



CHEMOTHERAPY IN LUNG CANCER

In lung cancer, chemotherapy (chemo), is among the various treatments used in our care plans. Depending on the stage and type of lung cancer, it may be used: with a range of other treatments including immunotherapy (IO) and/or targeted therapies. Additionally, it may be used as a first treatment or later in treatment.

You may be nervous about chemo. Please remember that everyone’s experience with chemotherapy is different. Here, we explain why chemo may be used, what to expect and tips from other patients to consider or discuss with your care teams.

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Understanding Lung Cancer Types

Before starting treatment, it helps to understand the two main types of lung cancer. Your treatment plan will depend on which type you have.

Small Cell Lung Cancer (SCLC)

About 1-2 out of 10 lung cancer cases

More aggressive, tends to spread faster

Often starts in airways

- Usually treated with chemo first

Non-Small Cell Lung Cancer (NSCLC)

About 8 out of 10 lung cancer cases

Most common type, usually grows more slowly

Main subtypes:

- Adenocarcinoma: Starts in mucus-producing cells (most common)
- Squamous cell: Starts in airways
- Large cell: Less common, can grow quickly

Timing of cancer treatments

Your treatment plan is based on your general health, the stage and size of the cancer, and whether the cancer has specific genetic changes. This helps your medical team decide which treatments are most likely to help you, and when they should be used.

Chemo and other treatments may be used at different points in lung cancer care:

Before surgery or radiotherapy (neoadjuvant treatment)

Chemotherapy, immunotherapy, or targeted therapy may be given before surgery or radiotherapy to shrink or control the cancer and improve the chances of successful surgery.

After the main treatment (adjuvant treatment)

Additional treatment may be given after surgery or chemo-radiation to reduce the risk of the cancer coming back.

As the first treatment for advanced lung cancer

Chemotherapy, immunotherapy, targeted therapy, or a combination may be used. (Important note: IO is contraindicated for most biomarkers. Ask your team.)

To help with symptoms (palliative chemotherapy)

When cancer is very advanced, chemotherapy may be used to reduce symptoms and improve quality of life, rather than to cure the cancer. This can help you feel more comfortable and manage pain or breathing difficulties.

Later in treatment

If a treatment is no longer effective (often called progression), your team may recommend a different option, which may include chemo or combinations.

Types of chemotherapy

Chemo medicines attack fast-growing cancer cells. They can also affect healthy cells, which causes side effects.

There are many chemotherapy medicines. Some of the more common ones include:

Platinum-based drugs

Platinum drugs contain platinum and are often described as the “backbone” of chemotherapy treatment. They are usually combined with other drugs to make treatment more effective.

Common platinum drugs include:

- Cisplatin (brand names: Platinol®, Cisplatin Accord, Teva)
- Carboplatin (brand names: Paraplatin®, Carboplatin Hospira, Teva)

Pemetrexed (Alimta®)

Pemetrexed is often given with a platinum drug – like carboplatin. For some people it may be continued on its own as maintenance treatment to help keep the cancer under control or for as long as tolerated. Many people find pemetrexed easier to tolerate than some other chemotherapy medicines.

Combination chemotherapy

Platinum drugs are often combined with other chemos to improve effectiveness. Common combinations include platinum plus:

For SCLC

- Etoposide (Vepesid®, Etoposide Hospira)

For NSCLC:

- Pemetrexed (Alimta®)
- Paclitaxel (Taxol®, Paclitaxel Teva)
- Docetaxel (Taxotere®)
- Vinorelbine (Navelbine®)
- Gemcitabine (Gemzar®) – often for squamous

The chemotherapy process

Intravenous (IV) infusion – Most common method

- Given through a drip into a vein
- Usually takes place in a clinic or hospital treatment room
- Sessions last 2-6 hours, depending on the drugs
- When drugs are combined, they're usually given one after the other during the same visit

Oral chemotherapy

Taken as pills at home

Central line or port – For easier vein access

Two main options:

PICC line (Peripherally Inserted Central Catheter): A thin tube inserted into a vein in the upper arm. External end stays on your arm and is accessed for each infusion. Placement takes about 15-20 mins using local anesthetic.

Port (Port-a-Cath, implanted port): A small device placed under the skin, usually below the collarbone. Requires a minor surgical procedure with local anesthetic, sometimes sedation. Once healed, it's less visible and easier to live with for long-term treatment.

The schedule can vary:

- For treatment before or after surgery, it's often 3–6 months.
- For advanced cancer, it may continue as long as it's helping.
- For palliative (to alleviate symptoms) chemotherapy, it can be continual, and you'll go for as long as the treatment is working well.

Before each session, blood tests check that your body is ready. You may also receive medicines to prevent side effects – such as anti-nausea medications or steroids.

What to Bring to Infusion Appointments?

Since chemotherapy sessions can last several hours, consider bringing:

- A book, tablet, or music player
- Comfortable blanket or pillow
- Snacks and drinks (check with your team first)
- A friend or family member for company and support if allowed



Side effects

Chemotherapy affects people in different ways, and side effects can vary from person to person. Your medical team will help you understand your personal risks and how to manage them.

Many people notice a **pattern** during treatment:

- In the days immediately after an infusion, you may feel relatively well.
- Side effects such as fatigue or nausea often peak about a week after treatment.
- Then there may be a period of improvement, when you can focus on activities you enjoy before the next appointment.

Hair

- Hair loss or thinning is common with platinum-based chemo, less so with pemetrexed.
- Some people use cold caps during treatment, which may help reduce hair loss. Your medical team can advise.
- Available at many cancer centres in Europe, UK, US, and Canada. Systems include DigniCap, Paxman, and Cooler Heads (FDA-cleared in the US). Not suitable with all chemotherapy drugs – your medical team will tell you if this is an option. Effectiveness varies; may not prevent all hair loss.

Availability and cost:

- Some European health systems & UK NHS cover at select centres
- US: No standard insurance coverage. Out-of-pocket ranges \$1,500–\$3,000+ for full course
- Canada: Some availability; check with your team
- Ask your team about availability and financial support in your area

Wigs, scarves, and headwear

Many find wigs, scarves, caps, or turbans help them feel more like themselves. Financial help with wigs and headwear is available in many countries:

- UK: NHS wig vouchers or acrylic wigs provided free/subsidised through hospitals; ask for a referral.
- France: Wigs (perruques) may be partially or fully reimbursed by *Sécurité Sociale* with an oncologist prescription. Many hospitals also socio-esthétique services.
- Canada: Hospital wig banks and cancer charities (e.g., Canadian Cancer Society, Hope & Cope) provide free or low-cost wigs.
- US: Hospital wig programs, American Cancer Society and charities offer free wigs; insurance varies.
- Other countries: Many cancer centres have wig banks or partner with charities. Ask your oncology your support team

For men and all genders: Wig banks, cap/turban options, and advice on beard care or shaving are available. Don't hesitate to ask – support is there for everyone.

Your medical team or a hair loss support service can help you access these resources. Some hospitals also have volunteer programmes where patients can donate gently used wigs for others.

Side effects – continued

Skin

Chemotherapy can affect your skin, causing:

- Dryness, itching, and sensitivity
- Redness or rashes
- Changes in skin color
- Increased sun sensitivity

Skin care tips:

- Use gentle, fragrance-free moisturizers (products like Aquaphor, CeraVe, or Vanicream are often recommended)
- Apply moisturizer 3-4 times daily to keep skin hydrated
- Avoid harsh soaps – use gentle, pH-balanced cleansers
- Protect skin from sun with high-SPF sunscreen (SPF 30+) and protective clothing
- Stay hydrated by drinking plenty of water

Appearance & Oncology Aesthetic Support

Specialized appearance support is available in many countries to help you manage changes to your skin, hair, and nails during treatment – and support your confidence.

These services may include:

- Safe skincare and facials during chemo
- Makeup tips for skin changes or eyebrow/eyelash loss
- Wig and headwear guidance
- Gentle nail and scalp care
- Help with dryness, rashes, and sensitivity
- Emotional support through appearance care

Ask your oncology nurse or care team what is available locally.

Taking care of your appearance isn't vanity – it's part of taking care of yourself.

Taste and smell changes

Many people experience changes in how food tastes and smells during chemotherapy:

- Metallic or bitter taste in mouth
- Foods tasting too sweet or having no taste at all
- Changes in smell sensitivity
- Dry mouth

Managing taste changes:

- Rinse your mouth with baking soda and water mixture several times daily
- Use plastic utensils instead of metal to reduce metallic taste
- Try cold foods – they may taste better than hot foods
- Experiment with different flavors and textures
- Sugar-free hard candies or gum can help with dry mouth
- Focus on foods that taste good to you – your preferences may change during treatment
- Stay hydrated with fluids you find tolerable (many find chocolate milk easier than water)
- For most people, taste and smell return to normal within a few weeks to months after finishing chemotherapy.

Side effects – continued

Blood cells

Chemotherapy can lower blood counts, which can affect:

- White blood cells: increases infection risk. You may need to wear a mask in public, be extra careful with hand hygiene, and avoid people who are sick.
- Red blood cells: can cause fatigue or anemia.
- Platelets: can increase bleeding risk.

Your care team may recommend extra treatments, such as blood transfusions, if needed.

Food safety during low white blood cell counts:

- Wash hands thoroughly before preparing or eating food
- Cook meat, poultry, and eggs thoroughly until piping hot
- Wash fresh fruits and vegetables carefully
- Avoid raw or undercooked foods
- Store food properly and eat opened items within 24 hours
- Avoid takeaways except well-cooked options like fish and chips or pizza
- Some hospitals recommend avoiding certain foods like raw unpeeled produce, dried fruit, or fresh nuts during severe neutropenia – ask your team for specific guidance

Organs and the body

Stomach and digestion

- Nausea, diarrhea, or constipation can happen.
- Treatment of these symptoms can now be much better managed with medication than in the past.

Nerves and brain

- Some people experience tingling or numbness in hands or feet (neuropathy).
- Brain fog or memory issues are also possible during or after treatment.

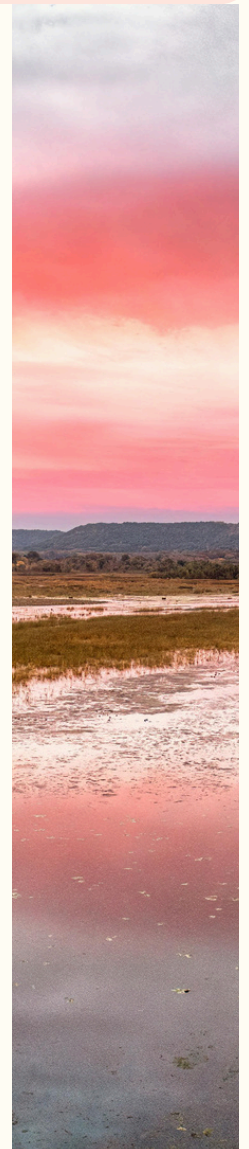
Report these symptoms to your team so they can adjust treatment if needed

Heart

- Some chemotherapy drugs (along with other cancer drugs and treatments) can affect the heart. The risk is small but important.
- Ask your doctor about your individual risk for heart problems and whether any additional tests or ongoing monitoring are needed.

Kidneys

- Some chemotherapy drugs, especially cisplatin, can affect kidney function.
- Your medical team will monitor your kidneys with blood tests and may recommend extra fluids or other precautions to help protect them.





Some chemotherapy drugs can permanently affect fertility. There are options to help preserve fertility before treatment starts:

- For women: Eggs or embryos can sometimes be collected and frozen. Medications may also be used to help protect eggs during chemotherapy. Discuss timing with your oncologist – fertility preservation usually needs to happen quickly before chemotherapy begins
- For men: Semen can be collected and frozen for future use.

It's important to discuss your options with your medical team early, so you do not miss the opportunity to preserve fertility.

Sexual health

- Chemotherapy can affect sexual desire and function
- Use reliable contraception during treatment and for several months after – chemotherapy can harm a developing fetus
- Talk openly with your partner and healthcare team about concerns
- Vaginal dryness or erectile dysfunction can occur – treatments are available
- Your medical team can refer you to a fertility specialist if you want to explore options before starting chemotherapy.

Questions for your care team

Cancer and treatment

- What type and stage of lung cancer do I have?
- Why are you recommending this chemo? Are other options possible, like immunotherapy or targeted therapy?

Benefits and risks

- What is the main goal of this treatment – cure, control, or symptom relief?
- How likely is it to help in my situation?
- What are the common side effects, and which serious ones should I watch for?

Daily life

- How often will I need treatment, and for how long?
- Will I be able to work, study, or care for my family?
- Can I travel during chemotherapy?

Support and planning

- Who do I call if I feel unwell between treatments?
- What signs mean I should contact emergency services (for example, fever)?
- Can I see a dietitian, psychologist, social worker, or physiotherapist?
- Are there patient support groups or peer programmes you recommend?



Tip: Be sure to take notes or bring someone else who can