



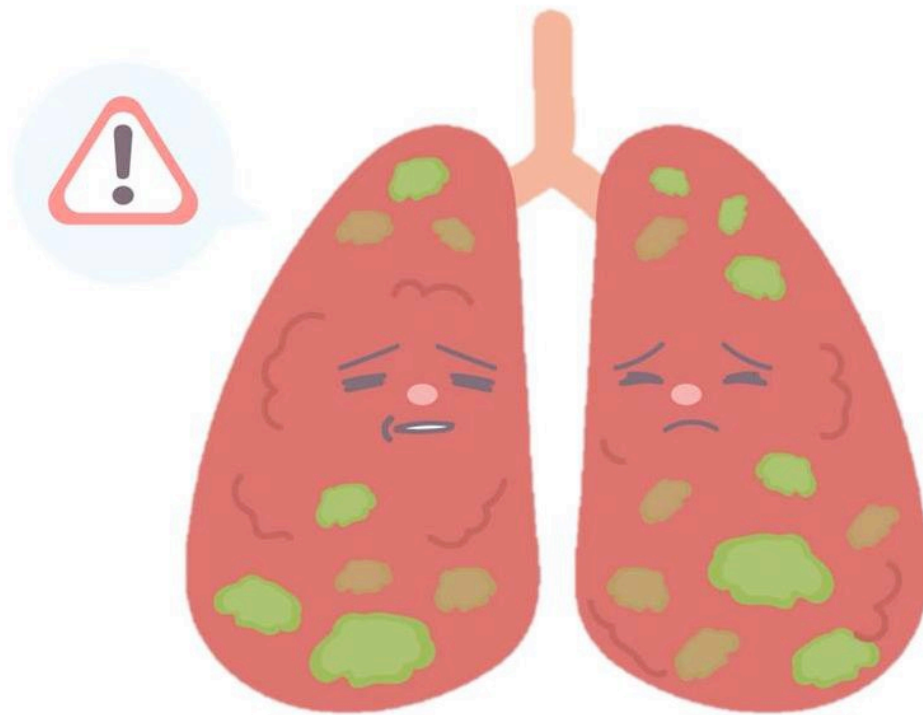
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Side effects of lung cancer chemotherapy and home care



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In the increasingly developed medical technology, there are currently four major type of treatments for patients with lung cancer: chemotherapy, targeted therapy, radiation therapy and surgery. Your physician will choose the most appropriate treatment for you according to your condition. This handout shows the details of details of chemotherapy for lung cancer.

Chemotherapy is a treatment using oral or intravenous drugs to stop or slow the growth of tumor cells. Chemotherapy is considered a systemic therapy that affects cells throughout the body. Chemotherapy usually entails many side effects, and good care can reduce their severity. Patients, family members, and health care personnel participate in the care together, allowing the patient to obtain the best therapeutic effect and reducing the discomfort of the side effects. The following are the precautions in chemotherapy, which all participants must attend to the process.

1. Precautions during chemotherapy

- I. Changes in injection site: You also must inform your medical care giver immediately if you experience redness, swelling, warmness, coldness or tenderness around the intravenous injection site.
- II. Physical discomfort: When you are receiving chemotherapy, some adverse effects may occur such as nausea, vomiting, malaise, decrease of appetite, anemia, decrease of white blood cell count and hair loss. Please inform your medical caregiver of the above symptoms, so they can help with relieving your symptoms.
- III. Allergy symptoms such as chills, itchiness, difficulty in breathing or chest tightness. You also must inform your medical caregiver.

2. Common side effects of chemotherapy and treatment

I. Loss of appetite:

During the treatment, you may have poor appetite, or don't feel like eating. Meanwhile, you could eat frequent but smaller meals and eat some snacks between meals. Choose your favorite food to increase your total daily intake. Eat more high-protein and high-calorie food. Don't eat anything too salty or greasy. If poor appetite lead to weight loss, see the doctor and have intravenous injection.

II. Nausea and vomiting

The start time of nausea and vomiting varies from person to person. For drugs that easily cause nausea and vomiting, doctors will first give preventive antiemetic drug and write a prescription. When you feel nausea, take the medicine immediately to prevent vomiting. Usually the symptoms start in about 3-5 days, there will be mild nausea. Afterwards vomiting occurs and the symptoms will gradually improve after 10-14 days.

- i. Have small but frequent meals. Choose foods that are lightly seasoned, and easy to digest. Eat slowly. Do not eat soup or drink water at the same time as the meal to avoid feeling excessive satisfied. If nausea or vomiting occurs, do not eat for the time being, and eat after the symptoms are relieved. Eat slowly to avoid the feeling of fullness, do some light activities after meals and avoid lying down immediately after meals.
- ii. Nausea and vomiting will spoil patient's appetite. Eat more high-protein and high-calorie food usually and avoid eating anything too sweet, salty, greasy or spicy.
- iii. When you feel nausea and vomiting, divert your attention to do something else, such as watching TV, chatting with other people or listening to music.
- iv. Don't lie down immediately after eating in 1-2 hours because you may feel nausea and get choking easily.
- v. Rinse your mouth immediately and thoroughly with plain potable water after vomiting to reduce rancid taste.
- vi. If nausea and vomiting occur after chemotherapy, record the time and frequency of symptoms and discuss with the doctor when returning.

III. Dry mouth, inflammation or ulceration of the oral mucosa

Mouth sores will happen in day 5 to day 14, then change into mucositis. It is easy to affect eating and cause infection at this time. As soon as oral ulceration happens, the wound will heal slowly. Therefore, more attention should be paid to prevent mouth sores.

- i. Brush your teeth and rinse your mouth after meals, before going to bed and in the morning to maintain oral hygiene. Rinse your mouth after eating to maintain oral hygiene.
- ii. Avoid eating irritating food, such as spicy, fried. Choose food that is easy to chew and easy to swallow.

- iii. Observe and note daily any changes in your mouth or throat after brush your mouth. Including the cheeks, tongue and upper jaw in the mouth, observe for irritation, breakage or white spots. Use a soft toothbrush when the oral mucositis happen. If the situation is serious, tell medical personnel. Use sterilizing mouthwash, oral ointment, analgesics to relieve symptoms timely.

IV. Leukopenia, and weakened immunity

The white blood cells in your body will reach to lowest level 7 to 14 days after chemotherapy. It will decrease your immunity, making you get infection easily. You should protect yourself from infection in the following ways:

- i. Hand washing is the most effective measure to prevent infection. Wash your hands with soap and hand sanitizer for two minutes to eliminate the bacteria remaining on your palms. Always wash your hands before eating, after going to the toilet and when you touch dusty places. Remember to wear masks to prevent upper respiratory tract infection.
- ii. Wear a mask when going out to avoid respiratory infections.
- iii. Use a soft toothbrush and pay attention to perineum hygiene.
- iv. Keep the body clean and the mucous membranes intact, including bathing, shampooing, trimming nails.
- v. Food must be cooked. It is absolutely forbidden to eat raw food (salad, sashimi, half-boiled eggs, half-cooked meat, etc.). Choose fruits that can be peeled, such as apples, oranges, grapes, bananas, etc. Increase protein intake (eg: eggs, beans, fish, meat) during treatment.
- vi. Probiotics can be used appropriately to help gastrointestinal motility and avoid drinking yogurt milk.
- vii. Avoid densely populated public spaces, stay away from the patient who is sick or infectious. If you have to go to public spaces, remember to wear a mask, wear warm clothes and do not touch the dirty environment.

V. Kidney injury

During lung tumor patient's first chemotherapy, the kidney cells were damaged and necrosis due to the influence of drugs. This effect can be prevented with care.

- i. You have to drink more water. At least two liters per day to maintain the circulation of the kidneys.
- ii. Observe whether there is a decrease in the amount of urination and the frequency of urination every day, such as burning or pain during urination, constant frequent urination, urgency, red or pink urine, or anuria should be informed to the doctor.
- iii. Regularly return to the clinic to draw blood to monitor renal function and urine routine.

VI. Hair Loss

This is a temporary condition. Your hair will re-grow in a few months after the treatment. You can wear a hat, scarf or wig to protect your head during the hair loss period.

VII. Peripheral neuropathy

The following symptoms appear in peripheral nerves due to the action of drugs: pain, numbness of the limbs, loss of sensation, slow reflexes, etc., if relevant. The symptoms should be notified to medical staff immediately. Use sharp objects (knives, scissors) carefully to avoid accidents and keep hands and feet warm (gloves and socks can be worn). Symptoms can be improved by appropriate supplementation of vitamin B complex.

3. Home precautions after receiving chemotherapy

- I. Return to the hospital for regular follow-up and appointments according to your physician's treatment plan until the entire treatment is completed. Do not terminate treatment by yourself. One week after the chemotherapy, you need to come back to the hospital for blood tests in order to follow up on the changes after treatment.
- II. Increase your daily intake of fresh and healthy foods in order to improve the ability of your bone marrow to produce blood cells and strengthen your body's immune system.
- III. If you experience fever (ear temperature greater than 38°C), inflammation, sore throat, cough, burning sensation when voiding or other symptoms of suspected infection, consult a physician immediately.
- IV. Avoid injury and bleeding. If you experience bruising on your body, nose bleeding, or blood in urine or stool, seek medical aid immediately.

Summary

The side effects of common pulmonary tumor chemotherapy include: loss of appetite, nausea, vomiting, oral mucosal injury, leukopenia, kidney dysfunction and hair loss, etc. After returning home, you should continue to pay attention to the presence of drug side effects. When side effects occur, please discuss the condition with the attending physician, and use appropriate care to relieve physical discomfort and improve the quality of life. Do not interrupt the course of treatment by yourself and delay the timing of treatment.

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Let's take a test to confirm that you have a thorough understanding.

1. Hand washing is the most effective measure to prevent infection.
Yes No Not sure
2. Food must be cooked, and eating raw food is strictly prohibited
Yes No Not sure
3. If you experience redness, pain, or swelling at the injection site when receiving chemical drugs, you do not need to notify medical staff immediately for treatment.
Yes No Not sure
4. Common side effects of chemotherapy are loss of appetite, Nausea, vomiting, Hair Loss, etc. However, each person experiences side effects from chemotherapy differently.
Yes No Not sure
5. Brush your teeth and rinse your mouth after meals, before going to bed and when you get up in the morning. Keep your mouth clean and hygienic and use a soft-bristled toothbrush to brush your teeth to avoid gum bleeding.
Yes No Not sure