

# Pruritus

# Definition

- Itching of the skin, unpleasant sensation that triggers rubbing or scratching
- Localized or generalized
- With or without skin changes
- Acute or chronic

# Pathophysiology

- Skin comes in contact with the allergens or irritating substances.
- Irritation and inflammation of epidermal nerve endings (unmyelinated c, a delta nociceptive)
- Histamine release
- More itching
- More scratching
- More damage and inflammation
- Itch scratch cycle

# complications

- Skin injury
- Infections
- scarring

# Pruritus With skin changes

## localized

- Eczema, psoriasis
- Lichen planus
- Dermatitis herpetiformis
- Insect bite
- Head lice
- Contact dermatitis
- Polymorphic light eruption
- Urticaria
- Fungal infection
- Pruritus ani

# Generalized

- Widespread eczema or psoriasis
- Scabies
- Allergic drug eruption
- Graft versus host disease
- Pre bullous pemphigoid
- Cutaneous lymphoma
- Lice
- Xerosis

# Pruritus With normal skin

- **endocrine:** diabetes, myxedema, hyperthyroidism, pregnancy
- **Hematological:** polycythemia, IDA
- **Metabolic:** hepatic failure, biliary obstruction, CKD
- **Neurological-psychological:** neuropathic pruritus, MS, anxiety
- **Infection:** filariasis, HIV
- **Drugs:** opioids
- **Malignancy**

# approach

- History
- Physical examination and skin examination
- Investigations

**Table 1. Historical Findings That Suggest Etiologies for Pruritus**

<i>Historical finding</i>	<i>Possible etiologies</i>
New cosmetics or creams	Allergic contact dermatitis, urticaria, photodermatitis
New medications, supplements, or illicit drugs	Urticaria, fixed drug eruptions
Recent travel	Pediculosis, scabies infestation, photodermatitis, urticaria
Hobby or occupational exposure to solvents, adhesives, cleaners	Irritant contact dermatitis, xerosis, atopic dermatitis, eczema
New animal exposures	Flea infestation, allergic contact dermatitis, urticaria
Sick contacts, especially those with febrile diseases and rashes	Rubeola, mumps, varicella, scarlet fever, cellulitis, fifth disease, folliculitis
Unexplained weight changes, menstrual irregularity, heat/cold intolerance	Thyroid disease with secondary urticaria or xerosis
Unexplained weight loss, night sweats, unexplained fevers, fatigue	Lymphoma with secondary generalized pruritus
Malaise, nausea, decreased urine output	Renal failure with generalized pruritus

# investigations

- CBC
- Iron
- Thyroid function
- Serum protein electrophoresis
- HIV antibody
- Urinalysis and stool
- Chest x ray
- Skin biopsy

# management

- Identify and treat the underlying cause
- Avoid triggering factors
- Topical management
  - I. Simple soothing emollients (menthol, calamine)
  - II. Topical local anesthesia (benzocaine, lidocaine)
  - III. Topical antihistamines (mepyramine, antazoline)
- Oral anti-histamines: (H1 or H2 blockers)