

Treatments indicated for psoriasis

Mechanism of action		How used	Severity use
Topical therapies			
Corticosteroids	Bind to a receptor in the cytoplasm of cells and are transported to the nucleus, affecting gene transcription; have anti-inflammatory, immunosuppressive and antiproliferative properties	Potency and the appropriate vehicle is based on disease severity, location, patient preference, and age	Mild to moderate
Vitamin D analogs	Bind to vitamin D receptors, which inhibit keratinocyte proliferation and enhance keratinocyte differentiation	May be used as maintenance treatment with/after topical corticosteroids	Mild to moderate
Retinoids	Help normalize skin cell growth and reduce inflammation	May be used as maintenance treatment after topical corticosteroids	Mild to moderate
Calcineurin inhibitors	Bind to calcineurin, blocking its phosphorylation and thus, inhibiting T-cell activation and the synthesis of several proinflammatory cytokines	May be used as maintenance treatment after topical corticosteroids	Mild to moderate
Salicylic acid	Believed to involve the reduction of the binding between keratinocytes. Helps to minimize scaling and softens psoriatic plaques	May be used alone or with other topical therapy	Mild to moderate
Coal tar	Polyaromatic hydrocarbons bind to aryl hydrocarbon receptors; decreases keratinocyte proliferation by suppressing DNA synthesis. Helps reduce inflammation	May be used alone or with ultraviolet B radiation therapy	Mild to moderate
Aryl hydrocarbon receptor (AhR) agonist	Binds to and activates the AhR, a ligand-dependent transcription factor that regulates cytokine and skin-barrier-protein expression and antioxidant activity	May be considered as first-line treatment for mild psoriasis	Mild to moderate to severe
Phosphodiesterase 4 (PDE4) inhibitor	Selectively inhibits PDE4, leading to accumulation of cAMP	May be considered as first-line treatment for mild psoriasis	Mild to moderate to severe
Light therapy			
Narrow and ultraviolet B (UVB) or psoralen plus ultraviolet A (PUVA)	Slows the rapid growth of skin cells and reduces inflammation	May be used alone or with topical or systemic medications	Moderate to severe

Systemic therapies			
Retinoids	Modulate epidermal differentiation and proliferation and have anti-inflammatory and immunomodulatory effects	Often combined with other treatments	Moderate to severe
Immunosuppressants	Slow skin cell turnover and suppress the immune system	May be used alone	Moderate to severe
Small molecules	Includes PDE4 inhibitors, modulate inflammatory response	May be used alone	Moderate to severe
Tumor necrosis factor (TNF)- α inhibitors	Block TNF- α , a key inflammatory cytokine, to reduce inflammation and skin cell turnover	May be used alone	Moderate to severe
Interleukin (IL)-12/23, IL-17 and IL-23 inhibitors	Target specific immune pathways, such as IL-12, IL-17, and IL-23, by reducing inflammation and plaque formation	May be used alone	Moderate to severe
Tyrosine kinase 2 (TYK2) inhibitors	Reduce inflammation by blocking IL-12, IL-23, and type I interferon signaling	May be used alone	Moderate to severe