

**SCHEDULING STATUS:**

S3

**PROPRIETARY NAME AND DOSAGE FORM:**

BIO-NIFEDIPINE 5 (Capsules)  
 BIO-NIFEDIPINE 10 (Capsules)

**COMPOSITION:**

Each BIO-NIFEDIPINE 5 capsule contains 5 mg nifedipine.  
 Each BIO-NIFEDIPINE 10 capsule contains 10 mg nifedipine.  
*Excipients:* peppermint oil, polyethylene glycol 400, polysorbate 80, purified water and sodium saccharin.  
*Ingredients of the capsule shell:* gelatine, glycerine, Sunset yellow dye (FDC yellow no. 6), titanium dioxide.  
 BIO-NIFEDIPINE is sugar free.

**PHARMACOLOGICAL CLASSIFICATION:**

A.7.1 Vasodilators, hypotensive medicines.

**PHARMACOLOGICAL ACTION:****Pharmacodynamic properties**

NIFEDIPINE is a calcium channel blocking agent, acting on the slow inward calcium channels of cardiac muscle and the smooth muscle of the peripheral and coronary arteries. It thus reduces myocardial oxygen demand and increases the myocardial oxygen supply. It has a vasodilatory effect on the peripheral arterial beds causing a fall in peripheral vascular resistance and an increase in blood flow.

**INDICATIONS:**

Treatment and prophylaxis of angina pectoris including variant angina.

**CONTRAINDICATIONS:**

Hypersensitivity to calcium antagonists.  
 The safety of BIO-NIFEDIPINE in pregnancy and lactation has not been established (see PREGNANCY AND LACTATION).  
 BIO-NIFEDIPINE has been associated with acute attacks of porphyria and is considered unsafe in porphyric patients (see WARNINGS AND SPECIAL PRECAUTIONS).

*BIO-NIFEDIPINE should not be used:*

- In patients with hepatic impairment.
  - In patients with a history of gastrointestinal obstruction, oesophageal obstruction, or any degree of decreased lumen diameter of the gastrointestinal tract.
  - In patients with inflammatory bowel disease.
  - In cardiogenic shock and in patients who have suffered a myocardial infarction in the previous 2 to 4 weeks.
  - In unstable angina or to treat an angina attack in chronic stable angina.
  - In clinically significant aortic stenosis. BIO-NIFEDIPINE may increase the risk of developing heart failure.
- Not recommended for use in children.

**WARNINGS AND SPECIAL PRECAUTIONS:**

BIO-NIFEDIPINE should be used with caution in patients with hypotension and in patients whose cardiac reserve is poor. Blood pressure should be monitored carefully during initiation of therapy and during upward titration of dosage, especially if patients are on antihypertensive therapy.

BIO-NIFEDIPINE should be used with caution in patients with heart failure since deterioration or heart failure may occur. In patients who experience ischaemic pain following administration of BIO-NIFEDIPINE, therapy should be discontinued. Although a "steal" effect has not been demonstrated, patients experiencing this effect should discontinue BIO-NIFEDIPINE therapy.

The use of BIO-NIFEDIPINE in diabetic patients may require adjustment of their control.  
 Sudden withdrawal of BIO-NIFEDIPINE might be associated with an exacerbation of angina.

BIO-NIFEDIPINE should not be administered concomitantly with rifampicin since effective plasma levels of nifedipine may not be achieved owing to enzyme induction (see INTERACTIONS).

BIO-NIFEDIPINE has been associated with acute attacks of porphyria and is considered unsafe in porphyric patients. In single cases obstructive symptoms have been described without known history of gastrointestinal disorders.  
 BIO-NIFEDIPINE must not be used in patients with Kock pouch (ileostomy after proctocolectomy). When doing barium contrast X-Ray, BIO-NIFEDIPINE may cause false positive effects (e.g. filling defects interpreted as polyp).

**INTERACTIONS:**

BIO-NIFEDIPINE is extensively metabolised in the liver by the cytochrome P450 enzyme system, and interactions may occur with other medicines, such as quinidine, sharing the same metabolic pathway, and enzyme inducers, such as carbamazepine, phenytoin and rifampicin, and enzyme inhibitors, such as cimetidine and erythromycin, and HIV-protease inhibitors (see WARNINGS AND SPECIAL PRECAUTIONS).

BIO-NIFEDIPINE may enhance the antihypertensive effects of other antihypertensive medicines. Enhanced antihypertensive effects may also be seen with concomitant use of medicines such as antipsychotics that cause hypotension.  
 Concomitant administration of BIO-NIFEDIPINE has increased plasma digoxin levels.

BIO-NIFEDIPINE should not be taken with grapefruit juice as elevated plasma concentrations may occur, due to a decreased first pass metabolism. After regular intake of grapefruit juice, this effect may last for at least three days after the last ingestion of grapefruit juice.

Diltiazem decreases the clearance of BIO-NIFEDIPINE and hence increases plasma nifedipine levels.

BIO-NIFEDIPINE may modify insulin and glucose responses and therefore diabetic patients may need to adjust their antidiabetic treatment.

**Laboratory tests:**

BIO-NIFEDIPINE may give falsely elevated spectrophotometric values of urinary vanillylmandelic acid; HPLC measurements are unaffected.

**PREGNANCY AND LACTATION:**

The safety of BIO-NIFEDIPINE in pregnancy and lactation has not been established. BIO-NIFEDIPINE is distributed into the breast milk.

**DOSAGE AND DIRECTIONS FOR USE:**

The initial oral dose is 10 mg, given three times daily. This dosage should then be titrated over a period of 7 to 14 days to control symptoms of angina.

The usual dose is 10 to 20 mg three times daily.

The recommended dosage to elderly patients or those on concomitant medication is 5 mg taken three times daily. For a more rapid onset of action the capsule should be bitten and the contents allowed to remain in the mouth for a short time.

**SIDE EFFECTS:**

The most frequent adverse effects of BIO-NIFEDIPINE are associated with its vasodilator action and often diminish on continued therapy.

**Metabolism and nutrition disorders**

*Less frequent:* Hyperglycaemia.

**Nervous system disorders**

*Less frequent:* Lethargy, nervousness, insomnia, mental depression, tremor.

**Eye disorders**

*Less frequent:* Eye pain, visual disturbances.

**Cardiac disorders**

*Less frequent:* Palpitations and precipitation of angina pain, tachycardia, myocardial infarction. A paradoxical increase in ischaemic chest pain may occur at the start of treatment.

**Vascular disorders**

*Frequent:* Headache, flushing, dizziness, peripheral oedema.

*Less frequent:* Hypotension, syncope.

In a few patients, excessive fall in blood pressure has led to cerebral or myocardial ischaemia or transient blindness.

**Gastrointestinal disorders**

*Frequent:* Nausea.

*Less frequent:* Gastrointestinal disturbances, gingival hyperplasia.

**Skin and subcutaneous tissue disorders**

*Less frequent:* Perspiration.

**Musculoskeletal, connective tissue and bone disorders**

*Less frequent:* Arthralgia, myalgia.

**Renal and urinary disorders**

*Less frequent:* Increased micturition frequency, impotence.

**General disorders and administration site conditions**

*Less frequent:* There have been reports of rashes (including erythema multiforme), fever, and abnormalities in liver function, including cholestasis, due to hypersensitivity reactions.

**KNOWN SYMPTOMS OF OVERDOSAGE AND PARTICULARS OF ITS TREATMENT:**

Overdose with BIO-NIFEDIPINE may be associated with bradycardia and hypotension.

Treatment is supportive and symptomatic.

**IDENTIFICATION:**

Light orange one piece oval capsule with glossy surface and median sealing line.

**PRESENTATION:**

100 or 250 capsules in polypropylene containers.

**STORAGE INSTRUCTIONS:**

Store at or below 25 °C, protect from light.  
 KEEP OUT OF REACH OF CHILDREN.

**REGISTRATION NUMBER:**

BIO-NIFEDIPINE 5: X/7.1/102  
 BIO-NIFEDIPINE 10: X/7.1/103

**NAME AND BUSINESS ADDRESS OF THE HOLDER OF THE**

**CERTIFICATE OF REGISTRATION:**  
 BIOTECH LABORATORIES (PTY) LTD  
 Ground Floor, Block K West, Central Park  
 400 16<sup>th</sup> Road, Randjespark, Midrand, 1685  
 South Africa

**DATE OF PUBLICATION OF THE PACKAGE INSERT:**

Date of registration: 16 August 1990  
 Date of notification with regard to amended Reg. 9 and 10:  
 06 February 2015

Namibia: Reg. No.: 11/7.1/0183	NS2
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## SKEDULERINGSSTATUS:

S3

## EIENDOMSNAAM EN DOSEERVORM:

BIO-NIFEDIPINE 5 (Kapsules)  
BIO-NIFEDIPINE 10 (Kapsules)

## SAMESTELLING:

Elke BIO-NIFEDIPINE 5 kapsule bevat 5 mg nifedipien.  
Elke BIO-NIFEDIPINE 10 kapsule bevat 10 mg nifedipien.  
*Ander bestanddele:* peperment olie, poliëteleen glikool 400, polisorbataat 80, gesuikerde water en natrium sakkarine.  
*Bestanddele van die kapsulomhulsel:* gelatien, gliserien, Sunset Yellow kleurstof (FDC geel no. 6), titaniumdioksied.  
BIO-NIFEDIPINE is suikervry.

## FARMAKOLOGIESE KLASSIFIKASIE:

A.7.1 Vasodilators, hipotensiewe middels.

## FARMAKOLOGIESE WERKING:

### Farmakodinamiese eienskappe

Nifedipien is 'n kalsiumkanaalblokker, wat werk op die binnestek kalsiumkanale van die hartspier en gladdespier van die perifere en kroonslagaaar. Dit verminder dus die vraag na miokardiale suurstofvoorsiening en vermeerder die miokardiale suurstofvoorsiening. Dit het 'n vasodilatoriese effek op die perifere arteriële bed wat 'n daling in perifere sirkulasieweerstand en 'n toename in perifere bloedvloei teweeg bring.

## INDIKASIES:

Behandeling en profilakse van angina pectoris, insluitend variante angina.

## KONTRAINDIKASIES:

Hipersensitiwiteit teenoor kalsium antagonist.  
Die veilige gebruik van BIO-NIFEDIPINE gedurende swangerskap en laktasie is nie vasgestel nie (sien "SWANGERSKAP EN LAKTASIE").  
BIO-NIFEDIPINE is al geassosieer met akute aanvalle van porfirie en word beskou as onveilig vir die gebruik in porfirie pasiënte (sien "WAARSKUWINGS EN SPESIALE VOORSORGMATREELS").

*BIO-NIFEDIPINE moet nie gebruik word:*

- In pasiënte met lewerinkorting nie.
- In pasiënte met 'n geskiedenis van obstruksie van die spysverteringskanaal, esofageale obstruksie of enige graad van verkleining van die lumen-deursnee van die spysvertering skanaal.
- In pasiënte met inflammatoriese dermsiekte.
- In kardiogene skoktoestande en in pasiënte wat in die afgelope 2 tot 4 weke 'n miokardiale infarksie gehad het nie.
- In onstabiele angina of om 'n angina-aanval in chroniese stabiele angina te behandel.
- In klinies betekenisvolle aortiese stenose. BIO-NIFEDIPINE kan die risiko van die ontwikkeling van hartversaking verhoog. Nie aanbeveel vir die gebruik in kinders nie.

## WAARSKUWINGS EN SPESIALE VOORSORGMATREELS:

BIO-NIFEDIPINE moet met omsigtigheid gebruik word in pasiënte met hipotensie en in pasiënte met swak hartreserwes. Bloeddruk moet versigtig gemonitor word tydens aanval van terapie en tydens opwaartse titrasie van dosis, veral as pasiënte op antihipertensiewe terapie is.  
BIO-NIFEDIPINE moet met omsigtigheid gebruik word in pasiënte met hartversaking aangesien agteruitgang van hartversaking kan plaasvind.

In pasiënte wat isgemiese pyn ervaar wanneer BIO-NIFEDIPINE geneem word, moet terapie gestaak word. Alhoewel 'n "steel" effek nie getoon word nie, moet pasiënte wat hierdie effek ervaar die gebruik van BIO-NIFEDIPINE staak.

Die gebruik van BIO-NIFEDIPINE in diabetiese pasiënte mag 'n aanpassing in van die beheer daarvan vereis.  
Skielike onttrekking van die gebruik van BIO-NIFEDIPINIEN kan geassosieer word met 'n verergering van angina.  
Die gelyktydige gebruik van BIO-NIFEDIPINE met rifampisien, moet vermy word aangesien effektiewe plasmavakke van nifedipien nie bereik kan word nie, as gevolg van ensieminduksie (sien "INTERAKSIES").

BIO-NIFEDIPINE is geassosieer met akute aanvalle van porfirie en die gebruik daarvan word gesien as onveilig in porfirie pasiënte. In enkele gevalle is obstruktiwe gastroïntestinale simptome beskryf sonder daar 'n bekende geskiedenis van spysverteringskanaalsiektes was. BIO-NIFEDIPINE moet nie in pasiënte met 'n Kock-sakkie (ileostomie na proktokolektomie) gebruik word nie. Wanneer bariumkontras X-strale geneem word, kan BIO-NIFEDIPINE vals positiewe effekte veroorsaak (b.v. vuldefekte wat as 'n poliep geïnterpreteer kan word).

## INTERAKSIES:

BIO-NIFEDIPINE word ekstensief in die lewer gemetaboliseer deur die sitochroom P450-ensiemstelsel, en interaksie met ander medisyne kan plaasvind soos met kindien wat dieselfde metaboliese roete deel, en ensieminduseerders soos karbamasepien, fenitoin en rifampisien en ensieminhibeerders soos simetidin en eritromisien, en HIV-protease inhibeerders. (sien "WAARSKUWINGS EN SPESIALE VOORSORGMATREELS").  
BIO-NIFEDIPINE mag die antihipertensiewe effekte van ander antihipertensiewe middels versterk. Verbeterde antihipertensiewe effekte kan ook gesien word met gepaardgaande gebruik van medisyne soos antisygotika wat hipotensie veroorsaak.  
Met gelyktydige toediening van BIO-NIFEDIPINE het plasma digoksienvakke toegeneem.

BIO-NIFEDIPINE moet nie geneem word saam met pomelosap nie, omdat verhoogde plasmakonsentrasies van nifedipien kan voorkom weens 'n afname in eerste deurgangsmetabolisme. Na gereelde inname van pomelosap mag hierdie effek vir ten minste drie dae na die laaste inname van pomelosap voortduur.

Diltiasem verlaag die opruiming van BIO-NIFEDIPINE en verhoog sodoende plasma nifedipien vlakke.

BIO-NIFEDIPINE mag die uitwerking van insulien en glukose verander en daarom kan dit nodig wees dat diabetiese pasiënte hul anti-diabetiese behandeling aanpas.

## Laboratoriumtoets:

BIO-NIFEDIPINE kan valsverhoogde spektrofotometriese waardes van urienvanillemandelsuur veroorsaak. HPLC metings is egter nie beïnvloed nie.

## SWANGERSKAP EN LAKTASIE:

Die veilige gebruik van BIO-NIFEDIPINE gedurende swangerskap en laktasie is nie vasgestel nie. BIO-NIFEDIPINE word in die borsmelk uitgeskei.

## DOSES EN GEBRUIKSAANWYSINGS:

Die aanvanklike orale dosis is 10 mg, drie maal per dag. Hierdie dosis moet dan verminder word oor 'n tydperk van 7 tot 14 dae om die simptome van angina te beheer.  
Die gewone dosis is 10 tot 20 mg drie maal per dag.  
Die aanbevole dosis vir bejaarde pasiënte of pasiënte wat soortgelyke medisyne gebruik is 5 mg drie maal per dag. Vir 'n vinniger aanvang vir werking van die kapsule, moet dit gebly word en die inhoud moet in die mond gehou word vir 'n kort tydperk.

## NEWE EFFEKTE:

Die mees algemene nuwe effekte van BIO-NIFEDIPINE word geassosieer met die vasodilatoriese werking en word verminder soms met voortgesette terapie.

## Metabolisme en voedingsversteurings

*Minder algemeen:* Hiperglisemie.

## Senuweestelselversteurings

*Minder algemeen:* Letargie, senuweeagtigheid, slapeloosheid, gemoedsdepressie, bewing.

## Oogversteurings

*Minder algemeen:* Oogpyn, visuele versteurings.

## Kardiale versteurings

*Minder algemeen:* Palpitasies en presipitasie van angina pyn, tagikardie, miokardiale infarksie. 'n Paradoksale toename in isgemiese borspyn kan plaasvind aan die begin van die behandeling.

## Vaskulêre versteurings

*Algemeen:* Hoofpyn, bloesing, duiseligheid, perifere edeem.  
*Less frequent:* Hipotensie, sinkopee.

'n Oormatige daling in bloeddruk het geleidelik tot serebrale of miokardiale isgemie of verbygaande blindheid in 'n paar pasiënte.

## Spysverteringskanaalversteurings

*Algemeen:* Naarheid.

*Minder algemeen:* Afwykings van die spysverteringskanaal, gingivale hiperplasie.

## Vel en subkutane weefselversteurings

*Minder algemeen:* Perspirasie.

## Muskuloskeletale, bindweefsel- en beenversteurings

*Minder algemeen:* Artralgie, mialgie.

## Renale en urinêre versteurings

*Minder algemeen:* Verhoogde mikturisie frekwensie (verhoogde urinêre frekwensie), impotensie.

## Algemene versteurings

*Minder algemeen:* Veluitslag is al aangemeld (insluitend eritem multiforme), koors, en abnormaleite in lewerfunksie, insluitend cholestase, as gevolg van hipersensitiwiteitsreaksies.

## BEKENDE SIMPTOME VAN OORDOSERING EN

## BESONDERHEDE VIR DIE BEHANDLING DAARVAN:

Oordosering met BIO-NIFEDIPINE kan geassosieer word met bradikardie en hipotensie.  
Behandeling is simptomaties en ondersteunend.

## IDENTIFIKASIE:

'n Lig-oranje, eenstuk, ovaalvormige kapsule met 'n glansoppervlak en middelste veseëlingslyn.

## AANBIEDING:

100 of 250 kapsules in polypropileen houers.

## BERGINGSINSTRUKSIES:

Bêre by of benede 25 °C, beskerm teen lig.  
HOU BUITE DIE BEREIK VAN KINDERS.

## REGISTRASIONOMMER:

BIO-NIFEDIPINE 5: X/7.1/102  
BIO-NIFEDIPINE 10: X/7.1/103

## NAAM EN BESIGHEIDSADRES VAN DIE HOUER VAN DIE

## REGISTRASIE SERTIFIKAAT:

BIOTECH LABORATORIES (EDMS) BPK.  
Grondvloer, Blok K Wes, Central Park  
400 16<sup>th</sup> Weg, Randjespark, Midrand, 1685  
Suid Afrika

## DATUM VAN PUBLIKASIE VAN HIERDIE VOUBILJET:

Registriesdatum: 16 Augustus 1990

Datum van die laaste hersiening van die teks soos goedgekeur deur die Raad: 06 Februarie 2015

Namibië: Reg. Nr.: 11/7.1/0183	NS2
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