**Panto-Denk 40**

Gastro-resistant tablet – oral use
Proton pump inhibitor
Active substance: pantoprazole

**Package leaflet: Information for the patient**

**Read all of this leaflet carefully before you start taking this medicine because it contains important information for you.**
- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

**What is in this leaflet**


## 1. What Panto-Denk 40 is and what it is used for

Panto-Denk 40 contains the active substance pantoprazole. Panto-Denk 40 is a selective "proton pump inhibitor", a medicine which reduces the amount of acid produced in your stomach. It is used for treating acid-related diseases of the stomach and intestine.

**Panto-Denk 40 is used to treat adults and adolescents aged 12 years and older for**
- reflux oesophagitis. An inflammation of the oesophagus accompanied by the regurgitation of stomach acid.

**Panto-Denk 40 is used to treat adults for**
- an infection with a bacterium called *Helicobacter pylori* in patients with duodenal ulcers and stomach ulcers in combination with two antibiotics (eradication therapy). The aim is to get rid of the bacteria and so reduce the likelihood of these ulcers returning.
- stomach and duodenal ulcers
- Zollinger-Ellison-Syndrome and other conditions producing too much acid in the stomach.

## 2. What you need to know before you take Panto-Denk 40

**Do not take Panto-Denk 40**
- if you are allergic to pantoprazole, soya, peanuts or any of the other ingredients of this medicine (listed in section 6)
- if you are allergic to medicines containing other proton pump inhibitors.

**Warnings and precautions**
Talk to your doctor or pharmacist before taking Panto-Denk 40:

- If you have severe liver problems. Please tell your doctor if you have ever had problems with your liver. He will check your liver enzymes more frequently, especially when you are taking Panto-Denk 40 as a long-term treatment. In the case of a rise of liver enzymes the treatment should be stopped.
- If you have reduced body stores or risk factors for reduced vitamin $B_{12}$ and receive long-term treatment with pantoprazole. As with all acid reducing agents, pantoprazole may lead to a reduced absorption of vitamin $B_{12}$.
- If you are taking HIV protease inhibitors such as atazanavir (for the treatment of HIV-infection) at the same time as pantoprazole, ask your doctor for specific advice.
- Taking a proton pump inhibitor like pantoprazole, especially over a period of more than one year, may slightly increase your risk of fracture in the hip, wrist or spine. Tell your doctor if you have osteoporosis or if you are taking corticosteroids (which can increase the risk of osteoporosis).
- If you are on pantoprazole for more than three months it is possible that the levels of magnesium in your blood may fall. Low levels of magnesium can be seen as fatigue, involuntary muscle contractions, disorientation, convulsions, dizziness or increased heart rate. If you get any of these symptoms, please tell your doctor promptly. Low levels of magnesium can also lead to a reduction in potassium or calcium levels in the blood. Your doctor may decide to perform regular blood tests to monitor your levels of magnesium.
- If you have ever had a skin reaction after treatment with a medicine similar to Panto-Denk 40 that reduces stomach acid.
  If you get a rash on your skin, especially in areas exposed to the sun tell your doctor as soon as you can, as you may need to stop your treatment with Panto-Denk 40. Remember to also mention any other ill-effects like pain in your joints.
- If you are due to have a specific blood test (Chromogranin A).

**Tell your doctor immediately**, before or after taking this medicine, if you notice any of the following symptoms, which could be a sign of another, more serious, disease:
- an unintentional loss of weight
- vomiting, particularly if repeated
- vomiting blood, this may appear as dark coffee grounds in your vomit
- blood in your stools; which may be black or tarry in appearance
- difficulty in swallowing or pain when swallowing
- you look pale and feel weak (anaemia)
- chest pain
- stomach pain
- severe and/or persistent diarrhoea, because this medicine has been associated with a small increase in infectious diarrhoea.

Your doctor may decide that you need some tests to rule out malignant disease because pantoprazole also alleviates the symptoms of cancer and could cause delay in diagnosing it. If your symptoms continue in spite of your treatment, further investigations will be considered.

If you take Panto-Denk 40 on a long-term basis (longer than 1 year) your doctor will probably keep you under regular surveillance. You should report any new and exceptional symptoms and circumstances whenever you see your doctor.

**Children and adolescents**
Panto-Denk 40 is not recommended for use in children as it has not been proven to work in children below 12 years of age.

**Other medicines and Panto-Denk 40**
Tell your doctor or pharmacist if you are taking, have recently taken or might take any other medicines, including medicines obtained without a prescription.

This is because Panto-Denk 40 may influence the effectiveness of other medicines, so tell your doctor if you are taking:

- medicines such as ketoconazole, itraconazole and posaconazole (used to treat fungal infections) or erlotinib (used for certain types of cancer) because Panto-Denk 40 may stop these and other medicines from working properly
- warfarin and phenprocoumon, which affect the thickening, or thinning of the blood. You may need further checks.
- medicines used to treat HIV-infection, such as atazanavir
- methotrexate (used to treat rheumatoid arthritis, psoriasis, and cancer). If you are taking methotrexate your doctor may temporarily stop your treatment with Panto-Denk 40 because pantoprazole can increase levels of methotrexate in the blood.
- fluvoxamine (used to treat depression and other psychiatric diseases). If you are taking fluvoxamine your doctor may reduce the dose.
- rifampicin (used to treat infections)
- St John's wort (*Hypericum perforatum*) (used to treat mild depression).

**Pregnancy and breast-feeding**
There are no adequate data from the use of pantoprazole in pregnant women. Excretion into human milk has been reported.

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor or pharmacist for advice before taking this medicine.
You should use this medicine, only if your doctor considers the benefit for you greater than the potential risk for your unborn child or baby.

**Driving and using machines**
Panto-Denk 40 has no or negligible influence on the ability to drive and use machines.
If you experience side effects like dizziness or disturbed vision, you should not drive or operate machines.

**Panto-Denk 40 contains maltitol**
If you have been told by your doctor that you have an intolerance to some sugars, contact your doctor before taking this medicinal product.

**Panto-Denk 40 contains sodium**
This medicine contains less than 1 mmol sodium (23 mg) per tablet, that is to say essentially 'sodium-free'.

## 3. How to take Panto-Denk 40

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

**Method of administration**
Take the tablets 1 hour before a meal without chewing or breaking them and swallow them whole with some water.

**The recommended dose is:**

<u>Adults and adolescents aged 12 years and older</u>
*For the treatment of reflux oesophagitis*
The usual dose is one tablet a day. Your doctor may tell you to increase to 2 tablets daily. The treatment period for reflux oesophagitis is usually between 4 and 8 weeks. Your doctor will tell you how long to take your medicine.

Adults
*For the treatment of an infection with a bacterium called Helicobacter pylori in patients with duodenal ulcers and stomach ulcers in combination with two antibiotics (eradication therapy)*
One tablet, two times a day plus two antibiotic tablets of either amoxicillin, clarithromycin and metronidazole (or tinidazole), each to be taken two times a day with your pantoprazole tablets. Take the first pantoprazole tablet 1 hour before breakfast and the second pantoprazole tablet 1 hour before your evening meal. Follow your doctor's instructions and make sure you read the package leaflets for these antibiotics.
The usual treatment period is one to two weeks.

*For the treatment of stomach and duodenal ulcers*
The usual dose is one tablet a day. After consultation with your doctor, the dose may be doubled. Your doctor will tell you how long to take your medicine. The treatment period for stomach ulcers is usually between 4 and 8 weeks. The treatment period for duodenal ulcers is usually between 2 and 4 weeks.

*For the long-term treatment of Zollinger-Ellison-Syndrome and of other conditions producing too much acid in the stomach*
The recommended starting dose is usually two tablets a day.
Take the two tablets 1 hour before a meal. Your doctor may later adjust the dose, depending on the amount of stomach acid you produce. If prescribed more than two tablets a day, the tablets should be taken twice daily.
If your doctor prescribes a daily dose of more than four tablets a day, you will be told exactly when to stop taking the medicine.

Patients with kidney problems
If you have kidney problems, you should not take Panto-Denk 40 for eradication of *Helicobacter pylori*.

Patients with liver problems
If you suffer from moderate or severe liver problems, you should not take Panto-Denk 40 for eradication of *Helicobacter pylori*.

**Use in children and adolescents**
These tablets are not recommended for use in children below 12 years.

**If you take more Panto-Denk 40 than you should**
Tell your doctor or pharmacist. There are no known symptoms of overdose.

**If you forget to take Panto-Denk 40**
Do not take a double dose to make up for a forgotten dose. Take your next normal dose at the usual time.

**If you stop taking Panto-Denk 40**
Do not stop taking these tablets without first talking to your doctor or pharmacist.

If you have any further questions on the use of this medicine, ask your doctor or pharmacist.

## 4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them.

**If you get any of the following side effects, stop taking these tablets and tell your doctor immediately, or contact the casualty department at your nearest hospital:**

Serious allergic reactions (frequency rare: may affect up to 1 in 1,000 people):
Swelling of the tongue and/or throat, difficulty in swallowing, hives (nettle rash), difficulties in breathing, allergic facial swelling (Quincke's oedema/angioedema), severe dizziness with very fast heartbeat and heavy sweating.

Serious skin conditions (frequency not known: frequency cannot be estimated from the available data):
Blistering of the skin and rapid deterioration of your general condition, erosion (including slight bleeding) of eyes, nose, mouth/lips or genitals (Stevens-Johnson-Syndrome, Lyell-Syndrome, Erythema multiforme), and sensitivity to light.

Other serious conditions (frequency not known: frequency cannot be estimated from the available data):
Yellowing of the skin or whites of the eyes (severe damage to liver cells, jaundice) or fever, rash, and enlarged kidneys sometimes with painful urination, and lower back pain (serious inflammation of the kidneys), possibly leading to kidney failure.

**Other side effects are:**

Common (may affect up to 1 in 10 people)
Benign polyps in the stomach.

Uncommon (may affect up to 1 in 100 people)
Headache, dizziness, diarrhoea, feeling sick, vomiting, bloating and flatulence (wind), constipation, dry mouth, abdominal pain and discomfort, skin rash, exanthema, eruption, itching, feeling weak, exhausted or generally unwell, sleep disorders, fracture in the hip, wrist or spine.

Rare (may affect up to 1 in 1,000 people)
Distortion or complete lack of the sense of taste, disturbances in vision such as blurred vision, hives, pain in the joints, muscle pains, weight changes, raised body temperature, high fever, swelling of the extremities (peripheral oedema), allergic reactions, depression, breast enlargement in males.

Very Rare (may affect up to 1 in 10,000 people)
Disorientation.
Very rarely, lecithin from soya beans may cause allergic reactions.

Not known (frequency cannot be estimated from the available data)
Hallucination, confusion (especially in patients with a history of these symptoms), decreased sodium level in blood, decreased magnesium level in blood (see section 2), feeling of tingling, prickling, pins and needles, burning sensation or numbness, rash, possibly with pain in the joints, inflammation in the large bowel, that causes persistent watery diarrhea.

**Side effects identified through blood tests:**

Uncommon (may affect up to 1 in 100 people)
Increase in liver enzymes.

Rare (may affect up to 1 in 1,000 people)
Increase in bilirubin, increased fat levels in blood, sharp drop in circulating granular white blood cells, associated with high fever.

Very Rare (may affect up to 1 in 10,000 people)
A reduction in the number of blood platelets, which may cause you to bleed or bruise more than normal; a reduction in the number of white blood cells, which may lead to more frequent infections; coexisting abnormal reduction in the number of red and white blood cells, as well as platelets.

**Reporting of side effects**

If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet.
By reporting side effects you can help provide more information on the safety of this medicine.

## 5. How to store Panto-Denk 40

Keep this medicine out of the sight and reach of children.

Do not use this medicine after the expiry date which is stated on the carton and blister strip after "Exp.". The expiry date refers to the last day of that month.

Shelf life: 3 years
Store below 30°C.

Do not throw away any medicines via wastewater. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

## 6. Contents of the pack and other information

**Pharmacodynamic properties**
Pharmacotherapeutic group: proton pump inhibitor, ATC code: A02BC02

Pantoprazole is a substituted benzimidazole which inhibits gastric acid secretion by specifically reacting with the proton pumps of parietal cells.
Pantoprazole is converted to its active form in the acid compartment of parietal cells, where it inhibits $H^+/K^+$-ATPase, i.e. the final stage of acid production in the stomach. Inhibition is dose-dependent and acts on both basal and stimulated gastric acid secretion. In most patients, symptomatic relief is achieved within 2 weeks. As with other proton pump inhibitors and H2-receptor blockers, gastric acid is reduced by treatment with pantoprazole, leading to a rise in gastrin levels in proportion to acid reduction. The rise in gastrin levels is reversible. As pantoprazole binds to the enzyme distal to the receptor level, it can influence acid secretion irrespectively of stimulation by other substances (acetylcholine, histamine, gastrin). The effect is the same, regardless of whether the medicinal product is administered orally or intravenously.
Fasting levels of gastrin rise during pantoprazole treatment. On short-term use, they do not usually exceed the upper threshold value. In long-term treatment, gastrin levels double in most cases. However, an excessive rise occurs only in isolated cases. As a result, a mild to moderate increase in specific endocrine cells (ECL cells) in the stomach is observed (simple to adenomatous hyperplasia) in a small number of long-term treatments. However, based on the studies conducted to date, the development of carcinoid precursors (atypical hyperplasia) or gastric carcinoids can be ruled out in humans.
Based on data from animal studies, effects on endocrine thyroid and liver enzyme parameters cannot be excluded in long-term treatment with pantoprazole beyond one year.

**Pharmacokinetic properties**
Pantoprazole is rapidly absorbed. Full active substance levels are achieved even after single oral administration of 40 mg pantoprazole. On average, the peak serum concentration of approximately 2 - 3 µg/ml is reached within about 2.5 hours post-dose and remains constant even after multiple administration.
The pharmacokinetic characteristics after single and repeated administration do not differ. Within the dose range of 10–80 mg, pantoprazole has virtually linear kinetics both after oral and intravenous administration.
For the absolute bioavailability of the tablet, values of around 77% were found. No effect on AUC, peak serum concentration and hence bioavailability was found from concomitantly ingested food. Only the variability of the lag-time will be increased by concomitant food intake.

The serum protein binding of pantoprazole is around 98%.The volume of distribution is approximately 0.15 l/kg.
Pantoprazole is almost exclusively degraded in the liver. The main metabolic pathway is demethylation by CYP2C19 with subsequent sulphate conjugation, other metabolic pathway include oxidation by CYP3A4. The terminal elimination half-life is about 1 hour and clearance is about 0.1 l/h/kg. In a few cases, subjects with delayed elimination have been observed. Due to the specific activation of pantoprazole in the parietal cell, the elimination half-life does not correlate to the much longer duration of action (inhibition of acid secretion).
Most of the metabolites (about 80%) are renally excreted, with the remainder via the faeces. In both serum and urine, the main metabolite is desmethyl pantoprazole, which is conjugated with sulphate. The half-life of the main metabolite (about 1.5 h) is only negligibly longer than that of pantoprazole.

**What Panto-Denk 40 contains**

- The active substance is pantoprazole. Each gastro-resistant tablet contains 40 mg pantoprazole, equivalent to 45.15 mg pantoprazole sodium sesquihydrate.
- The other ingredients are maltitol, crospovidone, carmellose sodium, sodium carbonate, calcium stearate, poly(vinyl alcohol), talc, titanium dioxide, macrogol 3350, lecithin from soya beans, iron oxide yellow, methacrylic acid-ethyl acrylate copolymer (1:1), triethyl citrate.

**General classification for supply**
Medicinal product subject to medical prescription

**What Panto-Denk 40 looks like and contents of the pack**
Panto-Denk 40 are yellow, oval, gastro-resistant tablets.

Panto-Denk 40 is available in aluminium/aluminium blisters.

Pack size: 28 gastro-resistant tablets

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