



# Popular triggers for common skin conditions:

## Acne, eczema and psoriasis

By Dr. Andrei Metelitsa and Dr. Paul Kuzel

For many common skin diseases, we still don't know why some people develop a particular disease and others do not. However, we do know that certain things can trigger or exacerbate symptoms in those who have a pre-existing dermatological condition. Some common skin conditions that have known triggers include acne, eczema and psoriasis.

### Acne triggers

Acne is a disorder of sebaceous glands, which are microscopic, oil-producing glands in our skin. Their primary role is to produce sebum, a substance that is secreted to the skin surface to serve important functions including body temperature, waterproofing and antimicrobial activity. Several processes in this gland interact to result in typical symptoms of acne, including increased sebum, blockage by a protein called keratin, and inflammation caused by bacteria.

### Hormones

Hormones, specifically androgens such as testosterone and dihydrotestosterone, can trigger acne. These hormones, which are produced in both males and females, contrib-

ute to the development of acne by increasing sebum production. As androgen levels increase during puberty, sebaceous gland activity surges, significantly increasing acne prevalence. The influence of androgens explains why acne can be triggered by factors such as consumption of anabolic steroids, pregnancy or the therapeutic use of corticosteroids.

effectively decreases the size of the opening through which sebum travels to the skin surface, causing sebum and bacteria to accumulate within our sebaceous glands. Other potential acne triggers include psychological stress, excessive consumption of dairy products, diets with a high glycemic index and radiation therapy.

*Other common irritants that may trigger eczema include chlorine, sweat, perfumes, cigarette smoke and makeup.*

### Physical barriers

Mechanical irritations to the skin, caused by things such as tight-fitting helmets, collars or chin straps, can trigger acne by creating a mechanical blockage of sebaceous glands that causes sebum to back up, resulting in the development of comedones (whiteheads and blackheads). Manipulation of acne lesions, or "popping a pimple," can worsen symptoms.

### Other triggers

Heat causes the skin to swell, which

### Eczema triggers

Eczema is a common inflammatory skin condition with a typical onset in infancy or early childhood. It is characterized by dry patches of skin that are itchy, red, scaly and often thickened or swollen. It can affect virtually any area of the body, but most commonly occurs in the folds of the elbows and knees, as well as the face, neck, wrists, hands, ankles and feet. Classically, the clinical course of eczema is highlighted by periods of lessened disease severity

as well as periods of increased severity, or “flares.”

### Environments

A number of environmental triggers can set off or worsen eczema flares. Contact with allergens such as pollen, animal dandruff or dust mites is a common trigger. Materials such as wool and nylon, although not allergens per se, can trigger eczema, likely through the irritant effects of direct contact with these rougher fabrics. Other common irritants that may trigger eczema include chlorine, sweat, perfumes, cigarette smoke and makeup.



### Habits

Factors that have a drying effect on the skin—including harsh soaps, cold weather, swimming and excessive bathing (particularly in hot water)—can trigger a flare. However, the detrimental effects of these activities can be minimized by taking appropriate steps, including prompt use of a moisturizer and avoidance of excessively hot water.

### Other factors

Emotional stress and eczema often form a vicious cause-and-effect cycle. On one hand, eczema symptoms can lead to feelings of anxiety or depression. On the other hand, these emotional stressors can themselves trigger symptoms of eczema, likely through a complex interaction between stress hormones and the body's immune system.

### Psoriasis triggers

Psoriasis is a chronic, immune-mediated skin disease characterized by an abnormal overgrowth of keratinocytes, cells that constitute 95 per cent of the human outer skin layer. The overgrowth of keratinocytes leads

to the characteristic thickened, scaly, red plaques most commonly found on the elbows, knees and torso of affected patients.

### Common factors

Many of the same triggers of acne and eczema are known triggers of psoriasis as well, including a dry or cold climate, psychological stress, infections, hormones and smoking. However, there are some additional triggers more characteristically associated with psoriasis flares. One of these triggers is skin injury, whereby insults to the skin surface such as cuts, scratches, rubbing or sunburn can induce a psoriasis flare at the site of injury. This is also called the “Koebner phenomenon.”

### Medications and lifestyle

Other potential psoriasis triggers

include numerous medications used to treat a wide range of illnesses including heart disease and psychiatric disorders. Finally, excessive alcohol consumption can also trigger psoriasis, likely due to the profound effects alcohol can have on our immune system as well as through interactions with various medications used to treat psoriasis.

### What can you do?

If you have one of these skin conditions or have a family member who suffers from one, start tracking triggers by keeping a journal, and share your findings with your dermatologist to work together toward a flare-free skincare routine. 

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## Eczema and food allergies: Cause or effect?

A significant proportion of children with eczema (10–30 per cent) have food allergies, compared with one to three per cent of the general population. The most common allergies include:

- peanut • soy • milk • egg • wheat.

However, researchers believe that only a small proportion of eczema flares are triggered by diet.

The new “outside-inside” theory attempts to explain the association between eczema and food allergies.

This theory proposes that patients with eczema are at increased risk of developing food allergies due to a deficiency in the barrier function of the skin. This deficiency increases the chances of becoming allergic to food particles that come into contact with the skin surface. Thus, early and aggressive treatment of eczema may lower the future risk of developing food allergies.

