

# #MADEEASY



STEVENS JOHNSON SYNDROME (SJS)

&

TOXIC EPIDERMAL NECROLYSIS (TEN)

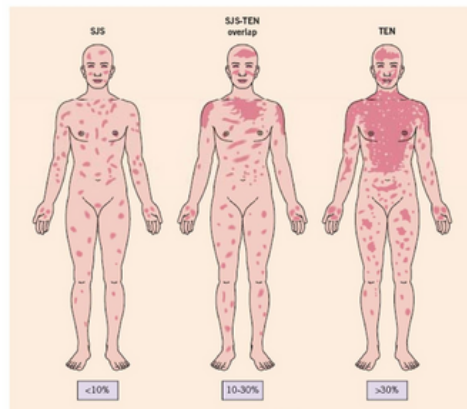




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- **Stevens-Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN) are severe, life-threatening skin reactions.**
- **They are typically caused by medications & lead to detachment of skin & mucous membranes.**
- **The main difference between SJS and TEN is the extent of skin involvement, with TEN involving >30% of body surface area.**



#### Simple Example

- **Imagine a wall with paint that suddenly begins to crack and peel off in large sections.**
- **Similarly, in SJS and TEN, the outer layer of skin (epidermis) begins to detach from the underlying layers, as though the skin is "peeling off."**
- **This exposes raw, white wall underneath.**

#### Causes

- **Medications: The most common triggers are drugs, including:**
  - **Antibiotics (sulfonamides, penicillin)**
  - **Anticonvulsants (carbamazepine, lamotrigine, phenytoin)**
  - **NSAIDs (ibuprofen)**
  - **Allopurinol**
- **Viral infections**
- **Rarely, certain vaccines or malignancies may trigger these conditions.**





## STEVENS JOHNSON SYNDROME (SJS) & TOXIC EPIDERMAL NECROLYSIS (TEN)

### Clinical Features

Both SJS and TEN present with similar features but vary in severity.  
Stevens-Johnson Syndrome (SJS):



**Skin Involvement:** <10% of body surface area (BSA)

**Initial Symptoms:** Flu-like symptoms (fever, malaise, sore throat, cough)

**Lesions:** Erythematous macules blisters slough off, leaving behind raw, red areas of exposed dermis.

**Mucosal Involvement:** Often involves lips, mouth, eyes, genitalia, leading to painful ulcers and erosions.

**Nikolsky's Sign:** A clinical test where gentle rubbing of the skin causes it to shear off easily.

### Toxic Epidermal Necrolysis (TEN):



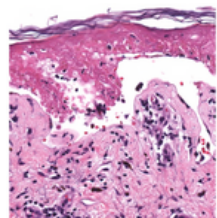
**Skin Involvement:** Affects >30% of BSA, with more extensive and deeper skin peeling.

**Lesions:** Begin as diffuse redness and rapidly progress to widespread blistering and epidermal detachment.

**Mucosal Involvement:** Severe and can involve the eyes, leading to conjunctivitis or blindness, and lungs

**Nikolsky's sign**

### Histopathological Findings





## STEVENS JOHNSON SYNDROME (SJS) & TOXIC EPIDERMAL NECROLYSIS (TEN)

- **Full-Thickness epidermal necrosis:** The primary histological feature of both SJS and TEN is necrosis of the epidermis.
- **Subepidermal blister formation:** The epidermis lifts off from the dermis, creating blisters.
- **Basal Cell Damage:** Early damage to the keratinocytes in the basal layer.

### Diagnosis

- Mostly clinical but can be supported by skin biopsy to confirm full-thickness necrosis of the epidermis.

### Treatment

- Treatment requires **emergency care** in a burn unit or ICU, as these conditions can be life-threatening.
- Discontinue offending drug immediately
- Systemic Steroids
- Intravenous Immunoglobulin (IVIG): May help reduce skin damage in severe cases.
- Supportive Care: Includes fluid replacement, wound care, and prevention of infections.

### Prognosis

- SJS: Mortality rate is around 5%.
- TEN: Mortality rate can be as high as 30-50%, especially in the elderly or those with extensive skin loss.
- Complications include sepsis, multi-organ failure, and permanent skin and eye damage.

Feature	Stevens-Johnson Syndrome (SJS)	Toxic Epidermal Necrolysis (TEN)
Body Surface Area	<10% of BSA	>30% of BSA
Skin Lesions	Erythematous macules, blisters, erosions	Diffuse erythema, large blisters, widespread sloughing
Mucosal Involvement	Common and severe	Very severe, may lead to blindness or respiratory issues
Nikolsky's Sign	May be positive	Usually positive
Mortality	~5%	Up to 30-50%

