Stevens-Johnson Syndrome & Toxic Epidermal Necrolysis (SJS/TEN)

Rare adverse skin reaction characterized by **blistering rashes** on skin and mucous membranes, and **epidermal detachment** often triggered by certain medications.

DIAGNOSIS

- Diagnosis is mainly **clinical**
- Skin biopsy can confirm diagnosis

SJS and TEN are classified by degree of skin involvement:

SJS: < 10%

TEN: > 30%

SJS/TEN overlap: 10–30%

DIFFRENTIAL DIAGNOSIS

- Reactive infectious mucocutaneous eruption (RIME)
- Staphylococcal scalded skin syndrome (SSSS)
- Drug reactions with eosinophilia and systemic symptoms (DRESS)
- Erythema multiforme
- Severe cutaneous adverse reactions (SCAR) to drugs

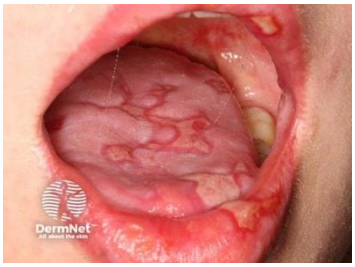
PATHOPHYSIOLOGY

- The underlying mechanism of SJS/TEN is not yet fully understood however, it has been associated with alterations in cell mediated immunity, characterized by drug-specific cytotoxic activity targeting keratinocytes
- Triggered mostly by medications (i.e. antibiotics, anticonvulsants, and anti-inflammatory drugs)

PRESENTATION

History

- Prodromal symptoms such as fever, general malaise, cough, rhinitis, and sore throat.
- Blistering rash and erosions on face, trunk, limbs and mucous membranes.



PHYSICAL EXAM

Skin

- Purpuric macules with non-blanching centers resulting in bullae and skin sloughing.
- Nikolsky sign: sloughing of the superficial skin layer with slight pressure on skin.

Mucosal

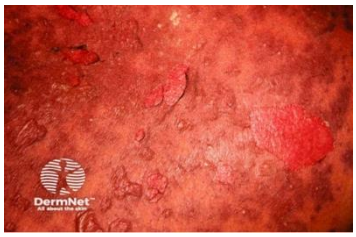
- Oral, ocular, GI tract, upper respiratory tract and genital mucous membranes.

Systemic symptoms

- Fever, lymphadenopathy

Systemic involvement

- Kidney injury
- Hepatitis
- Cytopenias



Potential complications of SJS/ TEN include:

- Sepsis
- Scarring
- Strictures
- Ocular complications
- Organ failure
- Death

MANAGEMENT

- Identify and discontinue the suspected drug immediately; refer to ICU or burn center (Refer to specialized burn unit if skin involvement greater than 25-30%).
- Provide supportive care: fluids/electrolytes, respiratory and nutritional support, pain management, and wound care.
- Systemic treatment remains controversial; options include cyclosporine, TNF-α inhibitors, corticosteroids, and IVIG.
- Refer to a dermatologist and other specialists as indicated by the clinical presentation.

April 2026

Stella Sanusi (Medical Student, University of Calgary) and Dr Fatemeh Jafarian (Pediatric Dermatologist, University of Calgary) for www.pedscases.com