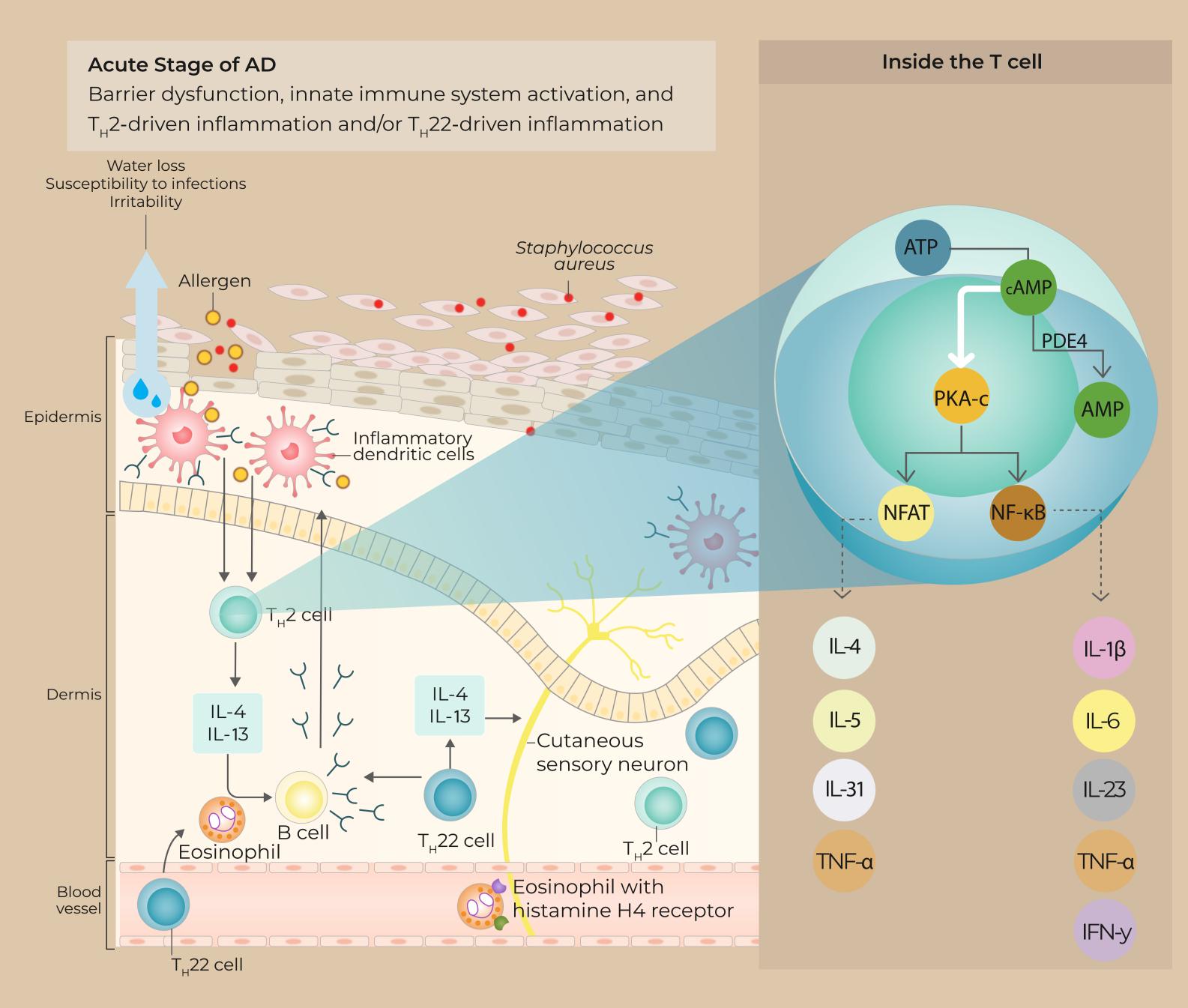
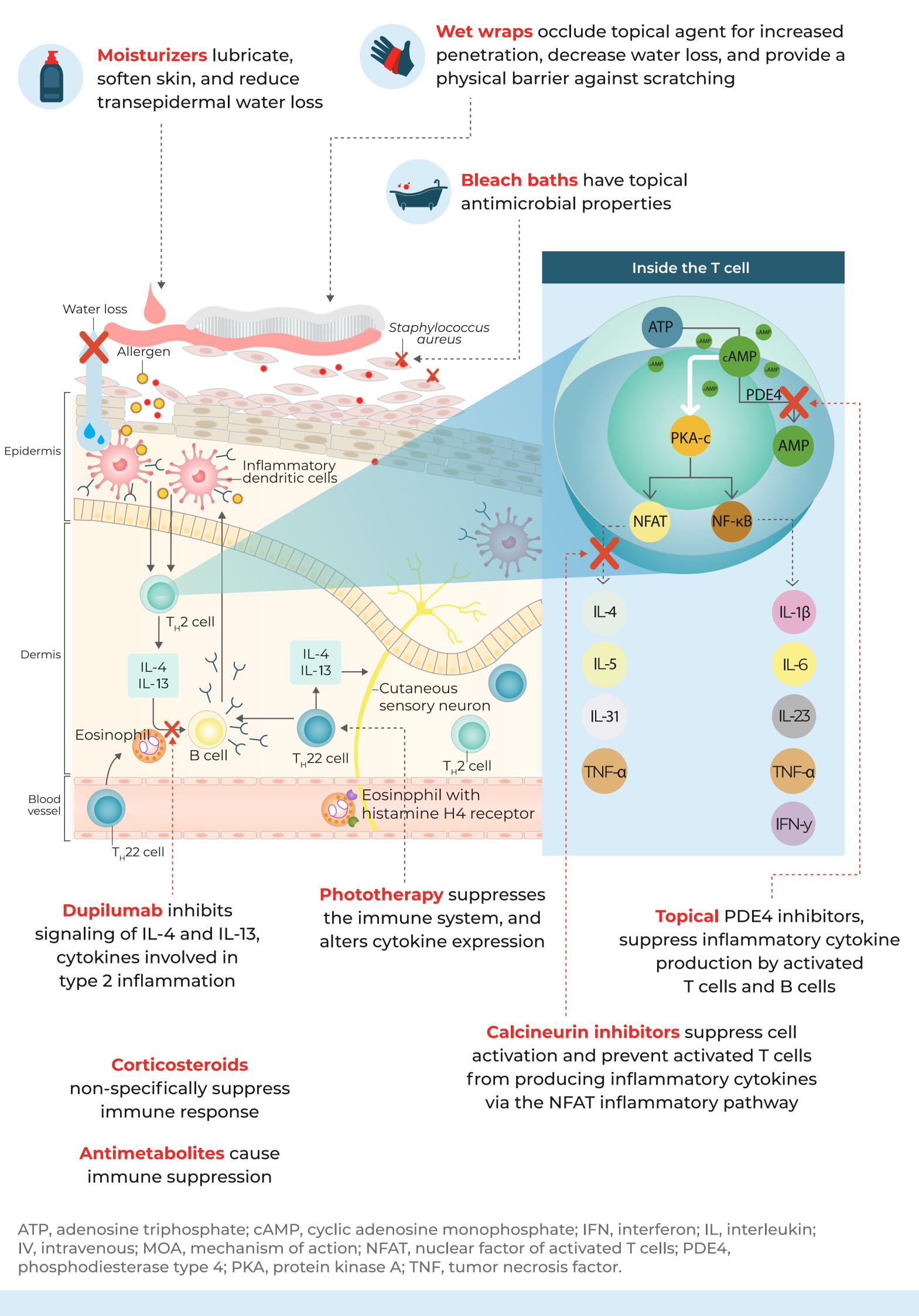
# ATOPIC DERMATITIS: MECHANISMS OF DISEASE AND TREATMENT TARGETS

## The Pathophysiology of Atopic Dermatitis (AD) Involves Several Key Molecular Players



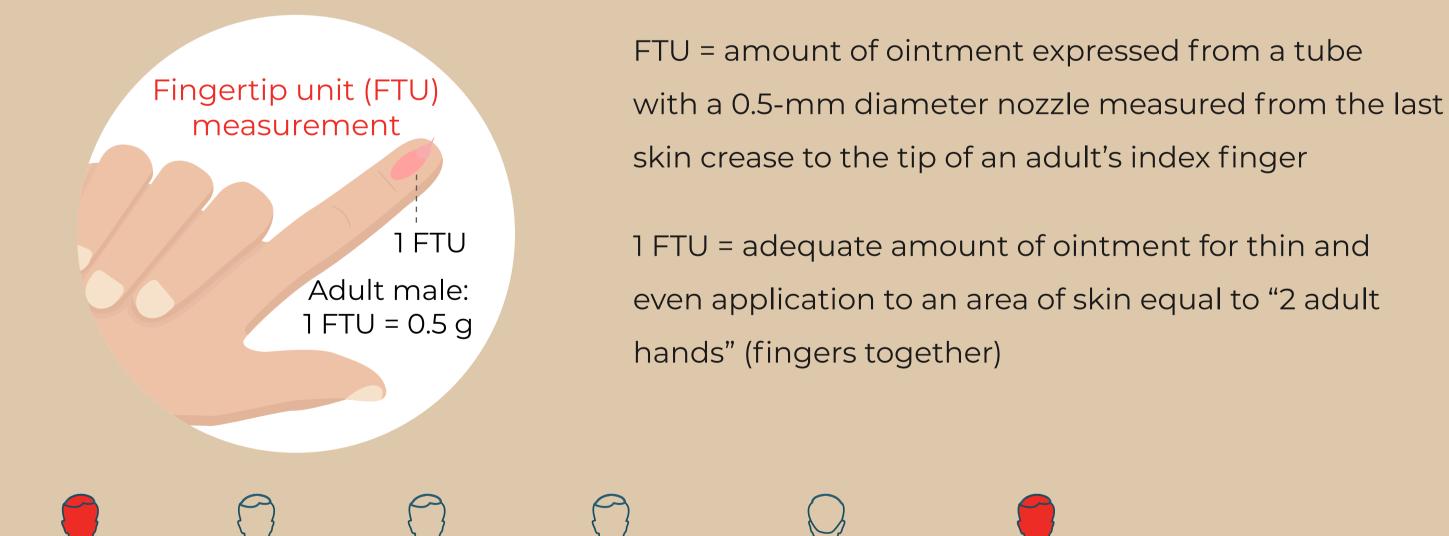
### There Are Several Treatment Options for AD, With Differing Mechanisms of Action



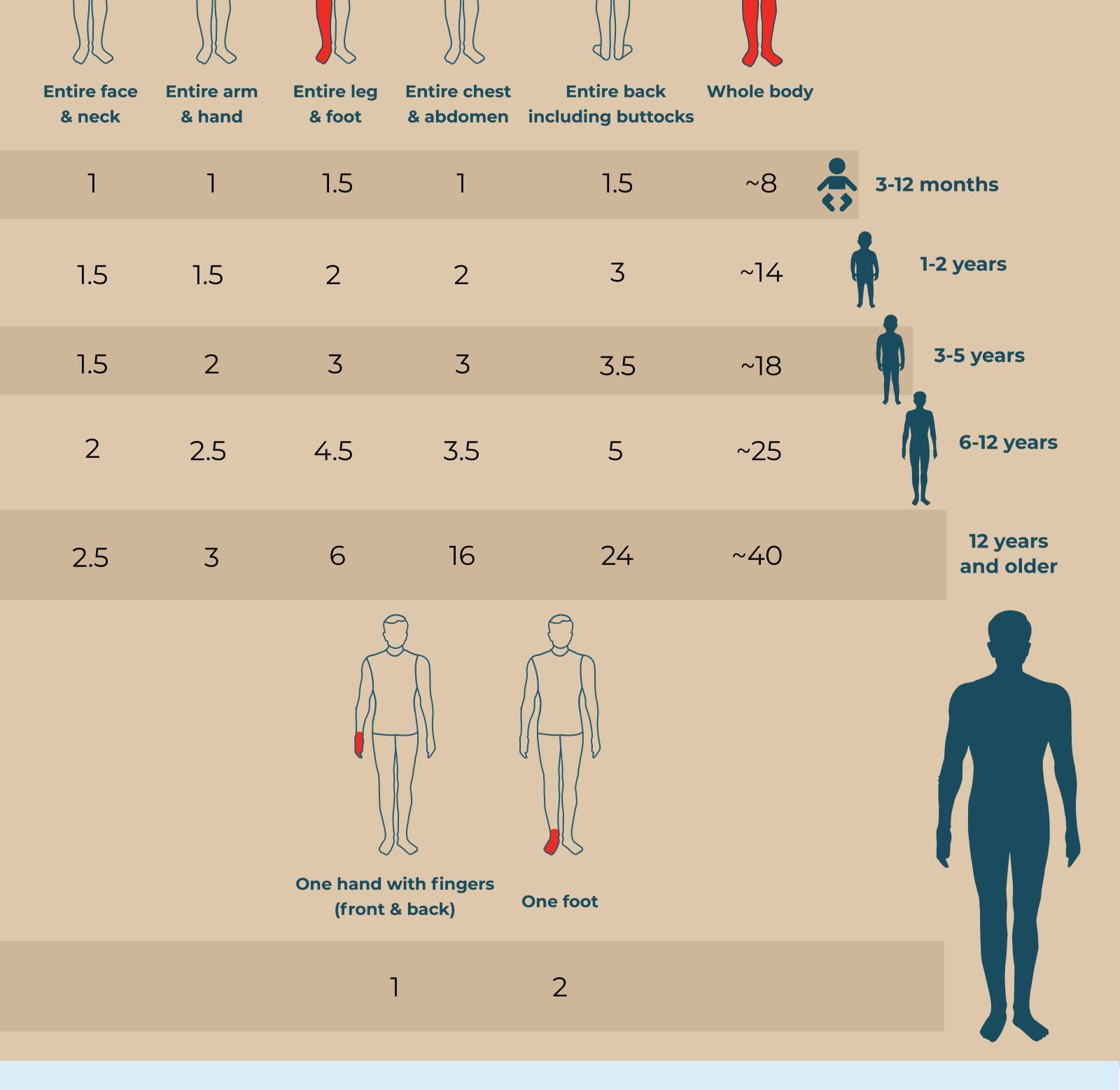
# Different Treatment Options Should Be Used Based on Severity of Disease

	laintenance	e Mild	Moderate	Severe
<ul> <li>Moisturizers</li> <li>Whereas ointment-based moisturizers are preferred by dermatologists, adolescents and adults often prefer a thick cream.</li> <li>Moisturizers may contain fragrances, lanolin, and other contact allergens.</li> <li>There is no evidence that one emollient is better than another.</li> </ul>				
<ul> <li>Wet Wraps</li> <li>Topical agent is covered by a wetted first layer of tubular bandages, gauze, or a cotton suit, followed by a second, dry outside layer.</li> <li>Caution: Increases absorption of the topical agent. Therefore, mid- to high-potency corticosteroids under a wet wrap may cause hypothalamic-pituitary-adrenal axis suppression.</li> </ul>				
<b>Bleach Baths</b> Addition of household bleach to bathwater. Consider with recurrent infections. Can be used in combination with intranasal topical mupirocin. This treatment is controversial.				
<b>Topical Corticosteroids</b> Matching steroid potency to lesion thickness and location must be balanced with the complexity of the treatment regimen.				
Low potency Use mild steroids for face, folds, and genitalia. Examples: • Desonide 0.05% ointment • Hydrocortisone 2.5% ointment				
<b>Moderate potency</b> Examples: • Triamcinolone 0.1% ointment • Fluocinolone 0.01% oil				
<ul> <li>Potent</li> <li>Desoximetasone can be employed when an allergy to a medication vehicle is suspected.</li> <li>Potent topical steroids may be used 2-3/wk for maintenance of hotspots.</li> <li>Examples: <ul> <li>Fluocinonide 0.05% ointment</li> <li>Desoximetasone 0.05% ointment</li> </ul> </li> </ul>				
<ul> <li>Ultrapotent</li> <li>Use for focal, thick lichenified areas.</li> <li>Particularly useful for the hands.</li> <li>Shampoo and lotion formulations can be used on the scalp where twice-daily application of a lower potency treatment would be less practical.</li> <li>Examples: <ul> <li>Betamethasone dipropionate 0.05% ointment</li> <li>Clobetasol 0.05% ointment</li> </ul> </li> </ul>				
<ul> <li><b>Topical Calcineurin Inhibitors (TCIs)</b></li> <li>Can be used on any skin area.</li> <li>May burn with first few applications, particularly to open skin. An initial course of hydrocortisone can be employed prior to initiating TCIs.</li> <li>Unlike topical corticosteroids, TCIs are not associated with skin atrophy.</li> <li>Black box warning for potential risk of cutaneous and hematologic malignancy is not supported by ongoing phase 4 studies.</li> <li>Examples:</li> <li>Tacrolimus 0.03%, 0.1% ointment</li> <li>Pimecrolimus 1% cream</li> </ul>				
<b>Topical PDE4 Inhibitors</b> May burn/sting with first few applications. The vehicle serves as an excellent emollient. Example: • Crisaborole 2% ointment				
Anti-IL-4R Generally prescribed by specialists. Example: • Dupilumab				
<ul> <li>Phototherapy</li> <li>Limited utility due to: <ul> <li>3-times-weekly treatment</li> <li>Limited access</li> </ul> </li> <li>In those patients who are able to attend treatment visits, phototherapy can be useful when other treatments are contraindicated, or for control of chronic disease.</li> </ul>				
<b>Systemic Calcineurin Inhibitor</b> Generally prescribed by specialists. Example: • Cyclosporine				
Antimetabolites Immune suppression Examples: • Azathioprine • Methotrexate				

### **Therapies Should Be Dosed and Applied Correctly**

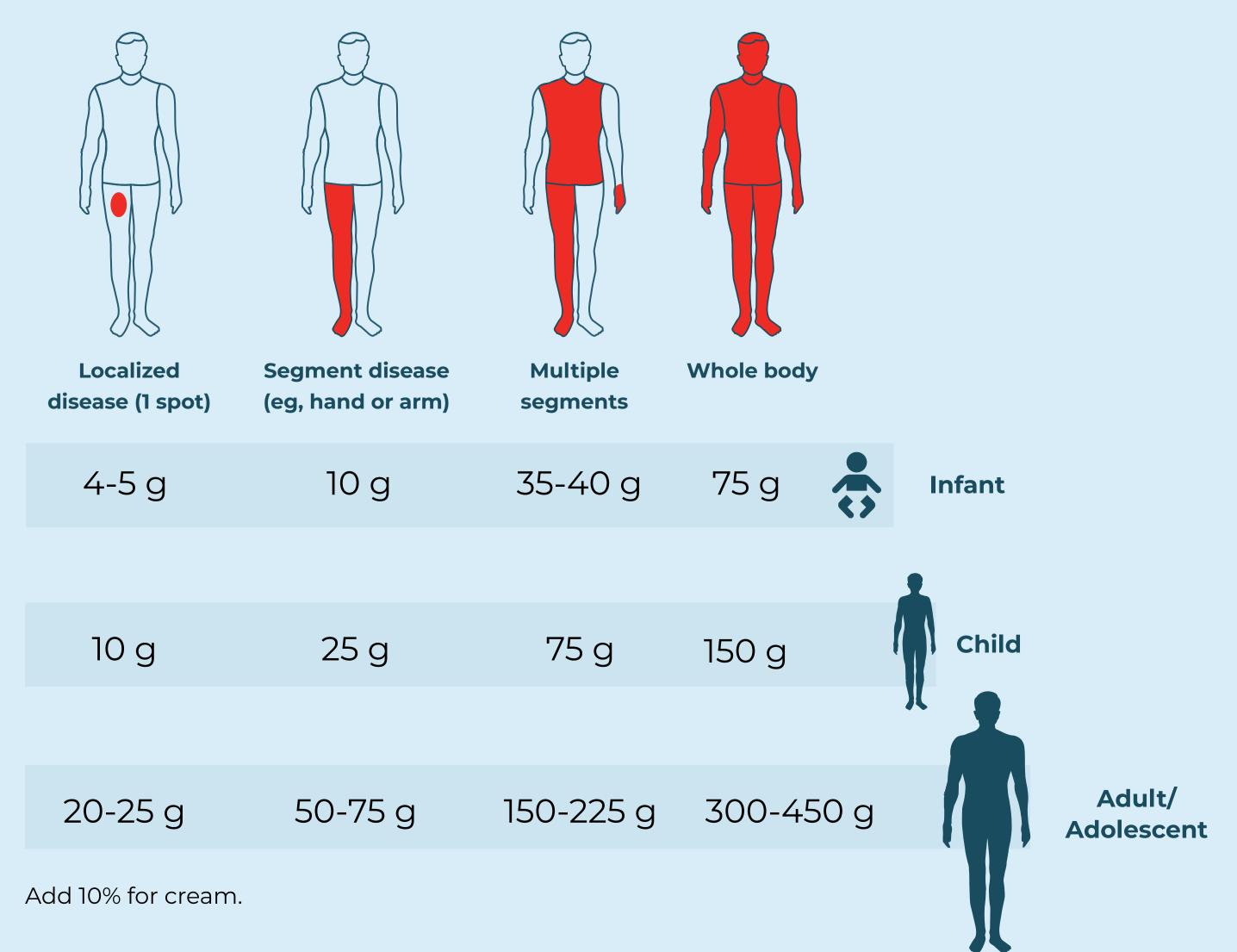


Number of FTUs required to apply at each dose for different parts of the body





Amount used with treatment 1-2 times daily for 1 month



#### References

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