

# BETOLVEX injection

**Manufacturing site:**

Axellia Pharmaceuticals ApS, Dalslandsgade 11, 2300 Copenhagen S, Denmark

**Identification:**

**Trade name:** BETOLVEX.

**Generic name:** Cyanocobalamin (Vitamin B12).

**Form and strengths:** Suspension for injection 1 mg/ml.

**Pharmaco-therapeutic group:** Vitamin B12 (Cyanocobalamin and analogues), ATC code: B03BA02.

Vitamin B12 is essential for life and deficiency brings about the fatal condition of megaloblastic anaemia and/or neurological symptoms. Moreover, vitamin B12 acts as a coenzyme in many important enzymatic processes.

Betolvex injection is a vitamin B12-tannin complex suspended in a sesame oil-aluminium monostearate gel. Vitamin B12 is gradually released from the site of injection over a long period, simultaneously replenishing the stores in the liver.

**The name and address of the marketing authorization holder:**

Actavis Group hf, Reykjavikurvegi 76-78, 220 Hafnarfjörður, Iceland.

**Therapeutic indications:**

In the prophylaxis, therapy of pernicious anaemia and other conditions with vitamin B12 deficiency.

Examples of such conditions are:

Total gastrectomy, which is always accompanied by hypovitaminosis.

Vitamin B12 hypovitaminosis with macrocytic anaemia and/or neuropathy.

- After gastric resection.
- After ileocecal resection and proctocolectomy.
- In sprue and symptomatic steatorrhoea.
- In surgery after intestinal shunt for obesity.
- With inadequate nutrition, where the cause is malnutrition or unsuitable diet, particularly in the case of elderly people who often suffer from atrophic gastritis, and vegetarians whose diet is entirely lacking in animal protein.

**Active and inactive ingredients and their quantities:**

1ml (one ampoule) Betolvex solution for injection contains:

Cyanocobalamin-tannin complex equivalent to 1mg Cyanocobalamin, 20mg aluminum monostearate, sesame oil to make 1ml.

**A list of information:**
**1. Contraindications:**

Hypersensitivity to Cyanocobalamin (vitamin B12), cobalt or any other constituents of Betolvex. Cyanocobalamin should not be used in patients with early Leber's disease (hereditary optic nerve atrophy), since rapid optic nerve atrophy has been reported following administration of the drug to these patients. Vitamin B12 is contraindicated in patients who have experienced hypersensitivity reactions to the vitamin or to the cobalt. Cyanocobalamin is also contraindicated in tobacco-alcohol amblyopia and tropical ataxic neuropathy.

**2. Precautions:**

An intradermal test dose is recommended before vitamin B12 is administered to patients who may be sensitive to cobalamins. Serum potassium concentrations should be monitored during early vitamin B12 therapy and potassium administered if necessary, since fatal hypokalaemia could occur upon conversion of megaloblastic anaemia to normal erythropoiesis with vitamin B12 as a result of increased erythrocyte potassium requirements. The increase in nucleic acid degradation produced by administering vitamin B12 to vitamin B12-deficient patients could result in gout in susceptible individuals. See also section 5.5.

**3. Drug and food interactions:**

Concurrent administration of chloramphenicol and vitamin B12 reportedly may antagonise the haematopoietic response to vitamin B12 in vitamin B12-deficient patients. The haematologic response to vitamin B12 in patients receiving both drugs should be carefully monitored and alternate anti-infective should be considered.

Serum concentration of vitamin B12 may decrease when oral contraceptives are used concomitantly. The clinical relevance of the interaction is unclear.

**4. Special warnings:**
**4.1. In children:**

None.

**4.2. In pregnant women:**

In the recommended dosage, Betolvex is not harmful to the foetus or breastfed child.

**4.3. In breast feeding women:**

In the recommended dosage, Betolvex is not harmful to the foetus or breastfed child.

**4.4. In the elderly:**

None.

**4.5. Persons with specific pathological conditions:**

Therapeutic response to vitamin B12 may be impaired by concurrent infections, uraemia, folic acid or iron deficiency, or by drugs with bone marrow suppressant effects. Folic acid should be administered with caution to patients with undiagnosed anaemia, since folic acid may obscure the diagnosis of pernicious anaemia by alleviating haematologic manifestations of the disease while allowing neurologic complications to progress. This may result in severe nervous system damage before the correct diagnosis is made.

**4.6. Potential effects on the ability to drive and use machines:**

Cyanocobalamin does not affect the ability to drive and use machines.

**4.7. Details of excipients:**

None.

**4.8. Council of Arab Health Ministers warning**
**THIS IS MEDICATION**

- Medication 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 medication.
- The doctor and the pharmacist are the experts in medicines, their benefits and risks.
- Do not by yourself interrupt the period of treatment prescribed.
- Do not repeat the same prescription without consulting your doctor.
- Keep all medications out of reach of children.

Council of Arab Health Ministers, Union of Arab Pharmacists

**5. Instructions for proper use:**
**5.1. Dosage:**

Manifest neurological symptoms: Usually one intramuscular injection of 1ml of Betolvex daily during 1-2 weeks.

Other remission therapy and conditions where stores are presumed to be depleted (pernicious anaemia, gastrectomy): 1ml of Betolvex every week for 4 weeks.

Maintenance therapy and prophylaxis: 1ml of Betolvex every 3 months.

**5.2. The method and route of administration:**

Route of administration for Cyanocobalamin solution for injection is intramuscular. The suspension become less viscous if the vial is kept warm in the hand before injection.

**5.3. Duration of treatment:**

Individually, see point 5.1 above.

**5.4. Overdose:**

There is no risk of overdose and intoxication with Betolvex.

**5.5. Action to be taken when one or more doses have not been taken:**

None.

**5.6. Indication – the risk of withdrawal effect:**

None.

**6. Undesirable effects:**

Vitamin B12 is usually non-toxic even in large doses: however, mild transient diarrhoea, peripheral vascular thrombosis, itching, transitory exanthema, urticaria, feeling of swelling of the entire body, anaphylaxis, and death have been reported. Pulmonary oedema and congestive heart failure have been reported during early therapy with vitamin B12, possibly because of an increase in blood volume induced by the drug.

In rare cases (>1/10000, <1/1000):

Immune system disorders: Fever, anaphylaxis.

Skin and subcutaneous tissue disorder: Urticaria, exanthema, eczematoid rash. Allergic reactions including skin reactions and angioedema.

General disorders and administration site conditions: Local reaction on the site of injection.

**7. Reference to the expiry date:** 5 years.

**8. Storage conditions:** Store below 25°C, away from light.

**9. Warning against visible signs of deterioration:** Do not use the medicine if there are any visible signs of deterioration.

**10. Date of last revision of the insert:** April 2010