

**PAMINE- methscopolamine bromide tablet**  
**PAMINE FORTE- methscopolamine bromide tablet**  
**PharmaDerm a division of Fougera Pharmaceuticals Inc.**

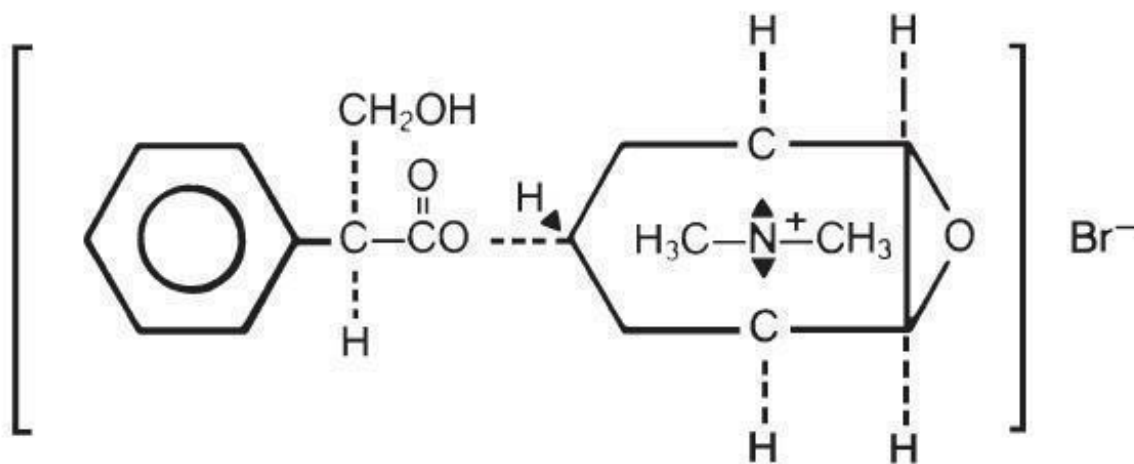
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**Pamine® 2.5 mg/Pamine® Forte 5 mg**

**DESCRIPTION**

**Pamine® 2.5 mg/Pamine® Forte 5 mg** Tablets contain methscopolamine bromide, an anticholinergic, which occurs as white crystals, or as a white odorless crystalline powder. Methscopolamine bromide melts at about 225°C with decomposition. The drug is freely soluble in water, slightly soluble in alcohol, and insoluble in acetone and in chloroform.

The chemical name for methscopolamine bromide is 3-Oxa-9-azoniatricyclo [3.3.1.0<sup>2,4</sup>]nonane, 7-(3-hydroxy-1-oxo-2-phenylpropoxy)-9, 9-dimethyl-, bromide, [7(S)-(1 $\alpha$ , 2 $\beta$ , 4 $\beta$ , 5 $\alpha$ , 7 $\beta$ )]- and the molecular weight is 398.30.

The structural formula is represented below:



**Pamine® 2.5 mg** Tablets for oral administration contain 2.5 mg of methscopolamine bromide. **Pamine® Forte 5 mg** Tablets for oral administration contain 5 mg of methscopolamine bromide.

Inactive ingredients: microcrystalline cellulose, pregelatinized starch, magnesium stearate.

Contains no lactose.

**CLINICAL PHARMACOLOGY**

Methscopolamine bromide is an anticholinergic agent which possesses most of the pharmacologic actions of that drug class. These include reduction in volume and total acid content of gastric secretion, inhibition of gastrointestinal motility, inhibition of salivary excretion, dilation of the pupil and inhibition of accommodation with resulting blurring of vision. Large doses may result in tachycardia.

**PHARMACOKINETICS**

Methscopolamine bromide is a quaternary ammonium derivative of scopolamine. As a class, these agents are poorly and unreliably absorbed.<sup>1,2</sup> Total absorption of quaternary ammonium derivatives of the alkaloids is 10-25%. Rate of absorption is not available. Quaternary ammonium salts have limited

the amount is 10-25%. Rate of absorption is not available. Quaternary ammonium salts have limited absorption from intact skin, and conjunctival penetration is poor.<sup>1</sup> Little is known of the fate and excretion of most of these agents.<sup>1</sup> Following oral administration, drug effects appear in about one hour and persist for 4 to 6 hours.<sup>2</sup> Methscopolamine bromide has limited ability to cross the blood-brain barrier.<sup>3,4,5</sup> The drug is excreted primarily in the urine and bile, or as unabsorbed drug in feces.<sup>2</sup> There is no data on the presence of methscopolamine in breast milk; traces of atropine have been found after administration of atropine.<sup>1</sup>

## INDICATIONS AND USAGE

Adjunctive therapy for the treatment of peptic ulcer.

METHSCOPOLAMINE BROMIDE HAS NOT BEEN SHOWN TO BE EFFECTIVE IN CONTRIBUTING TO THE HEALING OF PEPTIC ULCER, DECREASING THE RATE OF RECURRENCE OR PREVENTING COMPLICATIONS.

## CONTRAINDICATIONS

Glaucoma; obstructive uropathy (e.g., bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (e.g., pyloroduodenal stenosis); paralytic ileus; intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis.

**Pamine® 2.5 mg/Pamine® Forte 5 mg** is contraindicated in patients who are hypersensitive to methscopolamine bromide or related drugs.

## WARNINGS

In the presence of high environmental temperature, heat prostration (fever and heat stroke due to decreased sweating) can occur with drug use.

Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful.

Methscopolamine bromide may produce drowsiness or blurred vision. The patient should be cautioned regarding activities requiring mental alertness such as operating a motor vehicle or other machinery or performing hazardous work while taking this drug.

With overdosage, a curare-like action may occur, i.e., neuromuscular blockade leading to muscular weakness and possible paralysis.

## PRECAUTIONS

### 1. General precautions

Use **Pamine® 2.5 mg/Pamine® Forte 5 mg** Tablets with caution in the elderly and in all patients with: autonomic neuropathy; hepatic or renal disease; or ulcerative colitis –large doses may suppress intestinal motility to the point of producing a paralytic ileus and for this reason precipitate or aggravate "toxic megacolon," a serious complication of the disease.

The drug also should be used with caution in patients having hyperthyroidism, coronary heart disease, congestive heart failure, tachyarrhythmia, tachycardia, hypertension, or prostatic hypertrophy.

### 2. Information for patient

See statement under WARNINGS.

### 3. Laboratory tests

Progress of the peptic ulcer under treatment should be followed by upper gastrointestinal contrast radiology or endoscopy to insure healing. Stool tests for occult blood and blood hemoglobin or hematocrit values should be followed to rule out bleeding from the ulcer.

### 4. Drug interactions

Additive anticholinergic effects may result from concomitant use with antipsychotics, tricyclic antidepressants, and other drugs with anticholinergic effects. Concomitant administration with antacids may interfere with the absorption of methscopolamine bromide.

### 5. Carcinogenesis, mutagenesis, impairment of fertility

No long-term studies in animals have been performed to evaluate carcinogenic potential.

### 6. Pregnancy

Teratogenic effects

#### *Pregnancy Category C*

Animal reproduction studies have not been conducted with methscopolamine bromide. It also is not known whether methscopolamine bromide can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Methscopolamine bromide should be given to a pregnant woman only if clearly needed.

### 7. Nursing mothers

It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when methscopolamine bromide is administered to a nursing woman.

Anticholinergic drugs may suppress lactation.

### 8. Pediatric use

Safety and efficacy in children have not been established.

## ADVERSE REACTIONS

The following adverse reactions have been observed, but there is not enough data to support an estimate of frequency.

**Cardiovascular:** Tachycardia, palpitation.

**Allergic:** Severe allergic reaction or drug idiosyncrasies including anaphylaxis.

**CNS:** Headaches, nervousness, mental confusion, drowsiness, dizziness.

**Special Senses:** Blurred vision, dilation of the pupil, cycloplegia, increased ocular tension, loss of taste.

**Renal:** Urinary hesitancy and retention.

**Gastrointestinal:** Nausea, vomiting, constipation, bloated feeling.

**Dermatologic:** Decreased sweating, urticaria and other dermal manifestations.

**Miscellaneous:** Xerostomia, weakness, insomnia, impotence, suppression of lactation.

## DRUG ABUSE AND DEPENDENCE

Not applicable.

## OVERDOSAGE

The symptoms of overdosage with **Pamine® 2.5 mg/Pamine® Forte 5 mg** Tablets progress from intensification of the usual side effects to CNS disturbances (from restlessness and excitement to psychotic behavior), circulatory changes (flushing, fall in blood pressure, circulatory failure), respiratory failure, paralysis, and coma.

Measures to be taken are (1) induction of emesis and (2) injection of physostigmine 0.5 to 2 mg intravenously, and repeated as necessary up to a total of 5 mg. Fever may be treated symptomatically (alcohol sponging, ice packs). Excitement of a degree which demands attention may be managed with sodium thiopental 2% solution given slowly intravenously or chloral hydrate (100-200 mL of a 2% solution) by rectal infusion. In the event of progression of the curare-like effect to paralysis of the respiratory muscles, artificial respiration should be instituted and maintained until effective respiratory action returns.

The oral LD<sub>50</sub> in rats is 1,352 to 2,617 mg/kg.

No data is available on the dialyzability of methscopolamine bromide.

## DOSAGE AND ADMINISTRATION

The average dosage of **Pamine®** Tablets is 2.5 mg one-half hour before meals and 2.5 to 5 mg at bedtime. A starting dose of 12.5 mg daily will be clinically effective in most patients without the production of appreciable side effects.

If the patient is experiencing symptoms such as severe abdominal pain or cramping which demand prompt relief, the drug may be started on a daily dosage of 20 mg, administered in doses of 5 mg one-half hour before meals and at bedtime. If very unpleasant side effects develop promptly, the daily dosage should be reduced. If neither symptomatic relief nor side effects appear, the daily dosage may be increased. Some patients have tolerated 30 mg daily with no unpleasant reactions.

Patients whose dosage has been reduced to eliminate or modify side effects often continue to show adequate response both subjectively in relief of symptoms and objectively as measured by antisecretory effects.

The ultimate aim of therapy is to arrive at a dosage which provides maximal clinical effectiveness with a minimum of unpleasant side effects. Many patients report no side effects on a dosage which gives complete relief of symptoms. On the other hand, some patients have reported severe side effects without appreciable symptomatic relief. Such patients must be considered unsuited for this therapy. Usually they have been or will prove to be similarly intolerant to other anticholinergic drugs. If methscopolamine bromide is to be used in a patient who gives a history of such intolerance, it should be started at a low dosage.

## HOW SUPPLIED

**Pamine® 2.5 mg** Tablets are available as white, round tablets, debossed with "PAMINE" on one side, in the following package size:

Bottles of 100 (NDC 10337-061-01)

**Pamine® Forte 5 mg** Tablets are available as white, oval tablets, debossed with "PAMINE 5" on one side, in the following package size:

Dose Pack (5 blisters of 12 tablets)

Box of 60 (NDC 10337-062-06)

Store at controlled room temperature 15°-30°C (59°-86°F). KEEP THIS AND ALL MEDICATIONS OUT OF THE REACH OF CHILDREN.

## REFERENCES

1. Gilman A, Gilman AB, Goodman LA, eds. *The Pharmacological Basis of Therapeutics*. 6th ed. New York: MacMillan Publishing Company.1980.
2. American Hospital Formulary Service. American Society of Hospital Pharmacists. Bethesda, Maryland.
3. Domino EF, Corasen G. Central and Peripheral Effects of Muscarinic Cholinergic Blocking Agents in Man. *Anesthesiology* 1967;28:568-574.
4. Mogensen L, Orinius E. Arrhythmic Complications after Parasympathetic Treatment of Bradyarrhythmias in a Coronary Care Unit. *Acta Med Scand* 1971;190:495-498.
5. Neeld JB Jr., et al. Cardiac Rate and Rhythm Changes with Atropine and Methscopolamine. *Clin Pharmacol Ther* 1975;17(3):290-295.

## R<sub>x</sub> Only

Manufactured for:

**PharmaDerm®**  
**A division of Fougera Pharmaceuticals Inc.**

Melville, NY 11747 USA  
www.pharmaderm.com

Mfd. by:  
Mikart, Inc., Atlanta, GA 30318 USA

IL175B R2/12

## PACKAGE LABEL – PRINCIPAL DISPLAY PANEL – 100 tablets

**NDC 10337-061-01**

100 Tablets

Rx Only

Pamine®

(methscopolamine bromide)

2.5 mg

PharmaDerm®

Each PAMINE® Tablet for oral administration contains 2.5 mg of methscopolamine bromide.

**Inactive ingredients:** microcrystalline cellulose, pregelatinized starch, magnesium stearate. Contains no lactose.

**USUAL ADULT DOSAGE:** See package insert for dosage and complete product information.

Dispense in tight container. Store at controlled room temperature 15°-30°C (59°-86°F).

NDC 10337-061-01

Rx Only

100  
Tablets

**Pamine**®  
(methscopolamine bromide)  
**2.5 mg**

 PharmaDerm®

Manufactured for:

 PharmaDerm®  
A division of  
Fougera Pharmaceuticals Inc.  
Melville, NY 11747 USA  
www.pharmaderm.com

Manufactured by:  
Mikart, Inc.  
Atlanta, GA 30318 USA  
IL163B R06/12 935D10

Space for Lot & Exp. Date



3 10337-061-01 9

**PACKAGE LABEL – PRINCIPAL DISPLAY PANEL – 60 tablets**

**NDC 10337-062-06**

Dose Pack

Dispense As One Unit

Rx Only

Pamine®

Forte 5mg

(methscopolamine bromide)

60 Tablets (5 blisters of 12 tablets)

PharmaDerm®



## PAMINE

methscopolamine bromide tablet

### Product Information

<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:10337-061
<b>Route of Administration</b>	ORAL		

### Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
METHSCOPOLAMINE BROMIDE (UNII: RTN51LK7WL) (METHSCOPOLAMINE - UNII:VDR09VTQ8U)	METHSCOPOLAMINE BROMIDE	2.5 mg

### Inactive Ingredients

Ingredient Name	Strength
CELLULOSE, MICROCRYSTALLINE (UNII: OP1R32D61U)	
STARCH, CORN (UNII: O8232NY3SJ)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	

### Product Characteristics

<b>Color</b>	WHITE (WHITE)	<b>Score</b>	no score
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<b>Shape</b>	ROUND (round)	<b>Size</b>	6 mm
<b>Flavor</b>		<b>Imprint Code</b>	Pamine
<b>Contains</b>			

<b>Packaging</b>				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:10337-061-01	100 in 1 BOTTLE		

<b>Marketing Information</b>			
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA	NDA008848	04/09/1953	

## PAMINE FORTE

methscopolamine bromide tablet

<b>Product Information</b>			
<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:10337-062
<b>Route of Administration</b>	ORAL		

<b>Active Ingredient/Active Moiety</b>			
Ingredient Name	Basis of Strength	Strength	
METHSCOPOLAMINE BROMIDE (UNII: RTN51LK7WL) (METHSCOPOLAMINE - UNII:VDR09VTQ8U)	METHSCOPOLAMINE BROMIDE	5 mg	

<b>Inactive Ingredients</b>		
Ingredient Name	Strength	
CELLULOSE, MICROCRYSTALLINE (UNII: OP1R32D61U)		
STARCH, CORN (UNII: O8232NY3SJ)		
MAGNESIUM STEARATE (UNII: 70097M6I30)		

<b>Product Characteristics</b>			
<b>Color</b>	WHITE (white)	<b>Score</b>	no score
<b>Shape</b>	OVAL (ovate)	<b>Size</b>	11mm
<b>Flavor</b>		<b>Imprint Code</b>	Pamine;5
<b>Contains</b>			

<b>Packaging</b>				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:10337-062-06	5 in 1 BOX		
1		12 in 1 BLISTER PACK		



## Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NDA	NDA008848	03/25/2003	

**Labeler** - PharmaDerm a division of Fougera Pharmaceuticals Inc. (043838424)

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PharmaDerm a division of Fougera Pharmaceuticals Inc.