

For the use of a Registered Medical Practitioner or a Hospital or Laboratory only.

# DIMERCAPROL INJECTION IP

TM

**B.A.L.**

**COMPOSITION:**

Each ml contains :  
Dimercaprol IP 50 mg  
Benzyl Benzoate IP 9.6% v/v  
Arachis oil q.s.

**DESCRIPTION:**

Dimercaprol, also known as BAL in Oil, is classified as chelating agent of heavy metals and has a chemical formula  $C_{12}H_{16}O_4S_2$  and molecular weight is 124.22.

**CLINICAL PHARMACOLOGY:**

Certain heavy metals, especially arsenic, gold, lead, and mercury, form ligands in the body with the sulphydryl (-SH) groups of the pyruvate-oxidase enzyme system, and inhibit the normal functioning of the enzymes that are dependent on free sulphydryl groups for their activity. Dimercaprol, having a greater affinity for the metal than does the protein, reverses the enzyme inhibition by chelating the metal and preventing or reversing its toxic effects by regeneration of free sulphydryl groups. The resulting dimercaprol-metal complex is relatively stable and rapidly excreted.

In addition, in lead toxicity, dimercaprol causes a fast but short-lived reduction in lead concentrations in red blood cells and CNS, and effects a greater total lead excretion (urinary and fecal) than edetate calcium disodium because of its high fecal lead output. The addition of equimolar amounts of dimercaprol to edetate calcium disodium doubles the ratio of chelants to lead, thus providing the molar excess of chelating agent that is necessary for significant heavy metal excretion.

**PHARMACOKINETICS**

**Distribution:** All tissues, including the brain, but mainly in the intracellular space. The highest concentrations are in the liver and kidneys.

**Biotransformation:** About 50% rapidly metabolized to inactive metabolites.

**Onset of action:** 30 minutes.

**Time to peak concentration:** 30 to 60 minutes after intramuscular administration.

**Duration of action:** About 4 hours. Frequent doses at 3- to 4-hour intervals over prolonged periods are necessary to maintain therapeutic effect.

**Elimination:** 50% as the dimercaprol-metal complex, via the renal and biliary tracts; as metabolites, in the urine; metabolism and excretion are usually complete within 6 to 24 hours.

**THERAPEUTIC INDICATIONS**

Dimercaprol is indicated as a chelating agent in arsenic, gold, and mercury (soluble inorganic compounds) poisoning following ingestion, inhalation, or

absorption through the skin of these metals or their salts, or following overdose of therapeutic agents containing the metals.

Also useful in hepatolenticular degeneration (Wilson's disease).

**DOSAGE AND ADMINISTRATION**

**Adult :** Usually 100 mg every 4 hours for 48 hours, then 100 mg 8 hourly for 8 10 days.

**Wilson's disease :** 300 mg daily for 10 days every 2<sup>nd</sup> month for long period.

**Mild poisons :** 2.5 mg/kg 4 times daily for 2 days. As glow item 2 times daily on 3<sup>rd</sup> day and once daily.

**Serious poisoning :** 3 mg/kg/day till 10 days.

**Mercury poisoning :** 5 mg/kg followed by 2.5 mg for 15 days.

**Lead poisoning :** 4 mg/kg

**Children :** 12 - 24 mg/kg/day div. Every 4 hours via IM injection. Dose depends on severity of intoxication.

**CONTRAINDICATIONS:**

Iron, cadmium, silver, uranium, or selenium poisoning. Hepatic or renal insufficiency except postarsenical jaundice.

**WARNINGS & PRECAUTIONS :**

Dimercaprol injection should not be used in patients who are allergic to peanuts or peanut products.

**Pregnancy :** Use during pregnancy only if poisoning is life-threatening.

**Breast-feeding :** It is not known whether dimercaprol is distributed into breast milk.

**Pediatrics :** Fever, which appears after the second or third dose of dimercaprol, persists throughout therapy, and disappears upon withdrawal of therapy, is more likely to occur in children than in adults.

**ADVERSE EFFECTS:**

Increased blood pressure, tachycardia, burning sensation in lips, mouth and throat. Nausea, vomiting, sweating, pain in chest, throat or hands. Painful sterile abscess at site of injection. Haemolytic anemia in patients with G6PD enzyme deficiency. Hypertension, tachycardia, salivation, lachrymation, conjunctivitis.

**OVERDOSE:**

**Symptoms:** Doses exceeding 5 mg/kg usually result in vomiting, convulsions, and stupor.

**Treatment:** Reduce dose; symptoms usually subside within 6 hr.

**DRUG INTERACTIONS:**

Dimercaprol may increase the toxicity of cadmium, iron, selenium, or uranium salts.

**STORAGE:**

Store protected from light. Do not freeze.

**PRESENTATION:**

2 ampoules of 2 ml each in a box.



Manufactured by :

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