

Bug Bites

[Scabies](#)

[Lice](#)

[Spiders](#)

Bug (click name for images)	Risk factors	Description	Associated Diseases (partial lists)
Flea bites	Pets	Clusters of small papules, often on ankles, some patients may develop bullae	Plague, rat bite fever, murine typhus, cat scratch fever
Mosquito bites	Outdoor activities, esp at dusk/dawn, standing water	Papules and wheals with central punctum, larger than flea bites, exposed body parts	Malaria, Zika, Dengue, Encephalitides, West Nile, Chikungunya
Bedbugs	Hotel stays, crowded living conditions	“Breakfast lunch & dinner” grouped papules, face, extremities	None
Tick bites	Outdoor hiking, camping	Tick attached to body, look in crevices, hair-bearing areas	Lyme, RMSF, Babesiosis, Alpha gal syndrome

[Management](#) – next slide

[Papular urticaria](#) = hypersensitivity reaction to insect bites

Bug Bite Management

- Treat inflammation and pain
 - Ice / cool compresses, ibuprofen, elevation if significant swelling
- Treat itch
 - Cut nails short, short tepid baths/showers, cool compresses
 - Topical anti-histamine (pramoxine, diphenhydramine)
 - Topical calamine, menthol
 - Oral anti-histamine (diphenhydramine)
 - Low-potency topical corticosteroids (1% hydrocortisone)
- Assess for any superinfection and treat with antibiotic (topical or oral) as indicated
- Discuss prevention with parents / patients
 - Avoid high risk exposure situations
 - Treat flea / bedbug infestations
 - Insect repellent e.g. DEET, picardin
 - Spray on outside of clothing in young children
 - Wear long sleeves / long pants

How to remove a tick

[Video](#)

[Article](#)

Scabies

[Skinsight Images](#)
[DFTB Images](#)

- Transmitted by direct contact or through a fomite (clothing, sheets)
- Risks: crowded living, others in family with rash / itch
- Burrows (serpiginous small white lines), erythematous papules (hypersensitivity to mite) esp on webspaces between digits, beltline, intertriginous areas
 - [Nodular form](#): erythematous nodules often in the axillae and groin
 - [Norwegian \(crusted\) scabies](#): widespread thick crusts
 - Highly contagious, occurs in immunosuppressed, infants, diabetes
- Severely itchy, especially at night
- Clinical diagnosis generally
 - Can observe mites & eggs in skin scrapings of a burrow viewed under a microscope
- Management
 - 5% permethrin applied neck to soles of feet at night, wash off next day in 8-14 hours
 - Young children may have face and scalp involvement – apply sparingly to these areas
 - 30gm covers average adult, considered safe for age 2 months +, pregnant women
 - Warn patients – itch and rash may initially worsen as mites die
 - Repeat treatment in 1 week to treat mites from unhatched eggs at first treatment
 - Wash all linens and clothes and stuffed animals in hot water
 - [Treat itch](#)

Lice

- Three types: [head lice](#), body lice, pubic lice
- Head most commonly seen in children
 - Transmitted by head-to-head contact, sharing head gear (e.g. hats)
 - Commonly young children, girls (long hair) > boys
- Primary presenting symptom for head lice is itchiness of the scalp
 - Papules and crusts on scalp, nape of neck
 - On inspection, ovoid white nits (pinhead to sesame seed sized) firmly adherent to hair shaft
 - May see a live louse on scalp, but less common
- No shampoo x 24-48 hrs after topical therapy
 - After treatment, may comb out dead nits with a lice comb although schools should *not* exclude students for nits

Med	Dose	Comment
1% permethrin (2mo & older)	Apply to hair, leave on for 10 min, rinse, repeat in 1.5 wks	Resistance concerns
Ivermectin (6mo & older)	Apply to hair, leave on for 10 min, rinse	Also oral 200mcg x 1 available*
Malathion (6yo & older)	Apply to hair, leave on overnight 8-10 hrs, shampoo, repeat in 1.5 wks	Resistance concerns, smelly, flammable
Spinosad (6mo & older)	Apply to hair, leave on for 10 min, rinse	Repeat in 1.5 wks as needed
Lindane	No longer used	Can cause seizures

* Oral ivermectin may be used in children > 15 kg for topical therapy treatment failures

Click title for link to Images

Spiders

Tip: Patient-suspected
“spider bites” are
often abscesses

Black Widow

- Outdoors, garages, woodpiles, gardening tools
- Most bites on extremities
 - Initial bite = no or mild pain
 - Bite site may show fang marks
 - Become target-like: central punctum, pale center, red rim
- May develop generalized symptoms 30-120 minutes or longer after bite = lactrodectism
 - Muscle pain / rigidity, abdominal pain may mimic appendicitis
 - Tremors, paresthesias, neurotoxicity
 - Autonomic symptoms, diaphoresis
- Local wound care, update tetanus, oral analgesics, antivenom only for severe symptoms
- Most recover in 24-48 hours

Brown Recluse

- South, West, Midwest
- Indoors, dark areas: under rocks and boxes, in shoes, in attics, basements
- Usually, patient accidentally crushed spider as roller over or stepped on it
- Bite site initially erythema, may have fang marks
 - Becomes pale in center with red rim, then develops central ulcer → dark eschar “red white & blue lesion”
 - Eschar sloughs off, may take weeks
- Increasing pain at bite site over next 2-8 hours
- Rare systemic effects = loxoscelism
 - Malaise, nausea, vomiting, fever, myalgias
 - Hemolytic anemia, DIC, rhabdomyolysis
- Local wound care, update tetanus, oral analgesics, labs and hospitalize for systemic symptoms

Papular urticaria

- Chronic or recurrent itchy papules
- Hypersensitivity reaction to insect bites (mosquitoes, fleas, bedbugs, etc.)
- 2-10 years old most common
- Crops of symmetrically distributed papules & papulovesicles, often central punctum ([Images](#))
 - Arms, legs, upper back, scalp
 - Lesions may blister
- Parents often confused about cause since only one household member affected and numerous lesions makes insect bites seem less likely
- [Treat itch](#) symptomatically, prevent insect bites

SCRATCHES Mnemonic

Symmetric

Crops or clusters

Rover - *no* pet present yet have “flea bites”

Age 2-10 years old

Target appearance can occur

Confused about cause / Chronic

Household members *not* affected

Exposed skin only

Seasonal (Spring and Summer)