

1 Name of the medicinal product:

BENZHEXOL TABLETS 5 MG

2 Qualitative and quantitative composition:

Each Uncoated Tablet Contains:

Benzhexol Hydrochloride (Trihexyphenidyl Hydrochloride BP).....5 mg

Excipientsq.s.

Excipients with known effect: NA

3 Pharmaceutical form: Uncoated Tablets

Description: White, circular shaped, flat, uncoated tablet, embossing of "BXL" above breakline and "5" below breakline on one side and plain on other side.

4 Clinical Particulars

4.1 Therapeutic indications:

BENZHEXOL TABLETS 5 MG is indicated in all forms of Parkinsonism (postencephalitic, arteriosclerotic and idiopathic). It is often useful as adjuvant therapy when treating these forms of Parkinsonism with levodopa. Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) is effective in reducing the rigidity of muscle spasm, tremor and excessive salivation associated with Parkinsonism. Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) is also indicated to control extrapyramidal disorders (eg akathisia manifested by extreme restlessness and dyskinesia characterised by spastic contractions and involuntary movements) due to central nervous system drugs such as reserpine and the phenothiazines.

4.2 Posology and method of administration

Route: Oral

Posology

The usual dosage for Parkinsonism is 6-10mg per day although some patients chiefly in the post-encephalitic group may require an average total dose of 12-15mg daily. It should be given orally either three or four times a day at mealtimes.

Normal dosage for drug-induced Parkinsonism is usually between 5mg and 15mg per day, although some cases have been controlled by 1mg daily.

In all cases, Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) dosage should be increased or decreased only by small increments over a period of several days. In initial therapy the dose should be 1mg the first day, 2mg the second day with further increases of 2mg per day at three to five-day intervals until the optimum dose is reached.

4.3 Contraindications

- Hypersensitivity to Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) or any other ingredients of the preparation;
- Narrow angle glaucoma. Blindness after long-term use due to narrow angle glaucoma has been reported.

4.4 Special warnings and precautions for use

Precautions:

BENZHEXOL TABLETS 5 MG should be administered with care to avoid allergic or other untoward reactions.

Except in the case of vital complications, abrupt discontinuation of the drug should be avoided.

Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) may provoke or exacerbate tardive dyskinesia, it is not recommended for use in patients with this condition.

Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) should be used with caution in patients with glaucoma, obstructive disease of the gastro-intestinal or genito-urinary tracts, and in elderly males with possible prostatic hypertrophy.

Since Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) has been associated with the clinical worsening of myasthenia gravis, the drug should be avoided or used with great caution in patients with this condition.

Since certain psychiatric manifestations such as confusion, delusions and hallucinations, all of which may occur with any of the atropine-like drugs, have been reported rarely with Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride), it should be used with extreme caution in elderly patients.

Warnings:

Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) may be the subject of abuse (on the basis of hallucinogenic or euphoriant properties, common to all anti-cholinergic drugs) if given in sufficient amounts.

4.5 Interaction with other medicinal products and other forms of interaction

Extra care should be taken when Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) is given concomitantly with phenothiazines, doxapine, antihistamines, disopyramide, nefopam and amantadine because of the possibility of increased antimuscarinic side-effects.

Anticholinergic agents should be used with caution in patients who are receiving tricyclic antidepressants or monoamine oxidase inhibitors. This can cause dry mouth, blurred vision, urinary hesitancy, urinary retention and constipation. In the elderly, there is a danger of precipitating urinary retention, acute glaucoma or paralytic ileus.

Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) may be antagonistic with the actions of metoclopramide and domperidone on gastro-intestinal function.

The absorption of levodopa may possibly be reduced when used in conjunction with Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride).

Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) may be antagonistic with the actions of parasympathomimetics.

4.6 Pregnancy and Lactation:

Pregnancy

There is inadequate information regarding the use of Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) in pregnancy. Animal studies are insufficient with regard to effects on pregnancy, embryonal/foetal development, parturition and postnatal development. The potential risk for humans is unknown. Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) should not be used during pregnancy unless clearly necessary.

Lactation

It is unknown whether Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) is excreted in human breast milk. The excretion of Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) in milk has not been studied in animals. Infants may be very sensitive to the effects of antimuscarinic medications. Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) should not be used during breast-feeding.

Fertility

There have been no studies indicating the effects on fertility.

4.7 Effects on the ability to drive and use machines

Can cause blurring of vision, dizziness and mild nausea. Also mental confusion in some cases. Avoid driving and using machines during therapy.

4.8 Undesirable effects

Immune system disorders: Hypersensitivity.

Psychiatric disorders: Nervousness, restlessness, confusional states, agitation, delusions, hallucinations, insomnia, especially in the elderly and patients with arteriosclerosis. The development of psychiatric disturbances may necessitate discontinuation of treatment.

Euphoria may occur. There have been reports of abuse of Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) due to its euphoric and hallucinogenic properties.

Nervous system disorders: Dizziness.

Impairment of immediate and short-term memory function has been reported.

Worsening of myasthenia gravis may occur.

Eye disorders: Dilatation of the pupils with loss of accommodation and photophobia, raised intraocular pressure.

Cardiac disorders: Tachycardia.

Respiratory, thoracic and mediastinal disorders: Decreased bronchial secretions.

Gastrointestinal disorders: Dry mouth with difficulty swallowing, constipation, nausea, vomiting.

Skin and subcutaneous tissue disorders: Flushing and dryness of skin, skin rashes.

Renal and urinary disorders: Urinary retention, difficulty in micturition.

General disorders: Thirst, pyrexia.

4.9 Overdose

Symptoms

Symptoms of overdose with antimuscarinic agents include flushing and dryness of the skin, dilated pupils, dry mouth and tongue, tachycardia, rapid respiration, hyperpyrexia, hypertension, nausea, vomiting. A rash may appear on the face or upper trunk. Symptoms of CNS stimulation include restlessness, confusion, hallucinations, paranoid and psychotic reactions, incoordination, delirium and occasionally convulsions. In severe overdose, CNS depression may occur with coma, circulatory and respiratory failure and death.

Treatment

Diazepam may be administered to control excitement and convulsions but the risk of central nervous system depression should be considered. Hypoxia and acidosis should be corrected. Antiarrhythmic drugs are not recommended if dysrhythmias occur.

5 Pharmacological properties

5.1 Pharmacodynamic properties

Pharmacotherapeutic Group : Anticholinergic agent & an antispasmodic drug. ATC code: N04AA01

Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) is an anticholinergic agent. It is an antispasmodic drug which exerts a direct inhibitory effect on the parasympathetic nervous system. It diminishes salivation, increases the heart rate, dilates the pupils and reduces spasm of smooth muscle.

5.2 Pharmacokinetic properties

Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) is well absorbed from the gastrointestinal tract. It disappears rapidly from the plasma and tissues and does not accumulate in the body during continued administration of conventional doses.

Special Population

Data not available.

5.3 Preclinical safety Data

Non-clinical data reveal no special hazards for humans based on conventional studies of single dose toxicity, repeated dose toxicity, carcinogenic potential, or toxicity to reproduction.

6 Pharmaceutical particulars

6.1 List of excipients

Maize Starch, Calcium Hydrogen Phosphate Dihydrate, Povidone K-30, Magnesium Stearate, Purified Talc, Croscarmellose Sodium and Colloidal Anhydrous Silica.

6.2 Incompatibilities

Not applicable

6.3 Shelf life

48 months

6.4 Special precautions for storage

Store below 30°C in a dry & dark place

Keep all medicines out of reach of children.

6.5 Nature and contents of container

Packing:

Primary packing: 500 Tablets are packed in a LDPE Bag and sealed.

Secondary packing: Sealed LDPE Bag containing 500 Tablets are packed in a HDPE Jar along with silica gel sachet. Heat seal the poly laminated aluminium tagger over the mouth of jar and close with HDPE Cap. Stick printed sticker Label to the HDPE Jar.

Tertiary packing: Shrink individual HDPE Jar along with leaflet. Such 100 HDPE Jars are packed in a 5 Ply corrugated box sealed with BOPP tape & strap with strapping roll.

6.6 Special precautions for disposal and other handling

None.

7.Applicant / Manufacturer

Applicant

Name and address	M/S. ALL STAR BASE PHARMACY LTD. 32, Ozomagala Street, Odoakpu, Onitsha, Anambra State, Nigeria
Tel	
Fax	
Email	

Manufacturer

Name and address	M/s. IMPULSE PHARMA PVT. LTD. J-201, J-202/1, MIDC Tarapur, Boisar, Dist. Palghar - 401506, Maharashtra State, India.
Tel	+91 7350864803
Fax	--
Email	pravin.patil@kamlagroup.co.in



National Agency for Food & Drug Administration & Control (NAFDAC)

Registration & Regulatory Affairs (R & R) Directorate

PATIENT INFORMATION LEAFLET: INFORMATION FOR THE USER

BENZHEXOL TABLETS 5 MG

Read all of this leaflet carefully before you start taking this medicine.

- Keep this leaflet. You may need to read it again before, during or after use of this medicine.
- If you have any further questions, ask your health care provider.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their symptoms are the same as yours.
- If any of the side effects becomes serious, or if you notice any side effects not listed in this leaflet, please tell your health care provider.

In this leaflet:

1. What **BENZHEXOL TABLETS 5 MG** is and what it is used for
2. What you need to know before you take **BENZHEXOL TABLETS 5 MG**
3. How to take **BENZHEXOL TABLETS 5 MG**
4. Possible side effects
5. How to store **BENZHEXOL TABLETS 5 MG**
6. Contents of the pack and other information

1. WHAT BENZHEXOL TABLETS 5 MG IS AND WHAT IT IS USED FOR

Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) is a selective M1 muscarinic acetylcholine receptor antagonist. It is able to discriminate between the M1 (cortical or neuronal) and the peripheral muscarinic subtypes (cardiac and glandular). Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) partially blocks cholinergic activity in the CNS, which is responsible for the symptoms of Parkinson's disease. It is also thought to increase the availability of dopamine, a brain chemical that is critical in the initiation and smooth control of voluntary muscle movement.

Benzhexol Tablets 5 mg is indicated in all forms of Parkinsonism (postencephalitic, arteriosclerotic and idiopathic). It is often useful as adjuvant therapy when treating these forms of Parkinsonism with levodopa. Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) is effective in reducing the rigidity of muscle spasm, tremor and excessive salivation associated with Parkinsonism. Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) is also indicated to control extrapyramidal disorders (eg akathisia manifested by extreme restlessness and dyskinesia characterised by spastic contractions and involuntary movements) due to central nervous system drugs such as reserpine and the phenothiazines.

2. BEFORE YOU TAKE BENZHEXOL TABLETS 5 MG

• Do not take BENZHEXOL TABLETS 5 MG :

- If you are allergic or have Hypersensitivity to benzhexol or any other ingredients of the preparation
- If you have Narrow angle glaucoma. Blindness after long-term use due to narrow angle glaucoma has been reported.

• Take special care with BENZHEXOL TABLETS 5 MG

Precautions

BENZHEXOL TABLETS 5 MG should be administered with care to avoid allergic or other untoward reactions.

Except in the case of vital complications, abrupt discontinuation of the drug should be avoided. Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) may provoke or exacerbate tardive dyskinesia, it is not recommended for use in patients with this condition.

Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) should be used with caution in patients with glaucoma, obstructive disease of the gastro-intestinal or genito-urinary tracts, and in elderly males with possible prostatic hypertrophy.

Since Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) has been associated with the clinical worsening of myasthenia gravis, the drug should be avoided or used with great caution in patients with this condition.

Since certain psychiatric manifestations such as confusion, delusions and hallucinations, all of which may occur with any of the atropine-like drugs, have been reported rarely with Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride), it should be used with extreme caution in elderly patients.

Warnings:

Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) may be the subject of abuse (on the basis of hallucinogenic or euphoriant properties, common to all anti-cholinergic drugs) if given in sufficient amounts.

- **Taking other medicines with BENZHEXOL TABLETS 5 MG**

Please tell your health care provider if you are taking or have recently taken any other medicines, including medicines obtained without a prescription.

- **Taking BENZHEXOL TABLETS 5 MG with food and drink:**

Tablets are swallowed whole with a little liquid, either with or without food.

- **Pregnancy**

There is inadequate information regarding the use of Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) in pregnancy. It should not be used during pregnancy unless clearly necessary.

- **Breast-feeding**

Infants may be very sensitive to the effects of antimuscarinic medications. Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) should not be used during breast-feeding.

- **Driving and using machines:**

Can cause blurring of vision, dizziness and mild nausea. Also mental confusion in some cases. Avoid driving and using machines during therapy.

- **Important information about some of ingredients of BENZHEXOL TABLETS 5 MG:**

None

3. HOW TO TAKE BENZHEXOL TABLETS 5 MG

Always take this medicine exactly as your doctor or pharmacist has told you. Check with your doctor or pharmacist if you are not sure.

- The usual dosage for Parkinsonism is 6-10 mg per day although some patients chiefly in the post-encephalitic group may require an average total dose of 12-15mg daily.
- It should be given orally either three or four times a day at meal times.
- Normal dosage for drug-induced Parkinsonism is usually between 5mg and 15mg per day, although some cases have been controlled by 1mg daily.
- In initial therapy the dose should be 1mg the first day, 2 mg the second day with further increases of 2mg per day at three to five-day intervals until the optimum dose is reached.

Elderly: Patients over 65 years of age tend to be relatively more sensitive and require smaller amounts of the drug.

Children: Not recommended.

- **If you take more BENZHEXOL TABLETS 5 MG**

If you have taken too much Benzhexol Tablets 5 mg, signs might be:

Symptoms

Symptoms of overdose with antimuscarinic agents include flushing and dryness of the skin, dilated pupils, dry mouth and tongue, tachycardia, rapid respiration, hyperpyrexia, hypertension, nausea, vomiting. A rash may appear on the face or upper trunk. Symptoms of CNS stimulation include restlessness, confusion, hallucinations, paranoid and psychotic reactions, in coordination, delirium and occasionally convulsions. In severe overdose, CNS depression may occur with coma, circulatory and respiratory failure and death.

Treatment

Diazepam may be administered to control excitement and convulsions but the risk of central nervous system depression should be considered. Hypoxia and acidosis should be corrected. Antiarrhythmic drugs are not recommended if dysrhythmias occur.

- **If you forget to take BENZHEXOL TABLETS 5 MG**

- If you forget to take a dose don't worry, take it as soon as you remember.
- Don't take the next dose too soon, wait about 4 hours before taking the next dose.
- Do not take a double dose to make up for a forgotten dose.

- **If you stop taking BENZHEXOL TABLETS 5 MG**

If you have any further questions on the use of this product, ask your health care provider.

4. POSSIBLE SIDE EFFECTS:

BENZHEXOL TABLETS 5 MG can cause side effects, but not everybody gets them:

- Immune system disorders: Hypersensitivity.
- Psychiatric disorders: Nervousness, restlessness, confusional states, agitation, delusions, hallucinations, insomnia, especially in the elderly and patients with arteriosclerosis. The development of psychiatric disturbances may necessitate discontinuation of treatment. Euphoria may occur. There have been reports of abuse of Trihexyphenidyl Hydrochloride (Benzhexol Hydrochloride) due to its euphoric and hallucinogenic properties.
- Nervous system disorders: Dizziness.
Impairment of immediate and short-term memory function has been reported.
Worsening of myasthenia gravis may occur.
- Eye disorders: Dilatation of the pupils with loss of accommodation and photophobia, raised intraocular pressure.

5. HOW TO STORE BENZHEXOL TABLETS 5 MG

- Store below 30°C in a dry & dark place
- Keep all medicines out of reach of children.
- Do not use **BENZHEXOL TABLETS 5 MG** after the expiry date that is stated on the packaging.
- The expiry date refers to the last day of that month.
- Do not use this medicine if there are visible signs of deterioration.
- Medicines should not be disposed of via wastewater or household waste. Ask your pharmacist how to dispose of medicines no longer required. These measures will help to protect the environment.

6. FURTHER INFORMATION

- **What BENZHEXOL TABLETS 5 MG contains:**

- The active substance is Benzhexol Hydrochloride (Trihexyphenidyl Hydrochloride BP)
- The other ingredient(s) are Maize starch, Calcium Hydrogen Phosphate Dihydrate, Povidone (K 30), Magnesium Stearate, Purified Talc, Croscarmellose Sodium, Colloidal Anhydrous Silica

- **What BENZHEXOL TABLETS 5 MG looks like and contents of the pack**

Primary packing: 500 Tablets are packed in a LDPE Bag and sealed.

Secondary packing: Sealed LDPE Bag containing 500 tablets are packed in a HDPE Jar along with silica gel sachet. Heat seal the poly laminated aluminium tagger over the mouth of jar and close with HDPE Cap. Stick printed sticker Label to the HDPE Jar.

Tertiary packing: Shrink individual HDPE Jar along with leaflet. Such 100 HDPE Jars are packed in a 5 ply corrugated box sealed with BOPP tape & strap with strapping roll.

- **Supplier and Manufacturer**

Supplier

M/S. ALL STAR BASE PHARMACY LTD.

32, Ozomagala Street, Odoakpu, Onitsha, Anambra State, Nigeria

Manufacturer

M/s. IMPULSE PHARMA PVT. LTD.

J-201, J-202/1, MIDC Tarapur, Boisar,
Dist. Palghar, 401506, Maharashtra State, India.