

# PSORIASIS

## Scientific Guidelines

### PSORIASIS

Inflammation caused by immune system dysfunction is the underlying mechanism of psoriasis. Men, women and children of all ages and skin colors can develop psoriasis, which is characterized by a buildup of skin cells (plaques) often found on the elbows, knees and scalp.

### TYPES

| Type                 | Presentation   | Treatment   |
|----------------------|--|---|
| <b>Guttate</b>       | Small, round spots (papules) that can be raised or scaly, can be found on the arms, legs, torso, face, ears or scalp                             | Phototherapy or oral treatments used initially, use biologic or combination therapy if unresponsive                   |
| <b>Pustular</b>      | White, pus-filled, painful bumps (pustules) often found on the hands and feet  | Oral and topical treatments, phototherapy or biologics  |
| <b>Plaque</b>        | Raised, scaly patches of skin usually appear symmetrically on the scalp, knees, elbows and torso   | Oral and topical treatments, phototherapy and biologics   |
| <b>Inverse</b>       | Lesions that appear in body folds such as armpits, groin and under the breasts   | Topical treatments or systemic medications, antifungals in case of infection  |
| <b>Erythrodermic</b> | Can affect the entire body and be life-threatening, disrupts the body's fluid and temperature balance resulting in shivering or swelling (edema) | Initial flares may require hospitalization, once under control treatment includes topical, oral or biologic therapies |

## SCREENING

Since psoriasis can look like other skin diseases, screening tools exist to help providers correctly diagnose it:

01

The Psoriasis Area and Severity Index is a tool used to measure the severity and extent of a patient's psoriasis.

02

The Dermatology Life Quality Index is a self-reported measure of how a patient's quality of life is impacted by his or her skin condition.

03

The Physician's Global Assessment is used by dermatologists to measure the severity of a disease and track it over time.

04

The static Physician's Global Assessment of Genitalia is a clinical outcome measure to assess the severity of genital psoriasis.

05

The Psoriasis Symptom Inventory relies on patient reporting to assess the severity of chronic plaque psoriasis.

06

The Psoriasis Epidemiology Screening Tool is a screening tool for psoriatic arthritis, which is recommended to be taken annually by patients with psoriasis.

## TREATMENTS

Psoriasis treatments are successful when symptoms are reduced or eliminated. It may take a while to find the therapy or combination of therapies that works best.

### Topicals

Often the first treatment prescribed to a patient newly diagnosed with psoriasis, topicals are applied to the skin. Topical corticosteroids, nonsteroids calcineurin inhibitors and retinoids are commonly prescribed, as well as administering phototherapy using ultraviolet lights A or B.

### Oral

Pills taken orally to treat psoriasis are also called systemic because they work throughout the entire body. Examples of oral psoriasis medications are retinoids, immunosuppressives and PDE4-inhibitors.

### Injectables or infusions

These therapies involve the injection or intravenous infusion of a protein-based drug derived from living cells (biologic) or one modeled after an already-approved biologic product (biosimilar).

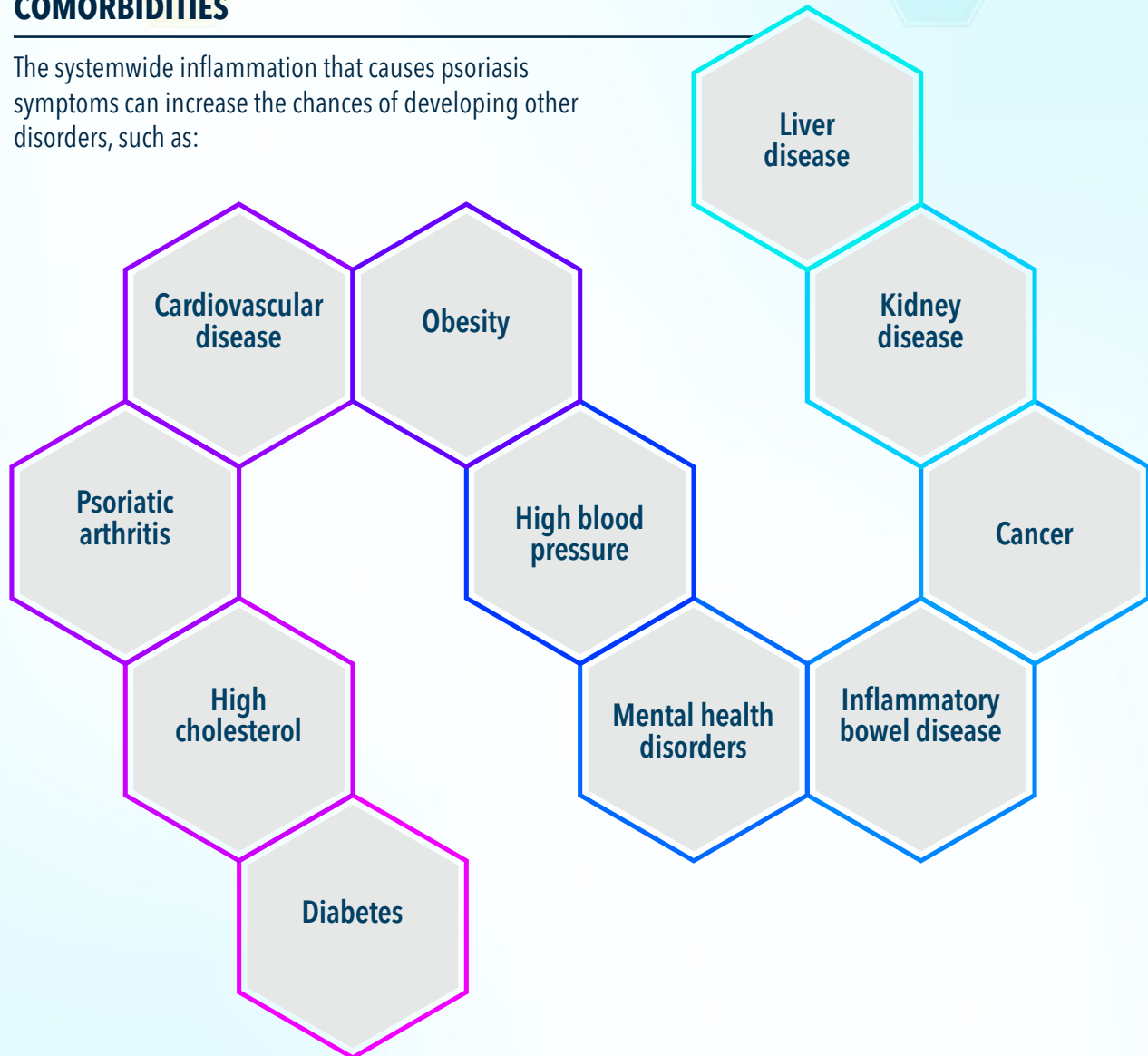
### Combination therapy

When combined, two or more psoriasis treatments may have better results than when used alone. All current FDA-approved biologics can be used with topicals and phototherapy. Some biologics can be taken with methotrexate.

| <b>Treatment</b>                      | <b>Method</b>   | <b>Examples</b>   |
|---------------------------------------|---|---|
| Corticosteroids (topical)             | Control body's inflammatory response, reduce swelling and redness of plaques        | Hydrocortisone, dexamethasone, methylprednisolone, desonide, betamethasone, triamcinolone           |
| Nonsteroids (topical)                 | Control plaques by slowing the growth of skin cells                                 | Anthralin, calcipotriene, tazarotene, calcitriol  |
| Calcineurin inhibitors (topical)      | Inhibit the calcineurin enzyme in immune cells, reducing skin inflammation          | Cyclosporine, tacrolimus and pimecrolimus   |
| Phototherapy (topical)                | Expose skin to an artificial light source to slow the growth of skin cells          | Broad- or narrow-band ultraviolet light B (UVB), combination psoralen and ultraviolet light A (UVA) |
| Retinoids (topical)                   | Slow the growth of skin cells, lessen redness and swelling by reducing inflammation | Tazarotene  |
| Retinoids (oral)                      | Help control the multiplication of cells and speed at which cells shed              | Acitretin   |
| Immunosuppressives (oral)             | Suppress immune system and slow growth of certain immune cells                      | Cyclosporine, methotrexate  |
| Phosphodiesterase 4 inhibitors (oral) | Regulate inflammation by inhibiting the PDE4 enzyme                                 | Apremilast  |

## COMORBIDITIES

The systemwide inflammation that causes psoriasis symptoms can increase the chances of developing other disorders, such as:



### SOURCES:

- <https://www.psoriasis.org/locations-and-types/>
- <https://www.psoriasis.org/advance/psoriatic-disease-affects-more-than-skin-and-joints/>
- <https://www.verywellhealth.com/psoriasis-best-topical-steroid-creams-2788375>
- <https://www.healio.com/news/dermatology/20200113/ixekizumab-brodalumab-show-strongest-clinical-benefit-in-psoriasis>
- <https://www.webmd.com/skin-problems-and-treatments/psoriasis/tests>
- <https://www.aafp.org/afp/1999/0215/p957.html>
- <https://www.papaa.org/learn-about-psoriasis-and-psoriatic-arthritis/just-diagnosed/what-is-psoriasis/treatments-for-psoriasis/retinoids/>
- <https://www.webmd.com/skin-problems-and-treatments/psoriasis/psoriasis-combo-therapy-severe>

# PEDIATRIC PSORIASIS

## Scientific Guidelines

### PEDIATRIC PSORIASIS

Affecting about 1% of children, psoriasis in pediatric patients has a similar presentation as in adults and often follows a relapsing course with impact on quality of life.

### SCREENING

01

The Children's Dermatology Life Quality Index measures the impact of skin diseases such as psoriasis on a child's quality of life and is intended for children 12 to 16 years old.

02

The Cartoon Children's Dermatology Life Quality Index uses the same measures in a cartoon version and is intended for children younger than 12 years old.



## TREATMENT WITH BIOLOGICS

The major risk for biologics in children is injection site reaction, so patients should be monitored for infection. In pediatric patients with moderate to severe plaque psoriasis, biologics may be safely combined with topical corticosteroids to increase effectiveness.

## BIOLOGIC USE IN PEDIATRIC PATIENTS

| Drug        | Mechanism of Action   | Recommendation   | Dosing   |
|-------------|---|--|--|
| Etanercept  | Tumor necrosis factor (TNF) inhibitor                       | Effective therapy for moderate to severe psoriasis in children 6 years and older.  | Once weekly 0.8 mg/kg subcutaneously (50 mg weekly maximum)  |
| Adalimumab  | Fully human IgG1 monoclonal antibody, blocks TNF-alpha      | Effective off-label use in children and adolescents with moderate to severe psoriasis  | Weeks 0 and 1 a dose of 0.8 mg/kg is given, then every other week for treatment course   |
| Infliximab  | IgG1k monoclonal antibody, neutralizes TNF-alpha            | Effective alone or in combination with methotrexate in pediatric patients with severe plaque or pustular psoriasis that is progressive, unresponsive, unstable or life-threatening | Initial dose is 5 mg/kg infused on weeks 0, 2 and 6, then given every 8 weeks for treatment course   |
| Ustekinumab | Human monoclonal antibody, blocks interleukin (IL)12 and 13 | Effective therapy for pediatric patients younger than 12 years old with moderate to severe plaque psoriasis  | Weight-based dosing (0.75 mg/kg if less than 60 kg, 45 mg/kg if 60 to 100 kg, and 90mg/kg if more than 100kg) at weeks 0, 4 and 16, then every 12 weeks for treatment course |

**SOURCES:**

<https://www.psoriasis.org/inverse-psoriasis/>

<https://www.webmd.com/skin-problems-and-treatments/psoriasis/pediatric-psoriasis-facts>

<https://www.aad.org/news/first-ever-guidelines-for-pediatric-psoriasis>

[https://www.jaad.org/article/S0190-9622\(19\)32655-6%20/fulltext](https://www.jaad.org/article/S0190-9622(19)32655-6%20/fulltext)

**PSORIASIS IN SKIN OF COLOR:**

<https://www.psoriasis.org/advance/treating-skin-of-color/>

<https://www.psoriasis.org/advance/diagnosing-psoriasis-in-skin-of-color/>