# Mobic®

**Composition**

1 tablet contains 7.5 mg or 15 mg
1 suppository contains 15 mg

4-hydroxy-2-methyl-N-(5-methyl-2-thiazolyl)-2H-1,2-benzothiazine-3-carboxamide-1,1-dioxide (Meloxicam).

**Properties**

Mobic is a non-steroidal anti-inflammatory drug (NSAID) of the enolic acid class which has shown anti-inflammatory, analgesic and antipyretic properties in animals. Mobic showed potent anti-inflammatory activity in all standard models of inflammation. A common mechanism for the above effects may exist in the ability of Mobic to inhibit the biosynthesis of prostaglandins, known mediators of inflammation. Comparison of the ulcerogenic dose and the anti-inflammatory effective dose in the rat adjuvant arthritis confirmed a superior therapeutic margin in animals over standard NSAIDs. In vivo, Mobic inhibited prostaglandin biosynthesis more potently at the site of inflammation than in the gastric mucosa or the kidney.

This improved safety profile is thought to be related to a selective inhibition of COX-2 relative to COX-1. The selective inhibition of COX-2 relative to COX-1 by Mobic has been demonstrated in vitro on various cell systems: guinea pig macrophages, bovine aortic endothelial cells (for testing for COX-1 activity), mouse macrophages (for testing for COX-2 activity), and human recombinant enzymes expressed in cos-cells. Evidence is now accumulating that COX-2 inhibition provides the therapeutic effects of NSAIDs whereas inhibition of constitutive COX-1 is responsible for gastric and renal side effects. Clinical studies demonstrated a lower incidence of gastro-intestinal adverse events including perforations, ulcers of bleeds with the recommended doses of meloxicam than standard doses of other NSAIDs.

**Indications**

Mobic is a nonsteroidal anti-inflammatory drug indicated for
- symptomatic treatment of rheumatoid arthritis
- symptomatic treatment of painful osteoarthritis (arthrosis, degenerative joint disease)

**Contraindications**

Known hypersensitivity to meloxicam or any excipient of the drug. There is a potential for cross sensitivity to acetyl salicylic acid and other non-steroidal anti-inflammatory drugs (NSAIDs).
Mobic should not be given to patients who have developed signs of asthma, nasal polyps, angio-oedema or urticaria following the administration of acetyl salicylic acid or other NSAIDs.

- Active peptic ulceration
- Severe hepatic insufficiency
- Non-dialysed severe renal insufficiency
- Children and adolescents aged less than 15 years
- Pregnancy or breastfeeding.

**Special Precautions**

As with other NSAIDs caution should be exercised when treating patients with a history of upper gastrointestinal disease and in patients receiving treatment with anticoagulants. Mobic should be withdrawn if peptic ulceration or gastro-intestinal bleeding occurs.
Special attention should be paid in patients reporting mucocutaneous adverse events and consideration given to discontinuing Mobic.
NSAIDs inhibit the synthesis of renal prostangladins which play a supportive role in the maintenance of renal perfusion. In patients whose renal blood flow and blood volume are decreased, administration of an NSAID may precipitate overt renal decompensation which is typically followed by recovery to pretreatment state upon discontinuation of nonsteroidal anti-inflammatory therapy. Patients at greatest risk of such a reaction are dehydrated patients, those with congestive heart failure, liver cirrhosis, nephrotic syndrome and overt renal disease, those receiving a diuretic or those having undergone major surgical procedures which led to hypovolaemia. In such patients the volume of diuresis and the renal function should be carefully monitored at the beginning of therapy.

In rare instances NSAIDs may be the cause of interstitial nephritis, glomerulonephritis, renal medullary necrosis or nephrotic syndrome. The dose of Mobic in patients with end-stage renal failure on haemodialysis should not be higher than 7.5 mg. No dose reduction is required in patients with mild or moderate renal impairment (i.e. in patients with a creatinine clearance of greater than 25 ml/min).
As with most other NSAIDs, occasional elevations of serum transaminases or other parameters of liver function have been reported. In most cases these have been small and transient increases above the normal range. If the abnormality is significant or persistent, Mobic should be stopped and follow up tests carried out. No dose reduction is required in patients with clinically stable liver cirrhosis.
Frail or debilitated patients may tolerate side-effects less well and such patients should be carefully supervised. As with other NSAIDs, caution should be used in the treatment of elderly patients who are more likely to be suffering from impaired renal, hepatic or cardiac function.
Mobic suppositories should not be used in patients with any inflammatory lesions of the rectum or anus, or in patients with a recent history of rectal or anal bleeding.
There are no specific studies about effects on the ability to drive vehicles and to use machinery. However, when adverse effects such as vertigo and drowsiness occur it is advisable to refrain from these activities.

**Pregnancy and Lactation**
Although no teratogenic effects were seen in pre-clinical testing, Mobic should not be used during pregnancy and breastfeeding.

**Side Effects**
The following adverse events which may be causally related with the administration of Mobic have been reported. The frequencies given below are based on corresponding occurrences in clinical trials, regardless of any causal relationsship. The information is based on clinical trials involving 3750 patients who have been treated with daily oral doses of 7.5 or 15 mg Mobic tablets or capsules over a period of up to 18 months (mean duration of treatment 127 days):
*Gastrointestinal:* Dyspepsia, nausea, vomiting, abdominal pain, constipation, flatulence, diarrhea (more frequent than 1%). Transitory abnormalities of liver function parameters e.g. raised transaminases or bilirubin eructation, oesophagitis, gastroduodenal ulcer, occult or macroscopic gastrointestinal bleeding (between 0.1 and 1%). Colitis (less frequent than 0.1%)
*Hematological:* Anemia (more frequent than 1%). Disturbances of blood count, including differential white cell count, leukopenia and thrombocytopenia. Concomitant administration of a potentially myelotoxic drug, in particular methotrexate, appears to be a predisposing factor to the onset of a cytopenia (between 0.1 and 1%).
*Dermatological:* Pruritus, skin rash (more frequent than 1%); stomatitis, urticaria (between 0.1 and 1%); photosensitisation (less frequent than 0.1%).
*Respiratory:* Onset of acute asthma has been reported (less frequent than 0.1%) in certain individuals following the administration of aspirin or other NSAIDs, including Mobic.
*Central nervous system:* Lightheadedness, headache (more frequent than 1%); vertigo, tinnitus, drowsiness (between 0.1 and 1%).
*Cardiovascular:* Oedema (more frequent than 1%); increase of blood pressure, palpitations, flushes (between 0.1 and 1%).
*Genitourinary:* Abnormal renal function parameters increased serum creatinine and/or serum urea (between 0.1 and 1%).

**Interactions**
– Other NSAIDs including salicylates in high doses: concomitant administration of more than one NSAID may increase the risk of gastrointestinal ulceration and bleeding through synergistic action.
– Oral anticoagulants, ticlopidine, systemically administered heparin, thrombolytics: Increased risk of bleeding. If such co-prescribing cannot be avoided, close monitoring of the effects of anticoagulants is required.
– Lithium: NSAIDs have been reported to increase lithium plasma levels. It is recommended that plasma lithium levels be monitored when initiating, adjusting and discontinuing Mobic.

- Methotrexate: As other NSAIDs, Mobic may increase the haematologic toxicity of methotrexate. In this situation, strict monitoring of blood cell count is recommended.
- Contraception: NSAIDs have been reported to decrease the efficacy of intrauterine devices.
- Diuretics: treatment with NSAIDs is associated with the potential for acute renal insufficiency in patients who are dehydrated. Patients receiving Mobic and diuretics should be adequately hydrated and be monitored for renal function prior to initiating treatment.
- Antihypertensives (e.g. beta-blockers, ACE-inhibitors, vasodilators, diuretics): a reduced effect of the antihypertensive drug by inhibition of vasodilating prostaglandins has been reported during treatment with NSAIDs.
- Cholestyramine binds meloxicam in the gastrointestinal tract leading to a faster elimination of meloxicam.
- Nephrotoxicity of cyclosporin may be enhanced by NSAID's via renal prostaglandin mediated effects. During combined treatment renal function is to be measured.

No relevant pharmacokinetic drug-drug interactions were detected with respect to the concomitant administration of antacids, cimetidine, digoxin and furosemide.
Interactions with oral anti-diabetics cannot be excluded.

**Dosage and Administration**
Rheumatoid arthritis: 15 mg/day. According to the therapeutic response, the dose may be reduced to 7.5 mg/day.

Osteoarthritis: 7.5 mg/day. If necessary, the dose may be increased to 15 mg/day.

In patients with increased risks of adverse reactions: start treatment at the dose of 7.5 mg/day.

In dialysis patients with severe renal failure: the dose should not exceed 7.5 mg/day.

*The maximum recommended daily dose of Mobic is 15 mg.*
As a dosage for use in children has yet to be established, usage should be restricted to adults.

Tablets should be swallowed with water or other fluid in conjunction with food.
Rectal administration: one suppository containing 15 mg once daily. Combined administration: the total daily dosage of Mobic administered as tablets and suppositories should not exceed 15 mg.

**Overdosage**
In case of overdose the standard measures of gastric evacuation and general supportive measures should be used as there is no known antidote. It has been shown in a clinical trial that cholestyramine accelerates the elimination of meloxicam.

**Availability**
Tablets 7.5 and 1.5 mg
Suppositories 15 mg

Boehringer Ingelheim
International GmbH
Ingelheim am Rhein
Germany

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**This is a medicament**
- Medicament is a product which affects your health, and its consumption contrary to instructions is dangerous for you.
- Follow strictly the doctor's prescription, the method of use and the instructions of the pharmacist who sold the medicament.
- The doctor and the pharmacist are experts in medicine, its benefits and risks.
- Do not by yourself interrupt the period of treatment prescribed for you.
- Do not repeat the same prescription without consulting your doctor.

**Keep medicament out of reach of children!**