

## What is psoriasis?

Psoriasis is a common, non-contagious, inflammatory skin condition affecting more than 125 million people worldwide<sup>1</sup>.

There are several different types of psoriasis<sup>2</sup>. **Plaque psoriasis** is the most common, accounting for 90% of cases<sup>3</sup>. Plaque psoriasis appears as raised, red patches covered with a silvery white buildup of dead skin cells that are often itchy, painful, and can crack and bleed. These patches, or plaques, most often develop on the scalp, knees, elbows and lower back<sup>2</sup>.

More than one-third of people with plaque psoriasis suffer from a moderate-to-severe form, which can be difficult to treat<sup>4,5</sup>. People are considered to have moderate-to-severe symptoms when more than 10% of their body surface is affected, or when sensitive or visual areas of the body are involved, such as the hands or feet (palmoplantar psoriasis), or face (facial psoriasis), which can greatly impact quality of life<sup>2,6</sup>.

Psoriasis most often develops between the ages of **15 and 35**, however symptoms can begin at any age, including childhood<sup>2,5</sup>.

### Not just a cosmetic condition

Psoriasis does not only affect the skin. It is a systemic, chronic (long-lasting), and distressing disease that can negatively affect all aspects of daily life<sup>7</sup>.

**Psoriasis has been shown to regularly limit people's ability to undertake daily work and social activities, and also impacts their mental and emotional health<sup>7</sup>. The effect on a person with psoriasis' quality of life is comparable to the impact of diseases such as advanced heart disease, and even some forms of cancer<sup>3,7</sup>.**

Psoriasis is also associated with other serious health conditions, such as depression, diabetes and heart disease<sup>8</sup>. Up to 30% of patients with psoriasis have, or will develop, psoriatic arthritis in which the joints are also affected causing debilitating symptoms including pain, stiffness and irreversible joint damage<sup>2,7</sup>.

### Inflammation and psoriasis

**The exact causes of psoriasis have not yet been determined, but it has been confirmed that it is related to the body's immune system<sup>9</sup>.** Normally, following a specific trigger (environmental or genetic) the body's immune system is activated, producing numerous cytokines (small proteins) that help control the immune system's inflammatory response<sup>10</sup>. In psoriasis, this inflammatory response occurs automatically, or is mistakenly triggered, causing it to grow new skin cells at a faster rate than normal. This results in skin thickening and the development of patches, or plaques, due to cell build up on the skin's surface<sup>3</sup>.

**Interleukin-17A (IL-17A) is one of the many proteins in the body called cytokines that help protect the body against infections<sup>11</sup>.** Cytokines usually work by signalling to infection-fighting cells that they need to mount an immune response once foreign invaders, such as bacteria or other disease causing germs, have been detected<sup>11</sup>. IL-17A, has been found in increased levels in the skin of people with psoriasis<sup>12</sup>, suggesting it may play an important role in driving this inflammatory response in the disease<sup>10</sup>.

**Controlling this inflammatory response could be the key to the successful treatment of psoriasis.** Reduction in inflammation reduces the associated symptoms such as redness, itching and swelling. It also slows the characteristic fast growth of new skin cells and buildup of cells on the skin's surface, known as plaques<sup>1</sup>.

## Managing psoriasis: the ultimate goal

The **Psoriasis Area and Severity Index (PASI)** is used to assess outcomes in psoriasis clinical trials, and measures the redness, scaling and thickness of psoriatic plaques and the extent it affects each area of the body<sup>1,6,13</sup>. During psoriasis treatment, efficacy is assessed by the reduction of the score from baseline (when treatment started)<sup>13</sup>.

There is now a focus on PASI 90 (almost clear skin) as the ultimate goal for treatment, as recommended by clinical guidelines and regulatory authorities<sup>13-16</sup>.



*Representation of moderate to severe psoriasis achieving PASI 90 at Week 52*

## Addressing the unmet needs in psoriasis treatment

There are a number of treatments available for psoriasis. Treatments include topical therapies (creams and gels), phototherapy, biologic therapies and systemic medicines, i.e. treatments that affect the whole body<sup>5</sup>. However, according to an analysis of surveys conducted on 5,600 patients by the National Psoriasis Foundation between 2003 and 2011, more than half of patients with mild, moderate and severe psoriasis were dissatisfied with their disease management<sup>13</sup>. This highlights there is still an unmet need for new, more effective therapies. Treatments that act faster, and last longer to not only relieve the symptoms, but also address the underlying inflammatory response, which are critical to the overall health benefits of psoriasis treatment<sup>8,15-18</sup>.

Newer, innovative treatments that specifically target the cytokines that trigger inflammation, such as IL-17A, interrupting the inflammatory cycle in psoriasis, have been developed in response to this unmet need. These treatments have shown positive results in the treatment and management of psoriasis<sup>2</sup>.

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