

# Hypen® Plus

Indapamide USP + Perindopril Erbumine BP

**Description:** Hypen® Plus is a combination product containing Indapamide, a thiazide-type diuretic, and Perindopril, an ACE inhibitor.

**Mode of Action:** Indapamide inhibits the reabsorption of sodium and water in the distal convoluted tubules by inhibiting  $\text{Na}^+/\text{Cl}^-$  co-transporter and helps to lower blood pressure. Perindopril lowers blood pressure by inhibiting the conversion of angiotensin I to angiotensin II which reduces the activity of the sympathetic nervous system.

**Pharmacokinetics:**

**Absorption:** Perindopril is rapidly absorbed in the gastrointestinal tract with a bioavailability of 24%. Absorption of Indapamide from the gastrointestinal tract is rapid (within 0.5 to 1 hour after an oral dose).

**Distribution:** Peak plasma concentrations of Perindopril occur 3 to 4 hours after oral administration. The protein binding of Perindopril is 30%. Indapamide is widely distributed throughout the body, with extensive binding to some specific sites. It is relatively highly bound to plasma proteins (79%). The apparent volume of distribution is approximately 60 L and 40% of the dose is located in the blood one hour after administration.

**Metabolism and Elimination:** Perindopril rapidly metabolized in the liver to perindoprilat, its active metabolite, following oral administration. The half-life of Perindopril is approximately 17 hours. Indapamide is extensively metabolized in the liver, mainly by CYP2C9 and CYP3A4 isozymes and by cytosolic hydrolysis enzymes. Indapamide is eliminated through urine and feces.

**Composition:** Hypen® Plus 2 Tablet: Each film-coated tablet contains Indapamide USP 0.625 mg and Perindopril Erbumine BP 2 mg.

**Hypen® Plus 4 Tablet:** Each film-coated tablet contains Indapamide USP 1.25 mg and Perindopril Erbumine BP 4 mg.

**Indications:** Hypen® Plus is indicated for the treatment of hypertension alone or with other antihypertensive agents.

**Dosage & Administration:** Hypen® Plus 2 tablet per day as a single dose, preferably to be taken in the morning before a meal. In cases of uncontrolled blood pressure, the dose may be doubled to two tablets of Hypen® Plus 2 or one tablet of Hypen® Plus 4.

**Contraindications:** Hypersensitivity to Indapamide or Perindopril Erbumine.

**Side effects:** Asthenia, dizziness, headache, joint pain, dyspepsia, nausea, vomiting, bronchitis, rhinopharyngitis, mood swings and/or sleep disturbances, cramps, hypotension, allergic reactions, skin rashes, gastrointestinal disorders, dry cough, dry mouth, risk of dehydration in the elderly and in patients suffering from heart failure; changes in blood test results may occur.

**Use in pregnancy & lactation:** ACE inhibitors should not be used during pregnancy. Animal studies have shown that perindopril and its metabolites are excreted in milk during lactation, but there are no human data. It is not known whether indapamide is excreted in breast milk.

**Precautions:** Indapamide and Perindopril should be used with caution in electrolyte imbalance, gout, hypotension, heart or renal failure, and renal artery stenosis.

**Drug interactions:** Should not use with lithium, potassium-sparing diuretics, potassium (salts), antiarrhythmic drugs which cause torsade de pointes, anesthetic drugs, cytostatic or immunosuppressive agents.

**Overdosage:** The most likely adverse event in cases of overdose is hypotension, with the possibility of nausea, vomiting, cramps, dizziness, sleepiness, mental confusion, polyuria, or oliguria which may progress to anuria (due to hypovolemia). Salt and water disturbances (low sodium levels, low potassium levels) may occur.

**Storage:** Keep out of reach of children. Store in a dry place, below 30°C temperature, and protected from light.

**Packaging:** Hypen® Plus 2 Tablet: Each carton contains 14X3 tablets in blister pack.

Hypen® Plus 4 Tablet: Each carton contains 14X2 tablets in blister pack.