

SCHEDULING STATUS:53**PROPRIETARY NAME AND DOSAGE FORM:**

BIO-NAPROXEN 250 mg Tablets
BIO-NAPROXEN 500 mg Tablets

COMPOSITION:

Each BIO-NAPROXEN 250 mg tablet contains 250 mg of Naproxen as active ingredient.

Contains sugar: Lactose 78,40 mg.

Each BIO-NAPROXEN 500 mg tablet contains 500 mg of Naproxen as active ingredient.

Contains sugar: Lactose 156,80 mg

The following inactive ingredients are also included:

Lactose, pregelatinised starch, sodium starch glycolate, quinoline yellow lake 19248, polysorbate 80, povidone, purified talc, magnesium stearate, purified water.

PHARMACOLOGICAL CLASSIFICATION:

3.1 Antirheumatics (anti-inflammatory agent)

PHARMACOLOGICAL ACTION:

Naproxen is a non-steroidal anti-inflammatory agent (NSAID) with analgesic and antipyretic properties. Naproxen is readily absorbed from the gastrointestinal tract, with peak plasma levels being reached 2 to 4 hours after ingestion. Naproxen is extensively plasma protein bound, with a plasma half-life of 12 to 15 hours.

Approximately 95 % of a dose is excreted in the urine as Naproxen and 6-O-desmethyl naproxen. Naproxen crosses the placenta and is excreted in breast milk.

Naproxen is an inhibitor of cyclo-oxygenase, responsible for the biosynthesis of prostaglandins. It also alters platelet function to prolong bleeding time. Naproxen inhibits leucocyte migration.

INDICATIONS:

Treatment of rheumatoid arthritis, osteoarthritis and ankylosing spondylitis. BIO-NAPROXEN may also be used in the treatment of acute gout, mild to moderate pain, associated with primary dysmenorrhoea, bursitis and acute tendonitis.

CONTRAINDICATIONS:

- Hypersensitivity or allergic reactions to medicines containing naproxen or naproxen sodium, aspirin or other non-steroidal anti-inflammatory agents.
- Patients in whom aspirin or other non-steroidal anti-inflammatory / analgesic medicines induce the syndrome of asthma, rhinitis, nasal polyps or urticaria. These reactions have the potential of being fatal. Severe anaphylactic-like reactions to naproxen have been reported in such patients.
- BIO-NAPROXEN should not be used in pregnant women or mothers breastfeeding their infants.
- Heart failure.
- History of gastrointestinal perforation, ulceration or bleeding (PUBs) related to previous NSAIDs.
- Active or history of recurrent ulcer/haemorrhage/perforations.
- Porphyria.
- *Children:* BIO-NAPROXEN is not recommended for use in children under the age of 16 years.
- Severe renal function impairment: BIO-NAPROXEN is not recommended in patients with baseline creatinine clearance of less than 20 ml/minute because accumulation of naproxen metabolites has been seen in such patients (see WARNINGS and SPECIAL PRECAUTIONS)

WARNINGS and SPECIAL PRECAUTIONS:

BIO-NAPROXEN should be used with special care in patients with gastrointestinal bleeding, with a history of bronchospasm (asthma), with impaired renal or liver function and elderly patients or patients with cardiovascular disease.

Cardiovascular events:

Caution is required in patients with a history of hypertension and/or heart failure as fluid retention and oedema have been reported in association with BIO-NAPROXEN therapy. In view of BIO-NAPROXEN'S inherent potential to cause fluid retention, heart failure may be precipitated in some compromised patients.

Caution is required in patients with significant risk factors for cardiovascular events (e.g. hypertension, hyperlipidaemia, diabetes mellitus, smoking) and should only be treated after careful consideration.

Elderly patients:

The elderly have an increased frequency of adverse reactions to NSAIDs including BIO-NAPROXEN, especially gastrointestinal perforation, ulceration and bleeding (PUBs) which may be fatal.

Elderly or debilitated patients may be at a greater risk of experiencing undesirable effects than younger patients. In elderly patients the clearance is reduced. Use of the lowest possible dose is recommended.

Gastrointestinal ulceration, bleeding and perforation (see CONTRAINDICATIONS):

Gastrointestinal mucosal injury may occur. Serious gastrointestinal toxicity, such as gastrointestinal irritation, bleeding, ulceration and perforation can occur at any time, with or without warning signs, in patients treated with NSAIDs including BIO-NAPROXEN therapy. BIO-NAPROXEN should be given with caution to patients with a history of gastrointestinal disease (e.g. ulcerative colitis, Crohn's disease, hiatus hernia, gastro-oesophageal reflux disease, angiodysplasia) as the condition may be exacerbated. The risk of gastrointestinal perforation, ulceration or bleeding (PUBs) is higher with increasing dose and duration of BIO-NAPROXEN treatment, in patients with a history of ulcers, and the elderly.

When gastrointestinal bleeding or ulceration occurs in patients receiving BIO-NAPROXEN, treatment with BIO-NAPROXEN should be stopped.

Haematological:

BIO-NAPROXEN decreases platelet aggregation and prolongs bleeding time. This effect should be brought into consideration when bleeding times are determined. Patients who suffer from coagulation disorders or are receiving medicine therapy that interferes with haemostasis should be carefully monitored if BIO-NAPROXEN is administered.

Patients at high risk of bleeding, and those on full anticoagulation therapy, may be at increased risk of bleeding if given BIO-NAPROXEN concurrently.

As it causes an increased bleeding tendency it should be given with caution to patients receiving coumarin anti-coagulants such as warfarin, and to patients with bleeding disorders and cardiovascular disease. BIO-NAPROXEN may interfere with some tests for 17-ketogenic steroids.

Anaphylactic (anaphylactoid) reactions:

Hypersensitivity reactions may occur in susceptible individuals. Anaphylactic (anaphylactoid) reactions may occur in patients with or without a history of hypersensitivity or previous exposure to aspirin, or other non-steroidal anti-inflammatory medicines or BIO-NAPROXEN.

Because of the possibility of cross-sensitivity due to structural relationships which exist among non-steroidal, anti-inflammatory medicines, acute allergic reactions are more likely to occur in patients who have exhibited previous allergic reactions to these compounds.

Patients who have exhibited aspirin hypersensitivity in the past (usually as the angioedema/asthma syndrome) may exhibit the same phenomenon with BIO-NAPROXEN. Bronchospasm may be precipitated in such patients and in patients suffering from, or with a history of bronchial asthma or allergic disease (see CONTRAINDICATIONS).

Serious skin reactions, some of them fatal, including exfoliative dermatitis, Stevens-Johnson syndrome and toxic epidermal necrolysis have been reported. BIO-NAPROXEN should be discontinued at the first appearance of skin rash, mucosal lesions, or any other sign of hypersensitivity.

Renal effects:

There have been reports of impaired renal function, renal failure, acute interstitial nephritis, haematuria, proteinuria, renal papillary necrosis and occasionally nephrotic syndrome associated with naproxen-containing products.

BIO-NAPROXEN should be used with caution in patients with impaired renal function or a history of kidney disease, especially if long-term usage is considered as BIO-NAPROXEN is an inhibitor of prostaglandin synthesis.

Caution should be taken in patients with conditions leading to a reduction in blood volume and/or renal blood flow where renal prostaglandins play a supportive role in the maintenance of renal perfusion. In these patients administration of BIO-NAPROXEN may lead to a dose-dependent reduction in renal prostaglandin formation and may cause overt renal decompensation or failure. Patients with the greatest risk of developing this reaction are those with impaired renal function, hypovolaemia, heart failure, liver dysfunction, salt depletion, those taking diuretics and the elderly. Discontinuation of BIO-NAPROXEN is generally followed by recovery to the pre-treatment state.

BIO-NAPROXEN should be used with great caution in these patients and the close monitoring of serum creatinine and/or creatinine clearance is recommended. BIO-NAPROXEN is not recommended in patients with baseline creatinine clearance of less than 20 ml/min because accumulation of Naproxen metabolites has been seen in these patients (see CONTRAINDICATIONS).

Haemodialysis does not decrease the plasma concentration of BIO-NAPROXEN due to the high degree of its protein binding.

Hepatic effects:

Elevations of one or more liver function tests may occur. Hepatic abnormalities could be the result of hypersensitivity rather than direct toxicity. Severe hepatic reactions, including jaundice and hepatitis (some cases of hepatitis have been fatal) have been reported. Cross-reactivity has been reported.

Antipyretic effects:

The antipyretic and anti-inflammatory activities of BIO-NAPROXEN may reduce fever and inflammation and therefore diminish their utility as diagnostic signs.

Corticosteroids:

If the corticosteroid dosage is reduced or eliminated during BIO-NAPROXEN therapy, the corticosteroid dosage must be reduced gradually and the patient must be monitored closely for any evidence of adverse effects, including adrenal insufficiency and worsening of symptoms of arthritis.

Ocular effects:

Cases of adverse ocular disorders including papillitis, retrolubar optic neuritis and papilloedema have been reported in users of NSAIDs including BIO-NAPROXEN, although a cause-and-effect relationship cannot be established; accordingly, patients who develop visual disturbances during treatment with BIO-NAPROXEN should have an ophthalmological examination.

Pregnancy:

Regular use of NSAIDs such as BIO-NAPROXEN during the third trimester of pregnancy, may result in premature closure of the foetal ductus arteriosus in utero, and possibly, in persistent pulmonary hypertension of the new-born. The onset of labour may be delayed and its duration increased.

Combination with other NSAIDs:

The concurrent use of BIO-NAPROXEN and other NSAIDs is not recommended, due to the cumulative risks of inducing serious NSAID-related adverse events.

Other:

BIO-NAPROXEN contains lactose and should not be administered to patients with rare hereditary problems, or a history of lactose intolerance, Lapp lactose deficiency or glucose-galactose malabsorption.

Driving and operating machinery:

Some patients may experience drowsiness, dizziness, vertigo, insomnia or depression with the use of BIO-NAPROXEN. If patients experience any of these or similar undesirable effects, they should exercise caution in carrying out activities that require alertness.

INTERACTIONS:

Antacids or cholestyramine: the concurrent administration with BIO-NAPROXEN can delay the absorption of BIO-NAPROXEN, but does not affect the extent thereof.

Food: concomitant administration can delay the absorption of BIO-NAPROXEN but does not affect the extent thereof.

Probenecid: during concurrent administration caution is advised as it increases BIO-NAPROXEN plasma levels and extends its half-life considerably.

Methotrexate: during concurrent administration caution is advised since BIO-NAPROXEN has been reported to reduce the clearance of methotrexate, and thus possibly enhances its toxicity.

Furosemide: BIO-NAPROXEN may inhibit the natriuretic effect of furosemide. The effect of furosemide is diminished on concomitant administration of BIO-NAPROXEN.

Lithium: inhibition of renal lithium clearance leading to increases in plasma lithium concentrations has been reported.

Cardiac glycosides: increased plasma concentrations of digoxin have been reported.

ACE inhibitors, cyclosporin or diuretics: concomitant administration may increase the risk of nephrotoxicity.

ACE inhibitors and potassium-sparing diuretics: concomitant administration may increase the risk of hyperkalaemia.

Antihypertensive agents: the antihypertensive effect of agents such as ACE inhibitors, beta-blockers and diuretics may be reduced.

Quinolones: convulsions may occur.

Phenytoin and sulphonylurea antidiabetics: the effects may be enhanced.

Thyroid function tests: BIO-NAPROXEN may interfere with thyroid function tests by lowering serum thyroid hormone concentrations.

Adrenal function tests: it is advised that BIO-NAPROXEN therapy should be temporarily discontinued 48 hours before these tests are performed.

BIO-NAPROXEN may artifactually interfere with some tests for 17-ketogenic steroids. BIO-NAPROXEN may similarly interfere with some urinary assays of 5-hydroxyindoleacetic acid (5-HIAA).

NSAIDs: use of two or more NSAIDs concomitantly could result in an increase in side effects.

Corticosteroids: increased risk of gastrointestinal perforation, ulceration or bleeding (PUBs).

Anti-coagulants: BIO-NAPROXEN may enhance the effects of anti-coagulants such as warfarin.

Anti-platelet medicines and selective serotonin reuptake inhibitors (SSRIs): increased risk of gastrointestinal bleeding.

Aspirin: Plasma concentrations of BIO-NAPROXEN are significantly decreased by concomitant administration of therapeutic doses of aspirin.

Thiazide diuretics, beta-adrenergic antagonists, prazosin and captopril:

BIO-NAPROXEN may reduce the diuretic, natriuretic and anti-hypertensive effects of these medicines, due to the inhibition of synthesis of renal prostaglandins.

PREGNANCY AND LACTATION:

The safety and efficacy of BIO-NAPROXEN in pregnancy and lactation has not yet been established.

BIO-NAPROXEN should not be used during pregnancy. Use during the third trimester of pregnancy may cause uterine inertia and/or premature closure of the ductus arteriosus.

BIO-NAPROXEN crosses the placenta and has been found in the milk of lactating mothers.

DOSAGE AND DIRECTIONS FOR USE:

BIO-NAPROXEN should not be used in children under the age of 16 years.

Adults:

Rheumatoid arthritis, osteo-arthritis and ankylosing spondylitis: 250 to 375 mg twice daily with food.

Acute gout: An initial dose of 750 mg with meals, followed by 250 mg every 8 hours until the attack has subsided.

Mild to moderate pain associated with primary dysmenorrhoea, bursitis and acute tendonitis: An initial dose of 500 mg followed by 250 mg every 6 to 8 hours with food.

Use the lowest effective dose for the shortest possible duration of treatment.

SIDE EFFECTS:**Gastrointestinal system disorders**

The most commonly observed adverse effects occurring with BIO-NAPROXEN are gastrointestinal in nature. Peptic ulcers, perforation or gastrointestinal bleeding, sometimes fatal. Nausea, vomiting, diarrhoea, flatulence, constipation, dyspepsia, abdominal pain, melana, haematemesis, ulcerative stomatitis, exacerbation of colitis and Crohn's disease, gastritis.

Frequency unknown: Colitis, oesophagitis, non-peptic gastrointestinal ulceration, abdominal discomfort.

Central nervous system disorders

Frequent: Dizziness, drowsiness, headache, light-headedness, vertigo

Frequency unknown: Malaise, nervousness, depression, insomnia, cognitive

dysfunction, convulsions, dream abnormalities, myalgia, muscle weakness, headache, inability to concentrate.

Skin and subcutaneous tissue disorders

Frequent: Echymoses, itching (pruritus), purpura, skin eruptions, sweating

Frequency unknown: Bullous reactions, including Stevens-Johnson syndrome and toxic epidermal necrolysis, skin rash, erythema multiforme, erythema nodosum, fixed drug eruption, lichen planus, pustular reaction, SLE, urticaria, alopecia, photosensitivity reactions, including cases of porphyria cutanea tarda or epidermolysis bullosa. If skin fragility, blistering or other symptoms suggestive of pseudoporphyria occur, treatment should be discontinued immediately and the patient closely monitored.

Ear and labyrinth disorders

Frequent: Hearing disturbances, tinnitus

Frequency unknown: Hearing impairment

Eye disorders

Frequent: Visual disturbances

Frequency unknown: Blurred vision and other ocular reactions, corneal opacity, papillitis, retrolubar optic neuritis and papilloedema

Cardiac disorders

Frequent: Palpitations, oedema

Frequency unknown: Cardiac failure, hypertension, pulmonary oedema, vasculitis, angioneurotic oedema

Hepato-biliary disorders

Frequency unknown: Abnormalities of liver function tests, hepatitis (some cases of hepatitis have been fatal), jaundice

Respiratory, thoracic and mediastinal disorders

Frequent: Dyspnoea

Frequency unknown: Asthma, eosinophilic pneumonitis

Endocrine disorders

Frequency unknown: Pancreatitis

Immune system disorders

Less frequent: Hypersensitivity reactions including fever, asthma, rashes, hepatotoxicity, and aseptic meningitis may occur.

Frequency unknown: Skin rashes and angioedema, anaphylactoid reactions

Renal and urinary disorders

Frequency unknown: Impairment of renal function, haematuria, hyperkalaemia, interstitial nephritis, nephrotic syndrome, renal disease, reversible renal failure, renal papillary necrosis, raised serum creatinine and fluid retention may occur.

Blood and the lymphatic system disorders

Frequency unknown: Agranulocytosis, thrombocytopenia, leukopenia, granulocytopenia, neutropenia, eosinophilia, anaemias, including aplastic anaemia and hemolytic anaemia.

Infections and infestations

Frequency unknown: Pyrexia (chills and fever).

KNOWN SYMPTOMS OF OVERDOSAGE AND PARTICULARS OF ITS TREATMENT:

(See SIDE EFFECTS). Symptoms of overdose may include dizziness, drowsiness, epigastric pain, abdominal discomfort, heartburn, indigestion, nausea, transient alterations in liver function, hypoprothrombinaemia, renal dysfunction, metabolic acidosis, apnoea, disorientation or vomiting. BIO-NAPROXEN may be absorbed rapidly and high blood levels could be reached quickly.

A few patients have experienced convulsions.

Treatment is supportive and symptomatic. Haemodialysis does not decrease the plasma concentration of naproxen due to the high degree of its protein binding.

IDENTIFICATION:

Bio-Naproxen 250 mg:

Yellow, round, biconvex tablet, breakline on one side, plain on the other side.

Bio-Naproxen 500 mg:

Yellow, capsule-shaped, biconvex tablet coded with 'NPX 500' on one side and breakline on reverse.

PRESENTATION:

BIO-NAPROXEN 250 mg and BIO-NAPROXEN 500 mg can be packed in the following containers:

White opaque, polypropylene securitainer containing 30, 100 and 250 tablets.

Screw cap white, opaque HDPE container containing 100 and 250 tablets.

Amber PVC/PVDC blister containing 56 or 140 tablets per carton.

White, opaque, polyethylene zip lock patient ready pack (for state use only), containing 56 tablets.

All pack sizes may not necessarily be marketed at one time.

STORAGE INSTRUCTIONS:

Store at or below 25 °C in a dry place. Protect from light.

Keep out of reach of children.

REGISTRATION NUMBER

BIO-NAPROXEN 250 mg: W/3.1/436

BIO-NAPROXEN 500 mg: W/3.1/437

NAME AND BUSINESS ADDRESS OF APPLICANT

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DATE OF PUBLICATION

Date of registration: 28 March 1990

Date of latest revised package insert: 19 April 2013

Date of notification with regard to Regulation 9 & 10: 6 March 2015

