

# MODERN METHODS OF TREATING PSORIASIS

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## Abstract

Psoriasis is a chronic autoimmune skin disease characterized by inflammation and hyperproliferation of keratinocytes. Despite its complex etiology, advances in medical research have led to various modern treatment methods, including biological therapy, systemic medications, phototherapy, and novel topical treatments. This article reviews the latest therapeutic approaches and their efficacy in managing psoriasis.

**Keywords:** Psoriasis, biological therapy, systemic treatment, phototherapy, immunomodulators, targeted therapy, skin disease, chronic inflammation.

## Introduction

Psoriasis is a chronic inflammatory skin disease affecting millions of individuals worldwide. The disease manifests through scaly, erythematous plaques, often causing discomfort and psychosocial distress. The exact cause of psoriasis remains unclear, but genetic predisposition, environmental factors, and immune system dysfunction play significant roles. Traditional treatments have focused on symptom relief, but recent advancements in medical research have led to more targeted and effective therapeutic strategies. This paper discusses the modern methods available for treating psoriasis, highlighting their advantages and limitations.

To analyze modern treatment methods, this study reviews clinical trials, meta-analyses, and real-world studies published over the past ten years. The effectiveness of biological agents, systemic medications, phototherapy, and topical treatments is assessed based on patient outcomes, remission rates, and side effect profiles.

Modern treatment methods for psoriasis focus on reducing inflammation, slowing skin cell turnover, and managing symptoms. The approach depends on the severity of the disease, its impact on daily life, and patient-specific factors. Here are the latest treatment strategies:

### Topical Treatments (Mild to Moderate Psoriasis)

- Corticosteroids (e.g., clobetasol, betamethasone) – First-line treatment for inflammation and itching.
- Vitamin D Analogues (e.g., calcipotriol, calcitriol) – Slows skin cell growth.
- Topical Retinoids (e.g., tazarotene) – Helps normalize skin growth.
- Calcineurin Inhibitors (e.g., tacrolimus, pimecrolimus) – Useful for sensitive areas like the face and groin.
- Coal Tar & Salicylic Acid – Helps remove scales and reduce itching.
- Moisturizers & Emollients – Prevent dryness and irritation.

### Phototherapy (Moderate to Severe Psoriasis)



- Narrowband UVB Therapy – Slows skin cell growth and reduces inflammation.
  - PUVA (Psoralen + UVA) – Effective for severe cases but may have long-term risks.
  - Excimer Laser (308 nm UVB) – Targets small plaques with minimal exposure to healthy skin.
- Systemic Treatments (Moderate to Severe Psoriasis)
- Oral Retinoids (Acitretin) – Reduces skin cell production, often used when other treatments fail.
  - Immunosuppressants (Methotrexate, Cyclosporine) – Suppresses immune response but requires careful monitoring.

- Apremilast (PDE4 Inhibitor) – An oral medication that reduces inflammation.

#### Biologic Therapies (Severe Psoriasis & Psoriatic Arthritis)

Biologics target specific immune system pathways to control the disease:

- TNF-alpha Inhibitors: Infliximab, Etanercept, Adalimumab.
- IL-12/23 Inhibitors: Ustekinumab.
- IL-17 Inhibitors: Secukinumab, Ixekizumab.
- IL-23 Inhibitors: Guselkumab, Risankizumab, Tildrakizumab.

These are usually given as injections or infusions.

#### Lifestyle & Alternative Approaches

- Dietary Changes – Anti-inflammatory diets, omega-3 fatty acids, and weight management help reduce symptoms.
- Stress Management – Meditation, yoga, and cognitive-behavioral therapy (CBT) can improve outcomes.
- Natural Remedies – Aloe vera, turmeric, and Dead Sea salt baths have shown some benefits.
- Smoking & Alcohol Reduction – Helps prevent flare-ups.

#### Emerging Therapies

- JAK Inhibitors (Tofacitinib, Baricitinib) – New oral drugs targeting immune pathways.
- CRISPR & Gene Editing – Future potential treatments are being explored.
- Microbiome Therapy – Research is investigating gut-skin connections.

#### Choosing the Right Treatment

The best approach depends on psoriasis severity, comorbidities, and personal response to therapy. Many patients benefit from a combination of treatments.

Biological therapy has revolutionized psoriasis treatment, providing targeted relief and improving patients' quality of life. However, high costs and potential immunosuppressive risks limit their accessibility. Systemic treatments remain a crucial option but require continuous monitoring for adverse reactions. Phototherapy is a safer alternative but may be less convenient due to frequent clinic visits. The emergence of new topical treatments offers additional benefits, particularly for mild-to-moderate cases. Future research should focus on personalized medicine approaches, integrating genetic profiling to optimize treatment choices.

#### Conclusions

Modern psoriasis treatments have significantly improved patient outcomes, but challenges remain regarding cost, accessibility, and long-term safety. A multidisciplinary approach combining pharmacological treatment, lifestyle modifications, and psychological support is recommended for



optimal management. Further research on novel biologics, gene therapy, and precision medicine may offer even more effective solutions in the future.

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