

DRUG FACTS AND COMPARISONS

2011

POCKET VERSION



Wolters Kluwer
Health

Facts & Comparisons®

YOUR ANSWER FOR DRUG ANSWERS

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HOW TO USE

Drug monographs in *Drug Facts and Comparisons®*, *Pocket Version* are arranged by use. Drugs with similar therapeutic or pharmacologic characteristics have been grouped together to allow the health care provider to compare these drugs easily and determine the most appropriate drug therapy. Standard sections within the monographs occur in a consistent format. Once the user is familiar with the organization of the data, the desired information can be located quickly.

Monograph Organization

- 1** *Therapeutic class:* Drugs that share the same therapeutic class will share a common title that appears on the right-hand pages. The monograph title appears on the left-hand pages. If there is no shared class, the monograph title will repeat on the right-hand page.
- 2** *Drug name:* Generic names and any common synonyms appear in a horizontal bar that introduces a new monograph. Synonyms follow the generic name in parentheses and are separated by semicolons.
- 3** *Product table:* Doseforms and strengths of generic drugs are listed in the left column with their schedules (eg, Rx, otc, c-ii). If more than one generic entity is included in the monograph (eg, beta blockers), the drugs appear in all caps with specific information underneath it. The more common trade names, with their specific manufacturers/distributors, are listed in the right-hand column. If the drug is available generically, the word "Various" appears at the beginning of the trade name listing.
- 4** *Warning box:* Potentially life-threatening reactions specified in the product labeling will appear in a box.
- 5** *Indications:* All FDA-approved indications are included.
- 6** *Administration and Dosage:* Appropriate dosage, dosage range, and administration information is included. When available, specific information for administration in situations such as in renal impairment and elderly patients is included.
- 7** *Actions:* This section includes a brief discussion of significant pharmacologic and pharmacokinetic information.
- 8** *Contraindications:* All known contraindications are included.
- 9** *Warnings/Precautions:* This section includes a brief description of major warnings and other significant situations where caution is warranted with the drug. The Pregnancy section generally only lists the Standard Pregnancy Category (A, B, C, D, or X). A description of these categories can be found in the Appendix.
- 10** *Drug Interactions:* Drugs that may interact (affect or be affected by the interacting agent) are listed. Lab test and drug/food interactions also are included.
- 11** *Adverse Reactions:* Where possible, reactions that occur in 3% or more of patients have been listed. When percentages are not available, significant reactions not discussed in Warnings/Precautions are included.

2 CILOSTAZOL

3 Tablets: 50 and 100 mg (Rx) *Various, Pletal (Otsuka America Pharmaceutical)*

4 Warning:

Cilostazol and several of its metabolites are inhibitors of phosphodiesterase (PDE) 3. Several drugs with this pharmacologic effect have caused decreased survival compared with placebo in patients with class III to IV congestive heart failure. Cilostazol is contraindicated in patients with congestive heart failure of any severity.

5 Indications

Intermittent claudication: For the reduction of symptoms of intermittent claudication, as indicated by an increased walking distance.

6 Administration and Dosage

Recommended dosage: 100 mg twice daily taken at least 30 minutes before or 2 hours after breakfast and dinner.

Concomitant medications: Consider 50 mg twice daily during coadministration of inhibitors of CYP3A4 (eg, diltiazem, erythromycin, itraconazole, ketoconazole) and during coadministration of inhibitors of CYP2C19 (eg, omeprazole).

7 Actions

Pharmacology: The mechanism of the effects of cilostazol on the symptoms of intermittent claudication is not fully understood. Cilostazol and metabolites are cyclic adenosine monophosphate (cAMP) PDE 3 inhibitors, leading to inhibition of platelet aggregation and vasodilation, respectively.

Pharmacokinetics:

Absorption – Cilostazol is absorbed after oral administration. A high-fat meal increases absorption.

Distribution – Cilostazol is 95% to 98% protein bound.

Metabolism/Excretion – Cilostazol is extensively metabolized by hepatic cytochrome P450 enzymes, mainly 3A4, and 2C19. Cilostazol and its active metabolites have apparent elimination half-lives of about 11 to 13 hours.

8 Contraindications

Congestive heart failure; hemostatic disorders or active pathologic bleeding, such as bleeding peptic ulcer and intracranial bleeding; known or suspected hypersensitivity to any of its components.

9 Warnings/Precautions

Hematologic effects: Rare cases of thrombocytopenia or leukopenia progressing to agranulocytosis have been reported when cilostazol was not immediately discontinued.

Pregnancy: Category C.

Lactation: Because of the potential risk to breast-feeding infants, decide whether to discontinue breast-feeding or cilostazol.

Children: The safety and efficacy of cilostazol in children have not been established.

10 Drug Interactions

Drugs that may affect cilostazol include clopidogrel, CYP3A4 inhibitors, CYP2C19 inhibitors, diltiazem, and lovastatin.

Drugs that may be affected by cilostazol include lovastatin.

Drug/Food interactions: A high-fat meal increases absorption with an approximately 90% increase in C_{max} and a 25% increase in AUC.

11 Adverse Reactions

Adverse reactions occurring in at least 3% of patients include the following: abdominal pain, abnormal stools, back pain, cough increased, diarrhea, dizziness, dyspepsia, flatulence, headache, infection, myalgia, nausea, palpitation, peripheral edema, pharyngitis, rhinitis, tachycardia, vertigo.

PREFACE

The Pocket Version of *Drug Facts and Comparisons*® (DFC) is an abridged version of the full DFC publication designed for quick reference by the health care professional. The purpose of the *DFC Pocket Version* is to provide an easy-to-use, concise, portable reference that can be utilized in daily practice. It is not intended to replace the complete information found in DFC; however, it provides the same reliable source of drug information.

In addition to the extensive review panel for DFC, a separate panel of drug information specialists and hospital pharmacists was established to determine which drug monographs would be most valuable to the health care professional along with the data for each drug needed most. The book is arranged therapeutically in 12 chapters in a consistent format. Single-agent monographs have been pared down to provide the essential information that a health care provider needs to aid in drug therapy decisions. Product tables that list trade names, doseforms, strengths, and manufacturers are included at the beginning of each monograph. Group monographs contain product information and dosing instructions for each of the drugs in a specific class (eg, beta blockers). Indications, administration and dosage, actions, contraindications, warnings, drug interactions, and significant adverse reactions (those occurring in at least 3% of patients) also are included for all monographs. The useful tables that are so common to DFC have, for the most part, been retained in the Pocket Version.

Appendix material (eg, Management of Overdosage, FDA Pregnancy Categories) also is available for reference. A comprehensive index helps the reader reach the desired information quickly and easily.

Wolters Kluwer Health hopes health care providers find *Drug Facts and Comparisons*® *Pocket Version* a valuable tool in daily practice. As always, comments and suggestions are appreciated.

Cathy H. Reilly
Vice President and Publisher

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Chapter 1

NUTRIENTS AND NUTRITIONAL AGENTS

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RECOMMENDED DIETARY ALLOWANCES OF VITAMINS AND MINERALS

In 1941, the Food and Nutrition Board (FNB) of the Institute of Medicine, National Academy of Sciences, published the first edition of the Recommended Dietary Allowances (RDAs) to be used to evaluate the nutritional intakes of large populations. The primary purpose for the RDAs was to prevent diseases caused by nutritional deficiencies. Over the years, these guidelines were periodically updated and revised based on cumulative scientific evidence, and the tenth edition was published in 1989. In response to the growth of scientific knowledge regarding the roles of nutrients in human health, the FNB in partnership with Health Canada revised the RDAs and developed the Dietary Reference Intakes (DRIs).

The DRIs were published as a series of 8 reports from 1997 to 2005 and include the following nutrient reference values: Estimated Average Requirement (EAR), RDAs, Adequate Intake (AI), and Tolerable Upper Intake Level (UL). EAR refers to the intake value of a nutrient that is estimated to meet the nutritional needs by a specified indicator of adequacy in 50% of an age- and gender-specific group. RDAs are based on EARs and are estimated to meet the needs of most individuals (97% to 98%). AIs are used when an RDA cannot be determined. UL is the maximum amount of daily nutrient intake (from food, water, and supplements) that is likely to pose no risk of adverse reactions.

In the following DRI tables, the RDAs are in bold type and the AIs are in ordinary type followed by an asterisk (*). These values may be used as goals for individual intake. For healthy breast-fed infants, the AI represents mean intake. For all other life-stage groups, the AI is believed to cover the needs of all individuals, but a lack of data or uncertainty in the data prevent specifying with confidence the percentage of individuals covered by this intake.

DRIs: Recommended Intakes for Individuals (Vitamins)														
Life-stage group	Vitamin A (mcg/d) ^a	Vitamin C (mg/d)	Vitamin D (mcg/d) ^{b,c}	Vitamin E (mg/d) ^d	Vitamin K (mcg/d)	Thiamine (mg/d)	Riboflavin (mg/d)	Niacin (mg/d) ^e	Vitamin B ₆ (mg/d)	Folate (mcg/d) ^f	Vitamin B ₁₂ (mcg/d)	Pantothenic acid (mg/d)	Biotin (mcg/d)	Choline (mg/d) ^g
Infants	400*	40*	5*	4*	2*	0.2*	0.3*	2*	0.1*	65*	0.4*	1.7*	5*	125*
	500*	50*	5*	5*	2.5*	0.3*	0.4*	4*	0.3*	80*	0.5*	1.8*	6*	150*
Children	300	15	5*	6	30*	0.5	0.5	6	0.5	150	0.9	2*	8*	200*
	400	25	5*	7	55*	0.6	0.6	8	0.6	200	1.2	3*	12*	250*
Men	600	45	5*	11	60*	0.9	0.9	12	1	300	1.8	4*	20*	375*
	900	75	5*	15	75*	1.2	1.3	16	1.3	400	2.4	5*	25*	550*
	900	90	5*	15	120*	1.2	1.3	16	1.3	400	2.4	5*	30*	550*
	900	90	5*	15	120*	1.2	1.3	16	1.3	400	2.4	5*	30*	550*
	900	90	10*	15	120*	1.2	1.3	16	1.7	400	2.4 ^h	5*	30*	550*
	900	90	15*	15	120*	1.2	1.3	16	1.7	400	2.4 ^h	5*	30*	550*
Women	600	45	5*	11	60*	0.9	0.9	12	1	300	1.8	4*	20*	375*
	700	65	5*	15	75*	1	1	14	1.2	400 ⁱ	2.4	5*	25*	400*
	700	75	5*	15	90*	1.1	1.1	14	1.3	400 ⁱ	2.4	5*	30*	425*
	700	75	5*	15	90*	1.1	1.1	14	1.3	400 ⁱ	2.4	5*	30*	425*
	700	75	10*	15	90*	1.1	1.1	14	1.5	400	2.4 ^h	5*	30*	425*
	700	75	15*	15	90*	1.1	1.1	14	1.5	400	2.4 ^h	5*	30*	425*
Pregnancy	750	80	5*	15	75*	1.4	1.4	18	1.9	600 ^j	2.6	6*	30*	450*
	770	85	5*	15	90*	1.4	1.4	18	1.9	600 ^j	2.6	6*	30*	450*
	770	85	5*	15	90*	1.4	1.4	18	1.9	600 ^j	2.6	6*	30*	450*

DRIs: Recommended Intakes for Individuals (Vitamins)

Life-stage group	Vitamin A (mcg/d) ^a	Vitamin C (mg/d)	Vitamin D (mcg/d) ^{b,c}	Vitamin E (mg/d) ^d	Vitamin K (mcg/d)	Thiamine (mg/d)	Riboflavin (mg/d)	Niacin (mg/d) ^e	Vitamin B ₆ (mg/d)	Folate (mcg/d) ^f	Vitamin B ₁₂ (mcg/d)	Pantothenic acid (mg/d)	Biotin (mcg/d)	Choline (mg/d) ^g
Lactation														
14 to 18 y	1,200	115	5*	19	75*	1.4	1.6	17	2	500	2.8	7*	35*	550*
19 to 30 y	1,300	120	5*	19	90*	1.4	1.6	17	2	500	2.8	7*	35*	550*
31 to 50 y	1,300	120	5*	19	90*	1.4	1.6	17	2	500	2.8	7*	35*	550*

NOTE: AIs are in ordinary type followed by an asterisk (*), and RDAs are in bold type.

^a As retinol activity equivalents (RAEs). 1 RAE = retinol 1 mcg, β -carotene 12 mcg, α -carotene 24 mcg, or β -cryptoxanthin 24 mcg. The RAE for dietary provitamin A carotenoids is 2-fold greater than retinol equivalents (RE), whereas the RAE for preformed vitamin A is the same as RE.

^b As cholecalciferol. Cholecalciferol 1 mcg = vitamin D 40 units.

^c Values based on the absence of adequate exposure to sunlight.

^d As α -tocopherol. α -Tocopherol includes RRR- α -tocopherol, the only form of α -tocopherol that occurs naturally in foods, and the 2R-stereoisomeric forms of α -tocopherol (RRR-, RSR-, RRS-, and RRS- α -tocopherol) that occur in fortified foods and supplements. It does not include the 2S-stereoisomeric forms of α -tocopherol (SRR-, SSR-, SRS-, and SSS- α -tocopherol), also found in fortified foods and supplements.

^e Includes nicotinic acid amide, nicotinic acid (pyridine-3-carboxylic acid), and derivatives that exhibit the biological activity of nicotinamide. As niacin equivalents (NE). Niacin 1 mg = tryptophan 60 mg; 0 to 6 months = preformed niacin (not NE).

^f As dietary folate equivalents (DFE). One DFE = food folate 1 mcg = folic acid 0.6 mcg from fortified food or as a supplement consumed with food = 0.5 mcg of a supplement taken on an empty stomach. Although AIs have been set for choline, there are few data to assess whether a dietary supply of choline is needed at all stages of the life-cycle, and it may be that the choline requirement can be met by endogenous synthesis at some of these stages.

^g Because 10% to 30% of older people may malabsorb food-bound B₁₂, it is advisable for individuals older than 50 years of age to meet their RDA mainly by consuming foods fortified with B₁₂ or a supplement containing B₁₂.

^h In view of evidence linking folate intake with neural tube defects in the fetus, it is recommended that all women capable of becoming pregnant consume 400 mcg from supplements or fortified foods in addition to intake of food folate from a varied diet.

ⁱ It is assumed that women will continue consuming 400 mcg from supplements or fortified food until their pregnancy is confirmed and they enter prenatal care, which ordinarily occurs after the end of the periconceptional period—the critical time for formation of the neural tube.

DRIs: Recommended Intakes for Individuals (Elements)															
Life-stage group	Calcium (mg/d)	Chromium (mcg/d)	Copper (mcg/d)	Fluoride (mg/d)	Iodine (mcg/d)	Iron (mg/d) ^a	Magnesium (mg/d)	Manganese (mg/d)	Molybdenum (mcg/d)	Phosphorus (mg/d)	Selenium (mcg/d)	Zinc (mg/d) ^b	Potassium (g/d)	Sodium (g/d)	Chloride (g/d)
Infants	210*	0.2*	200*	0.01*	110*	0.27*	30*	0.003*	2*	100*	15*	2*	0.4*	0.12*	0.18*
	270*	5.5*	220*	0.5*	130*	11	75*	0.6*	3*	275*	20*	3	0.7*	0.37*	0.57*
Children	500*	11*	340	0.7*	90	7	80	1.2*	17	460	20	3	3*	1*	1.5*
	800*	15*	440	1*	90	10	130	1.5*	22	500	30	5	3.8*	1.2*	1.9*
Men	1,300*	25*	700	2*	120	8	240	1.9*	34	1,250	40	8	4.5*	1.5*	2.3*
	1,300*	35*	890	3*	150	11	410	2.2*	43	1,250	55	11	4.7*	1.5*	2.3*
	1,000*	35*	900	4*	150	8	400	2.3*	45	700	55	11	4.7*	1.5*	2.3*
	1,000*	35*	900	4*	150	8	420	2.3*	45	700	55	11	4.7*	1.5*	2.3*
	1,200*	30*	900	4*	150	8	420	2.3*	45	700	55	11	4.7*	1.3*	2*
	1,200*	30*	900	4*	150	8	420	2.3*	45	700	55	11	4.7*	1.2*	1.8*
Women	1,300*	21*	700	2*	120	8	240	1.6*	34	1,250	40	8	4.5*	1.5*	2.3*
	1,300*	24*	890	3*	150	15	360	1.6*	43	1,250	55	9	4.7*	1.5*	2.3*
	1,000*	25*	900	3*	150	18	310	1.8*	45	700	55	8	4.7*	1.5*	2.3*
	1,000*	25*	900	3*	150	18	320	1.8*	45	700	55	8	4.7*	1.5*	2.3*
	1,200*	20*	900	3*	150	8	320	1.8*	45	700	55	8	4.7*	1.3*	2*
	1,200*	20*	900	3*	150	8	320	1.8*	45	700	55	8	4.7*	1.2*	1.8*
Pregnancy	1,300*	29*	1,000	3*	220	27	400	2*	50	1,250	60	12	4.7*	1.5*	2.3*
	1,000*	30*	1,000	3*	220	27	350	2*	50	700	60	11	4.7*	1.5*	2.3*
	1,000*	30*	1,000	3*	220	27	360	2*	50	700	60	11	4.7*	1.5*	2.3*
Lactation	1,300*	44*	1,300	3*	290	10	360	2.6*	50	1,250	70	13	5.1*	1.5*	2.3*
	1,000*	45*	1,300	3*	290	9	310	2.6*	50	700	70	12	5.1*	1.5*	2.3*
	1,000*	45*	1,300	3*	290	9	320	2.6*	50	700	70	12	5.1*	1.5*	2.3*

NOTE: AIs are in ordinary type followed by an asterisk (*) and RDAs are in bold type.

^aNon-heme iron absorption is lower for those consuming vegetarian diets than for those eating nonvegetarian diets. Therefore, it has been suggested that the iron requirement for individuals consuming a vegetarian diet is approximately 2-fold greater than for individuals consuming a nonvegetarian diet.

^bZinc absorption is lower for those consuming vegetarian diets than for those eating nonvegetarian diets. Therefore, it has been suggested that the zinc requirement for individuals consuming a vegetarian diet is approximately 2-fold greater than for individuals consuming a nonvegetarian diet.

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VITAMIN C (Ascorbic Acid)

ASCORBIC ACID

Tablets: 25, 50, 100, 250, 500, and 1,000 mg (<i>otc</i>)	Various, <i>One A Day Extras Vitamin C</i> (Miles)
Tablets, chewable: 60, 100, 250, and 500 mg (<i>otc</i>)	Various
Tablets and caplets, timed-release: 500, 1,000, and 1,500 mg (<i>otc</i>)	Various
Caplets: 500 mg (<i>otc</i>)	<i>SunKist Vitamin C</i> (Ciba)
Capsules, timed-release: 500 mg (<i>otc</i>)	Various, <i>Ascorbicap</i> (ICN), <i>Cevi-Bid</i> (Geriatric)
Lozenges: 60 mg (<i>otc</i>)	<i>N'ice Vitamin C Drops</i> (SmithKline Beecham Consumer), <i>N'ice</i> (Insight)
Crystals: 4 g/teaspoonful (<i>otc</i>)	<i>Vita-C</i> (Freeda)
Powder: 4 g/teaspoonful (<i>otc</i>)	<i>Dull-C</i> (Freeda)
Liquid: 35 mg/0.6 mL (<i>otc</i>)	<i>Ce-Vi-Sol</i> (Mead Johnson Nutritional)
Solution: 100 mg/mL (<i>otc</i>)	<i>Cecon</i> (Abbott)
Syrup: 500 mg/5 mL (<i>otc</i>)	Various
Injection: 250 and 500 mg/mL (<i>Rx</i>)	Various

CALCIUM ASCORBATE

Tablets: 610 mg (equiv. to 500 mg ascorbic acid) (<i>otc</i>)	Various
Powder: 1 g (equiv. to 826 mg ascorbic acid)/ ¼ teaspoonful (<i>otc</i>)	Various

SODIUM ASCORBATE

Tablets: 585 mg (equiv. to 500 mg ascorbic acid) (<i>otc</i>)	Various
Crystals: 1,020 mg (equiv. to 900 mg ascorbic acid)/ ¼ teaspoonful (<i>otc</i>)	Various
Injection: 250 mg/mL (equiv. to 222 mg/mL ascorbic acid) (<i>Rx</i>)	Various
562.5 mg/mL (equiv. to 500 mg/mL ascorbic acid) (<i>Rx</i>)	<i>Cenolate</i> (Hospira)

Indications

Prevention and treatment of scurvy. Parenteral administration is desirable in an acute deficiency or when absorption of oral ascorbic acid is uncertain.

Unlabeled uses: Vitamin C (at least 2 g/day) may be used as a urinary acidifier in conjunction with methenamine therapy.

Vitamin C in doses of at least 150 mg has been used to control idiopathic methemoglobinemia (less effective than methylene blue).

Administration and Dosage

Parenteral: Administer IV, IM, or subcutaneously. Avoid too rapid IV injection. Absorption and utilization are somewhat more efficient with the IM route, which is usually preferred.

Infants: Average daily protective requirement is 30 mg. The usual curative dose is 100 to 300 mg daily, continued as long as clinical symptoms persist or until saturation, as indicated by excretion tests, has been attained.

Premature infants: May require 75 to 100 mg/day.

Adults: The average protective dose is 70 to 150 mg/day. For scurvy, 300 mg to 1 g daily is recommended. However, up to 6 g/day has been administered parenterally to normal adults without evidence of toxicity.

Enhanced wound healing – Doses of 300 to 500 mg daily for 7 to 10 days both preoperatively and postoperatively are adequate, although considerably larger amounts have been recommended.

Burns – For severe burns, daily doses of 1 to 2 g are recommended.

In other conditions in which the need for vitamin C is increased, 3 to 5 times the daily optimum allowances appears adequate.

Actions

Pharmacology: Vitamin C, a water-soluble vitamin, is an essential vitamin in man; however, its exact biological functions are not fully understood. It is essential for the formation and the maintenance of intercellular ground substance and collagen, for catecholamine biosynthesis, for synthesis of carnitine and steroids, for conversion of folic acid to folinic acid and for tyrosine metabolism.

The deficiency state scurvy is characterized by degenerative changes in the capillaries, bone, and connective tissues. Mild vitamin C deficiency symptoms may include faulty bone and tooth development, gingivitis, bleeding gums, and loosened teeth.

Absorption of dietary ascorbate from the intestines is nearly complete. Vitamin C is readily available in citrus fruit, tomatoes, potatoes, and leafy vegetables.

Warnings/Precautions

Excessive vitamin C doses: Diabetics, patients prone to recurrent renal calculi, those undergoing stool occult blood tests and those on sodium restricted diets or anticoagulant therapy should not take excessive doses of vitamin C over an extended time period.

Pregnancy: Category C. Do not administer ascorbic acid to pregnant women in excess of the amount needed for treatment. The possibility of the fetus adapting to high levels of the vitamin could result in a scorbutic condition after birth when the intake drops to normal levels. This action is controversial.

Lactation: Ascorbic acid is excreted in breast milk.

Drug Interactions

Contraceptives (oral) and estrogens: Ascorbic acid increases serum levels of estrogen and estrogen contained in oral contraceptives, possibly resulting in adverse reactions.

Warfarin: The anticoagulant action of warfarin may be reduced.

Drug/Lab test interactions: Large doses (more than 500 mg) of vitamin C may cause false-negative urine glucose determinations.

No exogenous vitamin C should be ingested for 48 to 72 hours before amine-dependent stool occult blood tests are conducted because possible false-negative results may occur.

Adverse Reactions

Large doses may cause diarrhea and precipitation of cystine, oxalate, or urate renal stones if the urine becomes acidic during therapy.

Transient mild soreness may occur at the site of IM or subcutaneous injection. Too rapid IV administration may cause temporary faintness or dizziness.

NIACIN

Tablets; oral: 50, 100, 250, and 500 mg (<i>otc</i> ^a)	Various
Tablets; oral: 500 mg (<i>Rx</i>)	Niacor (Upsher-Smith)
Tablets, extended-release; oral: 500, 750, and 1,000 mg (<i>Rx</i>)	Niaspan (Kos Pharmaceutical)
Tablets, timed-release; oral: 250 and 500 mg (<i>otc</i> ^a)	Various
Tablets, sustained-release; oral: 500 mg (<i>otc</i> ^a)	Various
Tablets, controlled-release; oral: 250, 500, and 750 mg (<i>otc/sf</i> ^a)	Slo-Niacin (Upsher-Smith)
Capsules, extended-release; oral: 250 and 400 mg (<i>otc</i> ^a)	Various
Capsules, timed-release; oral: 250 and 500 mg (<i>otc</i> ^a)	Various
Capsules, sustained-release; oral: 125 and 500 mg (<i>otc</i> ^a)	Various

^a Some products may be available Rx, according to distributor discretion. Most of these products are marketed as nutritional supplements.

Indications

Dietary supplement: For the treatment of niacin deficiency.

Pellagra: Prevention and treatment of pellagra.

Hypercholesterolemia: Adjunct to diet for the reduction of elevated total and low-density lipoprotein (LDL) levels in patients with primary hypercholesterolemia.

Hypertriglyceridemia (Types IV and V): Adjunctive therapy for treatment in adult patients with very high serum triglyceride levels (Type IV and V hyperlipidemia) who present a risk of pancreatitis and who do not respond adequately to dietary control.