

Dermatology: Common Childhood Diseases Associated with Rashes^{34,35}

Disease	Etiology	Age	Incubation (days)/Season	Rash Morphology and Features	Treatment/Prevention	Comments
Scarlet Fever	Group A Streptococcus	School age	1-4 fall, winter, spring	Diffuse, erythematous, "sandpaper" rash; often begins on abdomen, spreads to face, neck and extremities; blanches; lasts for 2-7 days	Penicillin	Transmitted by direct contact/droplets; contagious from 24 h before onset of symptoms until 2-3 weeks after or on antibiotics for 24 h
Meningococemia	<i>Neisseria meningitides</i>	Any (<5 years)	5-15 winter, spring/follows influenza epidemic	Erythematous, nonconfluent, discrete papules progressing to petechiae, purpura, ecchymosis on trunk, extremities, palms and soles	Hospitalize; ceftriaxone; cefotaxime	Transmitted by close, prolonged contact. Treat contacts with Rifampin; vaccine available
Measles (rubeola)	Measles virus	Infants, adolescents	10-12 winter, spring	Confluent, reddish-brown, maculopapular rash; begins on face, spreads to trunk; lasts 3-6 days; will be toxic in appearance; Koplik spots in mouth; also, photophobia, cough, coryza, conjunctivitis	Immunization	Communicable from 2-4 days before appearance of rash until 2-5 days after onset of symptoms
Rubella	Rubella virus	Infants, young adults	14-21 winter, spring	Discrete, nonconfluent, rose-colored macules and papules; begins on face and spreads downward; lasts 1-3 days	Immunization	Contagious from 1 week before onset of symptoms until rash disappears; transmitted by respiratory droplets

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Roseola (sixth disease)	Human herpesvirus-6	Infants (6 mo.-2 years)	5-15 any	Discrete macules on trunk, neck; sudden onset of rash following high fever for 3-4 days; lasts .5-2 days	None	Mode of transmission unknown; also cervical, occipital lymphadenopathy
Fifth disease (erythema infectiosum)	Parvovirus B19	Prepubertal children, school teachers	5-15 winter, spring	Begins with erythema to cheeks ("slapped-cheek" appearance); then lacy, reddish-pink, reticulated, flat rash to trunk and extremities; lasts 2-4 days; may recur 2-3 weeks later; rash may appear 3-7 days after prodrome	None	Transmitted by respiratory droplets; also, prodrome of headache, malaise, myalgia; often afebrile; once rash is present, no longer contagious
Chickenpox (varicella)	Varicella-zoster virus	1-14 years	12-21 late fall, winter, early spring	Pruritic papules, vesicles, and crusts; appear in crops so present in various stages; distributed on trunk, then face and extremities; lasts 7-10 days	Vaccine available; VZIG for immune compromised; Antipyretics, antipruritics, Aveeno baths, good hygiene to prevent secondary skin infection	Transmitted by respiratory droplets; usually febrile; contagious 1-2 days before rash appears until all lesions crusted over; may recur years later in dermatomal distribution (shingles)
Enteroviruses	Coxsackie virus, echo-virus, others	Infants, young children	4-6 summer, fall	Hand-foot-mouth (coxsackie virus) vesicles in those locations. Others, nonspecific, usually finenonconfluent, blanching macular or maculopapular rash; lasts 3-7 days	None	Rash may appear with fever or after defervescence; rarely petechial, urticarial or vesicular

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Kawasaki syndrome	Unknown	Children <5 years	Variable	Rash may be of various forms, (maculopapular, erythema multiforme, or scarlatiniform) with accentuation in the groin area	Hospitalize; aspirin therapy, IVIG; cardiology consult	Fever plus 4 of following 5 is diagnostic: Fever ≥ 104 for 5 days; bulbar conjunctivitis; polymorphous rash; indurative edema and erythema of hands or feet with desquamation; cracked, fissured lips, strawberry tongue; cervical lymphadenopathy

Sources:

1. Lembo, R.M. (1996). Fever and Rash. In Kliegman, R. M. (Ed.), Practical Strategies in Pediatric Diagnosis and Therapy (pp. 934-937, 944-945). Philadelphia, W.B. Saunders.
2. The Merck Manual, Table 265-8 Ch. 265 Childhood Infections. At: www.merck.com/pubs/mmanual/tables/265t68.htm (July 16, 2001).