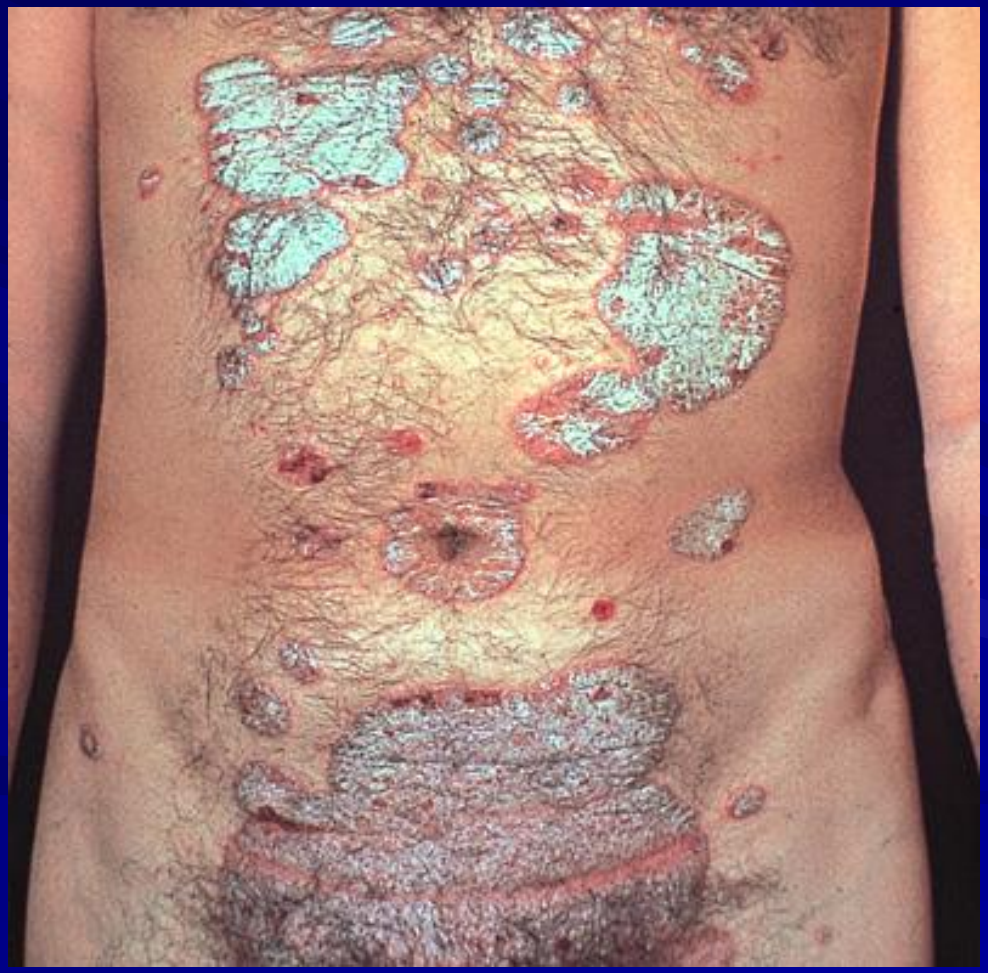
Pharmacotherapy of Common Skin Diseases

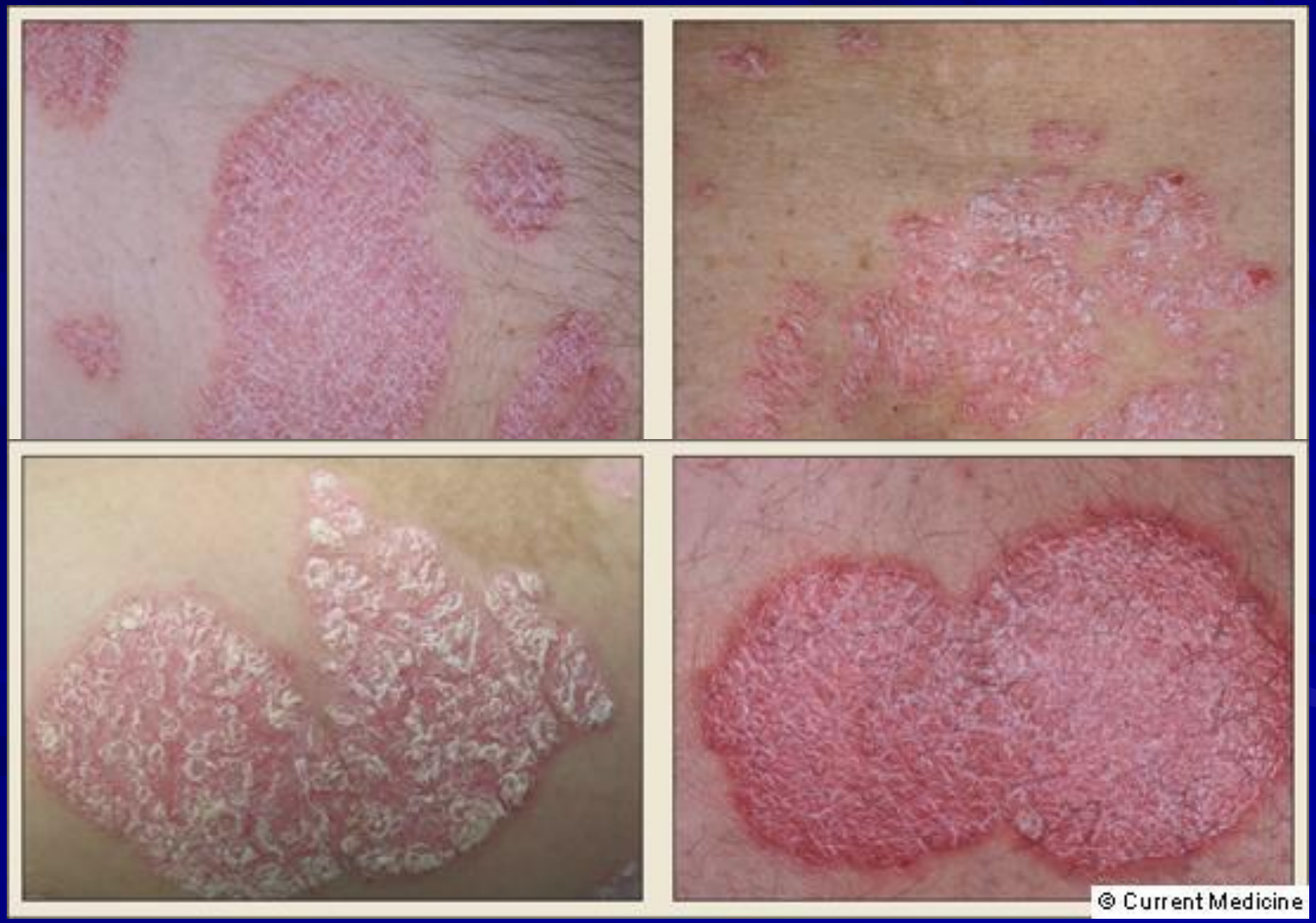
Psoriasis



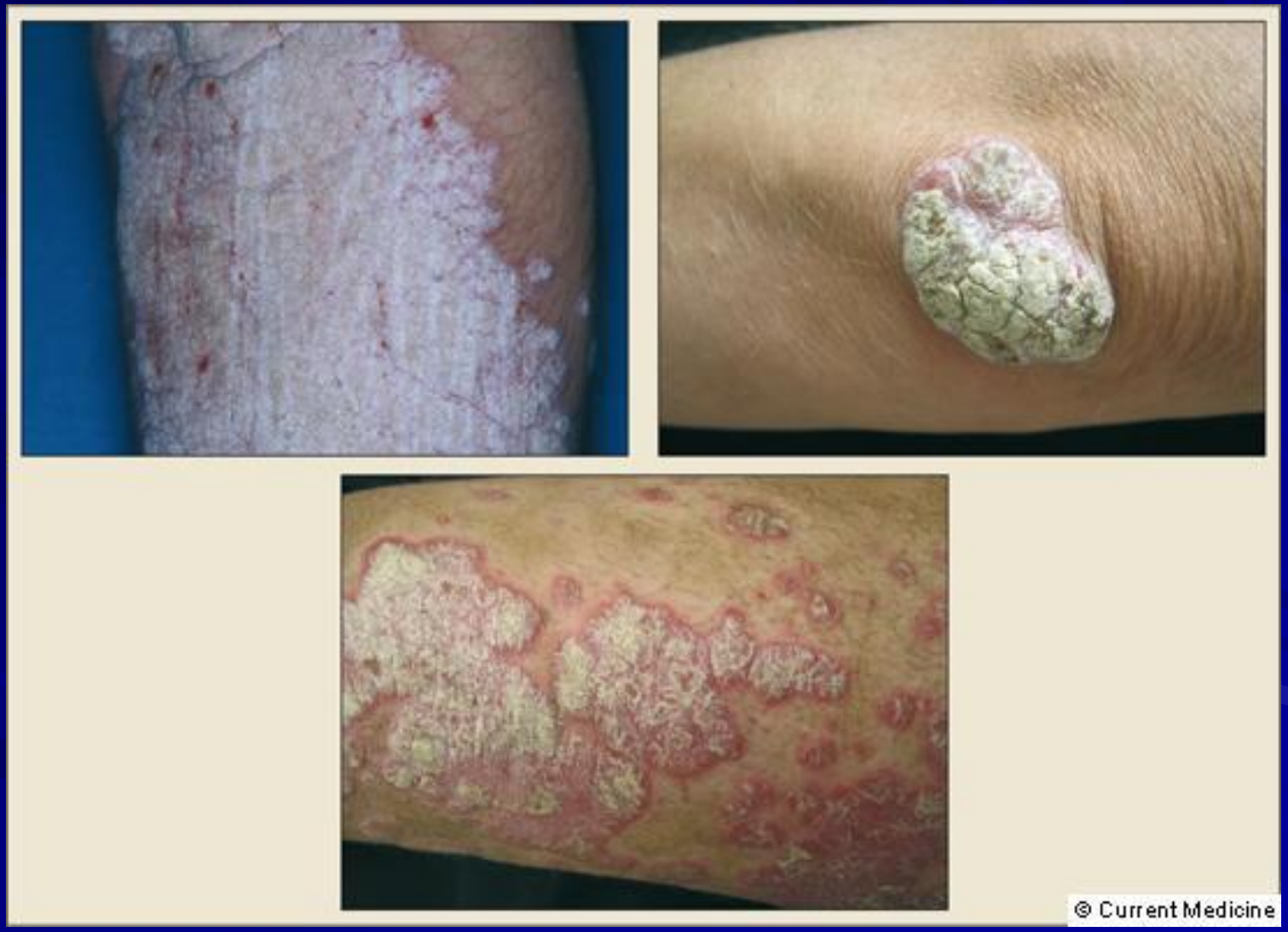
Psoriasis

- Defined: A chronic eruption of scaly plaques on the extensor surfaces that may involve the scalp and nails.
- Types: Vulgaris, Guttate, Pustular, Erythrodermic, Scalp, Palmoplantar, Nail.
- Primary Lesion: well-defined plaque with thick silvery scale.
- Keys to Dx: Distribution; Pitting of nails.

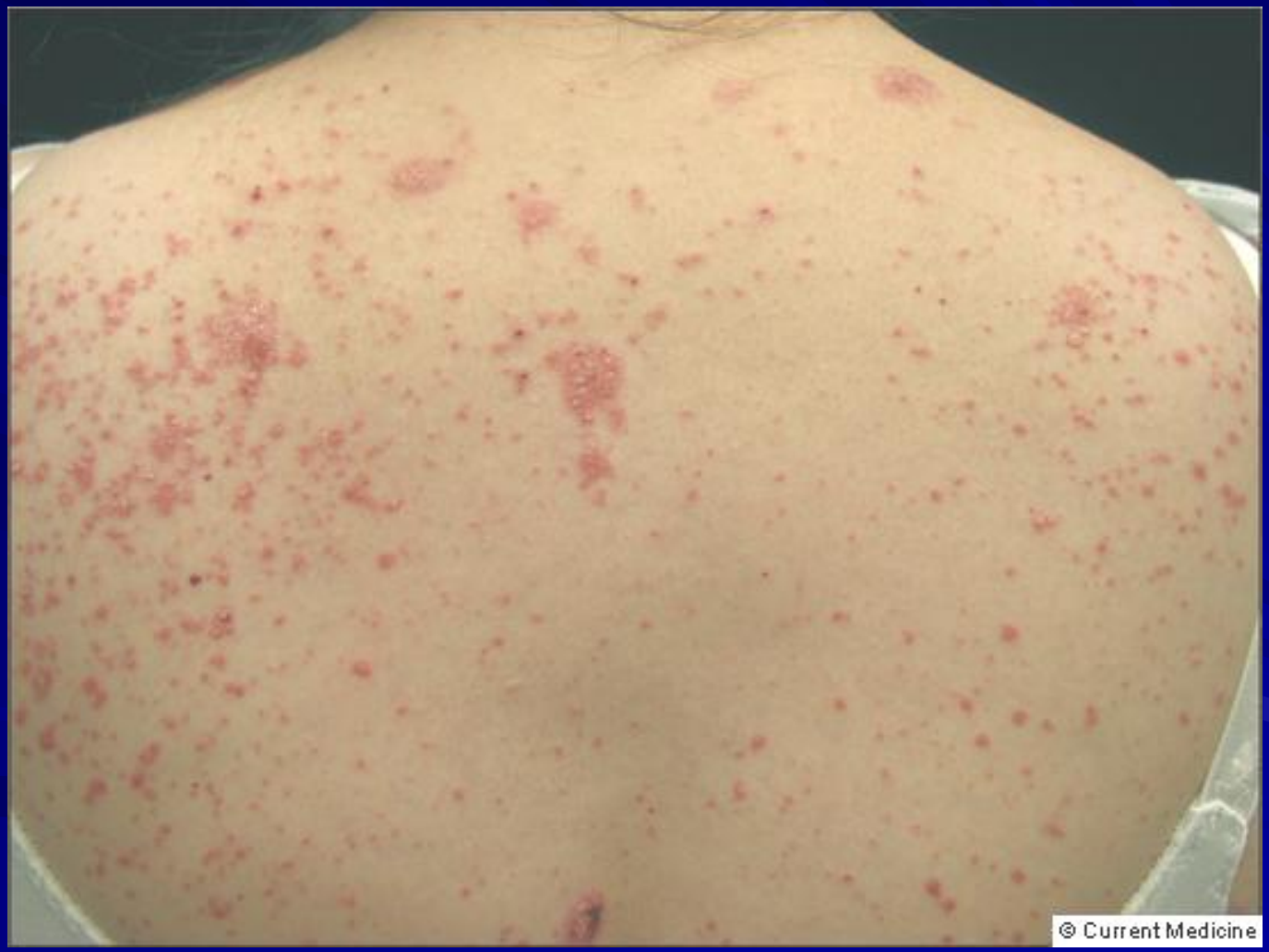
Plaque-type Psoriasis Vulgaris



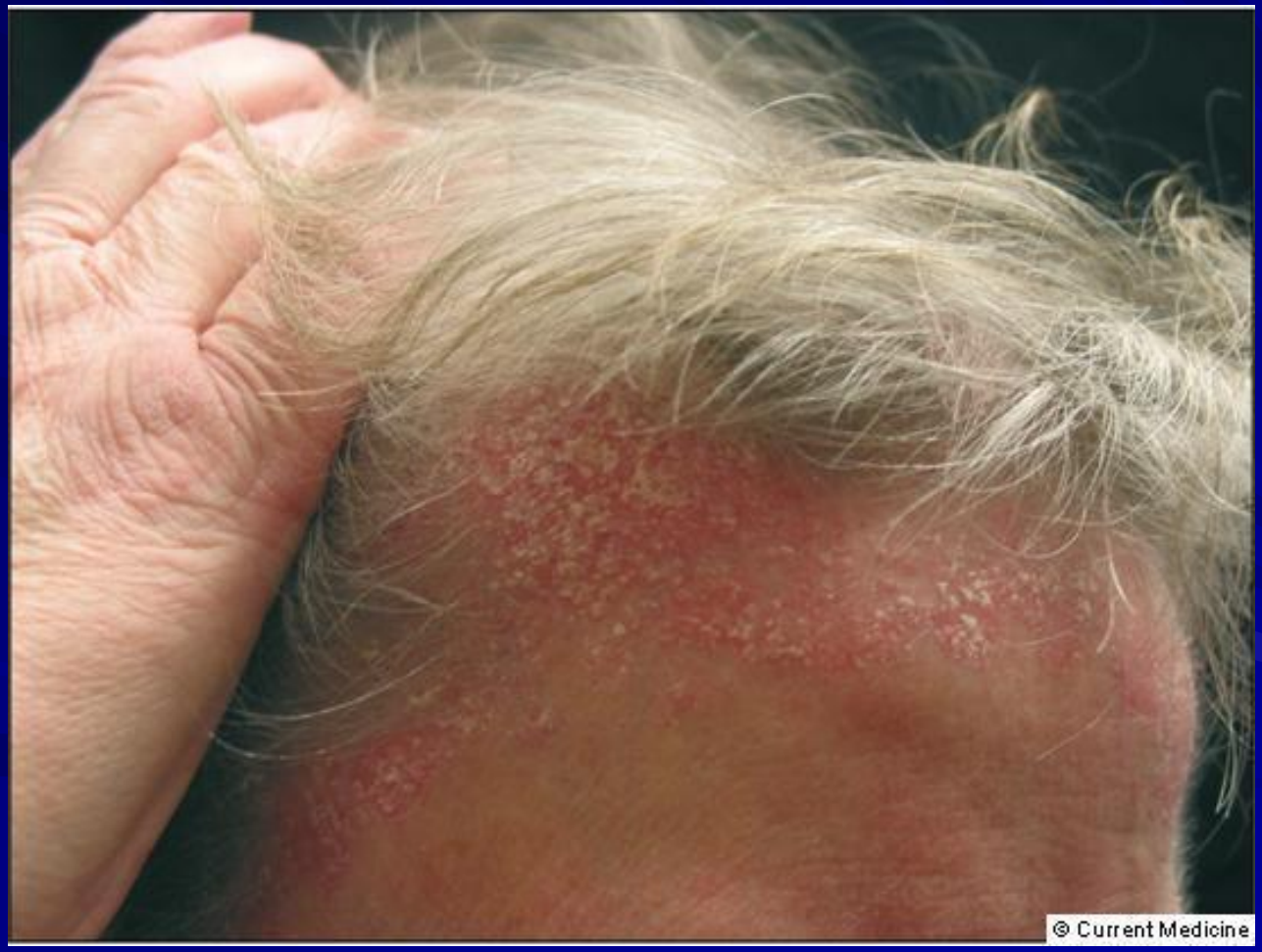
Plaque-type Psoriasis Vulgaris



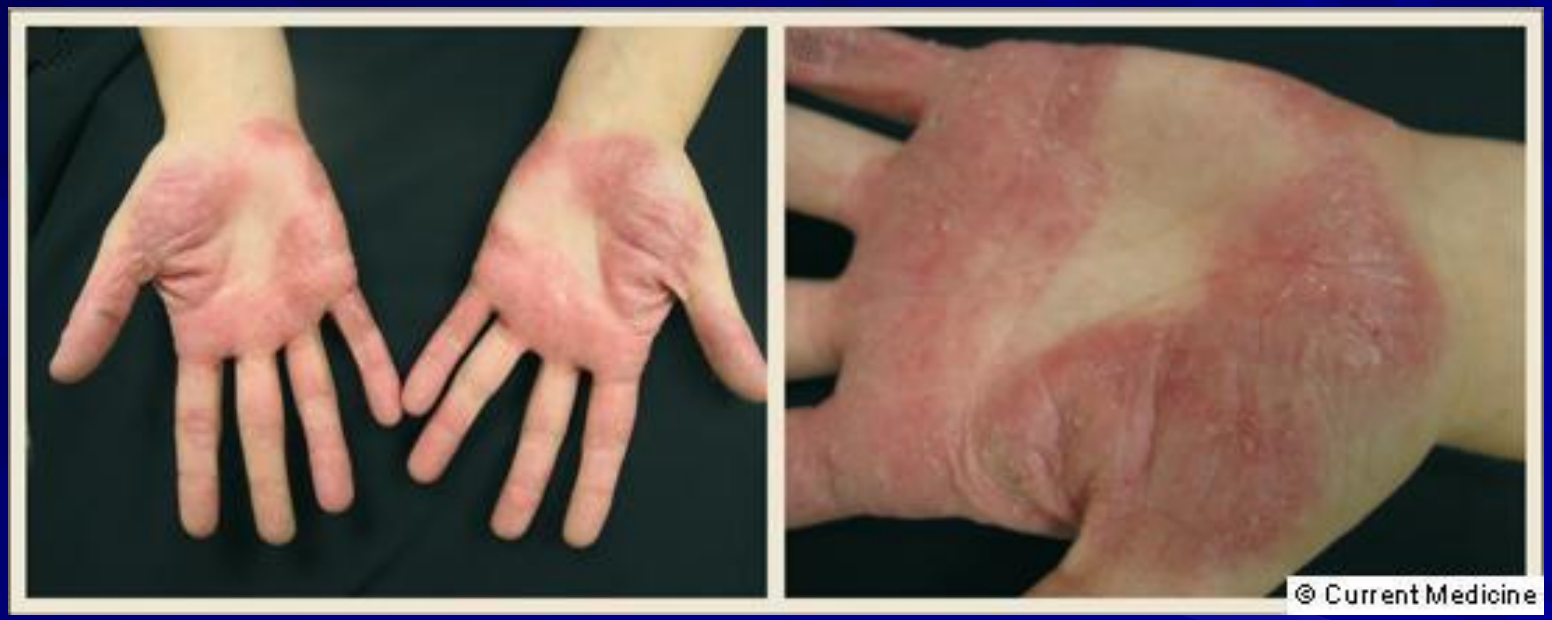
Guttate Psoriasis



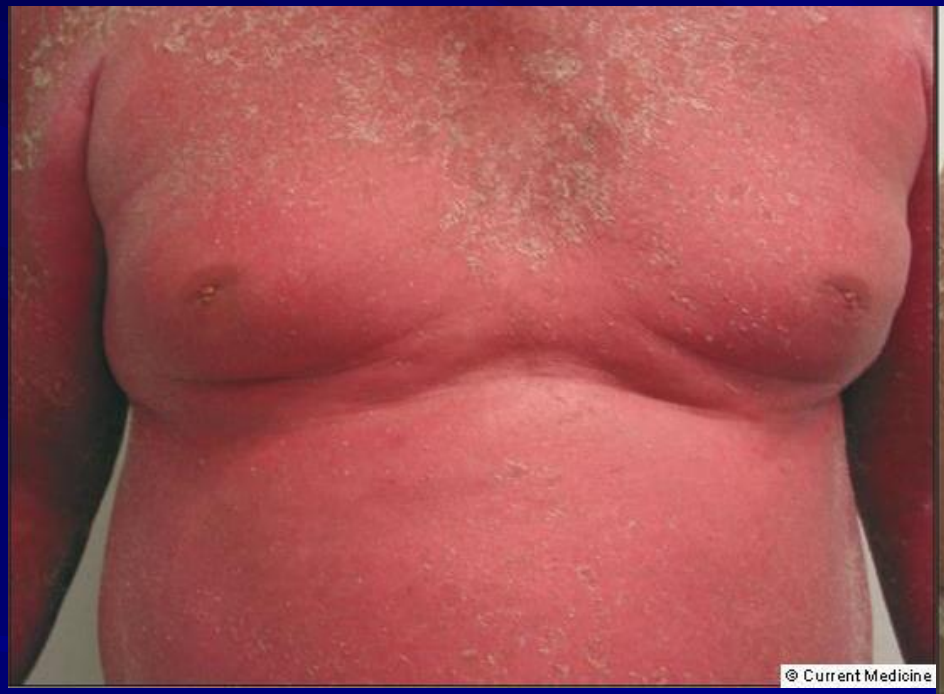
Scalp Psoriasis

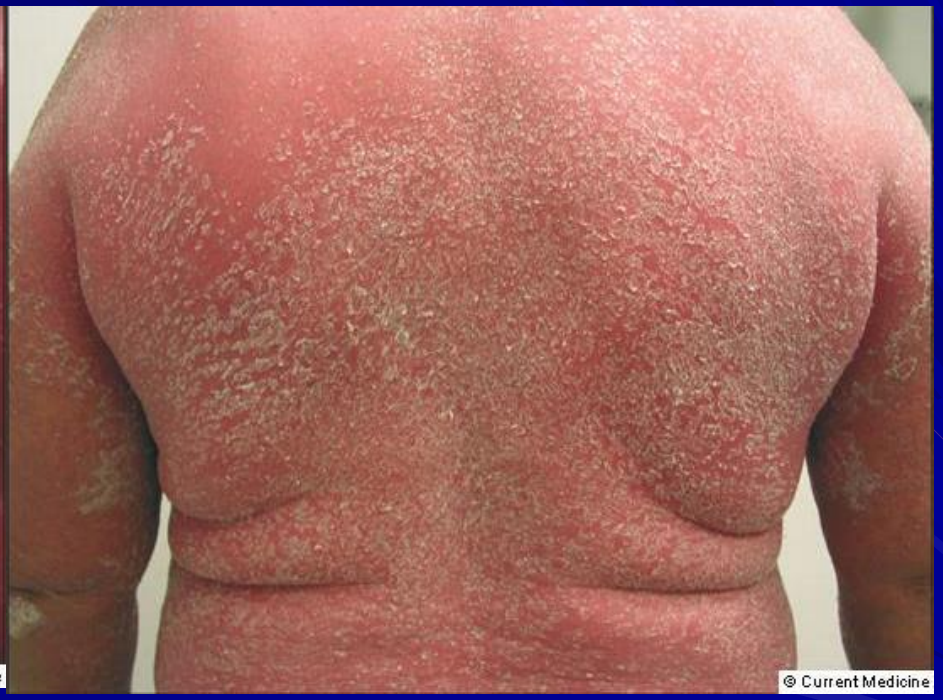


Palmoplantar Psoriasis

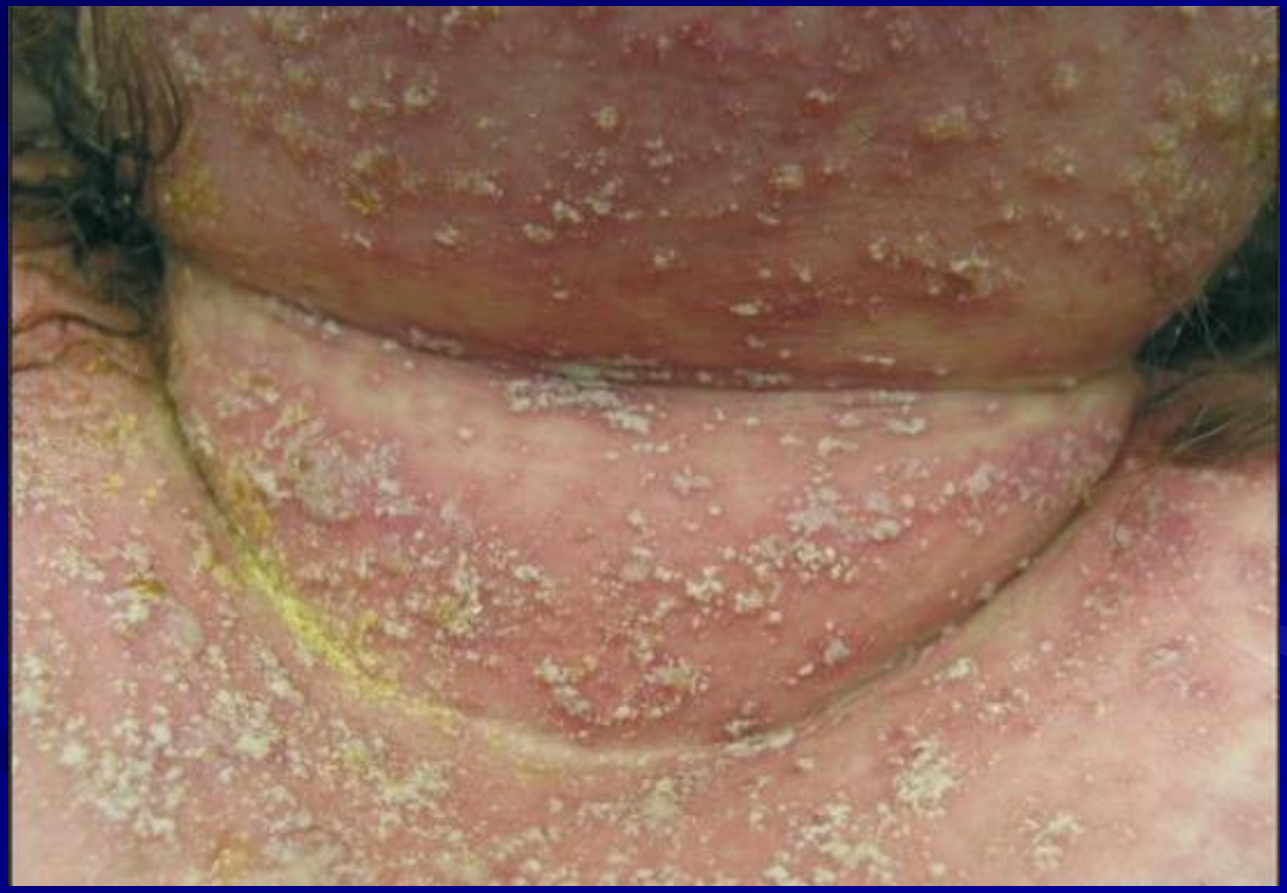


Erythrodermic Psoriasis

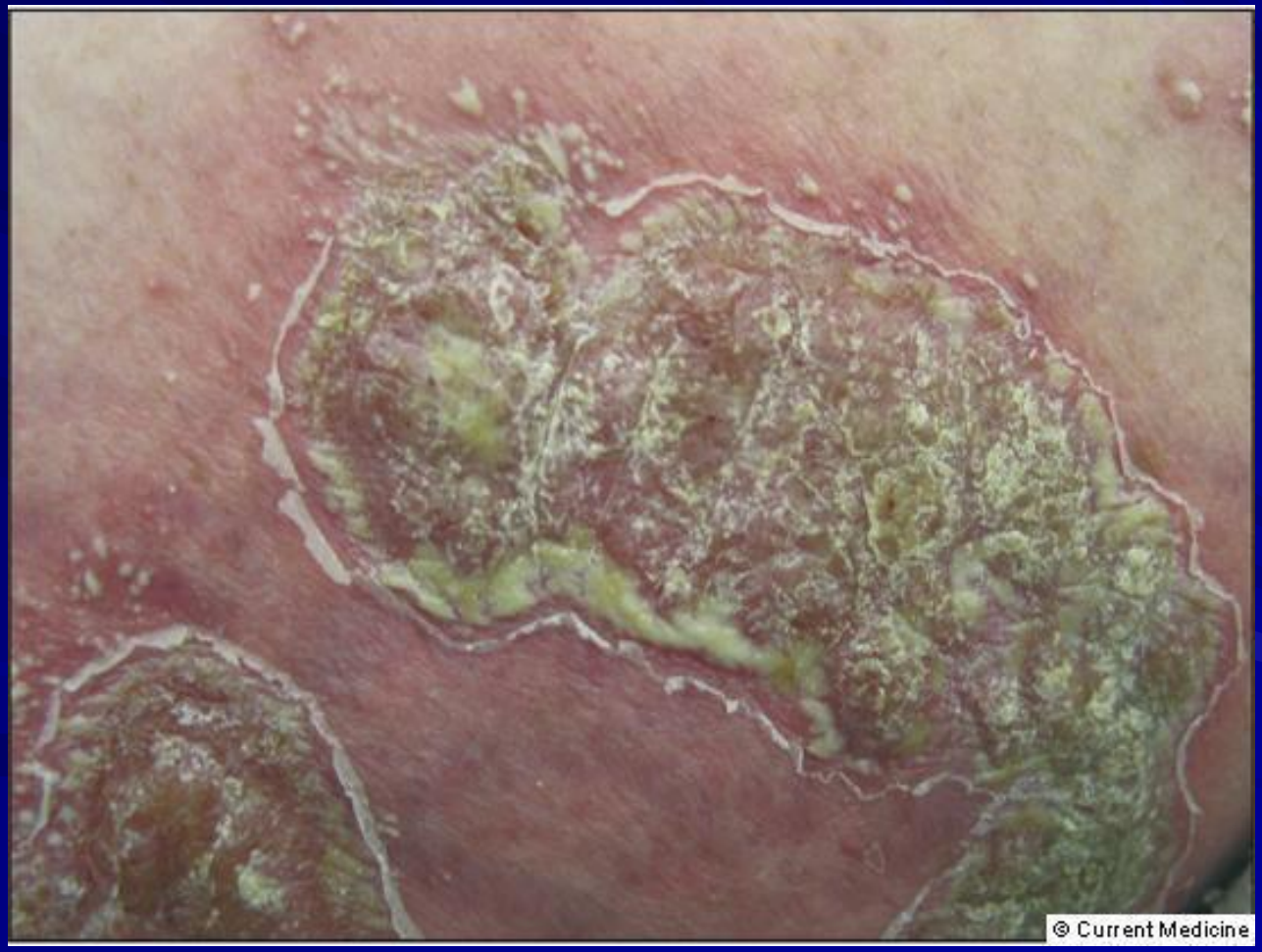




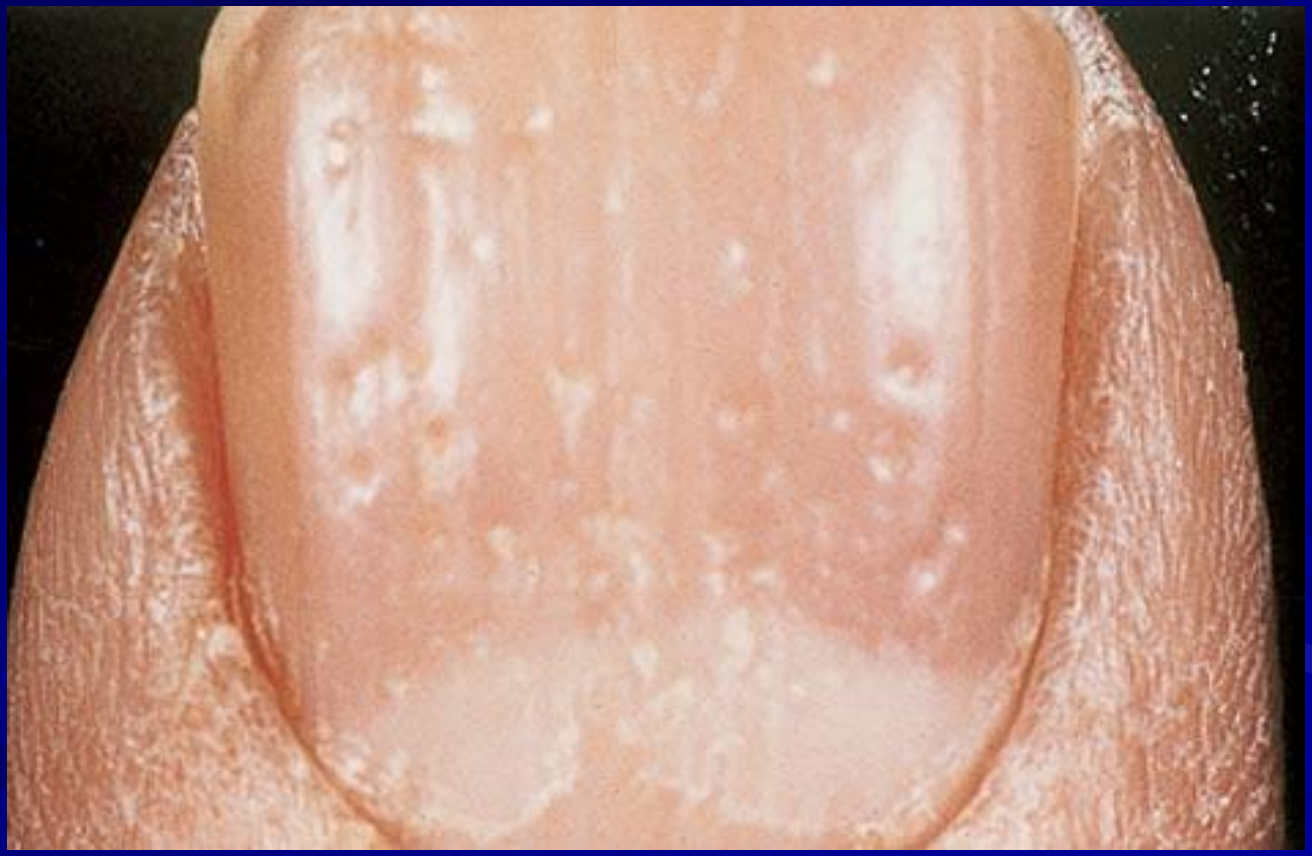
Pustular Psoriasis



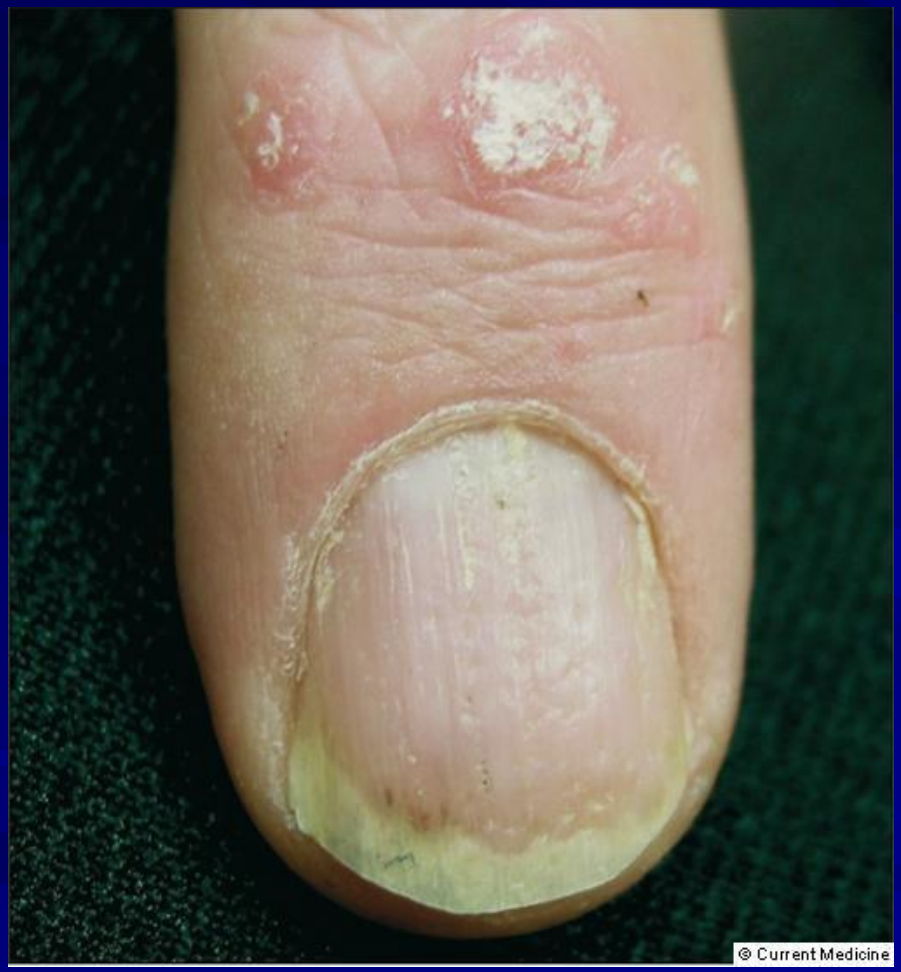
Pustular Psoriasis

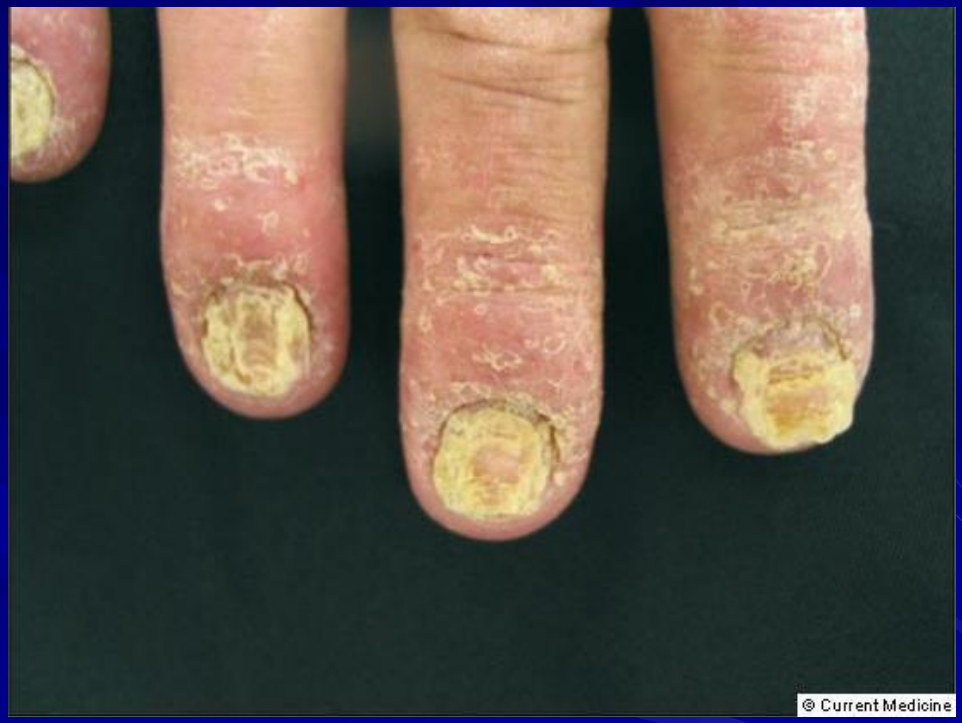


Pitted Nails of Psoriasis

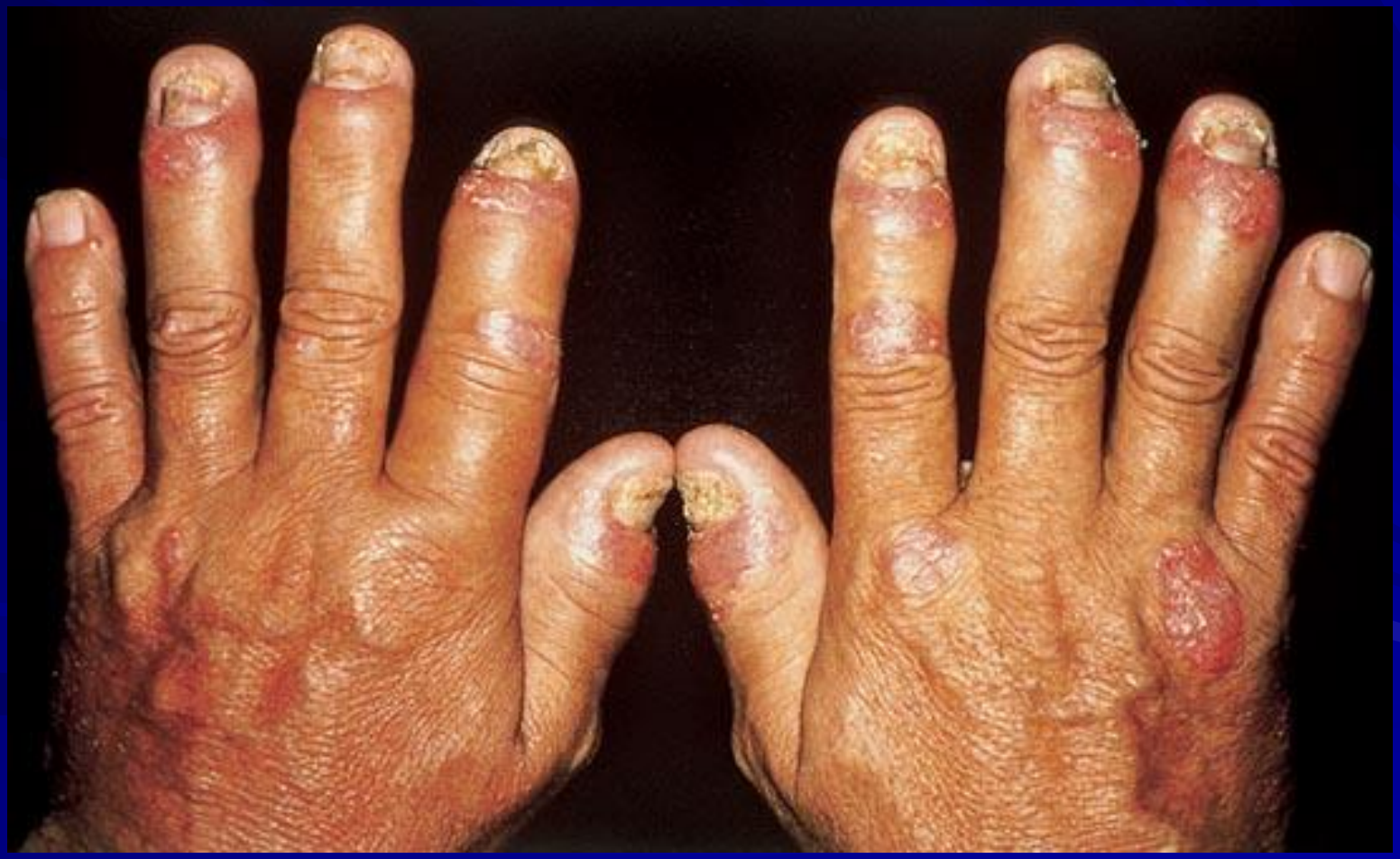


Psoriatic Nail Disease

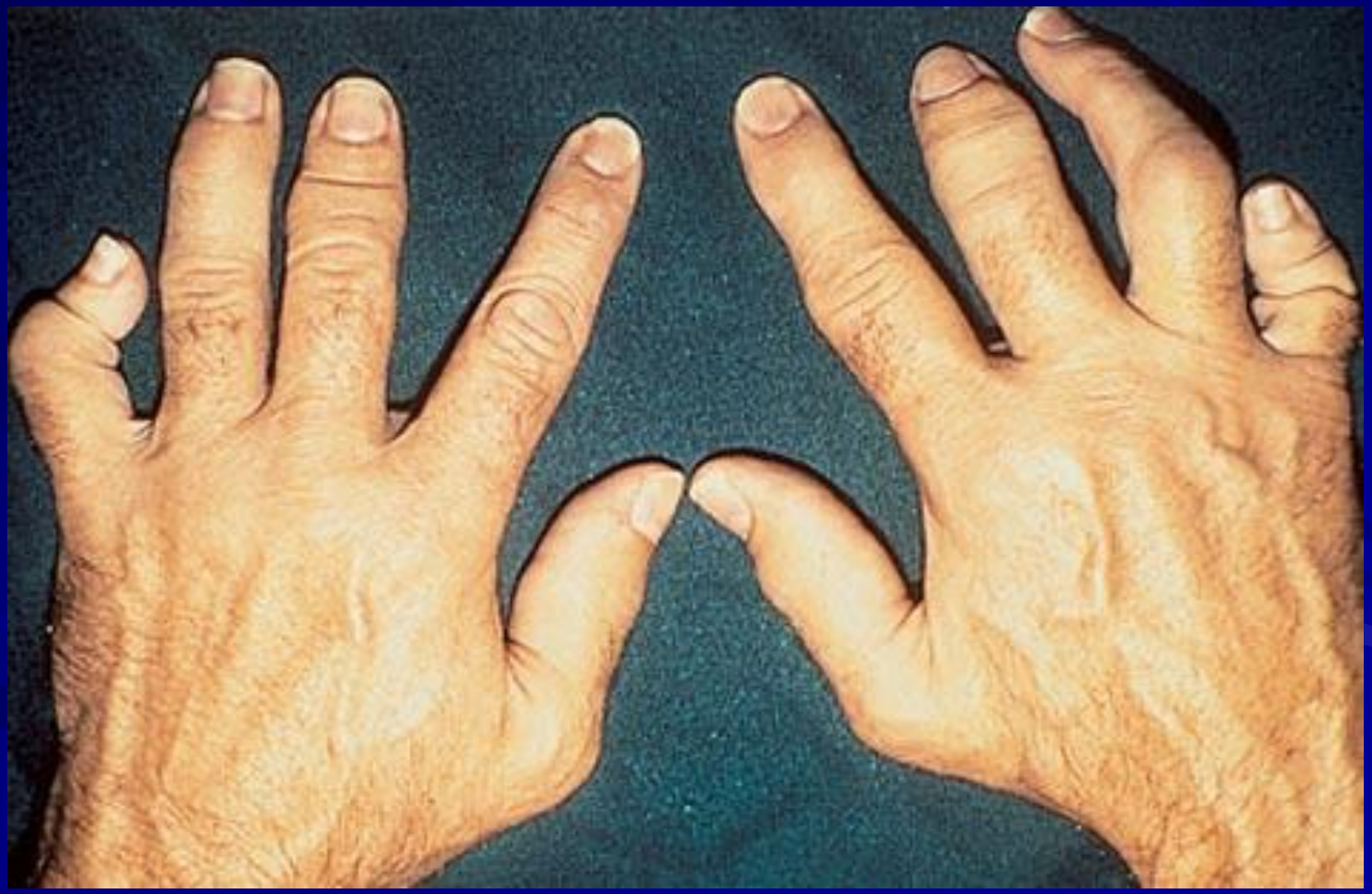




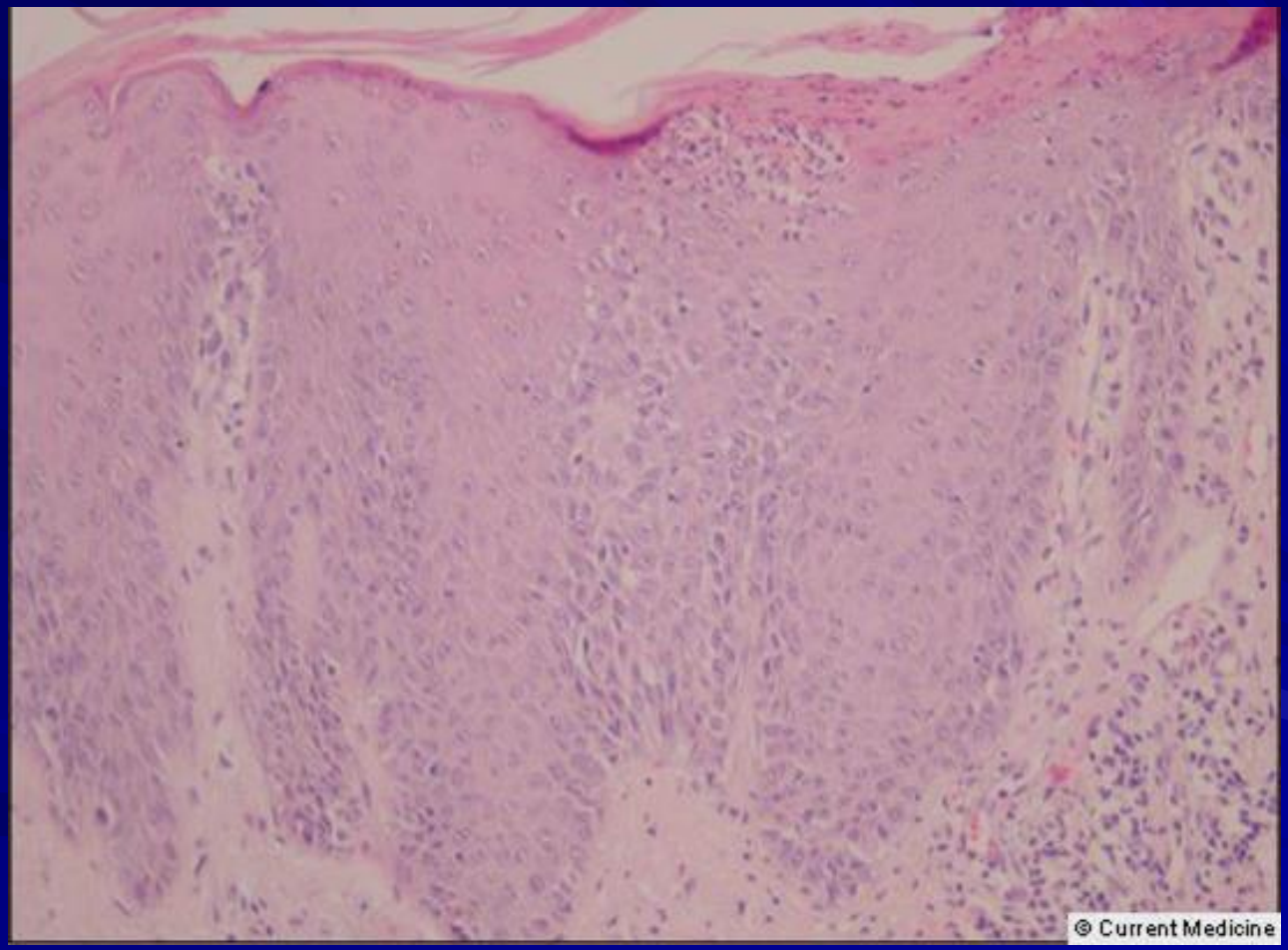
Clinical features of psoriatic arthritis



Clinical features of psoriatic arthritis



Histopathology of psoriasis



Psoriasis: Pathophysiology

- Etiology unknown: possible genetic, environmental, physical factors?
- Main defect: rapid turnover of epidermal maturation (differentiation).
  ***Normal epidermal transit time = 30 days
  ***Psoriasis epidermal transit time = 7-14 days
- T cell mediated cytokine release (eg. TNFa)

Topical Steroid Potency Rankings
I= Strongest, VII= Weakest

- Class I*
  -Betamethasone diproprionate 0.05 % oint (Diprolene)
  -Clobetasol propionate 0.05% oint & cream (Temovate)
- Class II*
  -Flucinonide 0.05% oint (Lidex)
  -Amcinonide 0.1% oint (Cyclocort)

  ***NEVER ON FACE OR SKIN FOLDS**
- Class III
  -Triamcinolone acetonide 0.1% oint (Aristocort)
  -Amcinonide 0.1% cream (Cyclocort)
  -Halcinonide 0.1% oint (Halog)

Psoriasis: Therapeutic Modalities

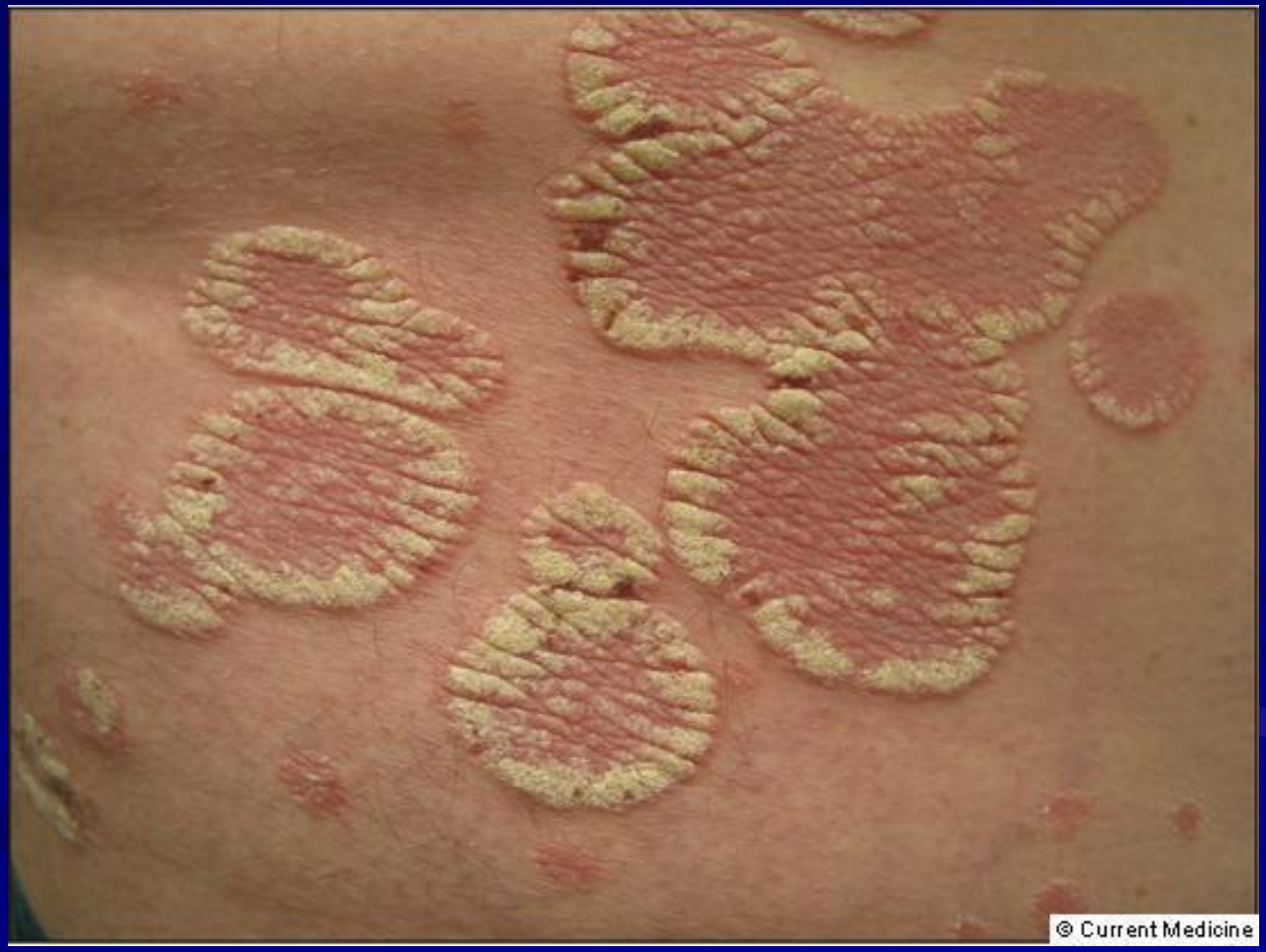
- Topical steroid creams and ointments
- Topical calcipotriene cream and ointment
- Topical tazarotene (retinoid) gel
- Topical tar containing ointments
- Phototherapy (UVB & PUVA)
- Oral methotrexate, acitretin (retinoid), or cyclosporine
- Injectable biologic response modifiers
  - etanercept, efalizumab, adalimumab, infliximab,

Topical Steroid Potency Rankings I= Strongest, VII= Weakest

- Class IV
  - -Hydrocortisone valerate 0.2% oint (Westcort)
  - -Halcinonide 0.1% cream (Halog)
- Class V
  - -Triamcinolone acetonide 0.025% oint (Aristocort)
  - -Betamethasone valerate 0.1% cream (Valisone)
- Class VI
  - -Desonide 0.05% oint & cream (Desowen)
  - -Triamcinolone acetonide 0.025% cream (Aristocort)
- Class VII*
  - -Hydrocortisone 0.5%, 1%, 2.5% oint and cream

*** Safe for the face and skin folds**

Partially cleared psoriasis



Limited Plaque Psoriasis Therapy

- Topical Steroids
  * Class I or II for short term (14 days) control.
  * Class III-IV for daily maintenance therapy.

- Topical calcipotriene 0.005% cream/ointment (Dovonex)
  * Apply twice daily +/- topical steroids

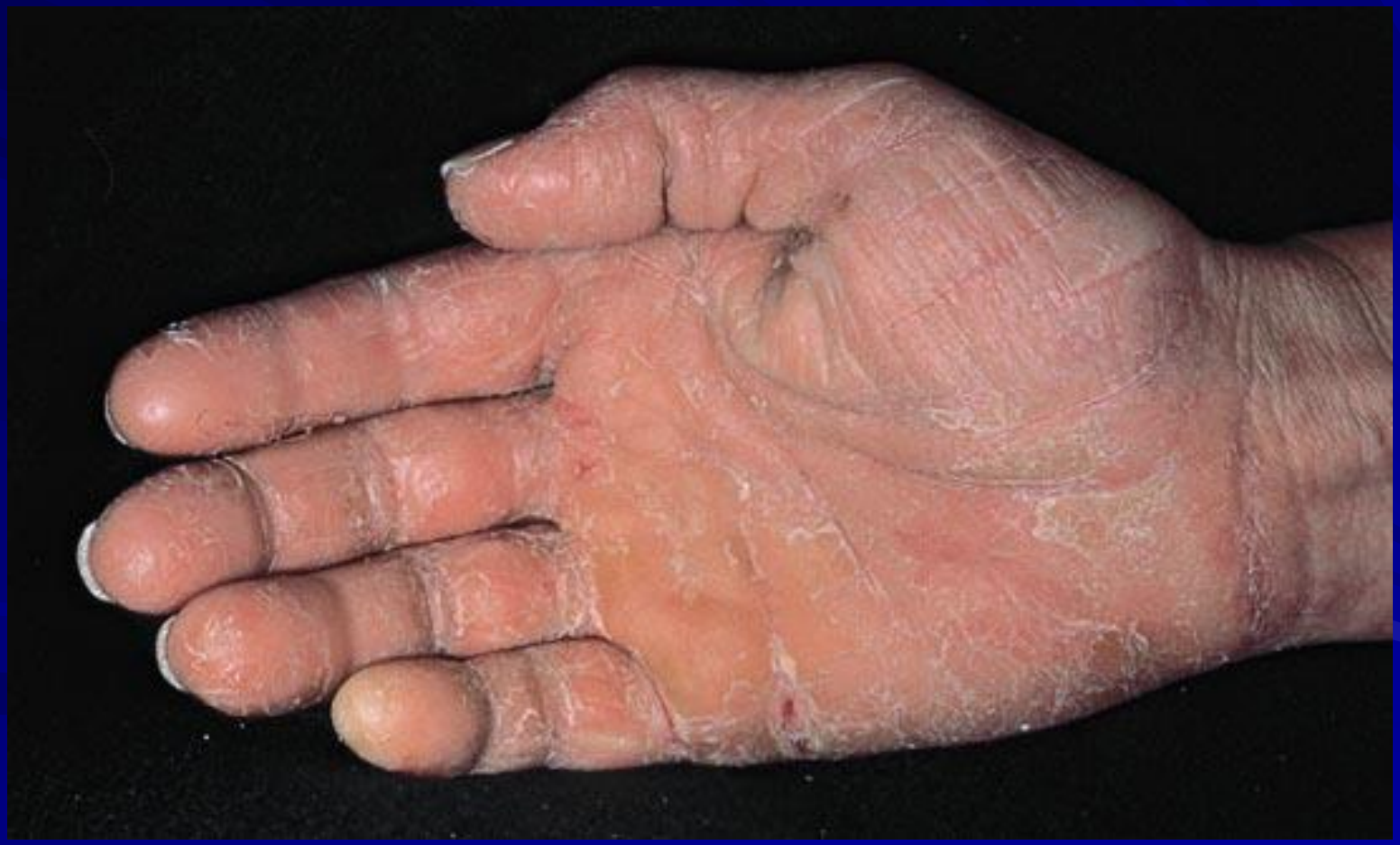
- Topical tazarotene 0.1%, 0.05% gel (Tazorac): **Should not be used in pregnant women.**
  * Apply once daily +/- topical steroids

- Topical tar containing ointments
  * short contact therapy to bid applications

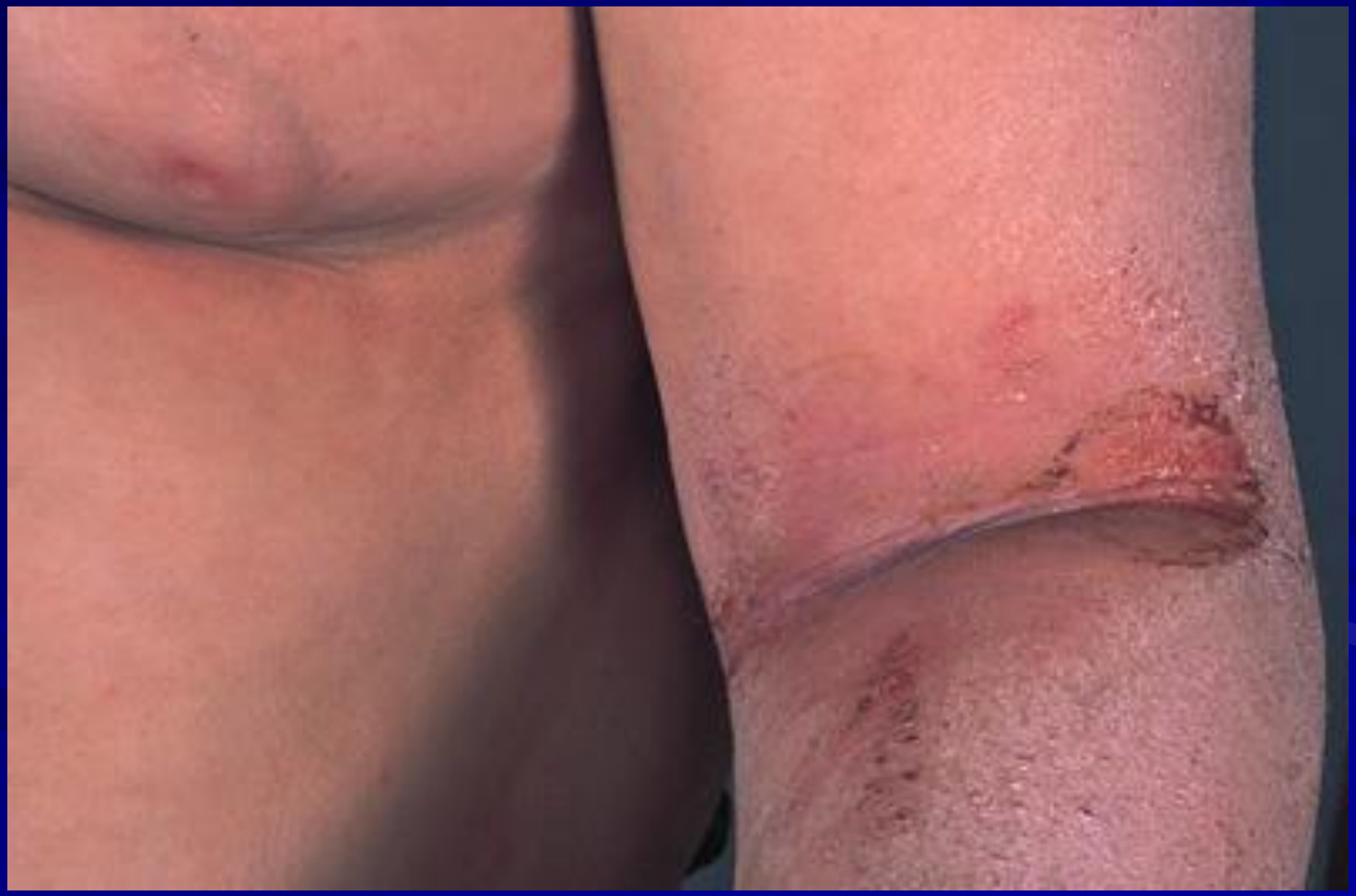
Eczema

- Defined: Inflamed, pruritic skin (dermatitis) not due, exclusively, to external factors (allergens, sunlight, cold, heat, fungus, etc.).
- Types: Atopic, Asteatotic, Hand, Nummular, Stasis (Dermatitis).
- Primary Lesion: ill-defined scaly red patch.
- Keys to Dx: Rule out external factors as the sole cause of the eruption.

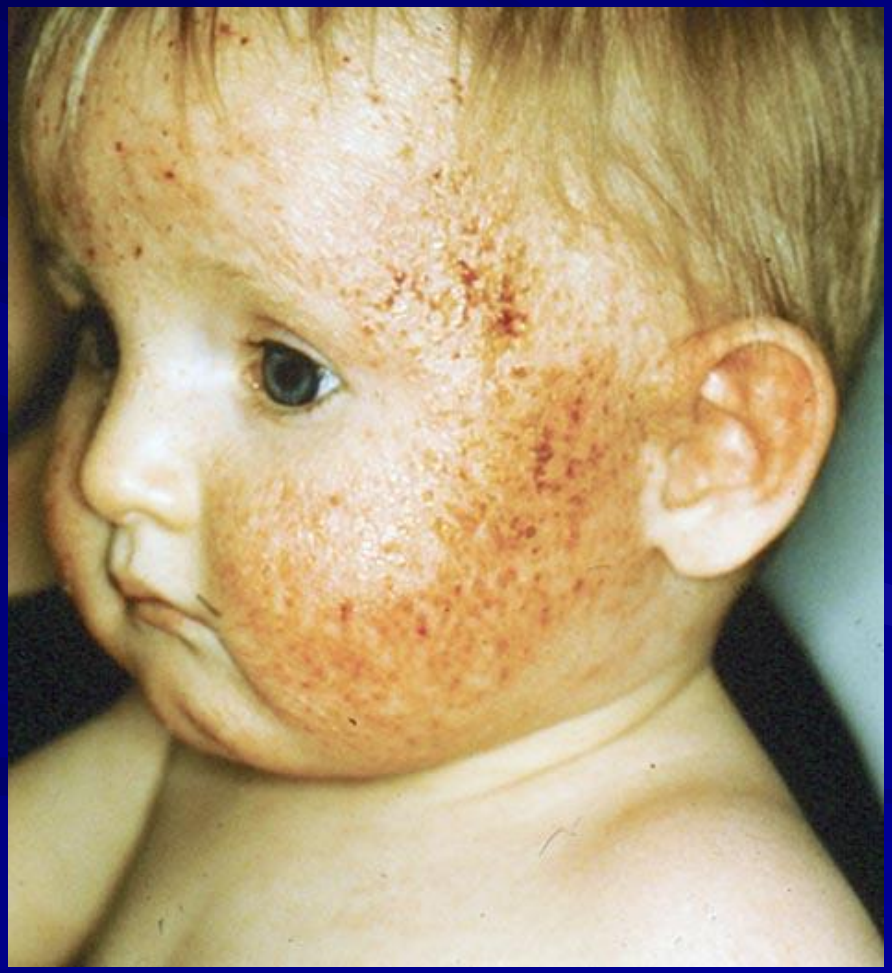
Hand eczema



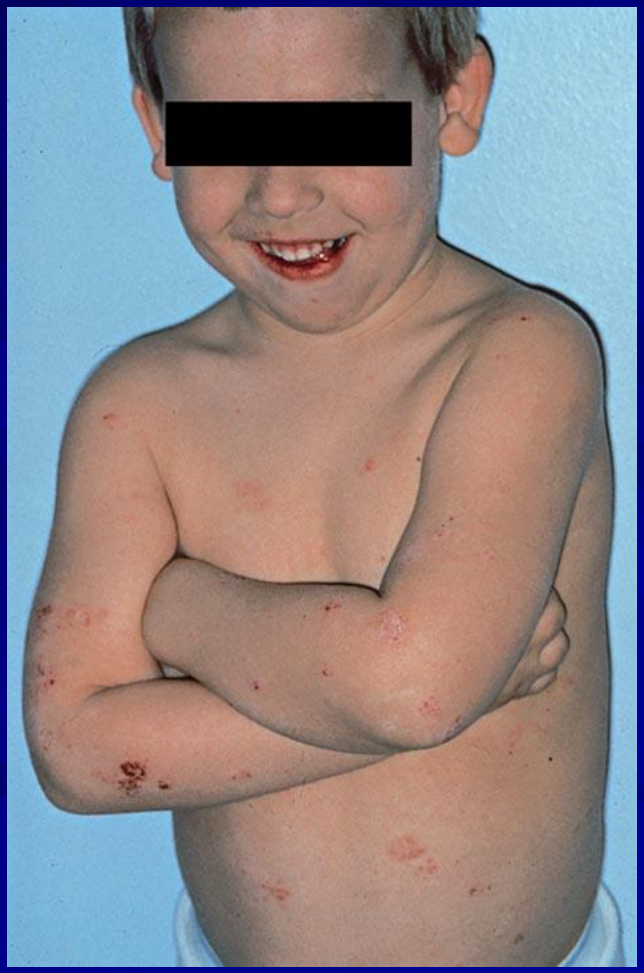
Atopic dermatitis



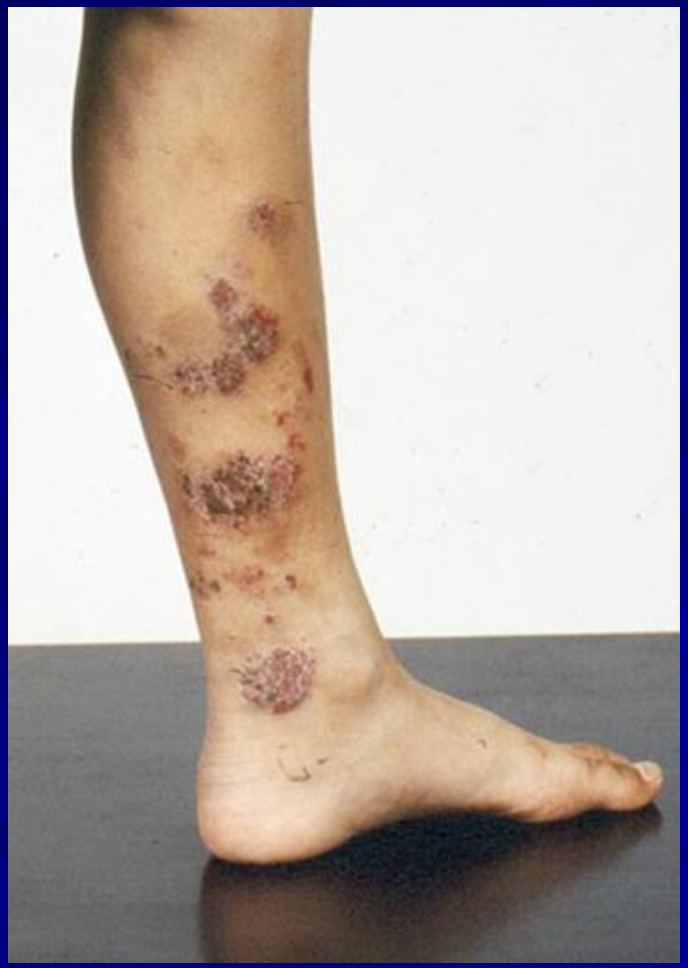
Face involvement in atopic dermatitis



Nummular eczema



Nummular eczema



Eczema: Pathophysiology

- Etiology unknown: genetic and environmental factors play a strong role.
- Histology: Spongiosis = intercellular edema within the epidermis. Acute and chronic inflammatory cells.
- T cell mediated cytokine release (TH2 type)

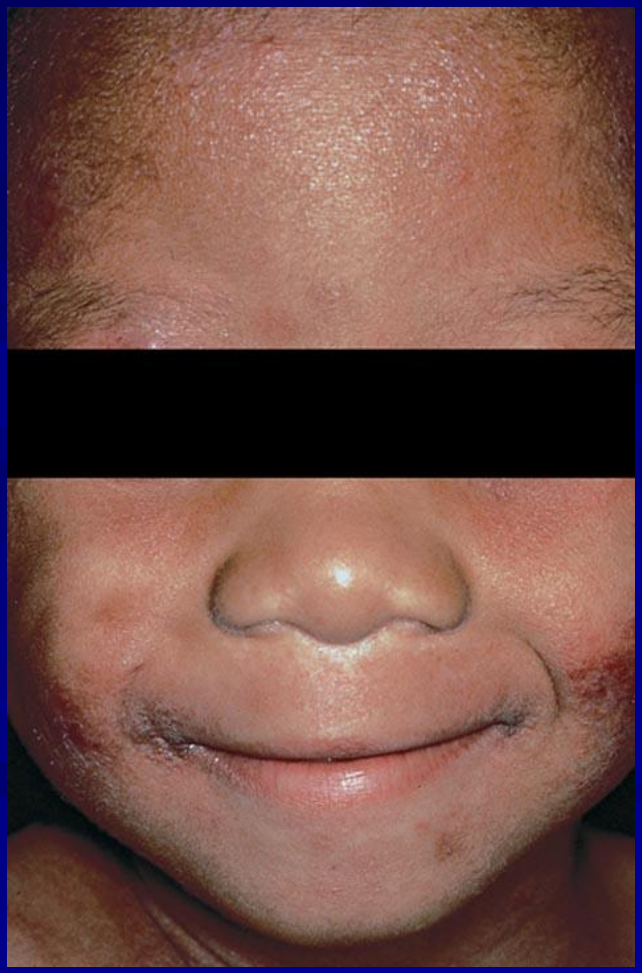
Therapy of Mild to Moderate Eczema

- Correct diagnosis! Rule out allergic or irritant contact dermatitis, dermatophyte infections, drug reactions, etc.
- Good skin care: Mild superfatted skin cleanser (unscented Dove, Basis, etc.), lukewarm not hot showers, lubricate skin frequently with unscented lotions/creams.

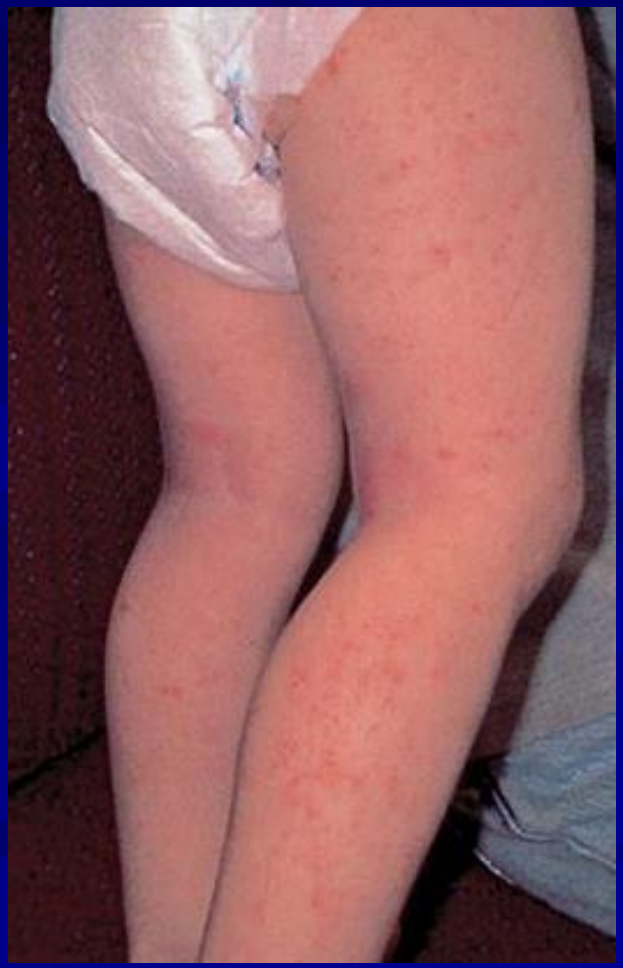
Therapy of Mild to Moderate Eczema

- Topical steroids only for flares
  - Class I or II for short term (14 days) control of severe flares in adults. Class III or IV for children.
  - Class IV - VII for mild flares in adults. Class VI or VII in children.
- Consider topical or oral antibiotics if crusted
- Consider topical tacrolimus or topical pimecrolimus ($$$) for refractory disease.
  - Both are calcineurin inhibitors that inhibit T cell proliferation
  - NO SKIN ATROPHY
  - FDA is concerned about long term use (Skin cancers, lymphomas ???)
  - Dermatologists are not concerned

Atopic eczema



Intense pruritus in atopic dermatitis



Therapy of Severe and Widespread Eczema

- Dermatology referral
- Oral or intramuscular steroids
- Phototherapy
- Oral methotrexate