

Summary of Product Characteristics for Pharmaceutical Products

1. Name of the medicinal product:

Levorest-28® Tablet

2. Qualitative and quantitative composition

Each sugar coated tablet contains :

Levonorgestrel BP/Ph.Eur..... 0.15 mg

Ethinylestradiol BP/Ph.Eur..... 0.03 mg

For full list of excipients, see section 6.1

3. Pharmaceutical form

6 mm, yellow colored sugar coated, round extra deep biconvex, both side plain tablets.

4. Clinical particulars

4.1 Therapeutic indications

Oral contraception and the recognised gynaecological indications for such oestrogen-progestogen combinations.

The decision to prescribe Levorest-28 Tablet should take into consideration the individual woman's current risk factors, particularly those for venous thromboembolism (VTE), and how the risk of VTE with Levorest-28 Tablet compares with other combined hormonal contraceptives (CHCs).

4.2 Posology and method of administration

Each blister contains 28 tablets. Take the tablets in exactly the same sequence as that indicated by the arrows on the foil. Take 1 Levorest-28 tablet daily for 28 days, if necessary together with some water.

The tablets should be taken at about the same time each day. It does not matter whether you take the tablets on an empty stomach or with meals.

After you have taken all 21 active yellow tablets, take the inactive white tablets for the next 7 days.

Your monthly period (withdrawal bleed) will start during these 7 days, usually 2-3 days after taking the last active Levorest-28 tablet.

Start on the next blister on the next day, even if you are still bleeding. This means, on the one hand,

that you will start the new strip always on the same day of the week and, on the other hand, that your withdrawal bleed should occur on the same days each month.

When to start on the first strip

- If you have not been using any hormone-based contraceptive in the past month: Start taking Levorest-

28 on the first day of your cycle (i.e. on the first day of your monthly period). If you start taking Levorest-28 on this day (the first day of your monthly period), you will be immediately protected

against pregnancy. You can also start between days 2 and 5 of your cycle, but you must then use extra contraceptive measures (e.g. a condom) during the first 7 days of tablet taking.

- If you are switching from another combined hormonal contraceptive (pill with two hormonal active substances) or a contraceptive vaginal ring or patch: You can start taking Levorest-28 preferably on the day after taking the last active tablet (the last tablet containing active substances) of your previous pill or on the day after

removing the vaginal ring or patch, but by no later than on the day after the tablet-free (ring- or patch-free) days of your previous product (or after taking the last active tablet of your previous product).

- If you are switching from a product containing only one hormone (progesterone) (the so-called “mini-pill”, an injectable, an implant or a progestogen-releasing intrauterine system (“coil”)): You can stop the “mini-pill” on any day you choose and start taking Levorest-28 immediately on the day after. After switching from an implant or “coil”, start taking Levorest-28 on the day when the implant or “coil” is removed or, after an injectable, at the time when the next injection would normally be due.

In all cases, you must use an extra method of contraception for the first 7 days of tablet-taking (e.g. a condom).

- If you have had a miscarriage or abortion in the first three months of pregnancy: Please talk to your doctor.

- If you have just had a baby or a miscarriage after the third month of pregnancy: Do not start taking Levorest-28 any earlier than 21 to 28 days after the birth or miscarriage. If you start taking it after Day 28, you must additionally use a barrier method of contraception (e.g. a condom) during the first 7 days of taking Levorest-28.

If you have already had sexual intercourse after childbirth before starting to take Levorest-28, you must make sure that you are not pregnant, or you must wait for your first monthly period before taking Levorest-28.

- If you are breast-feeding after childbirth and wish to start taking Levorest-28 (again): Read the section “Breast-feeding”.

If you are not sure when you can start, ask your doctor.

If you take more Levorest-28 than you should

There are no reports of serious harmful consequences after taking too many Levorest-28 tablets.

Nausea and vomiting may occur if you have taken several tablets at once. You may also experience vaginal bleeding.

Such bleeding may occur even in girls who have not yet started their period and who have accidentally taken this medicine.

If you have taken too many Levorest-28 tablets or discover that a child has accidentally swallowed some tablets, ask your doctor or pharmacist for advice.

If you forget to take Levorest-28

- If you are less than 12 hours late in taking any one tablet, the contraceptive effect is still assured.

You must take the forgotten tablet as quickly as possible and then continue to take the next tablets at the usual time.

- If you are more than 12 hours late in taking your tablet, the contraceptive effect will no longer be assured. The more tablets you have missed, the greater the risk of pregnancy. For this reason, you should bear in mind the following rules:

- The active tablets should never not be taken for more than 7 days.

- The effectiveness of Levorest-28 is assured only after 7 days of taking the active tablets without interruption.

- If you are more than 12 hours late in taking a tablet between Days 1 and 7 (please also see the diagram):

Take the tablet as quickly as possible, even if this means having to take two tablets at the same time. Then continue taking your tablets as usual. However, you must additionally use a contraceptive barrier method, e.g. a condom, for the next 7 days. If you have had sexual intercourse in the week prior to forgetting the tablet, the

possibility of pregnancy must be considered. The more tablets you have missed and the nearer this has occurred to having taken the inactive tablets, the greater the risk of pregnancy. In this case, tell your doctor.

- If you are more than 12 hours late in taking a tablet between Days 8 and 14 (please also see the diagram):

Take the tablet as quickly as possible, even if this means having to take two tablets at the same time. Then continue taking your tablets as usual. Provided you have taken the tablets correctly over the 7 days before the missed tablet, you need not take any extra protective measures. However, if you have not taken these tablets correctly or if more than one tablet has been missed, you must use additional contraceptive protection (e.g. a condom) during the next 7 days.

- If you are more than 12 hours late in taking a tablet between Days 15 and 21 (please also see the diagram):

The closer you are to taking the inactive tablets, the greater the likelihood of pregnancy. However, pregnancy can still be prevented by adjusting the dosing schedule. If you observe the following instructions, you need not take any extra contraceptive measures, provided you have been using the tablets correctly over the 7 days before the missed tablet. If you have not taken these tablets correctly or if you have missed more than one tablet, you should opt for the first of the two following possibilities only and use extra contraceptive protection during the next 7 days.

1. Take the last forgotten active tablet as quickly as possible, even if this means having to take two tablets at the same time. Then continue taking your active tablets at the usual time. Instead of then taking the inactive tablets, start on the next strip of active tablets straight away. Most probably, you will not experience withdrawal bleeding until the end of the second strip. However, you may experience mild or menstruation-like bleeding whilst on the second strip.

2. You can also stop taking the active tablets and immediately start the 7 days' worth of inactive tablets, which should also include the day when the tablet was forgotten, and then carry on taking tablets from a new strip.

If you have forgotten more than one tablet and no withdrawal bleeding occurs during the normal period when you take the inactive tablets, the possibility of pregnancy must be considered.

No further action is needed if you forget to take one or several inactive "pills". Continue taking the

"pills" at the usual time. On no account may the period in which no active "pills" are taken be longer than 7 days.

Points to consider if you suffer vomiting or severe diarrhoea If you experience vomiting or severe diarrhea within the first 3 to 4 hours of taking a tablet, the active substances in the pill may not have been completely absorbed by your body. This situation is like forgetting a tablet. After vomiting or diarrhea, you must take a tablet from another strip as quickly as possible; if possible, within 12 hours of when you usually take the pill. If this is not possible or more than 12 hours have passed, follow the instructions in the section "If you forget to take Levorest-28".

Delaying your period days: points to consider

Even though it is not recommended, you can delay your monthly period by leaving out the inactive tablets and continuing with the next Levorest-28 strip straight away, until you have completed it. Whilst on this second strip, mild or menstruation

-like bleeding may occur. After then taking the regular 7 days' worth of inactive tablets, you can continue taking Levorest-28 as normal. You should ask your doctor for advice before deciding to delay bleeding.

Changing the day of the week when your monthly period starts: points to consider
If you want to change the day of the week when your period starts, you can shorten the period in which you take the inactive tablets by as many days as you wish. The shorter the time you take the inactive tablets for, the greater the likelihood that no withdrawal bleeding will occur and that there will be mild or menstruation-like bleeding whilst you are on the next strip. However, never take the inactive tablets for longer than 7 days.

If you are not sure about what to do, ask your doctor.

If you wish to stop taking Levorest-28 You can stop taking Levorest-28 at any time. If you do not wish to become pregnant, talk to your doctor about other safe contraceptive methods. If you wish to become pregnant, stop taking Levorest-28 and wait until your monthly period before trying to conceive. In this way, you will be able to calculate the estimated delivery date more easily.

Method of administration

Oral

4.3 Contraindications

Combined hormonal contraceptives (CHCs) should not be used in the following conditions. Should any of the conditions appear for the first time during CHC use, the product should be stopped immediately.

- Presence or risk of venous thromboembolism (VTE)
 - o Venous thromboembolism – current VTE (on anticoagulants) or history of (e.g. deep venous thrombosis [DVT] or pulmonary embolism [PE])
 - o Known hereditary or acquired predisposition for venous thromboembolism, such as APC-resistance, (including Factor V Leiden), antithrombin-III-deficiency, protein C deficiency, protein S deficiency
 - o Major surgery with prolonged immobilisation (see section 4.4)
 - o A high risk of venous thromboembolism due to the presence of multiple risk factors
- Presence or risk of arterial thromboembolism (ATE)
 - o Arterial thromboembolism – current arterial thromboembolism, history of arterial thromboembolism (e.g. myocardial infarction) or prodromal condition (e.g. angina pectoris)
 - o Cerebrovascular disease – current stroke, history of stroke or prodromal condition (e.g. transient ischaemic attack, TIA)
 - o Known hereditary or acquired predisposition for arterial thromboembolism, such as hyperhomocysteinaemia and anti-phospholipid antibodies (anticardiolipin-antibodies, lupus anticoagulant)
 - o History of migraine with focal neurological symptoms
 - o A high risk of arterial thromboembolism due to multiple risk factors (see section 4.4) or to the presence of one serious risk factor such as:
 - diabetes mellitus with vascular symptoms
 - severe hypertension
 - severe dyslipoproteinaemia
 - Presence or history of severe hepatic disease, e.g. active viral hepatitis and severe cirrhosis, as long as liver function values have not returned to normal.
 - Presence or history of liver tumours (benign or malignant).

- Current or history of breast cancer.
 - Hypersensitivity to the active substance(s) or to any of the excipients.
- Levorest-28 Tablet is contraindicated for concomitant use with the medicinal products containing ombitasvir/paritaprevir/ritonavir and dasabuvir.

4.4 Special warnings and precautions for use

- If you have (or have ever had) a blood clot in a blood vessel of your legs (deep vein thrombosis, DVT), your lungs (pulmonary embolus, PE) or other organs
- If you know you have a disorder affecting your blood clotting- for instance, protein C deficiency, protein S deficiency, antithrombin-III deficiency, Factor V Leiden or antiphospholipid antibodies
- If you need an operation or if you are off your feet for a long time (see section 'Blood clots')
- If you have ever had a heart attack or stroke.
- If you have (or have ever had) angina pectoris (a condition that causes severe chest pain and may be a first sign of a heart attack) or transient ischaemic attack (TIA- temporary stroke symptoms)
- If you have any of the following diseases that may increase your risk of a clot in the arteries:
 - severe diabetes with blood vessel damage
 - very high blood pressure
 - a very high level of fat in the blood (cholesterol or triglycerides) - a condition known as hyperhomocysteinaemia
- If you have (or have ever had) a type of migraine called 'migraine with aura'
- If you have or have ever had breast cancer
- If you have ever had a severe liver disease, and you have been told by your doctor that your liver function test results are not yet back to normal
- If you have ever had liver tumours
- If you are allergic (hypersensitive) to any of the ingredients in Levorest-28.
- Do not use Levorest-28 if you have hepatitis C and are taking the medicinal products containing ombitasvir/paritaprevir/ ritonavir and dasabuvir.

4.5 Interaction with other medicinal products and other forms of interaction **Enzyme inducers**

Interactions can occur with drugs that induce microsomal enzymes (especially cytochrome P450 3A4) which can result in increased clearance of sex hormones and which may lead to breakthrough bleeding and/or contraceptive failure.

Enzyme induction can already be observed after a few days of treatment. Maximal enzyme induction is generally seen within a few weeks. After the cessation of drug therapy enzyme induction may be sustained for about 4 weeks.

Women on short term treatment with any of these drugs should temporarily use a barrier method in addition to the COC or choose another method of contraception. The barrier method should be used during the time of concomitant drug administration and for 28 days after their discontinuation. If the period during which the barrier method is used runs beyond the end of a pack, the next pack should be started without a break. In this situation, a withdrawal bleed should not be expected until the end of the second pack. If the patient does not have a withdrawal bleed during the tablet-free interval following the end of the second pack, the possibility of pregnancy must be ruled out before resuming with the next pack.

For women receiving long-term therapy with enzyme inducers, another method of contraception should be used.

The following have been shown to have clinically important interactions with COCs:

Anticonvulsants: barbiturates (including phenobarbitone), primidone, phenytoin, carbamazepine, oxcarbazepine, topiramate.

Antibiotics/antifungals: griseofulvin, rifampicin. *Herbal remedies:* St John's wort (*Hypericum perforatum*) *Antiretroviral agents:* ritonavir, nelfinavir, nevirapine.

Note: There are other antiretroviral agents that may increase plasma concentration of sex hormones.

Substances decreasing the clearance of COCs (enzyme inhibitors)

Strong and moderate CYP3A4 inhibitors such as azole antifungals (e.g. itraconazole, voriconazole, fluconazole) and macrolides (e.g. erythromycin) can increase plasma concentrations of the oestrogen or the progestin or both.

Etoricoxib doses of 60 to 120 mg/day have been shown to increase plasma concentrations of ethinylestradiol 1.4 to 1.6-fold, respectively when taken concomitantly with a combined hormonal contraceptive containing 0.035 mg ethinylestradiol.

Effects on other drugs

Oral contraceptives may affect the metabolism of certain other drugs. Accordingly, plasma and tissue concentrations may either increase (e.g. cyclosporin, tizanidine, theophylline) or decrease (e.g. lamotrigine).

Pharmacodynamic interactions

Concomitant use with the medicinal products containing

ombitasvir/paritaprevir/ritonavir and dasabuvir, with or without ribavirin may increase the risk of ALT elevations (see sections 4.3 and 4.4). Therefore, Levorest-28Tablet-users must switch to an alternative method of contraception (e.g., progestagen-only contraception or non-hormonal methods) prior to starting therapy with this combination drug regimen. Levorest-28Tablet can be restarted 2 weeks following completion of treatment with this combination drug regimen.

• **Laboratory tests**

The use of oral contraceptives may influence the results of certain laboratory tests including biochemical parameters of liver, thyroid, adrenal and renal function, plasma levels of carrier proteins, e.g. corticosteroid binding globulin and lipid/lipoprotein fractions, parameters of carbohydrate metabolism and parameters of coagulation and fibrinolysis. Laboratory staff should therefore be informed about oral contraceptive use when laboratory tests are requested.

Taking Levorest-28 with food and drink

There are no special instructions about food and drink while on Levorest-28.

4.6 Pregnancy and Lactation

Levorest-28Tablet is not indicated during pregnancy. If pregnancy occurs during treatment with Levorest-28Tablet, further intake must be stopped. However, extensive epidemiological studies have revealed neither an increased risk of birth defects in children born to women who used COCs prior to pregnancy, nor a teratogenic effect when COCs were taken inadvertently during early pregnancy. The increased risk of VTE during the postpartum period should be considered when re-starting Levorest-28Tablet.

The use of Levorest-28Tablet during lactation may lead to a reduction in the volume of milk produced and to a change in its composition. Minute amounts of the active substances are excreted with the milk. These amounts may affect

the child particularly in the first 6 weeks post-partum. Mothers who are breast-feeding may be advised instead to use another method of contraception.

4.7 Effects on ability to drive and use machines

Ethinylestradiol / levonorgestrel has no effects or negligible influence on the ability to drive and use machines.

4.8 Undesirable effects

Like all medicines, this medicine can cause side effects, although not everybody gets them. If you get side effects, especially if they are serious and persistent, or if there is a change in your state of health and you think this is due to Levorest-28, please talk to your doctor.

All women using combined hormonal contraceptives are at increased risk of blood clots in the veins (venous thromboembolism [VTE]) or arteries (arterial thromboembolism [ATE]). For more details on the various risks associated with the use of combined hormonal contraceptives.

The use of pills containing the same active substances as Levorest-28 is most commonly associated with side effects of headache, spotting and bleeding between periods.

Other possible side effects that may occur when using these pills are:

Common side effects (up to 1 in 10 users may be affected):

- Mood swings, depressive moods
- Headache
- Nausea, abdominal pain
- Breast pain or sensitive breasts
- Weight gain

Uncommon side effects (up to 1 to 100 users may be affected):

- Decreased sex drive (reduced libido)
- Migraine
- Vomiting, diarrhoea
- Skin rash
- Nettle rash (itching)
- Swollen breasts
- Fluid accumulation (fluid retention)

Rare side effects (up to 1 in 1,000 users may be affected):

- Contact lens intolerance
- Hypersensitivity
- Increased sex drive (increased libido)
- Vaginal or breast discharge
- Skin redness, blotches or lumps beneath the skin
- Weight loss

- Harmful blood clots in a vein or artery, for example:
 - o in a leg or foot (i.e. DVT)
 - o in a lung (i.e. PE)
 - o heart attack
 - o stroke
 - o mini-stroke or temporary symptoms similar to a stroke, called a transient ischaemic attack
 - o blood clots in the liver, stomach/intestines, kidneys or the eye. The likelihood of a blood clot may be increased if you suffer from other diseases that increase this risk.
- The following severe side effects have been reported somewhat more frequently in women taking the pill, although it is not clear whether this increase in frequency is triggered by its use
- Cervical cancer, breast cancer
- Increased blood pressure
- Liver dysfunction, liver tumours

The following disorders have also been associated with the pill:

Crohn's disease, ulcerative colitis, epilepsy, migraine, endometriosis (with symptoms of very painful monthly periods), benign womb tumours, porphyria (a metabolic disorder causing abdominal pain and neurological disorders), systemic lupus erythematosus (when the body's own organs and tissues are attacked and damaged by the immune system), herpes in late pregnancy, chorea minor (Sydenham's chorea; rapid, involuntary twitching or jerking movements), haemolytic-uraemic syndrome (a disorder that occurs following E. coli-induced diarrhoea), liver problems manifesting as jaundice, metabolic disorders, a form of hearing loss (otosclerosis).

In women with inherited sudden swelling of the skin, mucous membranes, internal organs or brain (hereditary angioedema), the oestrogens in the pill can trigger or worsen the symptoms of angioedema.

Reporting of suspected adverse reactions: Healthcare professionals are requested to report any suspected adverse reactions via pharmacy and poisons board, Pharmacovigilance Electronic Reporting System (PvERS) <https://pv.pharmacyboardkenya.org>.

4.9 Overdose

There have been no reports of serious effects from overdose. Overdosage may cause nausea, vomiting and, in females, withdrawal bleeding.

Withdrawal bleeding may even occur in girls before their menarche, if they accidentally take the medicinal product. There are no specific antidotes and treatment should be symptomatic.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Levorest-28 Tablet is an oestrogen-progestogen combination which acts by inhibiting ovulation by suppression of the mid-cycle surge of luteinising hormone, the inspissation of cervical mucus producing a

barrier to sperm, and the rendering of the endometrium unreceptive to implantation.

5.2 Pharmacokinetic properties

Levonorgestrel

Levonorgestrel is absorbed quickly and completely. Maximum active substance levels of approx 3 ng/ml were reached in serum just one hour after ingestion of Levorest-28Tablet. The serum concentrations subsequently fell in 2 phases with half-lives of around 0.5 hours and 20 hours. The metabolic clearance rate from plasma is approx. 1.5 ml/min/kg.

Levonorgestrel is eliminated not in unchanged form, but in the form of metabolites with a half-life of around one day and in almost equal proportions via the kidney and bile. Levonorgestrel is extensively metabolised. The major metabolites in plasma are the unconjugated and conjugated forms of 3 α , 5 β tetrahydrolevonorgestrel. Based on *in vitro* and *in vivo* studies, CYP3A4 is the main enzyme involved in the metabolism of levonorgestrel.

Levonorgestrel is bound to serum albumin and SHBG. Only around 1.5% of the respective total concentration is present in unbound form, while approx. 65% is bound to SHBG. The relative proportions (free, albumin-bound, SHBG-bound) depend on the concentration of SHBG. After induction of the binding protein, the portion bound to SHBG increases, while the free portion and that bound to albumin decreases. After daily repeated ingestion, levonorgestrel accumulates by about the factor 2. A steady state is reached during the second half of the treatment cycle. The pharmacokinetics of levonorgestrel are dependent on the concentration of SHBG in plasma. Under treatment with Levorest-28 Tablet, an increase in the levels of SHBG effect a concomitant increase in the specific binding capacity and therefore also an increase in levonorgestrel serum levels.

The levonorgestrel serum levels do not change any further after 1 - 3 cycles of use owing to the fact that SHBG induction is concluded.

Compared to a single administration, 3 - 4 fold higher levonorgestrel serum levels are reached in the steady state.

The absolute bioavailability of levonorgestrel amounts to almost 100%. Approx. 0.1% of the maternal dose can be passed on to a baby with the breast milk.

Ethinylestradiol

Orally administered ethinylestradiol is absorbed quickly and completely. Ingestion of Levorest28Tablet leads to maximum plasma levels of approx. 100 pg/ml after 1 - 2 hours. The substance concentration then falls in 2 phases for which half-lives of around 1 - 2 hours and about 20 hours have been determined. For technical reasons, these data can only be calculated at higher dosages.

An imaginary distribution volume of around 5 l/kg and a metabolic clearance rate from plasma of approx. 5 ml/min/kg have been determined for ethinylestradiol. Ethinylestradiol is bound nonspecifically to serum albumin to the extent of 98%.

Ethinylestradiol is metabolised even during its absorption phase and during its first liver transit, leading to reduced and individually varying oral bioavailability. Ethinylestradiol is eliminated not in unchanged form, but in the form of metabolites with a half-life of around one day. The excretion ratio is 40 (urine) : 60 (bile).

Because of the half-life of the terminal elimination phase from plasma, a steady state characterised by a 30 - 40% higher plasma substance level becomes established after approx. 5 - 6 daily administrations.

The absolute bioavailability of ethinylestradiol is subject to considerable interindividual variations. After oral ingestion, it amounts to around 40 - 60% of the dose.

In women with fully established lactation, around 0.02% of the maternal dose can be passed on to the baby with the breast milk.

Other drugs can have a negative or positive effect on the systemic availability of ethinylestradiol. No interaction with vitamin C takes place. On continuous use, ethinylestradiol induces the hepatic synthesis of CBG and SHBG, the extent of SHBG induction being

dependent on the type and dose of the simultaneously administered progestogen.

5.3 Preclinical safety data

None stated

6. Pharmaceutical Particulars

6.1 List of Excipients

Each tablet contains:

core:

Maize Starch
Pre-Gelatinised Starch (Grade-1500)
Povidone K-30
Lactose Monohydrate #200
Magnesium Stearate
Colloidal Anhydrous Silicon (Aerosil-200)

Coating Material:

Sucrose
Acacia (gum)
Maize Starch
Opadry II White 85G68918
Calcium Carbonate (Heavy)
Titanium Dioxide
Povidone K-30
Purified Talc
Polysorbate-80
Ferric Oxide Yellow
Carnuba Wax

6.2 Incompatibilities

Not applicable

6.3 Shelf-Life

2 years

6.4 Special Precautions for storage

Keep out of the reach and sight of children. Keep all medicines out of the sight and reach of children. Do not use Levorest-28 after the expiry date shown on the strip. Do not throw away any medicines down a drain or into a bin.

6.5 Nature and Content of container

Alu-PVDC Blister Strips Presentation:
Each carton contains 1 blister strip of (21+7) tablets.

6.6 Special precautions for disposal and other handling

No special requirements

7. Marketing Authorization Holder

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8. Marketing Authorization Number

H2025/CTD11448/23926

9. Date of first authorization/renewal of the authorization

06/02/2020

10. Date of revision of the text

8/10/2025