



Bonus Monographs



Pentoxifylline

(pen-tox-**EYE**-fih-leen)

PREGNANCY CATEGORY: C
CLASSIFICATION(S):

Drug affecting blood viscosity

Rx: Pentoxifylline Extended-Release, Trental

★**Rx:** Albert Pentoxifylline, Apo-Pentoxifylline SR, Nu-Pentoxifylline-SR

ACTION/KINETICS

Drug and active metabolites decrease the viscosity of blood and improve erythrocyte flexibility. Results in increased blood flow to the microcirculation and an increase in tissue oxygen levels. Mechanism may include (1) decreased synthesis of thromboxane A₂, thus decreasing platelet aggregation, (2) increased blood fibrinolytic activity (decreasing fibrinogen levels), and (3) decreased RBC aggregation and local hyperviscosity by increasing cellular ATP. **Peak plasma levels:** 2–4 hr. Significant first-pass effect. **t_{1/2}:** pentoxifylline, 0.4–0.8 hr; metabolites, 1–1.6 hr. Excreted in the urine.

USES

(1) Intermittent claudication; not intended to replace surgery.(2) Night cramps symptomatic of peripheral vascular disease. *Investigational:* To improve circulation in clients with cerebrovascular insufficiency, TIAs, sickle cell thalassemia, diabetic angiopathies and neuropathies, high-altitude sickness, strokes, acute and chronic hearing disorders, circulation disorders of the eye, severe recurrent aph-

thous stomatitis, leg ulcers, asthenozoospermia, and Raynaud's phenomenon.

CONTRAINDICATIONS

Intolerance to pentoxifylline, caffeine, theophylline, or theobromine. Recent cerebral or retinal hemorrhage.

SPECIAL CONCERNS

Use with caution in impaired renal function and during lactation. Safety and efficacy in children less than 18 years of age not established. Geriatric clients may be at greater risk for manifesting side effects.

SIDE EFFECTS

CV: Angina, chest pain, hypotension, edema. **GI:** Abdominal pain, flatulence/bloating, belching, dyspepsia, salivation, bad taste in mouth, N&V, anorexia, constipation, dry mouth and thirst, cholecystitis. **CNS:** Dizziness, headache, tremor, anxiety, confusion, depression, **seizures.** **Ophthalmologic:** Blurred vision, conjunctivitis, scotomata. **Dermatologic:** Pruritus, rash, urticaria, brittle fingernails, angioedema. **Respiratory:** Dyspnea, laryngitis, nasal congestion, epistaxis. **Miscellaneous:** Flu-like symptoms, leukopenia, sore throat, swollen neck glands, change in weight, earache, malaise.

OD OVERDOSE MANAGEMENT

Symptoms: Agitation, fever, flushing, hypotension, nervousness, **seizures**, somnolence, tremors, loss of consciousness. *Treatment:* Gastric lavage followed by activated charcoal. Monitor BP and ECG. Support respiration, control seizures, and treat arrhythmias.

DRUG INTERACTIONS

Antihypertensives / Small ↓ in BP; may need to ↑ antihypertensive dose

2 PENTOXIFYLLINE

Theophylline / ↑ Theophylline levels

→ ↑ risk of toxicity

Warfarin / Prolonged PT

HOW SUPPLIED

Tablet: 400 mg; Tablet, Extended Release: 400 mg

DOSAGE

• TABLETS, EXTENDED-RELEASE TABLETS

Intermittent claudication.

Adults: 400 mg t.i.d. with meals for at least 8 weeks, although beneficial effects may be seen in 2–4 weeks. If side effects occur, reduce dose to 400 mg b.i.d.

Severe idiopathic recurrent aphthous stomatitis.

400 mg t.i.d. for 1 month.

NURSING CONSIDERATIONS

ASSESSMENT

1. Note any sensitivity to caffeine, theophylline, or theobromine.
2. Document indications for therapy, type, onset, and characteristics of symptoms. List other agents trialed and any studies performed (i.e., ABIs, Dopplers) to rule out blockage.

3. Determine if pregnant.

4. Monitor CBC and renal function studies.

CLIENT/FAMILY TEACHING

1. Take with meals to minimize GI upset.
2. Report any unusual bruising/bleeding, chest pain or palpitations.
3. Continue the treatment for at least 8 weeks, even though effectiveness may not yet be apparent.
4. Do not perform activities that require mental alertness until drug effects realized; dizziness and blurred vision may occur.
5. Avoid all nicotine-containing products; nicotine constricts blood vessels.
6. Walk daily to the point of tears (past pain), then rest and may resume walking. Wear cotton socks and comfortable, well-fitting shoes. Pay attention to foot care because of diminished blood flow to feet.
7. Report for F/U to evaluate drug effectiveness.

OUTCOMES/EVALUATE

↓ Pain and cramping in lower extremities during activity