

Useful Medications for Oral Conditions*

DISCLAIMER: Drug information is constantly changing and is often subject to interpretation. While care has been taken to ensure the accuracy of the information presented, the American Academy of Pediatric Dentistry is not responsible for the continued currency of the information, errors, omissions, or consequences resulting from the use of these medications. Decisions about drug therapy must be based upon the independent judgment of the clinician, changing drug information, and evolving healthcare practices.

* Pediatric dosage should not exceed adult dosage.

Analgesics

Mild/Moderate Pain¹

Acetaminophen

Both acute and chronic doses of acetaminophen are associated with hepatotoxicity. For this reason, this drug has been reformulated so the products are limited to 325 mg per dosage unit.

Forms: Liquid, tablet, oral disintegrating tablet, caplet, rectal suppository, injectable

Usual oral dosage:²⁻⁴

Children <12 years: 10-15 mg/kg/dose every 4-6 hours as needed (maximum 75 mg/kg/24 hours, but not to exceed 4 g/24 hours)

OR

Age	Weight		Dosage mg ³
	lbs	kg	
0-3 months	6-11	2.7-5.3	40
4-11 months	12-17	5.4-8.1	80
1-2 years	18-23	8.2-10.8	120
2-3 years	24-35	10.9-16.3	160
4-5 years	36-47	16.4-21.7	240
6-8 years	48-59	21.8-27.2	320-325
9-10 years	60-71	27.3-32.6	325-400
11 years	72-95	32.7-43.2	480-500

Children ≥12 years and adults: 325-650 mg every 4-6 hours

OR 1,000 mg 3-4 times daily as needed (maximum 4 g/24 hours)

Ibuprofen

Forms: Liquid, tablet, injectable

Usual oral dosage:²⁻⁴

Infants and children <50 kg: 4-10 mg/kg/dose every 6-8 hours as needed (maximum single dose 400 mg; maximum dose 40 mg/kg/24 hours)

OR

Age	Weight		Dosage mg
	lbs	kg	
6-11 months	12-17	5.1-8.1	50
12-23 months	18-23	8.2-10.8	75
2-3 years	24-35	10.9-16.3	100
4-5 years	36-47	16.4-21.7	150
6-8 years	48-59	21.8-27.2	200
9-10 years	60-71	27.3-32.6	250
11 years	72-95	32.7-43.2	300

Children ≥12 years: 200-400 mg every 4-6 hours as needed (maximum 1.2 g/24 hours)

Adults: 200-400 mg/dose every 4-6 hours as needed (maximum 1.2 g/24 hours)

OR 600-800 mg every 6-8 hours as needed (maximum 1.2 g/day - 3.2 g/day)

Naproxen

Dosage expressed as 200 mg naproxen base is equivalent to 220 mg naproxen sodium. For acute pain, naproxen sodium may be preferred because of increased solubility leading to faster onset, higher peak concentration, and decreased adverse drug events.⁴

Forms: Suspension, tablet

Usual dosage:²⁻⁴

Children and adolescents <60 kg: 5-6 mg/kg every 12 hours as needed (maximum dose 1,000 mg/day)

Children and adolescents >60 kg: 250-375 mg every 12 hours as needed (maximum dose 1,000 mg/day)

Adults: Initial dose of 500 mg, then 250-500 mg every 12 hours

OR 250 mg every 6-8 hours as needed (maximum 1,250 mg/day on day 1, then 1,000 mg/day thereafter)

Moderate/Severe Pain

The use of codeine and its alternatives, oxycodone, hydrocodone, morphine, and tramadol, for children as an analgesic is not recommended by the American Academy of Pediatrics.⁵ An overview of the benefits and risks of analgesic medications for the management of acute dental pain has been summarized.⁶

Systemic Antibiotics

Amoxicillin

Forms: Suspension, chewable tablet, tablet, capsule

Usual oral dosage:²⁻⁴

Infants >3 months, children, and adolescents <40 kg: 20-40 mg/kg/day in divided doses every 8 hours (maximum 500 mg/dose)

OR 25-45 mg/kg/day in divided doses every 12 hours (maximum 875 mg/dose)

Adolescents and adults: 250-500 mg every 8 hours

OR 500-875 mg every 12 hours

Endocarditis prophylaxis:^{3,4,7} 50 mg/kg (maximum 2 g) 30-60 minutes before procedure

Amoxicillin clavulanate potassium

Note: Use the lowest dose of clavulanate combined with amoxicillin available to decrease gastrointestinal adverse drug events. The frequency of dosing is generally based on the ratio of amoxicillin to clavulanate.⁴

Forms: Suspension, chewable tablet, tablet

Usual oral dosage:²⁻⁴ (based on amoxicillin component):

Children >3 months of age up to 40 kg: 25-45 mg/kg/day in doses divided every 12 hours (maximum single dose 875 mg;

maximum daily dose is 1750 mg) (prescribe suspension or chewable tablet due to clavulanic acid component)

Children >40 kg and adults: 500-875 mg every 12 hours (prescribe tablet)

Examples of formulations and dosing schedule:^{3,4}

4:1 formulations are dosed 3 times daily (amoxicillin 125 mg/clavulanate 31.25 mg; amoxicillin 250 mg/clavulanate 62.5 mg; amoxicillin 500 mg/clavulanate 125 mg)

7:1 formulations are dosed 2 times daily (amoxicillin 200 mg/clavulanate 28.5 mg; amoxicillin 400 mg/clavulanate 57 mg; amoxicillin 875 mg/clavulanate 125 mg)

Azithromycin

Note: This drug is an option for patients with Type I allergy to penicillin and/or cephalosporin antibiotics.

Caution: This drug can cause cardiac arrhythmias in patients with pre-existing cardiac conduction defects.^{3,4}

Forms: Tablet, capsule, suspension, injectable

Usual oral dosage:²⁻⁴ (*Note: Doses may vary for extended release suspension depending on the reason for prescribing the antibiotic.*)

Children ≥6 months up to 16 years: 10-12 mg/kg on day 1, single dose, (maximum 500 mg/day), followed by 5-6 mg/kg once daily for remainder of treatment (2-5 days)

Adults: 500 mg on day 1, single dose, followed by 250 mg daily as a single dose (maximum 250 mg/dose) for 2-5 days

Endocarditis prophylaxis:^{3,4,7} 15 mg/kg (maximum 500 mg) 30-60 minutes before procedure

Cephalexin

Caution: This antibiotic should not be used by an individual who has a history of anaphylaxis, angioedema, or urticaria with penicillin or ampicillin.^{3,4}

Forms: Suspension, tablet, capsule

Usual oral dosage:²⁻⁴

Infants, children and adolescents: Mild to moderate infections: 25-50 mg/kg/day divided every 6-12 hours (maximum 2 g/day)

Severe infections: 75-100 mg/kg/day divided every 6-8 hours (maximum 4 g/day)

OR 500 mg every 12 hours

Adults: 250-1,000 mg every 6 hours (maximum 4 g/day)

Endocarditis prophylaxis:^{3,4,7} 50 mg/kg (maximum 2 g) 30-60 minutes before procedure

Clarithromycin

Note: This drug is an option for patients with Type I allergy to penicillin and/or cephalosporin antibiotics.

Caution: This drug can cause cardiac arrhythmias in patients with pre-existing cardiac conduction defects.^{3,4}

Forms: Suspension, tablet

Usual oral dosage:²⁻⁴

Infants, children and adolescents: 15 mg/kg/day divided every 12 hours (maximum single dose 500 mg)

Adults: 500 mg every 12 hours

Endocarditis prophylaxis: 15 mg/kg (maximum 500 mg) 30-60 minutes before procedure⁷

Clindamycin

Note: This is an option for patients with Type I allergy to penicillin and/or cephalosporin antibiotics. This antibiotic is effective for infections (e.g., abscesses) with gram-positive aerobic bacteria and gram-positive or gram-negative anaerobic bacteria. However, *Clostridioides difficile* colitis is a serious adverse reaction with this antibiotic.

Important: This antibiotic is no longer recommended for endocarditis prophylaxis for dental procedures.⁷

Forms: Suspension, capsule, injectable

Usual oral dosage:²⁻⁴

Infants, children and adolescents: 10-25 mg/kg/day in divided doses every 8 hours (maximum 450 mg/dose)

MRSA infection: 30-40 mg/kg/day in divided doses every 6 to 8 hours (maximum 450 mg/dose)

Adults: 300-450 mg every 6-8 hours (maximum 1.8 g/day)

Doxycycline

Important: Tetracycline may cause permanent tooth discoloration, enamel hypoplasia in developing teeth, and hyperpigmentation of the soft tissues. Due to these side effects, this drug usually is not recommended for women who are pregnant and children <8 years old. However, short-term use of doxycycline (<21 days) is recommended by the American Academy of Pediatrics for specific infections when necessary because there is lack of clinical evidence that this form of tetracycline results in discoloration of developing teeth when used for <21 days.^{3,4,8}

Forms: Suspension, tablet, delayed release tablet, capsule, injectable

Usual oral dosage:²⁻⁴

Children >8 years and adolescents: 2.2 mg/kg/dose every 12 hours (maximum 100 mg/dose)

Adults: 100 to 200 mg/day once a day or divided 2 times daily every 12 hours

Endocarditis prophylaxis: children <45 kg, 2.2 mg/kg; children >45 kg, 100 mg 30-60 minutes before procedure.⁷

Metronidazole

Important: Metronidazole is a useful addition to an antibiotic regimen when coverage of anaerobic bacteria is needed. Patients should avoid ingestion of alcohol as a beverage or ingredient in medications or propylene glycol-containing products while taking metronidazole.^{3,4}

Forms: Tablet, tablet extended release, capsule, injectable

Usual oral dosage:

For anaerobic skin and bone infection:²⁻⁴

Children and adolescents: 15-50 mg/kg/day in divided doses 3 times daily (maximum dose: 2,250 mg/day)

Adults: 7.5 mg/kg every 6 hours (maximum 4 g/24 hours)

For periodontal disease, including necrotizing gingivitis:^{2,4}

Adolescents and adults: 250 mg every 6-8 hours for 10 days in combination with amoxicillin

OR metronidazole alone 250 mg every 6-8 hours for 10 days

OR 500 mg every 8 hours for 8 days

For aggressive oral infections, may be used in combination with amoxicillin:

Adolescents and adults: 250 mg 3 times daily with amoxicillin (250-375 mg 3 times/day) for 7-10 days

Penicillin V Potassium

Note: Anaphylactic reactions have been demonstrated in patients receiving penicillin, most notably those with a history of beta-lactam hypersensitivity, sensitivity to multiple allergens, or prior IgE-mediated reactions (e.g., angioedema, urticaria, anaphylaxis).³

Forms: Liquid, tablet

Usual oral dosage:^{2,4}

Children and adolescents: 25-50 mg/kg/day in divided doses every 6 hours (maximum 2 g/day)

Adults: 250-500 mg every 6-8 hours

Systemic Antifungal Agent for Oral Candidiasis

Fluconazole

Important: The drug requires acidic pH in the stomach to disintegrate and dissolve for oral absorption; therefore, absorption is decreased by medications that increase gastric pH. Also, prescribe with caution for patients taking other medications metabolized by CYP enzymes because fluconazole is a hepatic enzyme inhibitor.^{3,4}

Form: Suspension 10 mg/mL, 40 mg/mL; tablet: 50 mg, 100 mg, 150 mg, 200 mg; injectable: 100mg/50 mL, 200 mg/100 mL, 400 mg/200 mL.

Usual dosage:^{2,4}

Infants, children and adolescents: Single dose of 6-12 mg/kg/dose one time daily for 7-14 days

Adults: Loading dose of 200 mg on day 1, then 100-200 mg/dose one time daily for 14 days

Topical Antifungal Agents

Topical agents for angular cheilitis

Clotrimazole

Form: Cream 1%

Usual dosage:^{4,9}

All ages: Apply a thin layer to the corners of the mouth 2-4 times daily for 7-14 days or until complete healing.

Miconazole nitrate

Forms: Ointment 2%; cream 2%

Usual dosage:^{4,9}

Children >2 years and adults: Apply a thin layer to the corners of the mouth 2-4 times daily for 7-14 days or until complete healing.

Nystatin

Forms: Ointment, cream (100,000 units/g)

Usual dosage:^{2,4}

For all ages: Apply a thin layer to corners of mouth 2-4 times daily for 7-14 days or until complete healing.

Nystatin, triamcinolone acetonide (not FDA-approved for this use)

Forms: Ointment, cream (100,000 units nystatin/g and 0.1% triamcinolone acetonide)

Usual dosage:^{4,9}

All ages >2 months: Apply a thin layer to the corners of the mouth 2 times daily for no longer than 2 weeks. Should be used for the shortest period of time in children (3-5 days).

Topical or transmucosal agents for oral candidiasis

Clotrimazole

Form: Lozenge 10 mg

Usual dosage:^{2,3} (*Note: This drug is not for use in patients <3 years of age.*)

Children > 3 years and adults: Dissolve 1 troche 5 times daily for 14 days. Treatment may extend beyond clinical resolution.

Miconazole

Form: Buccal tablet 50 mg (*Important: This contains milk protein concentrate.*)

Usual dosage:^{3,4,9}

Adolescents >16 years and adults: 1 tablet daily for 14 days; apply to the gum region, just above the upper lateral incisor.

Nystatin

Form: Suspension (100,000 units/mL)

Usual oral dosage:^{3,4,9}

Infants: 200,000 - 400,000 units (2-4 mL) 4 times daily; ½ of dose placed in each side of mouth. Use for 7-14 days.

Children and adults: Swish 400,000-600,000 units (4-6 mL) 4 times daily for several minutes and swallow; continue at least 48 hours after symptoms resolve. Use for 7-14 days.

Systemic Antiviral Agents

Systemic agent for primary herpetic gingivostomatitis

Acyclovir (not FDA-approved for this use)

Forms: Suspension 200 mg/5 mL; tablets 400 mg, 800 mg; capsules 200 mg; injectable 50 mg/mL

Usual dosage:^{3,4}

Infants, children and adolescents: 15-20 mg/kg/dose 4 times daily for 5-7 days (maximum 800 mg/dose)

Immunocompromised children: 20 mg/kg/doses 4 times daily for 7-10 days

Immunocompromised adolescents: 400 mg 3 times daily for 10 days or until resolution

Adults: 400 mg 3-5 times daily for 5-10 days

Valacyclovir (not FDA-approved for this use)

Forms: Suspension may be compounded by pharmacist; tablets 500 mg, 1 g

Usual dosage:^{3,4}

Infants ≥ to 3 months, children and adolescents: 20 mg/kg/dose 2 times daily for 5-7 days (maximum 1,000 mg/dose)

Adults: 1,000 mg 2 times daily for 7-10 days

Systemic agents for herpes labialis

Acyclovir (not FDA-approved for this use)

Form: Suspension 200 mg/5 mL; tablets 400 mg, 800 mg; capsules 200 mg; injectable 50 mg/mL

Usual dosage:²⁻⁴ (Begin treatment at the earliest signs/symptoms)

Infants, children and adolescents: 20 mg/kg/dose 4 times daily for 7-10 days (maximum 800 mg/dose)

Immunocompromised children: 20 mg/kg/dose 4 times daily for 7-10 days

Adults: 400 mg 3 times daily for 5-10 days

Famciclovir

Form: Tablet 125 mg, 250 mg, 500 mg

Usual dosage:²⁻⁴

Children and adolescents: Safety and efficacy have not been established.

Adolescents and adults: 1,500 mg as a single dose at the first sign or symptom of infection (maximum dose has not been established for adolescents; maximum 2 g/day orally for adults for one-day regimens or 1,500 mg/day orally for multiple-day regimens)

Immunocompromised adolescents and adults: 500 mg 2 times daily for 5-10 days

Valacyclovir

Form: Tablet 500 mg, 1 g

Usual oral dosage:²⁻⁴

Children ≥12 years and adults: 2,000 mg every 12 hours for 1 day (2 doses); initiate at first signs or symptoms of infection (maximum 4 g/day for one-day regimen)

Immunocompromised adolescents: 1,000 mg 2 times daily for 5-10 days (maximum 3 g/daily dose)

Topical Agents for Herpes Labialis

Docosanol (Abreva® – over-the-counter agent)

Form: Cream 10%

Usual dosage:²⁻⁴

Children ≥12 years and adults: Apply a thin layer on the lesion 5 times daily for up to 10 days.

Acyclovir

Form: Cream 5%

Usual dosage:^{3,4}

Children ≥12 years and adults: Apply a thin layer on the lesion 5 times daily for 4 days.

Acyclovir (minimal transmucosal absorption)

Important: Contains milk protein concentrate.

Form: Buccal tablet 50 mg

Usual dosage:^{3,4}

Children ≥12 years and adults: Apply 1 tablet 1 time to the upper gums in area of canine fossa.

Acyclovir with hydrocortisone (Xerese®)

Form: Cream (5% acyclovir with 1% hydrocortisone)

Usual dosage:^{3,4}

Children ≥6 years and adults: Apply a thin layer on the lesion 5 times daily for 5 days.

Penciclovir

Form: Cream 1%

Usual dosage:²⁻⁴

Children ≥12 years and adults: Apply a thin layer on the lesion every 2 hours while awake for 4 days.

Topical Antibacterial/Antimicrobial Agents

Chlorhexidine gluconate

Forms: Dental solution 0.12% (118 mL, 473 mL) (*Note: Most brands contain alcohol.*)

Usual dosage for gingivitis/periodontitis and stomatitis (off label use for stomatitis):²⁻⁴

Children ≥8 years and adults: Rinse with 15 mL 2 times daily (after breakfast and before bed) for 30 seconds and expectorate.

Mupirocin

Forms: Ointment 2%; cream 2%

Usual dosage for localized impetigo or skin infection:²⁻⁴ (*Note: For external use only; not for use in patients <2 months of age.*)

Apply a small amount of ointment to the affected area 3 times daily for 5-10 days. If no clinical response after 5 days, then reevaluate.

Retapamulin

Forms: Ointment 1%

Usual dosage for localized impetigo:²⁻⁴ (*Note: For external use only; limited information on age group <9 months of age.*)

Apply a small amount of ointment to the affected area 2 times daily for 5 days.

Useful medications continued on the next page.

Topical Corticosteroids for Aphthous Ulcers

Triamcinolone acetonide (medium potency corticosteroid)

Form: Dental paste or ointment 0.1%

Usual dosage:^{3,4,9}

Children, adolescents and adults: Apply paste to ulcers 2-4 times daily, after meals and at bedtime; not to exceed 7 day course.
Avoid eating or drinking for 30 minutes after application

Fluocinonide (high potency corticosteroid; not FDA-approved for oral application)

Form: Gel, ointment 0.05%

Usual dosage:^{4,9}

Adolescents and adults: Apply thin amount of gel or ointment to ulcers 2-4 times daily; not to exceed 7 day course.

Dexamethasone (high potency corticosteroid; not FDA-approved for oral application)

Form: Elixir, solution 0.5 mg/5 mL (contains alcohol)

Usual dosage:⁹

Adolescents and adults: Rinse with 5 mL 2-4 times daily for 2 minutes and expectorate; not to exceed 7 day course.

Clobetasol (super-high potency corticosteroid; not FDA-approved for oral application)

Form: Gel, ointment 0.05%

Usual dosage:^{7,9}

Adolescents and adults: Apply thin amount of gel or ointment to ulcers 2-4 times daily, not to exceed 7 day course.

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