CONDITION

Dermatoses - systemic

Systemic dermatoses are skin changes caused by or associated with a condition affecting another part of the body.

WHAT IT IS
Skin changes linked to a body-wide condition

BODY SYSTEM
Skin and potentially any other body system

MAIN SYMPTOMS
Rash, itching, color changes, sores

WHAT CAUSES IT
Immune, infection, medication, inherited, or unknown

HOW IT IS DIAGNOSED
Skin examination, biopsy, and targeted blood tests

MAIN TREATMENT
Skin care and treatment of the underlying cause

CAN IT BE CURED?
Sometimes - treating the cause may clear symptoms

IS IT AN EMERGENCY?
Sometimes - painful blistering or breathing difficulty

LONG-TERM OUTLOOK
Often manageable but shaped by the underlying condition

Overview

"Systemic dermatoses" is a broad term for skin conditions connected to a health problem elsewhere in the body. "Dermatosis" means a disorder affecting the skin, while "systemic" means involving the body more widely.

This is not one specific disease. An immune condition may cause a sun-sensitive rash, liver disease may cause itching, or a medicine may produce a widespread eruption.

Skin findings can provide an early clue to an underlying condition or appear after it has been diagnosed. However, most rashes are not signs of serious internal illness, and appearance alone is rarely enough to identify the cause.

The skin problem and underlying condition do not always follow the same course. A rash may

improve while the internal condition remains active or continue after that problem is controlled.

Symptoms

Symptoms depend on the cause and which layers of skin are affected. They may begin suddenly or develop over weeks or months.

Possible skin changes include:

Color can look different across skin tones. Redness may appear pink or red on lighter skin and purple, grey, or dark brown on darker skin. Inflammation may be easier to notice through warmth, swelling, texture, or tenderness than color.

Other symptoms can include fever, tiredness, joint pain, muscle weakness, weight change, digestive symptoms, unusual thirst, or sensitivity to sunlight. These do not identify a diagnosis on their own.

- Red, brown, purple, pale, or darker patches
- Flat spots, raised bumps, plaques, or rings
- Dryness, scaling, cracking, or thickening
- Itching, burning, tenderness, or pain
- Blisters, open sores, crusting, or peeling
- Swelling around the rash
- Unusual bruising or tiny red-purple dots
- Changes to the nails, scalp, or hair
- Sores inside the mouth or around the eyes or genitals

Causes and risk factors

Systemic dermatoses have many possible causes, and sometimes more than one factor contributes.

Autoimmune and inflammatory conditions can cause the immune system to attack or inflame healthy tissue. Lupus, dermatomyositis, vasculitis, inflammatory bowel disease, and some forms of arthritis may have skin features.

Infections can directly affect the skin or trigger an immune reaction. Whether the condition is

contagious depends on the infection.

Conditions affecting the liver, kidneys, thyroid, blood, circulation, or hormone system can cause itching, altered color, swelling, dryness, ulcers, or changes in hair and nails.

Medicines can cause mild rashes or uncommon but serious skin reactions. A reaction may begin soon after treatment starts or days or weeks later. Prescription medicines, non-prescription products, supplements, and injected treatments can all be relevant.

Some systemic dermatoses are inherited. Others are associated with cancer, although this is a much less common explanation for a rash than eczema, infection, or a medication reaction.

Risk factors depend on the cause. They may include family history, an existing autoimmune or internal condition, recent infection, a new medicine, immune-suppressing treatment, or repeated exposure to a trigger. Sometimes no clear risk factor is found.

Diagnosis

Diagnosis begins with a history and careful examination. A clinician may ask when the skin change started, whether it itches or hurts, and whether it changes with sunlight, heat, illness, or medication.

The location and pattern matter. Examination may include the scalp, nails, mouth, eyes, or other areas. Photographs showing how the rash has changed can help, especially if it comes and goes.

Tests may include:

No single blood test confirms every systemic dermatosis. Some immune blood tests can be abnormal in healthy people, so results must be interpreted alongside symptoms and examination findings.

A biopsy may identify the type of inflammation or skin damage but may not reveal the underlying cause by itself. Referral to dermatology or another specialty may be needed when several body systems are involved.

- A skin scraping or swab to check for infection
- Blood tests for inflammation, blood-cell changes, or organ function
- Selected immune-system tests if an autoimmune condition is suspected
- Urine testing for kidney or metabolic problems
- A skin biopsy, which removes a small sample for examination

- Imaging or other tests when symptoms suggest an internal condition

Treatment and management

Treatment aims to relieve skin symptoms and manage any underlying condition. The approach depends on the diagnosis, how much skin is involved, and whether other organs are affected.

Basic care may include gentle washing, fragrance-free moisturizers, and avoiding products that sting or worsen the rash. Cool compresses or other anti-itch measures may help. Sun protection is important for ultraviolet-sensitive rashes.

Medical treatment may include topical preparations, medicines that reduce itching, antimicrobial treatment for infection, or medicines that control inflammation or immune activity. Extensive disease may require treatment by mouth, injection, or infusion.

If a medicine may be responsible, its timing, benefits, and risks need review. Do not stop an essential prescription suddenly unless an emergency clinician advises it or you have a specific safety plan. During a severe reaction, the suspected medicine may need to be stopped immediately as part of emergency care.

Wounds, ulcers, blisters, or fragile skin may need dressings and infection prevention. Eye, mouth, or genital involvement may require specialist care because inflammation and scarring can affect function.

Follow-up may include checking healing, reviewing test results, and monitoring the underlying condition or treatment side effects.

Complications

Scratching, broken skin, or ulcers can allow bacteria to cause an infection. Deep inflammation may leave scars. Some rashes cause lasting lighter or darker areas after inflammation settles, particularly in darker skin tones.

Extensive blistering or peeling can cause fluid loss and difficulty controlling body temperature. This is uncommon but requires urgent hospital care.

Eye inflammation may affect sight. Mouth sores can make eating and drinking difficult, while genital inflammation may cause pain or scarring.

A systemic dermatosis can also indicate that an underlying condition is active. Complications may therefore come from that condition rather than the skin itself. Persistent itching, visible changes, sleep loss, and uncertainty can also affect mood, work, relationships, and

self-confidence.

Prevention

Systemic dermatoses cannot always be prevented, particularly when they result from an inherited tendency, autoimmune condition, or internal illness.

Once a trigger is identified, avoiding it may reduce future episodes. This could mean avoiding a medicine that caused a confirmed reaction, limiting exposure to another trigger, or using sun protection for a photosensitive condition.

Managing an underlying condition may reduce skin symptoms but cannot guarantee they will not return. Keep an accurate list of medicine allergies and serious reactions. If known, tell healthcare professionals what happened rather than recording only "rash."

Routine skin care can reduce irritation and damage to the skin barrier, but it does not prevent every systemic cause.

Living with it and what to expect

The long-term course is shaped mainly by the underlying cause. A short-lived infection or medicine reaction may settle completely. An autoimmune or inherited condition may cause repeated episodes or long-term changes.

Flares may be separated by months or years, or symptoms may remain at a lower level. Sunlight, infection, medication changes, or activity in the underlying condition may trigger some dermatoses. Other changes occur without an obvious reason.

Color changes can remain for months after inflammation improves. Scars, scarring hair loss, or nail damage may be permanent, although these outcomes do not occur with every condition.

Many people manage symptoms with regular skin care, treatment during flares, and follow-up for the associated condition. Dated photographs and notes about new medicines, illnesses, or exposures can help identify recurring patterns.

Attend routine follow-up if the rash persists, returns, or is linked to an ongoing systemic condition. Monitoring may be needed even when the skin looks better because its appearance does not always reflect what is happening elsewhere in the body.

When to get medical help

Arrange a routine appointment if a rash lasts more than a few weeks, repeatedly returns, disrupts sleep, or occurs with unexplained joint pain, fatigue, digestive symptoms, weight change, or hair and nail changes.

Seek prompt medical advice if:

Call emergency services for trouble breathing, swelling of the tongue or throat, faintness, or a rapidly spreading rash with facial swelling. Painful blistering, widespread peeling, or a rash involving several moist surfaces, such as the mouth and eyes, also needs emergency assessment.

A purple rash that does not fade when pressed, especially with fever, confusion, severe headache, neck stiffness, or marked illness, requires emergency help.

- A rash begins after starting a new medicine
- The skin becomes increasingly warm, swollen, painful, or produces pus
- You develop fever or feel unwell with a widespread rash
- A rash involves the eyes, mouth, or genitals
- Purple spots or bruise-like areas appear without a clear injury
- Blisters, ulcers, or rapidly worsening pain develop

Common questions

Is a systemic dermatosis contagious?

Usually not. Autoimmune, inherited, hormonal, liver, kidney, and medication-related conditions do not spread between people. Some infections that produce systemic skin symptoms can be contagious, so the cause matters.

Does a rash mean something is wrong with my organs?

Not usually. Most rashes have common skin-related causes. Certain patterns, symptoms, or test results may suggest an internal condition, but appearance alone cannot confirm one.

Will treating the underlying condition clear my skin?

It may. Skin symptoms often improve when their cause is controlled, but not always immediately. Pigment changes can remain after inflammation ends, and some conditions need separate skin treatment.

Can stress cause systemic skin symptoms?

Stress can worsen itching or trigger flares in some inflammatory conditions. It does not explain

every rash and should not automatically be assumed to cause a new or persistent skin change.

Why might I need a skin biopsy?

A biopsy can show the pattern and depth of inflammation, abnormal cells, or damage to skin structures. It may narrow the possible diagnoses, but other tests may still be needed to find a systemic cause.

Can I use photographs to help with diagnosis?

Yes. Clear photographs can document color, location, and progression when a rash changes or disappears before an appointment. Images cannot replace an examination, especially when the rash is painful, blistering, or accompanied by illness.

Sources

- DermNet. Skin signs of systemic disease
- MSD Manual Professional Edition. Principles of Diagnosis of Skin Disorders
- MedlinePlus Medical Encyclopedia. Rashes . U.S. National Library of Medicine
- Ely JW, Stone MS. "The Generalized Rash: Part I. Differential Diagnosis." American Family Physician . 2010;81(6):726-734
- Ely JW, Stone MS. "The Generalized Rash: Part II. Diagnostic Approach." American Family Physician . 2010;81(6):735-739
- National Institute for Health and Care Excellence. Drug allergy: diagnosis and management . Clinical guideline CG183, 2014