



## Rx Prescription only

# Fenostad 100

- Name of the medicinal product**  
Fenostad 100
- Special notice and recommendation**  
Keep out of reach of children  
Read the package insert carefully before use
- Qualitative and quantitative composition**  
*Active ingredient:*  
Fenofibrate 100 mg (as fenofibrate pellets 66.0%.....151.52 mg)

- Pharmaceutical form**  
Hard gelatin capsule.  
Hard gelatin capsule size No.3 with light brown cap and white body, containing white to off-white spherical pellets.

- Indications**  
Fenostad 100 is indicated as an adjunct to diet and other non-pharmacological treatment (e.g. exercise, weight reduction) for the following:  
- Treatment of severe hypertriglyceridaemia with or without low HDL cholesterol.  
- Mixed hyperlipidaemia when a statin is contraindicated or not tolerated.  
- Mixed hyperlipidaemia in patients at high cardiovascular risk in addition to a statin when triglycerides and HDL-cholesterol are not adequately controlled.

- Administration and dosage**  
Dietary measures initiated before therapy should be continued. Response to therapy should be monitored by determination of serum lipid values. If an adequate response has not been achieved after several months (e.g. 3 months), complementary or different therapeutic measures should be considered.  
**Administration**  
Fenostad 100 should be swallowed whole during a meal.  
**Dosage**  
The recommended dose is 200 mg daily administered as 1 capsule of Fenostad 67 TID or 1 capsule of Fenostad 100 BID.  
The dose can be titrated up to 267 mg daily administered as 1 capsule of Fenostad 67 QID, if required. This maximum dose is not recommended in addition to a statin.  
**Special populations**  
*Elderly patients (> 65 years old)*  
No dose adjustment is necessary. The usual dose is recommended, except for decreased renal function with estimated glomerular filtration rate (eGFR) < 60 mL/min/1.73 m<sup>2</sup>.

- Renal impairment**  
Fenofibrate should not be used if severe renal impairment, defined as: eGFR < 30 mL/min per 1.73 m<sup>2</sup>, is present. If eGFR is between 30 and 59 mL/min per 1.73 m<sup>2</sup>, the dose of fenofibrate should not exceed 100 mg standard or 67 mg micronized once daily. If, during follow-up, the eGFR decreases persistently to < 30 mL/min per 1.73 m<sup>2</sup>, fenofibrate should be discontinued.

- Hepatic impairment**  
Fenostad 100 is not recommended for use in patients with hepatic impairment due to the lack of data.  
**Paediatric population**  
In children, the recommended dose is one capsule / (67 mg) micronised fenofibrate/day/20 kg body weight.

- Contraindications**  
Hypersensitivity to fenofibrate or to any of the excipients.  
Hepatic insufficiency (including biliary cirrhosis and unexplained persistent liver function abnormality).  
Known gallbladder disease.  
Severe renal insufficiency (estimated glomerular filtration rate < 30 mL/min/1.73 m<sup>2</sup>).  
Chronic or acute pancreatitis with the exception of acute pancreatitis due to severe hypertriglyceridaemia.

- Special warnings and precautions for use**  
**Secondary causes of hyperlipidemia**  
Secondary causes of hyperlipidemia, such as uncontrolled type 2 diabetes mellitus, hypothyroidism, nephrotic syndrome, dysproteinemia, obstructive liver disease, pharmacological treatment, alcoholism, should be adequately treated before fenofibrate therapy is considered. Secondary causes of hypercholesterolemia related to pharmacological treatment can be seen with diuretics, β-blocking agents, estrogens, progestogens, combined oral contraceptives, immunosuppressive agents and protease inhibitors. In these cases it should be ascertained whether the hyperlipidaemia is of primary or secondary nature (possible elevation of lipid values caused by these therapeutic agents).

- Liver function**  
As with other lipid lowering agents, increases have been reported in transaminase levels in some patients. In the majority of cases these elevations were transient, minor and asymptomatic. It is recommended that transaminase levels are monitored every 3 months during the first 12 months of treatment and thereafter periodically. Attention should be paid to patients who develop increase in transaminase levels and therapy should be discontinued if AST (SGOT) and ALT (SGPT) levels increase to more than 3 times the upper limit of the normal range. When symptoms indicative of hepatitis occur (e.g. jaundice, pruritus), and diagnosis is confirmed by laboratory testing, fenofibrate therapy should be discontinued.  
**Pancreas**  
Pancreatitis has been reported in patients taking fenofibrate. This occurrence may represent a failure of efficacy in patients with severe hypertriglyceridaemia, a direct drug effect, or a secondary phenomenon mediated through biliary tract stone or sludge formation with obstruction of the common bile duct.

- Muscle toxicity, including rare cases of rhabdomyolysis, with or without renal failure,** has been reported with administration of fibrates and other lipid-lowering agents. The incidence of this disorder increases in cases of hypalbuminaemia and previous renal insufficiency. Patients with pre-disposing factors for myopathy and/or rhabdomyolysis, including age above 70 years, personal or familial history of hereditary muscular disorders, renal impairment, hypothyroidism and high alcohol intake, may be at an increased risk of developing rhabdomyolysis. For these patients, the putative benefits and risks of fenofibrate therapy should be carefully weighed up.

- Muscle toxicity should be suspected in patients presenting diffuse myalgia, myositis or rhabdomyolysis with or without creatine phosphokinase (CPK) increases.** Muscular cramps and weakness and/or marked increases in creatine phosphokinase (CPK) (levels exceeding 5 times the normal range). In such cases treatment with fenofibrate should be stopped.

- Renal function**  
Fenostad 100 are contraindicated in severe renal impairment.  
Fenostad 100 should be used with caution in patients with mild to moderate renal insufficiency. Dose should be adjusted in patients whose estimated glomerular filtration rate is 30 to 59 mL/min/1.73 m<sup>2</sup>.

- Reversible elevations in serum creatinine have been reported in patients receiving fenofibrate monotherapy or co-administered with statins.** Elevations in serum creatinine were generally stable over time with no evidence for continued increases in serum creatinine with long term therapy and tended to return to baseline following discontinuation of treatment.  
During clinical trials, 10% of patients had a creatinine increase from baseline greater than 30 μmol/L with co-administered fenofibrate and simvastatin versus 4.4% with statin monotherapy. 0.3% of patients receiving co-administration had clinically relevant increases in creatinine to values > 200 μmol/L.

- Treatment should be interrupted when creatinine level is 50% above the upper limit of normal.** It is recommended that creatinine is measured during the first 3 months after initiation of treatment and periodically thereafter.  
**In children**  
Only an hereditary disease (familial hyperlipidaemia) justifies early treatment, and the precise nature of the hyperlipidaemia must be determined by genetic and laboratory investigations. It is recommended to begin treatment with controlled dietary restrictions for a period of at least 3 months. Proceeding to medicinal treatment should only be considered after specialist advice and only in severe forms with clinical signs of atherosclerosis and/or xanthomata and/or in cases where patients suffer from atherosclerotic cardiovascular disease before the age of 40.

- Excipients**  
This drug contains sucrose (sugar spheres). Patients with rare hereditary problems of fructose intolerance, glucose-galactose malabsorption or sucrase-isomaltase insufficiency should not take this medicine.

- Pregnancy and lactation**  
There are no adequate data from the use of fenofibrate in pregnant women. Animal studies have not demonstrated any teratogenic effects. Embryotoxic effects have been shown at doses in the range of maternal toxicity. The potential risk for humans is unknown.  
Therefore, Fenostad 100 should only be used during pregnancy after a careful benefit/risk assessment.

- Lactation**  
It is unknown whether fenofibrate and/or its metabolites are excreted in human milk. A risk to the suckling child cannot be excluded. Therefore fenofibrate should not be used during breast-feeding.  
**Fertility**  
Reversible effects on fertility have been observed in animals. There are no clinical data on fertility from the use of fenofibrate.

- Effects on ability to drive and use machines**  
Fenostad 100 has no or negligible influence on the ability to drive and use machines.

- Interactions and incompatibilities with other drugs**  
**Drug interactions**  
**Oral anti-coagulants**

Fenofibrate enhances oral anti-coagulant effect and may increase risk of bleeding. In patients receiving oral anti-coagulant therapy, the dose of anti-coagulant should be reduced by about one-third at the commencement of treatment and then gradually adjusted if necessary according to INR (International Normalised Ratio) monitoring.

- Cyclosporin**  
Some severe cases of reversible renal function impairment have been reported during concomitant administration of fenofibrate and cyclosporin. The renal function of these patients must therefore be closely monitored and the treatment with fenofibrate stopped in the case of severe alteration of laboratory parameters.

- HMG-CoA reductase inhibitors or other fibrates**  
The risk of serious muscle toxicity is increased if a fibrate is used concomitantly with HMG-CoA reductase inhibitors or other fibrates. Such combination therapy should be used with caution and patients monitored closely for signs of muscle toxicity.

There is currently no evidence to suggest that fenofibrate affects the pharmacokinetics of simvastatin.

- Gilzozones**  
Some cases of reversible paradoxical reduction of HDL-cholesterol have been reported during concomitant administration of fenofibrate and gilzozones. Therefore it is recommended to monitor HDL-cholesterol if one of these components is added to the other and stopping of either therapy if HDL-cholesterol is too low.

- Cytochrome P450 enzymes**  
*In vitro* studies using human liver microsomes indicate that fenofibrate and fenofibric acid are not inhibitors of cytochrome (CYP) P450 isozymes CYP3A4, CYP2D6, CYP2E1, or CYP1A2. They are weak inhibitors of CYP2C19 and CYP2A6, and mild-to-moderate of CYP2C9 at therapeutic concentrations.

Patients co-administered fenofibrate and CYP2C19, CYP2A6, and especially CYP2C9 metabolised drugs with a narrow therapeutic index should be carefully monitored and, if necessary, dose adjustment of these drugs is recommended.

- Other**  
In common with other fibrates, fenofibrate induces microsomal mixed-function oxidases involved in fatty acid metabolism in rodents and may interact with drugs metabolised by these enzymes.

**Drug incompatibilities**  
In the absence of incompatibility studies, this medicinal product must not be mixed with other medicinal products.

- Common reactions**  
**Adverse reactions**  
**Common (1/100 ≤ ADR < 1/10)**  
**Gastrointestinal:** Gastrointestinal signs and symptoms (abdominal pain, nausea, vomiting, diarrhoea, flatulence).

- Hepatobiliary:** Transaminases increased.  
**Investigations:** Blood homocysteine level increased.  
**Uncommon (1/1,000 ≤ ADR < 1/100)**  
**Nervous:** Headache.

- Vascular:** Thromboembolism (pulmonary embolism, deep vein thrombosis).  
**Gastrointestinal:** Pancreatitis.

- Hepatobiliary:** Cholelithiasis.  
**Skin and subcutaneous tissue:** Cutaneous hypersensitivity (e.g. rashes, pruritus, urticaria).

- Musculoskeletal, connective tissue and bone:** Muscle disorder (e.g. myalgia, myositis, muscular spasms and weakness).

- Reproductive and breast:** Sexual dysfunction.  
**Investigations:** Blood creatinine increased.

- Rare (1/10,000 ≤ ADR < 1/1,000)**  
**Blood and lymphatic:** Haemoglobin decreased, white blood cell count decreased.  
**Immune:** Hypersensitivity.

- Hepatobiliary:** Hepatitis.  
**Skin and subcutaneous tissue:** Blood urea increased.

- Overdose and management**  
Only anecdotal cases of fenofibrate overdose have been received. In the majority of cases no overdose symptoms were reported.

No specific antidote is known. If overdose is suspected, treat symptomatically and institute appropriate supportive measures as required. Fenofibrate cannot be eliminated by haemodialysis.

- Pharmacodynamic properties**  
**Pharmacotherapeutic group:** Lipid modifying agents, plain; Fibrates.  
**ATC code:** C10AB05.

Fenofibrate is a fibric acid derivative whose lipid modifying effects reported in humans are mediated via activation of Peroxisome Proliferator Activated Receptor type α (PPARα). Through activation of PPARα, fenofibrate increases lipolysis and elimination of atherogenic triglyceride rich particles from plasma by activating lipoprotein lipase and reducing production of apolipoprotein C-II. Activation of PPARα also induces an increase in the synthesis of apolipoproteins A-I and A-II.

There is evidence that treatment with fibrates may reduce coronary heart disease events but they have not been shown to decrease all cause mortality in the primary or secondary prevention of cardiovascular disease.

Studies with fenofibrate consistently show decreases in levels of LDL-cholesterol. HDL-cholesterol levels are frequently increased. Triglyceride levels are also reduced. This results in a decrease in the ratio of low and very low density lipoproteins to high density lipoproteins, which has been correlated with a decrease in atherogenic risk in epidemiological studies. Apolipoprotein-A and apolipoprotein-B levels are altered in parallel with HDL and LDL and VLDL levels respectively.

Extravascular deposits of cholesterol (xanthomas and tuberous xanthoma) may be markedly reduced or even entirely eliminated during fenofibrate therapy.

Plasma uric acid levels are increased in approximately 20% of hyperlipidaemic patients, particularly in those with type IV phenotype.

Patients with raised levels of fibrinogen treated with fenofibrate have shown significant reductions in this parameter, as have those with raised levels of Lp(a). Other inflammatory markers such as C reactive protein are reduced with fenofibrate treatment.

The uricosuric effect of fenofibrate leading to reduction in uric acid levels of approximately 25% should be of additional benefit in those dyslipidaemic patients with hyperuricaemia.

Fenofibrate has been shown to possess an anti-aggregatory effect on platelets in animals and in a clinical study, which showed a reduction in platelet aggregation induced by ADP, arachidonic acid and epinephrine.

Limited paediatric data are available. The effects of fenofibrate in dyslipidemic children have been studied in two small clinical trials and in an open long-term surveillance registry with 76 hypercholesterolemic children aged 3 to 18 years receiving fenofibrate for 1 to 11 years. However, due to limited data and methodological insufficiencies, no definitive conclusion can be drawn on the use of fenofibrate in dyslipidemic children.

Adverse events similar to those observed in adults have been reported in children: Leucopenia, liver function test, abnormal, rhabdomyolysis, renal failure, hepatitis, jaundice, myositis and rhabdomyolysis.

- Pharmacokinetic properties**  
**Absorption**  
Fenofibrate is strongly bound to plasma albumin (more than 99%).  
Maximum plasma concentrations (C<sub>max</sub>) occur within 4 to 5 hours after oral administration. Plasma concentrations are stable during continuous treatment in any given individual.

The absorption of fenofibrate is increased when administered with food.

**Distribution**  
Fenofibrate acid is strongly bound to plasma albumin (more than 99%).

**Metabolism and excretion**  
After oral administration, fenofibrate is rapidly hydrolysed by esterases to the active metabolite fenofibric acid.

No unchanged fenofibrate can be detected in the plasma. Fenofibrate is not a substrate for CYP 3A4. No hepatic microsomal metabolism is involved.

The drug is excreted mainly in the urine. Practically all the drug is eliminated within 6 days. Fenofibrate is mainly excreted in the form of fenofibric acid and its glucuronideconjugate.

In elderly patients, the fenofibric acid apparent total plasma clearance is not modified.

Kinetic studies following the administration of a single dose and continuous treatment have demonstrated that the drug does not accumulate.

Fenofibric acid is not eliminated during haemodialysis.

The plasma elimination half-life of fenofibric acid is approximately 20 hours.

- Packaging**  
Blister of 10 capsules. Box of 3 blisters.

- Storage condition, shelf-life, specification**  
Blister of 10 capsules. Box of 6 blisters.

- 24 months from the date of manufacturing.**

- Specification**

- Name, address of manufacturer**

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