

HSV: Signs, Diagnosis, Management & Prognosis, and How Kids can get Herpes

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WARNING:

Disclaimer

The information provided here about herpes simplex virus (HSV) comparison table, infographic, symptoms, diagnosis, management, and prognosis is for educational purposes only. It is not a substitute for professional medical advice, diagnosis, or treatment. Patients should always seek the advice of their physician or other qualified health provider with any questions regarding a medical condition.

Do not disregard professional medical advice or delay seeking it because of information shared in these materials. While antiviral medications and treatment approaches mentioned are evidence-based, individual management may vary depending on patient age, medical history, pregnancy status, comorbidities, and local guidelines.

In urgent situations such as suspected HSV encephalitis, ocular herpes, or neonatal infection, immediate specialist consultation and hospital care are essential.

1. HSV 1 vs. HSV 2

Feature	HSV-1	HSV-2
Traditional label	“Oral herpes”	“Genital herpes”
Typical site	Mouth/lips (cold sores)	Genital/anal area
Main transmission	Childhood, non-sexual (kisses, utensils, shared cups); also oral sex	Sexual contact (vaginal, anal, oral)
Age at acquisition	Often in childhood	Usually adolescence/adulthood
Prevalence	Very common worldwide (50–80% adults carry HSV-1)	Common but lower than HSV-1 (10–20% adults, varies by region)
Symptoms	Cold sores, fever blisters; can cause genital herpes if transmitted orally	Painful genital blisters/ulcers; occasionally oral infection
Recurrence rate	Less frequent recurrences once acquired	More frequent genital recurrences

Feature	HSV-1	HSV-2
Stigma	Lower (many consider it a “cold sore”)	Historically linked to promiscuity → more stigma
Complications	Can cause encephalitis (rare), ocular herpes	Can cause neonatal herpes if mother is shedding at delivery
Both can...	Infect mouth <i>or</i> genitals; stay latent in nerves; reactivate; spread by asymptomatic shedding	Infect mouth <i>or</i> genitals; remain latent in nerves; reactivate; spread by asymptomatic shedding

2. HSV Symptoms, Diagnosis, Management & Prognosis:

2.1. Symptoms (typical)

Context	Key features
Primary oral HSV-1 (children & adults)	Gingivostomatitis/pharyngitis, fever, malaise; painful clustered vesicles → ulcers on lips/gingiva/tongue; tender nodes; lasts 7–14 d.
Recurrent oral (“cold sores”)	Tingling/burning prodrome → labial vesicles/crusts; milder, 5–7 d.
Primary genital HSV (HSV-2, also HSV-1)	Painful vesicles/ulcers on genitals/perineum, dysuria, fever, myalgias, tender nodes; 2–3 wk if untreated.
Recurrent genital	Fewer lesions, less systemic symptoms; prodrome common; 3–7 d. HSV-2 recurs more often than HSV-1.
Herpetic whitlow	Painful swollen finger with grouped vesicles (health-care workers, children who suck thumbs).
Ocular HSV	Unilateral red eye, photophobia, tearing; dendritic corneal lesions; can threaten vision. Urgent ophtho.
HSV encephalitis	Fever, headache, altered mental status, focal neurology, seizures; temporal-lobe findings. Emergency.
Neonatal HSV (intrapartum acquisition)	Localized skin/eye/mouth lesions or CNS disease or disseminated sepsis-like illness in first 2–4 weeks. Emergency.

2.2. Diagnosis:

- **Lesion testing (first-line): NAAT/PCR (Nucleic Acid Amplification Test/ Polymerase Chain Reaction)** from lesion swab (highest sensitivity); ask lab to **type** (HSV-1 vs HSV-2).

- **When no lesions but history risk: Type-specific HSV-1/HSV-2 IgG** (glycoprotein-G–based). Useful for epidemiology or counseling; **not** for timing of recent infection. Avoid IgM (unreliable).
- **Ocular disease:** Corneal swab PCR; slit-lamp with fluorescein (dendrites).
- **Encephalitis:** Lumbar puncture with **CSF HSV PCR**; start IV acyclovir empirically (don't wait).
- **Neonatal evaluation:** Surface swabs (conjunctiva, mouth, rectum), whole-blood PCR, CSF PCR, LFTs (Liver Function Tests).
- **Old tests:** Culture (slower/less sensitive), Tzanck smear (obsolete).

2.3. Management (adults unless noted)

General care

- Analgesia, hydration; saline rinses for oral lesions; avoid picking/contact lenses if ocular disease.
- Counsel on transmission: avoid intimate contact during prodrome/lesions; condoms/dental dams reduce (not eliminate) risk.

Antivirals (choose one; start ASAP)

- **Acyclovir** 400 mg PO **TID** x 7–10 d (primary) or x 5 d (recurrent).
- **Valacyclovir** 1 g PO **BID** x 7–10 d (primary) or 500 mg **BID** x 3 d (recurrent) or 1 g **daily** (alternate episodic).
- **Famciclovir** 250 mg **TID** (ter in die) x 7–10 d (primary) or 1 g **BID** (bis in die) for 1 day (recurrent).
- **Suppressive therapy** (reduce recurrences & transmission):
 - Valacyclovir **500 mg daily** (≤ 9 outbreaks/yr) or **1 g daily** (frequent/severe).
 - Acyclovir **400 mg BID** or Famciclovir **250 mg BID** are alternatives. Reassess yearly.

Pediatrics

- **Severe primary gingivostomatitis** or within 72 h of onset: Acyclovir **15 mg/kg PO five times daily** (max 200 mg/dose in some refs; 400 mg in others) for 5–7 d; ensure hydration.
- **Whitlow:** Usually supportive; antivirals if severe/early; **no incision & drainage**.

Ocular HSV

- **Urgent ophtho:** Topical antiviral (e.g., trifluridine, ganciclovir gel) $\pm$ **oral acyclovir/valacyclovir**. **Avoid topical steroids** unless directed by ophthalmologist .

HSV encephalitis

- **Acyclovir IV 10 mg/kg q8h** (ideal body weight; adjust for renal) for **14–21 d**. Start empirically when suspected.

Pregnancy

- Acyclovir/valacyclovir are widely used and considered safe.
- **Suppressive therapy from 36 weeks** (e.g., acyclovir 400 mg TID or valacyclovir 500 mg BID).
- **Cesarean delivery** if active genital lesions or prodrome at labor. Avoid fetal scalp electrodes if possible.

Neonatal HSV

- **Admit; consult ID.**
- Acyclovir IV **60 mg/kg/day** divided q8h for **14 d** (skin/eye/mouth) or **21 d** (CNS/disseminated).
- Do CSF PCR at end of therapy; if positive, extend treatment. Follow with oral suppressive acyclovir for 6 months in CNS disease.

2.4. What not to rely on:

- Topical acyclovir for cold sores offers modest benefit; **docosanol** may shorten by ~0.5–1 day at best.
- Antibiotics are not indicated unless secondary bacterial infection.

2.5. Prognosis:

- **Lifelong latency** with episodic reactivation. Frequency typically **declines over time**, especially for HSV-1 genital infections.
- **Transmission risk:** Highest with lesions/prodrome; **asymptomatic shedding** occurs (HSV-2 more frequent). Suppressive valacyclovir + condoms meaningfully reduce risk.
- **Quality of life:** Anxiety and stigma are common—education helps.
- **Serious complications are uncommon** in immunocompetent adults (ocular scarring, eczema herpeticum, encephalitis).
- **Neonatal HSV** is rare but severe; outcomes improved with early IV acyclovir and NICU care.
- **Encephalitis:** Untreated mortality ~70%; with early IV acyclovir, mortality <20% with better neurologic outcomes.

2.6. Quick Differential (painful genital/oral ulcers)

- Aphthous ulcers, syphilis (chancre), chancroid, gonorrhea with ulcers, Behçet disease, fixed-drug eruption, hand-foot-mouth (kids).
- VZV = **Varicella–Zoster Virus**

A member of the **Herpesvirus family** (human herpesvirus type 3, HHV-3).

Primary infection → causes **chickenpox (varicella)**, usually in children.

Reactivation (latency in dorsal root ganglia) → causes **shingles (herpes zoster)**, typically in adults or immunosuppressed.

Key points:

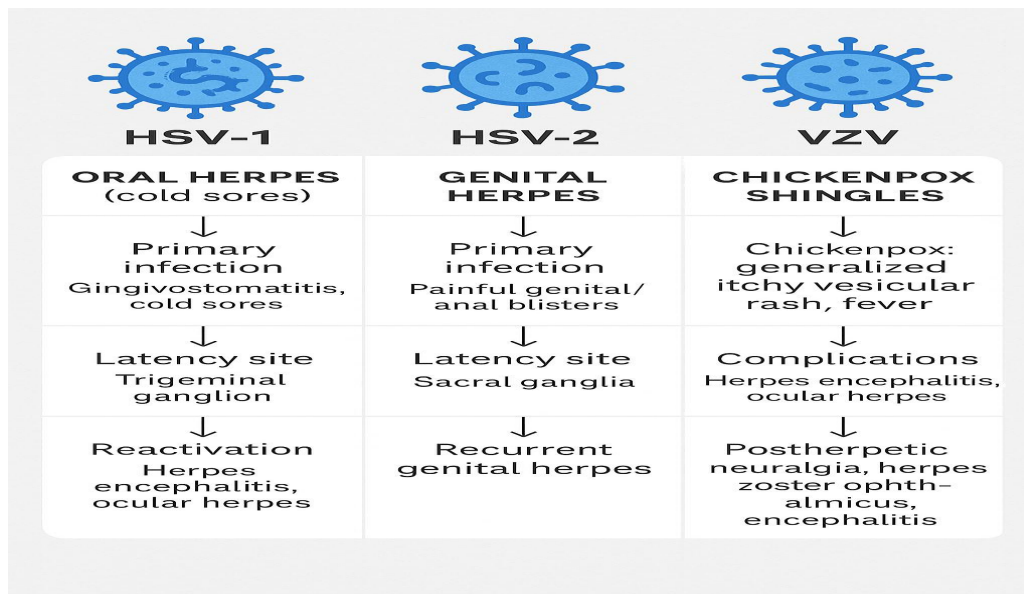
Transmission: airborne droplets & direct contact with vesicle fluid.

After chickenpox, the virus stays **latent in sensory nerve ganglia** for life.

Reactivation (shingles) is more likely with **aging, stress, or immunosuppression**.

Complications: postherpetic neuralgia, herpes zoster ophthalmicus (eye involvement), encephalitis.

Prevention: Varicella vaccine (childhood) and Zoster vaccine (older adults).



Nota Benum: Liver Function Tests (LFTs)

LFTs ALT (Alanine aminotransferase)
 AST (Aspartate aminotransferase)
 ALP (Alkaline phosphatase)
 GGT (Gamma-glutamyl transferase)
 Bilirubin
 Albumin & total protein

In neonatal HSV, LFTs are checked because disseminated infection often involves the liver.

3. How Kids Can (and Cannot) Get Herpes:

(Child abuse will not be discussed here)

✓ Possible routes (but uncommon in kids):

- Direct kiss from someone with a cold sore
- Contact of child's mouth/eyes/skin with an active blister

- Rarely, sharing objects *immediately* after an infected person (e.g., utensils, pacifier, towel, lipstick) if the virus is still fresh and wet

✗ Cannot realistically catch herpes from:

- Sharing toys, books, or school supplies
- Casual contact (hugging, sitting together, holding hands)
- Using the same toilet, swimming pool, or classroom
- Old/dry objects (virus dies quickly outside the body)

Practical advice for parents:

- Avoid kissing children if you have a cold sore
- Don't share towels, utensils, or cups during outbreaks
- Wash hands after touching your own sore
- Wash laundry in hot water — virus is easily destroyed

How Kids Can (and Cannot) Get Herpes

(For parents & caregivers)

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 **Practical advice for parents:**

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Reassurance:

Most kids who get herpes (usually HSV-1) acquire it from a kiss during a caregiver's cold sore, not from towels or casual contact.

4. Conclusion:

Herpes simplex virus is one of the most common infections worldwide. Though it cannot be eradicated, modern medicine provides safe and effective antiviral treatments that keep symptoms under control, protect vulnerable groups like newborns, and reduce transmission. What patients need most is not fear, but **clear information and supportive care**.

For health professionals, that means careful diagnosis and evidence-based management; for families, it means simple daily steps and the reassurance that most cases are mild and manageable. Together, science and compassion turn HSV from a hidden worry into a **manageable, livable condition**.

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