MEDICINE INFORMATION

Pembrolizumab + lenvatinib

Pembrolizumab and lenvatinib work in different ways to help control cancer. Learn about treatment visits, daily capsules, monitoring, side effects and everyday care.

Pembrolizumab and lenvatinib at a glance

Pembrolizumab is an immunotherapy medicine, commonly known as Keytruda. Lenvatinib is a targeted therapy taken as capsules; Lenvima and, in some countries for kidney cancer, Kisplyx are brand names. They are different treatments used together. This particular regimen does not include conventional chemotherapy.

The combination is used for selected people with advanced kidney cancer and some advanced or recurrent cancers of the womb lining, called endometrial cancer. These are distinct clinical situations. The tests and previous treatment that matter for one cancer do not automatically apply to the other.

Treatment usually involves regular hospital appointments and lenvatinib at home every day. Monitoring helps the team find problems early and decide whether to continue, pause or adjust treatment. There is no need to wait until the next appointment to report a new symptom.

How the combination works

Pembrolizumab blocks PD-1, a signal that can restrain immune cells. Blocking this signal may help the immune system recognise and attack cancer. It can also allow immune cells to inflame normal organs, which is why some side effects need a different treatment from ordinary stomach upset or tiredness.

Lenvatinib blocks several proteins involved in cell signalling, including signals that support the growth of blood vessels supplying a tumour. It belongs to a group called tyrosine kinase inhibitors, or TKIs. Its effects on normal blood vessels help explain the need to check blood pressure and wound healing.

Using these approaches together can improve cancer control for suitable patients. It does not guarantee that a particular person's cancer will respond. Ask your oncologist what benefit they hope for, when they will assess it, and how your comfort and daily activities will influence decisions.

How the team decides whether it is suitable

Your team considers the cancer type, where it has spread, earlier treatment and your overall health.

For endometrial cancer, tests called MMR and MSI describe how the tumour repairs DNA. Ask what your results mean for your treatment choices.

If you have already received pembrolizumab or another checkpoint inhibitor, the choice needs a separate specialist discussion. This guide does not mean that adding lenvatinib is automatically appropriate after immunotherapy.

Tell the team about autoimmune illness, an organ transplant, previous donor stem-cell transplantation, or serious side effects from earlier immunotherapy. These situations need individual assessment. Kidney or liver problems, cardiovascular disease and uncontrolled blood pressure also affect planning.

Approved uses by country

FDA (United States), EMA (European Union) and CDSCO (India).

Each treatment use is listed once. Eligibility can differ by country.

Approved by FDA and EMA

- **Advanced renal cell carcinoma (kidney cancer).** First treatment in adults with pembrolizumab and lenvatinib.

Advanced or recurrent endometrial cancer

- **US (FDA).** Advanced endometrial cancer (cancer of the womb lining). For adults whose cancer progressed after previous systemic treatment in any setting and who cannot have surgery or radiotherapy to try to cure it. An FDA-authorised tumour test must show proficient mismatch repair (pMMR) or no high microsatellite instability (not MSI-H).
- **EU (EMA).** Advanced or recurrent endometrial cancer (cancer of the womb lining). For adults whose cancer progressed during or after previous platinum-containing treatment in any setting and who cannot have surgery or radiotherapy to try to cure it.

Before treatment starts

The team usually checks blood counts, kidney and liver function, thyroid function, blood glucose and blood salts. You will have blood-pressure checks and urine testing for protein. Some people need an ECG, which records the heart's electrical activity, or further heart assessment based on their history. Blood pressure should be controlled before lenvatinib begins.

Mention previous heart attack or stroke, blood clots, unusual bleeding, bowel inflammation, a hole or abnormal connection involving the bowel, recent surgery, unhealed wounds and dental problems. Also tell the team about pregnancy plans, breastfeeding and every medicine or supplement you use.

Before leaving, make sure you know your current capsule dose and strengths, the next appointment, who arranges blood tests, and whom to call outside office hours. If home blood-pressure checks are requested, ask someone to demonstrate the monitor and write down the readings at which you should call.

It can help to bring a family member or another trusted person to the teaching appointment. Ask the pharmacist to explain the plan in your preferred language if needed. A written daily record is useful when more than one person helps with medicines.

How treatment is taken or given

Pembrolizumab appointments

An established adult intravenous schedule is 200 mg every three weeks or 400 mg every six weeks, infused over about 30 minutes. The full visit takes longer because it includes assessment and preparation. These are examples, not instructions to choose or change a dose.

An injection under the skin is also available in some settings. Its product, dose and administration instructions are different. This guide's infusion example should not be applied to an injection prescription; your hospital will confirm the formulation it supplies.

Tell the nurse immediately if you feel flushed, itchy, shivery, dizzy, short of breath or otherwise suddenly unwell during administration. The staff can assess you and interrupt treatment if needed.

Daily lenvatinib capsules

A usual adult starting dose in this combination is 20 mg once daily, but your prescribed dose may be lower or change during treatment. Take only the strengths and number of capsules written on your current prescription, including on days between pembrolizumab appointments unless told to pause.

Take lenvatinib at about the same time each day, with or without food. Swallow capsules whole with water. Do not crush, chew or open them yourself. If swallowing is difficult or you use a feeding tube, ask the pharmacist about the approved method of preparing a suspension for your product.

Missed doses and vomiting

If you forget lenvatinib, take the missed dose when you remember only if the next dose is at least 12 hours away. If it is less than 12 hours away, skip it and resume at the usual time. Never double the dose. If you are unsure about the timing, check with your pharmacist.

If you vomit after taking it, do not take an extra dose; take the next scheduled dose as directed. Contact the team for repeated vomiting or difficulty keeping fluids down. Keep medicines in their original packaging as directed, away from children, and return unwanted capsules to a pharmacy.

Monitoring and checking response

You can feel well while blood pressure or blood-test results change. Keep monitoring appointments even when treatment seems straightforward. Blood pressure needs particularly close attention early on; the US lenvatinib information recommends a check after one week, then every two weeks for the first two months, and at least monthly thereafter. Your team may ask for more frequent home readings.

Blood and urine tests assess the liver, kidneys, thyroid, glucose, blood salts and urine protein. Changes may lead to additional tests or treatment adjustments before you notice symptoms. Tell the team about new medicines and any change in eating, drinking, bowel habits, weight or energy.

Scans and clinical reviews assess cancer response. A lower lenvatinib dose, a delayed appointment or a prescribed break does not by itself mean treatment has failed. Ask what prompted the change and what must happen before the next dose.

For significant side effects, pembrolizumab is delayed or stopped rather than given at a reduced dose. Lenvatinib may be paused or reduced. These decisions depend on the problem and are made by your treating team.

More commonly reported side effects and practical care

The effects below are frequently reported with this combination. How often an effect occurs varies between the kidney and endometrial cancer studies, so these headings are a guide rather than a prediction for you. A common effect can still be serious. Tell the team about changes early; you do not need to wait until they become difficult to manage.

Diarrhoea and abdominal discomfort

Report new diarrhoea or a clear increase from your usual pattern promptly. Note how many loose stools you have, any night-time episodes, pain, blood or mucus. Lenvatinib can cause diarrhoea, but pembrolizumab can cause bowel inflammation and infection is another possibility. These need different treatment. Follow the team's anti-diarrhoea plan rather than treating repeated episodes on your own.

Sip fluids unless you have a fluid restriction. Ask whether an oral rehydration solution is suitable. Dizziness, reduced urine or difficulty drinking may indicate dehydration. Blood in the stool, severe pain or worsening diarrhoea needs urgent advice. Do not wait for a particular stool count before calling if you feel unwell.

Nausea, appetite loss, taste changes and constipation

Take prescribed anti-sickness medicines as directed. Small, frequent meals and drinks between meals may be easier than large portions. Choose nourishing foods you enjoy and request a dietitian if your weight is falling. Report vomiting that prevents drinking or taking medicines.

Constipation can also occur. Tell the team if stools become hard or difficult to pass; ask about a suitable laxative. Severe abdominal pain, swelling or vomiting should be assessed before treating the problem as ordinary constipation.

Sore mouth and dry mouth

Use a soft toothbrush and recommended mouth rinses. Soft, moist foods may be easier to swallow; avoid foods that sting. Report ulcers, white patches or painful swallowing, particularly if eating or drinking is affected. The team can assess for infection, prescribe treatment and help protect your nutrition.

Sore hands and feet, rash and itching

Lenvatinib can cause redness, tenderness, thickened skin or peeling on palms and soles. Apply the recommended moisturiser, reduce friction and pressure, and choose comfortable shoes. Report soreness before it limits walking or using your hands; treatment or a dose adjustment may help.

For mild dryness or itching, use gentle, unperfumed products and sun protection. Ask which creams are suitable. A rapidly spreading, painful, blistering or peeling rash, particularly with mouth or eye sores, needs immediate assessment rather than stronger home treatment.

Tiredness, aches and a hoarse voice

Balance rest with manageable activity, and plan demanding tasks for your better times of day. Report fatigue that interferes with everyday activities. Anaemia, poor intake, disturbed sleep and hormone problems may contribute and may be treatable.

Muscle or joint aches and hoarseness can occur. Check before taking painkillers. New marked muscle weakness, drooping eyelids, swallowing difficulty or breathing problems needs urgent advice, even if you initially thought it was ordinary tiredness.

High blood pressure and thyroid changes

Blood pressure can rise without making you feel unwell. Take prescribed blood-pressure medicines and record readings if requested. Report results above your team's action limit; do not change either cancer medicine yourself. Severe headache with visual changes, chest pain or breathlessness needs urgent assessment.

Either cancer medicine may affect the thyroid. An underactive thyroid can cause low energy, feeling cold, constipation or weight gain; an overactive thyroid may cause palpitations, sweating or weight loss. Blood tests guide treatment, which may include thyroid replacement tablets. Report symptoms rather than assuming they are simply part of cancer treatment.

Urine symptoms and blood-test changes

Protein can leak into urine without obvious symptoms. Blood tests may show kidney or liver changes, altered blood counts, or changes in salts such as calcium and potassium. Attend scheduled tests even when you feel well. Report reduced urine, swelling, unusual bruising, yellow eyes or dark urine promptly. Do not start supplements to correct a result without advice. Report burning, frequency or cloudy urine because a urinary infection may need treatment.

Other side effects and important problems

This section covers additional symptoms and problems needing special attention; these are not all less common. It is not a single numerical frequency category: some laboratory changes and organ problems overlap with the more common effects above. Your symptoms and their severity determine how quickly you need help.

Other symptoms to discuss

Some people notice hair thinning, sleep disturbance, dizziness or indigestion. Mention persistent symptoms so the team can look for the cause and suggest treatment. Avoid driving when dizzy. Ask before using sleep remedies or additional stomach medicines.

Immune inflammation and hormone problems

Pembrolizumab can inflame healthy organs during treatment or after it ends. Report a new cough or breathlessness, persistent diarrhoea, jaundice, reduced urine, eye pain or new visual changes. These symptoms are not automatically a lenvatinib effect.

Inflammation of the adrenal or pituitary glands, or new diabetes, can cause unusual exhaustion, headache, dizziness, marked thirst or frequent urination. Severe weakness, fainting, vomiting or confusion needs urgent assessment. Some hormone problems require long-term replacement treatment.

The team may pause treatment and prescribe steroids or other medicines. Take them as directed and follow the taper; do not stop steroids suddenly or avoid them because you think they will cancel the purpose of immunotherapy.

Heart, blood vessels, bleeding and brain symptoms

Clots, serious bleeding, heart inflammation or reduced heart function can occur. Seek emergency care for chest pain, sudden severe breathlessness, stroke symptoms or major bleeding. New palpitations or ankle swelling also need prompt advice. Abnormal heart rhythm may be associated with changes in blood salts.

A rare brain reaction called PRES can cause severe headache, confusion, vision changes or seizures. These require emergency assessment whether or not you know your blood pressure is high.

Bowel injury, wound healing and jaw problems

Severe persistent abdominal pain may signal bowel inflammation, a perforation or an abnormal connection called a fistula. It needs urgent assessment. Lenvatinib can also delay healing. Tell the team about wounds that are not healing, and arrange surgery or invasive dental work through the oncology team. Report jaw pain, swelling or a loose tooth.

When to get urgent medical help

Urgent help: Go to the nearest emergency department for severe breathlessness, chest pain, collapse, a seizure, sudden weakness on one side, difficulty speaking, severe new headache with confusion or vision changes, heavy bleeding, vomiting blood, black tar-like stools, or severe persistent abdominal pain. Do not wait for a routine appointment or an online reply.

Contact your cancer team's 24-hour service promptly for new or worsening diarrhoea, repeated vomiting, jaundice, a new cough, reduced urine, a painful swollen leg, significant rash, new muscle weakness, eye symptoms or unusual severe tiredness. Seek emergency assessment if symptoms are severe, rapidly worsening, or you cannot reach the team while becoming unwell.

A blistering or peeling rash, or a rash with sores in the mouth or eyes, needs immediate medical advice. Go to emergency care if it is severe or you are otherwise unwell.

Follow the temperature threshold your hospital gives you. A temperature of 37.5°C (99.5°F) or above, shaking chills, or feeling suddenly very unwell needs urgent advice; a lower temperature can still matter. Do not take a fever-reducing medicine simply to hide a temperature and postpone calling.

Keep your treatment alert card or medicine list with you. Explain that you take both pembrolizumab and lenvatinib, because this helps the clinician consider more than one possible cause of illness.

Other medicines and vaccinations

Show the oncology pharmacist all prescribed medicines, over-the-counter treatments, vitamins, herbal products and Ayurvedic preparations. Include blood-pressure tablets, blood thinners, pain medicines and any treatment for heart rhythm. Do not start a new product or stop an existing prescription without checking.

Interactions and overlapping effects are assessed individually. A medicine that changes heart rhythm, increases bleeding or affects the kidneys may need additional consideration. Describing a supplement as natural does not establish that it is safe with this treatment.

Discuss vaccinations with the team. They can advise which vaccines are suitable and when to have them, especially if you need steroids or other medicines that suppress immunity. Tell the vaccination service about your treatment rather than relying on a general rule for all cancer patients.

Everyday life during treatment

Work, gentle exercise and time with family may continue if you feel able, with adjustments around appointments and symptoms. Avoid driving when dizzy, unusually tired, confused or affected by vision changes. Ask for help with transport if needed.

Keep a simple record of capsule doses, blood-pressure readings if requested, bowel changes and new symptoms. Record when you called the team and the advice given. If a dose changes, ask for a new written instruction and separate any old instructions so that the household follows one current plan.

Tell the team if cost, travel or obtaining repeat prescriptions threatens to interrupt treatment. Planning supplies early can avoid confusion. It is also reasonable to ask for help with sleep, anxiety, relationships or intimacy; these concerns belong in treatment reviews.

Fertility, pregnancy and breastfeeding

Discuss future fertility before treatment if it matters to you. These medicines can harm a developing baby. If you could become pregnant, the team should check for pregnancy before treatment starts and discuss effective contraception. Tell the team immediately about a possible pregnancy.

For someone who could become pregnant, US guidance requires effective contraception during treatment and for at least four months after the last pembrolizumab dose, and at least 30 days after the last lenvatinib dose. Follow whichever end date is later. If lenvatinib continues after pembrolizumab stops, precautions continue. The team should give you a written end date and advice for your circumstances.

European lenvatinib advice recommends an additional barrier method for people using oral hormonal contraception. Vomiting or severe diarrhoea can also make relying on a pill problematic; ask your team for advice.

Do not breastfeed during treatment. US guidance extends this to four months after the last pembrolizumab and one week after the last lenvatinib, whichever ends later. Ask for individual advice about fathering a child and fertility preservation; do not assume the same timings apply to every person.

After a pause or the end of treatment

A pause may apply to one medicine or both. Confirm which treatment is paused, whether tests are needed, and who will authorise restarting. Do not restart leftover capsules just because you feel better.

Lenvatinib needs a planned interruption around surgery. US instructions specify at least one week before elective surgery and at least two weeks after major surgery, with adequate wound healing before restarting. The surgeon and oncology team must agree your actual plan, including dental procedures.

Pembrolizumab may have a planned maximum duration, often up to two years in these treatment settings, while lenvatinib may continue if appropriate. Your oncologist will explain your own endpoint. Keep follow-up appointments and the alert card after stopping: immune effects can appear later, and hormone replacement may still be needed.

Frequently asked questions

1. Why am I receiving two different kinds of treatment?

The medicines act through different biological pathways. For a suitable cancer setting, studies support using them together. Ask your oncologist what the combination offers for your situation and how they will balance cancer control with side effects.

2. Is this the same regimen for kidney and womb cancer?

The medicine names may be the same, but the reasons for choosing them differ. Previous treatment and MMR or MSI results are particularly relevant in endometrial cancer. Your diagnosis determines the treatment discussion.

3. Do I need a high PD-L1 score?

There is no universal PD-L1 requirement for these two combination indications. Do not apply the testing rules for another pembrolizumab-treated cancer to your own. Ask which results actually influenced your recommendation.

4. Do I take capsules on the days without an infusion?

Usually yes: lenvatinib is taken daily throughout the schedule. A gap between pembrolizumab visits is not automatically a capsule holiday. Follow any written interruption given by your treating team.

5. Does lenvatinib need an empty stomach?

No. It can be taken with or without food. Choose a consistent daily time that fits your routine. If meals are difficult, discuss nausea or appetite problems rather than changing the dose yourself.

6. Why might my capsule strength or number change?

Different capsule strengths can make up a prescribed dose. Your team may adjust it for tolerability or organ function. Check both the strength and the total daily dose whenever a new prescription is supplied.

7. What should I do if I forget lenvatinib?

Use the 12-hour rule in the administration section. If the next dose is less than 12 hours away, skip the forgotten dose. Do not take two doses together. Ask the pharmacist when the timing is uncertain.

8. Should I replace a capsule dose after vomiting?

No. Do not take another dose to replace it. Repeated vomiting needs advice because dehydration and missed medicines can become problems. Let the team know whether you can keep fluids down.

9. Can I open capsules to make them easier to swallow?

Do not open or crush them yourself. There is a product-specific suspension method, but a pharmacist should teach it and confirm the equipment and route. Mention swallowing problems before you run out of options at home.

10. Why monitor blood pressure if I feel normal?

High blood pressure often causes no symptoms. Readings can identify a change before complications develop. Ask for your personal action limits and a plan for reporting readings; feeling well does not replace monitoring.

11. Does high blood pressure mean the treatment is working?

A side effect is not a reliable personal test of cancer response. The team assesses response through scans and clinical review. High blood pressure needs management whether or not the cancer is responding.

12. Can diarrhoea always be blamed on lenvatinib?

No. Bowel inflammation from pembrolizumab and infection are other possibilities. Report a new or worsening pattern promptly. Assessment may include stool or blood tests, and the treatment depends on the cause.

13. Why are thyroid blood tests needed?

Either medicine can affect thyroid function. Changes may develop gradually and can overlap with ordinary tiredness, constipation or weight changes. Blood tests help the team recognise a treatable hormone problem.

14. Why does the team ask for urine samples?

Lenvatinib can cause protein to leak into urine, sometimes without obvious symptoms. Urine tests complement kidney blood tests. Report reduced urine or swelling as well; neither replaces the scheduled checks.

15. Is a lower lenvatinib dose a sign of failure?

Not necessarily. Adjustments help manage toxicity and keep treatment tolerable. Ask what caused the change, what the new capsule instructions are and when the team will reassess you.

16. Can one medicine continue when the other is paused?

Sometimes, depending on the reason for the pause and the clinical plan. Never infer this yourself. Ask the team to name each medicine and state clearly whether to take it, hold it or attend for it.

17. Are steroids allowed with pembrolizumab?

Yes, when prescribed to treat immune inflammation or another clinical need. Follow the dose and reduction schedule carefully. Ask before changing them, and tell other doctors that you are taking them.

18. Can I arrange dental work during treatment?

Tell both the dentist and oncologist first, particularly for an extraction or other invasive procedure. Lenvatinib can affect healing and jaw health. The team should plan any interruption and confirm when restarting is appropriate.

19. What if my pembrolizumab is an injection rather than a drip?

Some services use an approved formulation injected under the skin. Confirm the exact product and schedule with the hospital. Infusion doses and administration details must not be copied across to an injection formulation.

20. What should I keep after treatment finishes?

Keep the names and dates of your treatments, alert card, contact numbers and follow-up plan. Tell clinicians about previous pembrolizumab if a new illness develops. Check the separate end dates for contraception or breastfeeding precautions with your team.

Individual medicine guides

- Pembrolizumab
- Lenvatinib

Sources and review information

Sources checked on 9 October 2026. This original CTI patient guide uses Cancer Research UK and Macmillan individual-medicine information, a dedicated eviQ combination resource, and current US and European prescribing information. The reference list identifies each source and its purpose. International product information does not establish Indian approval, availability or an individual patient's treatment plan.

Cancer Research UK Pembrolizumab

Cancer Research UK Lenvatinib

Macmillan Cancer Support Pembrolizumab

Macmillan Cancer Support Lenvatinib

eviQ Patient information Lenvatinib and pembrolizumab

eviQ Protocol 4322 Lenvatinib and pembrolizumab

Merck Keytruda US prescribing information

Eisai Lenvima US prescribing information

EMA Keytruda product information

EMA Lenvima product information

National Cancer Institute Immunotherapy Side Effects

National Cancer Institute Cancer Fatigue

National Cancer Institute Weight Changes Malnutrition and Cancer

National Cancer Institute Mouth and Throat Problems and Cancer Treatment

National Cancer Institute Infection and Neutropenia during Cancer Treatment

Additional sources

Summary of Product Characteristics (SmPC)

- Kisplyx (lenvatinib): Summary of Product Characteristics - EMA product information, Annex I (PDF)

Regulatory references

- United States prescribing information for Keytruda, October 2026
- FDA prescribing information for Lenvima

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