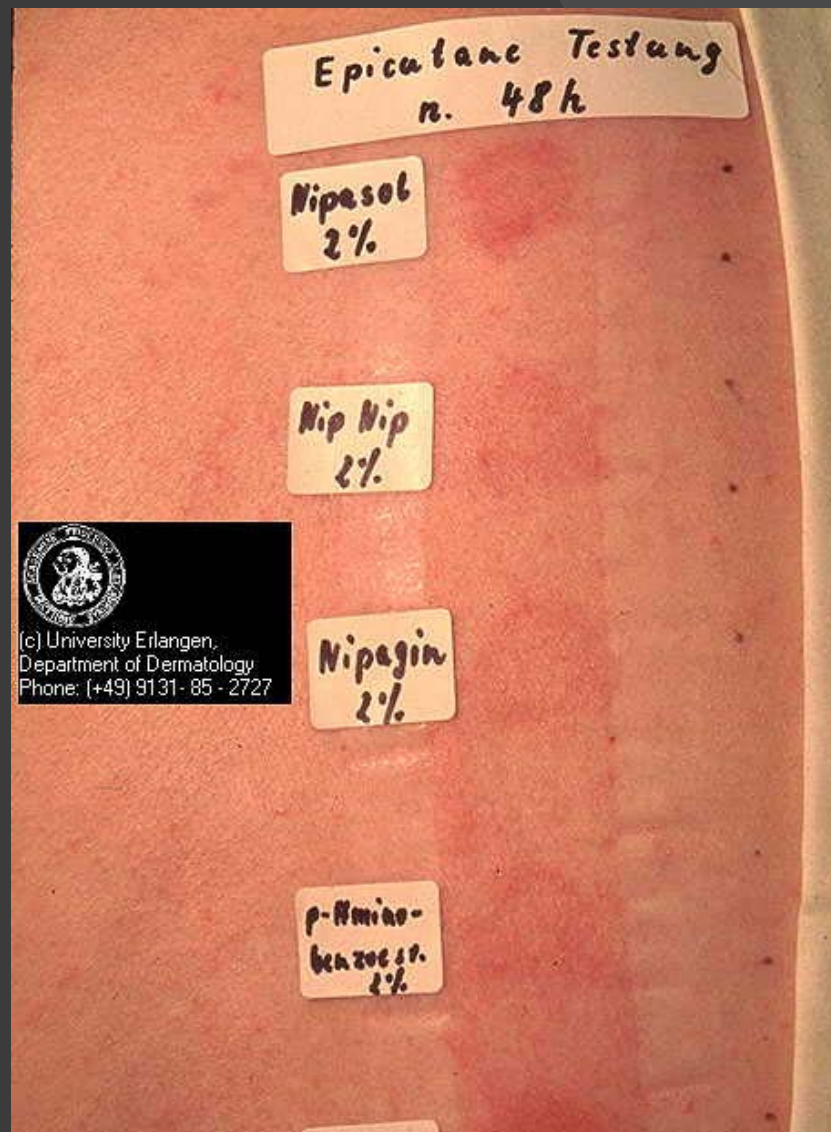
very low conc.

nce

4 hr - 48 hr 1<sup>st</sup> reading

- 72 hr 2<sup>nd</sup> reading

ack





## OPEN PATCH TEST

- Use same conc.
- Apply repeatedly
- Fore arm

# PHOTO PATCH TEST

- Apply 24 hours



Expose

## CONTRAINDICATION:

- Active dermatitis
- Patient on immuno suppressive  
eg steroids >20mg/day
- Strong & common sensitizers

# Treatment

- Choice
  - Keep allergen & Allergic (AWAY)
- Once – sensitized – continues indefinitely
- Avoid allergen
  - Frequent washing
  - Change occupation
  - Change life style

- Desensitization
  - Rarely successful
- Antihistamines

- Immunosuppressives
  - Gluco-corticoids
    - Topical
    - Systemic
- Cytotoxics
  - Azathioprine
  - Cyclophosphamide

# CONTACT URTICARIA

## TYPE I

- Immunological – Common

Release Histamine

- Non - immunological - Rare

- Eggs
- Vegetables and Fruits
- Potatoes
- Hair dye
- Silk
- Fur
- Walnuts
- Latex rubber
- Meat

# irritant Contact Dermatitis

Non – immunological

Direct toxic effect

Single or multiple compounds

# Acute Irritant Contact Dermatitis

- Acute
- Eczematous

Single significant exposure

- Alkali
- ACIDS
- Caustics



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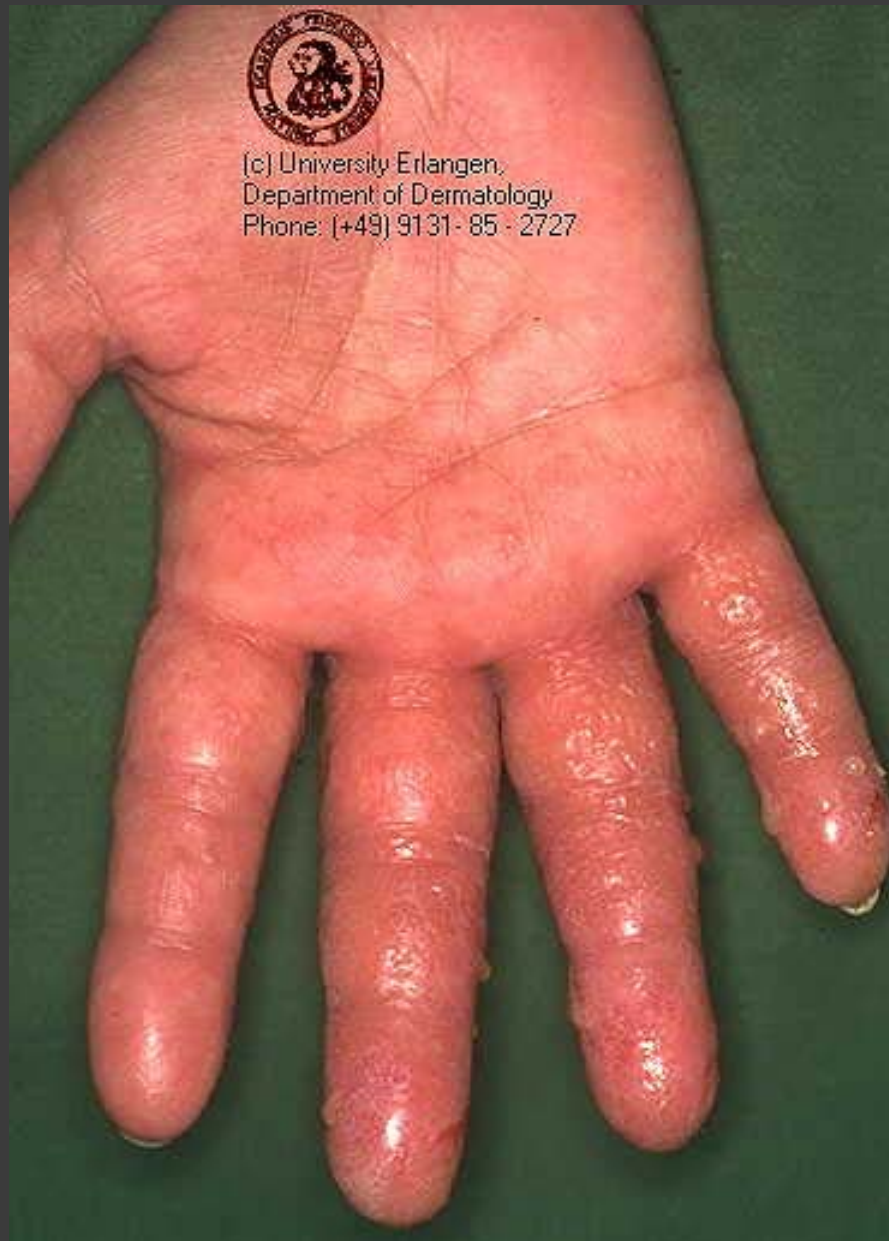
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# Irritant Reaction

- Mild
- Repetitive
- Non eczematous
- Sub acute

# ummulative Irritant Dermatitis

Low conc.

- Multiple

- Repeat

- Chronic  
House-wife dermatitis
- Hair dresser
- Detergents
- Veg. juices

# PHOTOCONTACT DERMATITIS

- Photo (Light) - (U.V.) + Allergen

# PHOTO TOXIC

Tar

Psoralens

Citrus fruits

Drugs



- Sulfonamides
- Tetracyclines
- Griseofulvin
- Ciprofloxacin
- Cadmium (Tattoos)

# PHOTO ALLERGIC

- Phenothiazines
- Sulf – Topical
- Musk – ambrette
- Meosin – lipsticks
- Hair tonics
- PABA

# PHOTOAGGRAVATED

# PHYTOPHOTODERMATITIS

Plant juices + U.V.

- Babachi plant
- Poison - Ivy



# Air borne Contact Dermatitis

- Plants
- Saw dust
- Cement
- Vaporizing substances
  - Fertilizer

# ARTHENIUM DERMATITIS

Congress-grass

GAJAR GHAS



- Shrub
- White flowering – composite
- C.D. – all parts
  - Leaves, dried plant dust  
flowers, pollen

- Onset - Direct Contact
- Recurrence - Air borne
- Season - May - December
- Sites - Exposed, Flexures

- Sensitizer
  - Sesquiterpene – Lactones
  - Parthenin
  - Ambrosin

- **Cross sensitization:**

- Marigold

- Sunflower,

- Chrysanthemum

- Tulip-tree

- Ragweed

# treatment

Topical therapy-Topical steroids

## Oral Therapy

- Antihistamines
- Antibiotics
- Oral Steroids

Allergy management

- Desensitization