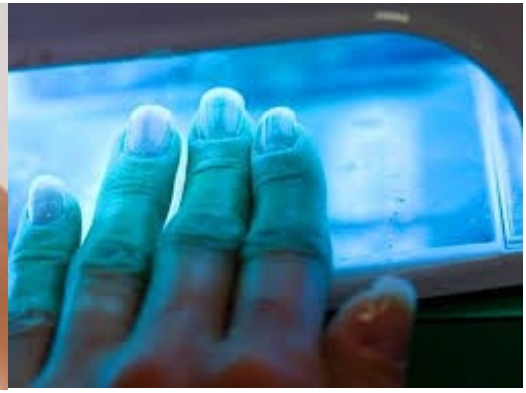
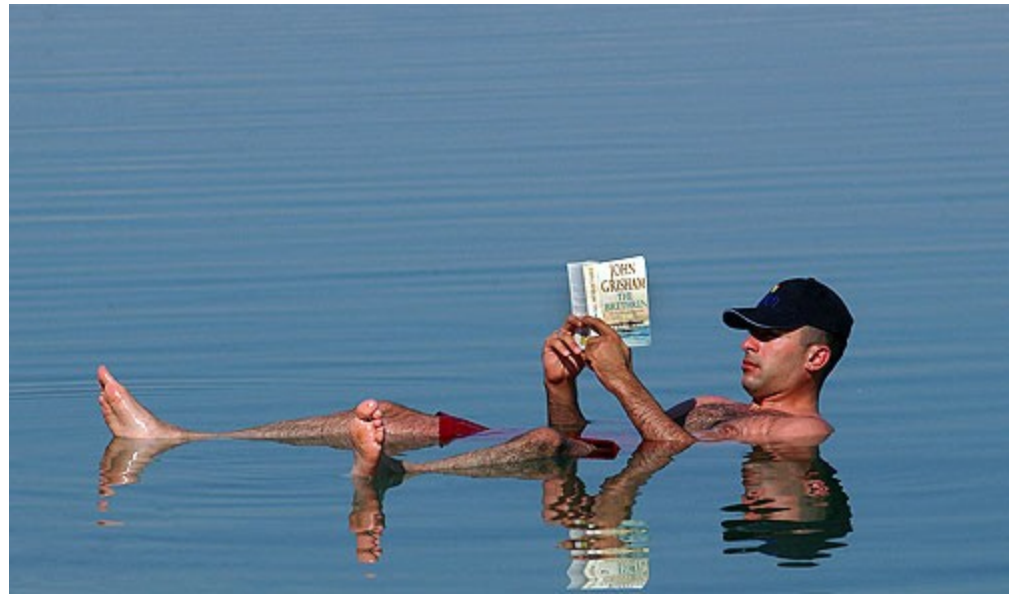


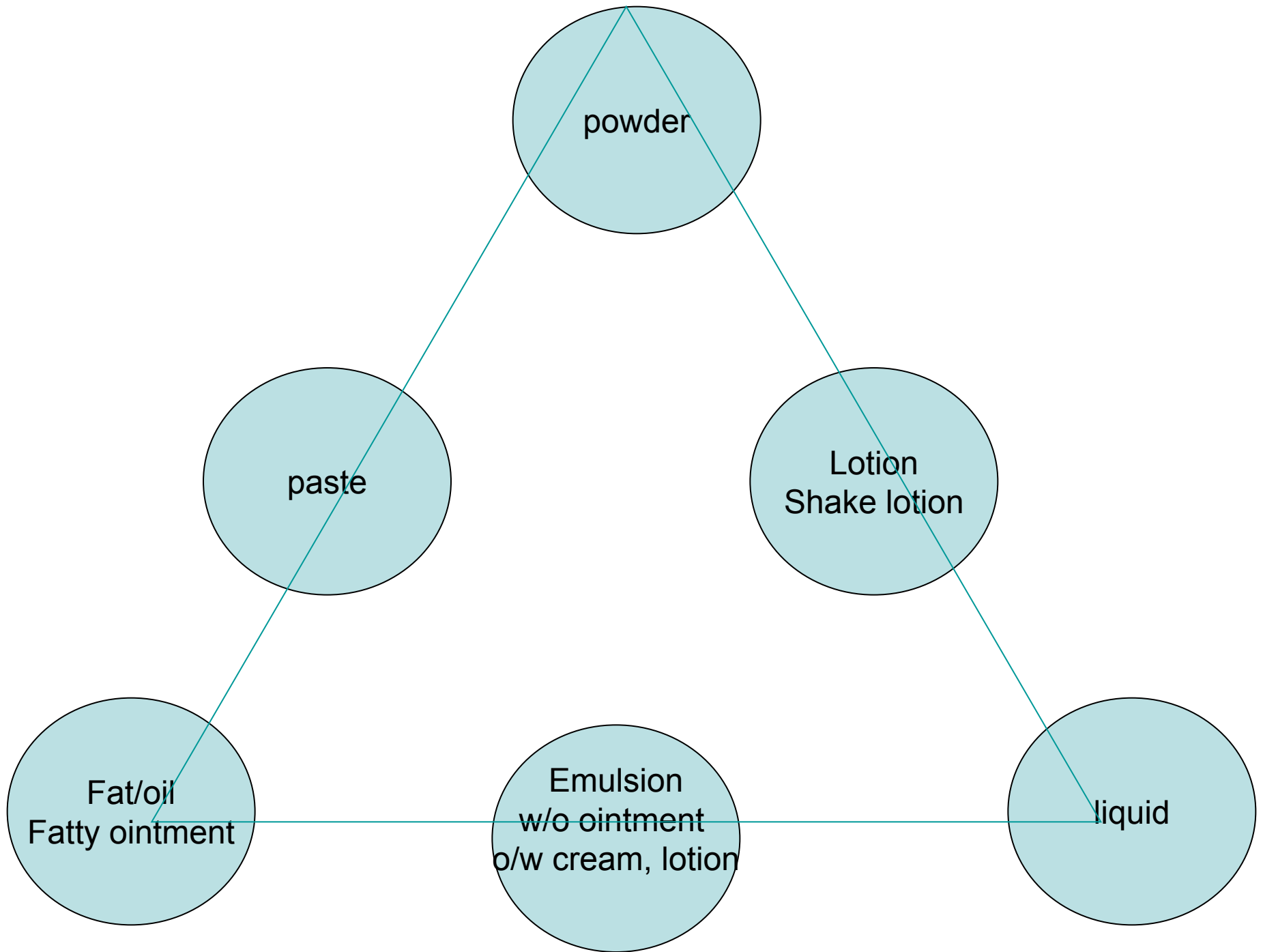
# Treatment in dermatology



# Treatment in dermatology

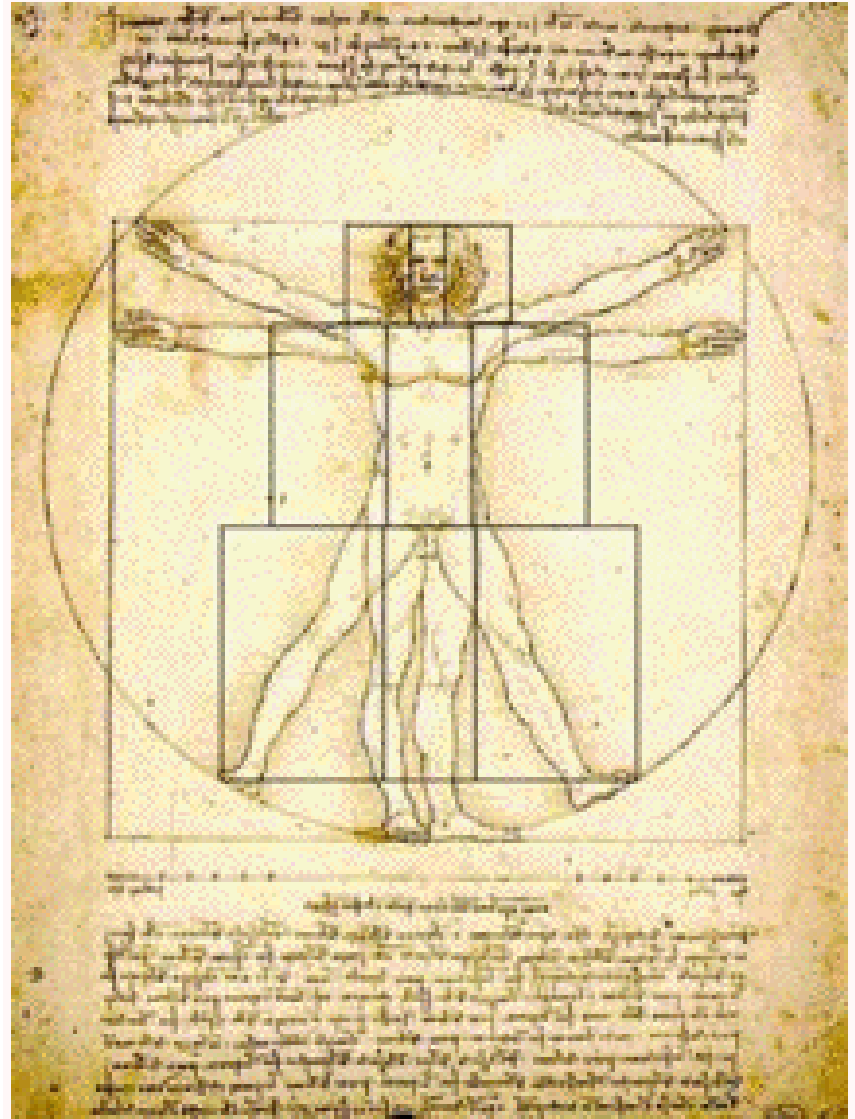
- Drugs - **topical**
- - systemic
- Surgery
- Physical therapy
  - phototherapy
  - cryotherapy
  - electrotherapy
  - laser
- Balneotherapy, thalassotherapy





# Topical therapy

- Correct diagnosis (tinea incognita, eczema herpeticatum)
- Stage of the disease – acute, subacute, chronic
- Site of the body – face, palms, soles, scalp, intertriginous areas



# Topical treatment in dermatology

- ATB – fusidic acid, mupirocin
- Antifungal drugs – ciclopiroxolamin, miconazol, terbinafin, clotrimazol
- Virostatics – acyclovir
- Parasiticides – permethrin,
- Retinoids – adapalene, tretinoin
- Vitamin D derivatives – tacalcitol, calcipotriol
- Immunomodulators – imiquimod
- Cytostatics – podophylotoxin, 5-fluorouracil



- Emollients - moisturizers
- Antiseptics - povidone iodine, chlorhexidin, kalium permanganate, polyhexanide, bleach (sodium hypochlorite)
- Astringents
- Keratolytics - salicylic acid, urea
- Coal tar
- Antimicrobial substances – chloroxine
- Immunosuppressives – tacrolimus
- **Corticosteroids**

# Topical treatment formulations

- Aqueous solutions
- Baths
- Wet dressing
- Alcoholic solutions – tinctures
- Shampoos
- Sprays
- Powders
- Lotions
- Gels
- Pastes
- Oils
- Ointments and emulsions – fatty ointments x creams



# Topical treatment

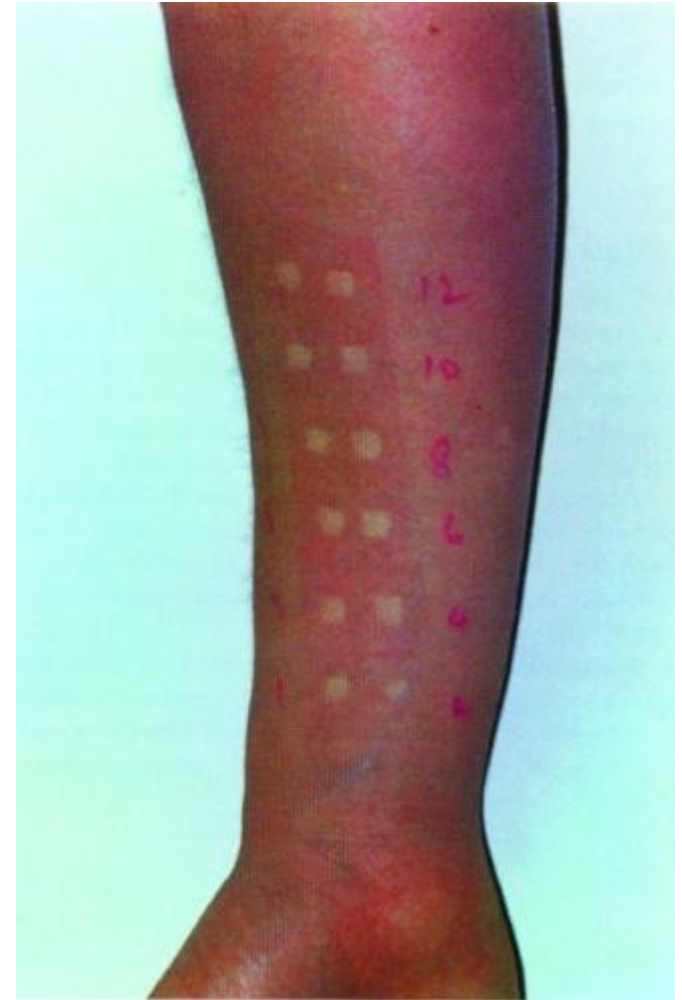
- Antiperspirants
- Depilatory substances
- Sunscreens
- Depigmenting drugs
- Camouflage
- Varnishes
- Protective ointments
- Antiinflammatory drugs
- Transdermal patches








# Topical corticosteroids

- Antiinflammatory effect (eczema, allergic reactions)
- Vasoconstriction
- Reduction of oedema
- Reduction of itch
- Antiproliferative effect (autoimmune diseases)
- Antiscarring effect



# Corticosteroids - potency

- **Class IV]**
- Very potent (up to 600 times as potent as hydrocortisone)
- [Clobetasol propionate](#) (Dermovate Cream/Ointment, Exel Cream)
  
- **Class III**
- Potent (50-100 times as potent as hydrocortisone)
- [Betamethasone valerate](#) (Beta Cream/Ointment/Scalp Application, Betnovate Lotion/C Cream/C Ointment, Daivobet 50/500 Ointment, Fucicort)
- [Betamethasone dipropionate](#) (Diprosone Cream/Ointment, Diprovate Cream)
- [Hydrocortisone 17-butyrate](#) (Locoid C/Cream/Crelo Topical Emulsion/Lipocream/Ointment/Scalp Lotion)
- [Mometasone furoate](#) (Elocon Cream/Lotion/Ointment)
- [Methylprednisolone aceponate](#) (Advantan Cream/Ointment)
  
- **Class II**
- Moderate (2-25 times as potent as hydrocortisone)
- [Triamcinolone acetonide](#) (Aristocort Cream/Ointment, Viaderm KC Cream/Ointment, Kenacomb Ointment)
  
- **Class I**
- Mild
- [Hydrocortisone 0.5-2.5%](#) (DermAid Cream/Soft Cream, DP Lotion-HC 1%, Skincalm, Lemnis Fatty Cream HC, Pimafucort Cream/Ointment)

| Structural Class            | Class A:<br>Hydrocortisone Type  | Class B:<br>Triamcinolone Acetonide Type   | Class C:<br>Betamethasone Type                          | Class D1:<br>Betamethasone Dipropionate Type  | Class D2:<br>Methylprednisolone Aceponate Type  |
|-----------------------------|--|--|---|---|---|
| CLASS 7: LEAST POTENT       | Hydrocortisone<br>Hydrocortisone acetate<br>Methylprednisolone,<br>prednisolone<br>Tixocortol pivalate |  |   |   |   |
| CLASS 6: LOW POTENT         |  | Desonide 0.05% C, F <br>Fluocinolone acetonide 0.01% C, S<br>Triamcinolone acetonide 0.025% C<br>Triamcinolone diacetate 0.025% C |   | Alclometasone dipropionate 0.05% C, O<br>Betamethasone valerate 0.1% C  |   |
| CLASS 5: LOWER MID-STRENGTH |  | Desonide 0.05% O<br>Fluocinolone acetonide 0.025% C<br>Triamcinolone acetonide<br>0.1% C, 0.025% O, L<br>Triamcinolone diacetate 0.1% C  |   | Betamethasone dipropionate 0.05% L<br>Betamethasone valerate C, L<br>Fluticasone propionate 0.05% C   | Hydrocortisone buteprate 0.1% C, O, S<br>Hydrocortisone butyrate 0.1% C, O, S<br>Hydrocortisone valerate 0.2% C<br>Prednicarbate 0.1% C |
| CLASS 4: MID-STRENGTH       |  | Amcinonide 0.1% C<br>Fluocinolone acetonide 0.01%, 0.025% O<br>Halcinonide 0.025% C<br>Triamcinolone acetonide 0.1% O<br>Triamcinolone diacetate 0.1% O  | Cloocortolone pivalate 0.1% C<br>Desoximetasone 0.05% C | Betamethasone<br>valerate 0.12% F <br>Clobetasone butyrate 0.05%<br>Mometasone furcate 0.1% C, L                                   | Hydrocortisone valerate 0.2% O  |
| CLASS 3: UPPER MID-STRENGTH |  | Amcinonide 0.1% L<br>Fluocinolone 0.05%<br>Triamcinolone acetonide 0.1% C, O<br>Triamcinolone diacetate 0.1% C, O  |   | Betamethasone dipropionate 0.05% C<br>Betamethasone valerate 0.1% O<br>Clobetasone butyrate 0.05%<br>Diflorasone diacetate 0.05% C<br>Fluticasone propionate 0.005% O<br>Mometasone furcate 0.1% O                    |   |
| CLASS 2: HIGH POTENT        |  | Amcinonide 0.1% O, L, C<br>Budesonide 0.025% C<br>Fluocinolone 0.05% C, O, G, S<br>Halcinonide 0.1% C, O, S  | Desoximetasone 0.25% C, 0.05% G                         | Betamethasone dipropionate 0.05% O, C<br>Betamethasone valerate 0.1%<br>Diflorasone diacetate 0.05%   |   |
| CLASS 1: SUPERPOTENT        |  |  |   | Betamethasone dipropionate<br>0.05% G, O, L<br>Clobetasol propionate <br>0.05% C, O, G, S, F<br>Diflorasone diacetate<br>0.05% O |   |

# Side effects of corticosteroids

- Tachyphylaxis
- Rebound phenomenon
- Atrophy – striae distensae
- Interference with wound healing
- Vasoconstriction, telangiectasia
- Perioral rosacea like dermatitis
- Hypertrichosis
- Immunosuppression



