# EDTA INJECTION 150MG/ML (VIAL)

**DESCRIPTION:** **EDTA INJECTION 150 MG/ML (VIAL)**: A clear, aqueous, colourlesss sterile solution.

**COMPOSITION:** Each ml contains Edetate Disodium Hydrous 166 mg (equivalent to 150 mg Edetate Disodium Anhydrous USP).

**PHARMACODYNAMICS:** Edetate Disodium forms chelates with the cations of the calcium and many divalent and trivalent metals. Because of its affinity for calcium, edetate disodium will produce a lowering of the serum calcium level during intravenous infusion.
***Hypercalcemia*** – Edetate Disodium forms soluble complexes with calcium in the blood, which are filtered by the glomeruli and not reabsorbed by the renal tubules. Chelation with calcium produces a lowering of serum concentrations and a mobilization of extracirculatory calcium stores, especially from bone, during slow intravenous infusion. Theoretically, 1 gram of edetate disodium will chelate 120 mg of calcium. Hypocalcemic tetany, seizures, severe cardiac arrhythmias, and respiratory arrest may occur with the rapid decrease in serum calcium concentration. However, the mobilization of calcium from bone may lessen the risk of hypocalcemia. Calcium ion concentrations in cerebrospinal fluid are not affected by edetate disodium.
***Digitalis Toxicity*** – Edetate disodium exerts a negative inotropic effect on the heart. The chronotopic and inotropic effects of digitalis glycosides on the ventricles of the heart are transiently antagonized by the hypocalcemia induced by edetate disodium.
Edetate disodium also forms chelates with and increases urinary excretion of other polyvalent metals, such as magnesium, zinc, and other trace elements.
Although edetate disodium does not form a chelate with potassium, the serum concentration of potassium may be decreased and the urinary excretion of potassium increased.

**PHARMACOKINETICS:** Rapidly excreted by kidneys, principally as the calcium chelate; 95% of a dose appears in the urine within 24 hours; changes in the urine flow and pH do not affect the rate of excretion of the chelate.

**INDICATION:** Edetate disodium is indicated in selected patients for the emergency treatment of acute hypercalcemia, but is recommended only when severity of the clinical condition (as when there has been a judgement of imminent death from hypercalcemic crisis) justifies the aggressive measures associated with this therapy. Indicated for the control of ventricular arrhythmias associated with digitalis toxicity.

**RECOMMENDED DOSAGE:** **Preparation of dosage form:**
***Adult use*** – The calculated dose is dissolved in 500 ml of 5% Dextrose Injection or Sodium Chloride Injection.
***Pediatric use*** – The calculated dose is dissolved in a sufficient volume of 5% Dextrose Injection or Sodium Chloride Injection to make a final concentration of not more than 3% (30 mg per mL)
**Edetate Disodium Injection USP.**
***Usual adult dose***: ***Hypercalcemia, or digitalis toxicity*** – Intravenous, 50 mg per kg of body weight in 24 hours. The dosage may be repeated for 4 more consecutive daily doses followed by a 2 day drug-free interval, with repeated courses, as necessary, up to 15 doses.
***Usual adult prescribing limits***: 3 grams in 24 hours.
***Usual pediatric dose***: ***Hypercalcemia, or Digitalis toxicity*** – Intravenous, 40 mg per kg of body weight in 24 hours.
Note: The pediatric dose may go as high as 70 mg per kg in 24 hours.
The intravenous infusion should be regulated so that three or more hours are required for completion and the cardiac reserve of the patient is not exceeded.

**ROUTE OF ADMINISTRATION:** For intravenous use only.

**CONTRAINDICATIONS:** Edetate disodium injection is contraindicated in anuric patients. It is not indicated for the treatment of generalized arteriosclerosis associated with advancing age. Contraindicated in those persons who have shown hypersensitivity to any component of this preparation.

**WARNINGS & PRECAUTIONS:** After the infusion of Edetate Disodium Injection, the patient should remain in bed for a short time because of the possibility of postural hypotension.
The possibility of an adverse effect on myocardial contractility should be considered when administering the drug to patients with heart disease. Caution is dictated in the use of this drug in patients with limited cardiac reserve or incipient congestive failure.
Edetate Disodium Injection therapy should be used with caution in patients with clinical or subclinical potassium deficiency states. In such cases, it is advisable to perform serum potassium blood levels for possible hypokalemia and to monitor ECG changes.
The possibility of hypomagnesemia should be kept in mind during prolonged therapy.
Treatment with edetate disodium has been shown to cause a lowering of blood sugar and insulin requirements in patients with diabetes who are treated with insulin.
**WARNINGS**: See WARNING statement.
Rapid intravenous infusion or attainment of high serum concentrations of edetate disodium may cause a precipitous drop in serum calcium level and may result in fatality. Toxicity appears to be dependent upon both total dosage and speed of administration. The rate of administration and dosage should not exceed that indicated in DOSAGE and ADMINISTRATION.
Because of its irritant effect on the tissues and because of the danger of serious side effects if administered in the undiluted form, Edetate Disodium Injection should be diluted before infusion.

**WARNING**
The use of this drug in any particular patient is recommended only when the severity of the clinical condition justifies the aggressive measures associated with this type of therapy.

**INTERACTION WITH OTHER MEDICAMENTS:**
**Laboratory test**: Renal excretory function should be assessed prior to treatment. Periodic BUN and creatinine determinations and daily urinalysis should be performed on patients receiving this drug.
Because of the possibility of inducing an electrolyte imbalance during treatment with edetate disodium, appropriate laboratory determinations and studies to evaluate the status of cardiac function should be performed. Repetition of these tests is recommended as often as clinically indicated, particularly in patients with ventricular arrhythmia and those with a history of seizure disorders or intracranial lesions. If clinical evidence suggests any disturbance of liver function during treatment, appropriate laboratory determinations should be performed and withdrawal of the drug may be required,
**Drug / Laboratory Test Interactions**: The oxalate method of determining serum calcium tends to give low readings in the presence of edetate disodium; modification of this method, as by acidifying the sample or use of a different method may be required for accuracy. The least interference will be noted immediately before subsequent dose is administered. Edetate Disodium has similar precautions to sodium calciumedetate. Edetate disodium should be used with caution, if at all, in patients with impaired renal function. Daily urinalysis to monitor proteinuria and haematuria and regular monitoring of renal function has been recommended.
Edetate Disodium can chelate with several endogenous metals, including zinc, and may increase their excretion.
***Pediatrics***: No information is available on the relationship of age to the effects of edetate disodium in pediatric patients.
***Geriatrics:*** No information is available on the relationship of age to the effects of edetate disodium in geriatric patients.
**Digitalis glycosides**: Sudden drop in serum calcium concentrations induced by edetate disodium may reverse effects of digitalis.
**Insulin**: Concurrent use may require adjustments in dosage of insulin due to decreased serum glucose and possible chelation of zinc in insulin.

**USE IN PREGNANCY & LACTATION:**
**Use in Pregnancy:** Edetate disodium crosses the placenta. Adequate and well-controlled studies in humans have not been done.
It is also not known whether Edetate Disodium Injection can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Edetate Disodium


**[Revision Date: 26.09.2019]**

Injection should be given to a pregnant woman only if clearly needed.
**Use in Lactation:** Problems in humans have not been documented. The safety of this product in nursing mothers has not been established.

**SIDE EFFECTS:** Edetate disodium has similar adverse effects to sodium calcium edetate. Edetate disodium is nephrotoxic and may cause renal tubular necrosis. Nausea and cramp may also occur.Thrombophlebitis has followed intravenous infusion and may be related to the concentration of the injection. Pain at the intramuscular injection site has been reported. Other side effects that have been reported include fever, malaise, headache, myalgia, histamine-like responses, such as sneezing, nasal congestion, and lachrymation, skin eruptions, transient hypotension, and ECG abnormalities.
Hypocalcemia can occur if disodium is administered by intravenous infusion too rapidly or in too concentrated a solution and tetany, convulsions, respiratory arrest, and cardiac arrhythmias may result.
Gastrointestinal symptoms such as nausea, vomiting and diarrhea are fairly common following administration of this drug. Transient symptoms such as circumoral paresthesia, numbness and headache, and a transient drop in systolic and diastolic blood pressure may occur. Thrombophlebitis, febrile reactions, hyperuricemia, anemia, exfoliative dermatitis and other toxic skin and mucous membrane reactions have been reported.
Nephrotoxicity and damage to the reticuloendothelial system with hemorrhagic tendencies have been reported with excessive dosages.

**SYMPTOMS AND TREATMENT OF OVERDOSE:** Because of the possibility that Edetate disodium injection may produce a precipitous drop in the serum calcium level, a source of calciumreplacement suitable for intravenous administration (such as calcium gluconate) should be instantly available at the bedside before edetate disodium is administered. Extreme caution is dictated in the use of intravenous calcium in the treatment of tetany, especially in digitalized patients because the action of the drug and the replacement of calcium ions may produce a reversal of the desired digitalis effect.

**INCOMPATIBILITIES:** Drug Interactions: Additives may be incompatible with the reconstituted (diluted) solution required for intravenous infusion. Consult with pharmacist, if available. When introducing additives, use aseptic technique, mix thoroughly and do not store.

**STORAGE CONDITIONS:** Store below 30˚C. Avoid excessive heat. Protect from freezing. Use only if clear. Contains no bacteriostat. Discard unused portion after first withdrawal. Keep out of reach of children. *Jauhkan daripada kanak-kanak.*

**SHELF LIFE:**
Please refer to outer package.

**PACK SIZE:**
Pack in a box of 25 × 20ml vial

**PRODUCT REGISTRATION HOLDER & MANUFACTURER:**
DUOPHARMA (M) SDN BHD
Lot 2599, Jalan Seruling 59 Kawasan 3,
Taman Klang Jaya, 41200 Klang, Selangor, MALAYSIA.