

## Side Effects of Lung Cancer

### Impact of Lung Cancer Treatment and Diagnosis on Patients.

Lung cancer is the abnormal growth of cells in the lungs. Chemotherapy, Surgery, Radiation therapy, Targeted therapy, Immunotherapy, Ablative treatment, Tumor Treating Fields (TTF) Therapy, Palliative and supportive care treatments are used to treat the different types of lung cancer. Although these treatments are necessary to treat cancer, they cause concerning side effects. But the good part is these side effects can be reduced by talking to your doctor.[1]

The terms “side effects” and “symptoms” are used interchangeably while talking about any medical condition. But they are different and have their precise meanings. Knowing this difference helps in understanding that symptoms need to be treated, while side effects need to be managed.

*A symptom is “any feeling of illness or physical or mental change that is caused by a particular disease.”* [6] A symptom is caused because of the disease. For example, chest pain is a symptom as it is caused due to lung cancer.

Whereas a side effect is *“an unpleasant effect of a drug, medical treatment, or vaccine that happens in addition to the main intended effect”*. [7] Side effects are not caused by the disease but rather because of the treatment for the disease. For example, nausea and hair loss is a side effect caused due to chemotherapy, a treatment for lung cancer.

In this article we’ll take a look at the side effects due to the various tests during the diagnosis and the different methods of treatments of lung cancer.

## Side effects due to diagnosis:

Test	Side Effects	What can you do about it?
<b>PET Scans</b>	Allergic reaction due to the radioactive tracer (rarely happens).[2]	The allergic reaction is usually mild. Consult your doctor for medication.[2]
	Radiation exposure can affect the fetus and may pass to infants through breast milk.[2]	Inform your doctor if you are pregnant or breastfeeding.[2]
<b>Needle Biopsy</b>	Pneumothorax: Air gets trapped in the pleural space causing the lung to collapse[3]	Consult your doctor as soon as possible.[3]
	Bleeding in the lungs[3]	
	Infection[3]	
<b>Bronchoscopy</b>	Bleeding[4]	Usually, the bleeding stops without treatment.[4]
	Fever[4]	If fevers persist beyond a few days, you should consult your doctor.[4]
	Collapsed lung[4]	It is easily treated but, you'll be admitted to the hospital.[4]
<b>Thoracoscopy</b>	Pain or discomfort[3]	You could take medicines for the pain.[3]
	Blood loss or clots[3]	
	Infection[3]	Consult your doctor as soon as possible.[3]
	Pneumonia[3]	
<b>Pulmonary Function Tests (PFTs)</b>	Dizziness[5]	Rest well after the test.[5]
	Light-headedness or tiredness due to the deep breathing.[5]	
	Pneumothorax (rare)[5]	Seek medical attention.[5]

## Side effects due to treatment:

The treatment plan depends upon the individual's stage of cancer, age, health, lifestyle. Sometimes, individuals are assigned multiple treatments that suit their needs. Lung cancer treatment methods impact the cancerous cells as well as the healthy cells. This causes the unintended side effects.

Treatment	Side Effects	What can you do about it?
Chemotherapy	Low WBC count increases chances of infection.[1][8]	Practice good hygiene. Consult your doctor immediately in case of fever, cough, sore throat.[8]
	Low platelet count causes easy bruising or bleeding.[1][8]	Avoiding doing activities that might cause bleeding or bruising.[8]
	Low RBC count causes fatigue and tiredness.[1][8]	Your doctor will recommend some iron supplements, vitamin B12, or folic acid supplements.[8]
	Peripheral neuropathy (damage to nerve endings causing weakness, numbness, or pain).[1][8]	Consult your doctor.[8]
	Kidney damage from cisplatin.[1][8]	
	Hair loss.[1][8]	Use mild shampoos, soft brushes, don't use electric rollers, curling irons, dyes, or perms.[8]
	Mouth sores.[1][8]	Consult your doctor for appropriate medications.[8]
	Loss of appetite and weight loss.[1][8]	Eat several small meals a day. Add spices if food tastes too bland.[8]
	Nausea and vomiting.[1][8]	Eat several small meals throughout the day. Your doctor will prescribe you medications as well.[8]
Radiation Therapy	Diarrhea or constipation.[1][8]	For constipation, consume high-fiber foods and for diarrhea, eat low-fiber foods like white rice, oatmeal, and skinless chicken.[8]
	Fatigue.[9]	Rest well, your body is repairing itself from the radiation.[9]
	Nausea and vomiting.[9]	
	Loss of appetite and weight loss.[9]	Eat several small meals throughout the day.[9]
	Skin changes like mild redness to blistering and peeling.[9]	Moisturize the skin, use gentle skincare products and protecting the skin from sun.[9]
	Hair loss where the radiation enters the body.[9]	Wear a hat or a scarf to protect your scalp from the sun.[9]
Surgery	Side effects of Pafolacianine (nausea, chest pain, itching).[1]	Consult your doctor.[1]
	Pain or discomfort near the incision site.[1]	
Targeted Drug Therapy	Rashes that look like acne on your scalp, face, neck, chest, and back.[1][11]	It goes away after the treatment stops.[1][11]
	Dry skin.[1][11]	Moisturize the skin and use gentle skincare products.[1][11]
Immunotherapy	Fever.[1][10]	Consult your doctor before taking any medicines.[1][10]
	Fatigue.[1][10]	Rest well, but stay active as much as possible.[1][10]
	Infection.[1]	
Tumor Treating Fields (TTF) Therapy	Allergic reactions.[1]	Consult your doctor in case you face any of these symptoms.[1]
	Muscle twitching.[1]	
	Skin irritation.[1]	
	Breakdown of the skin (ulcers).[1]	

## References:

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- [5] <https://my.clevelandclinic.org/health/diagnostics/17966-pulmonary-function-testing>
- [6] <https://dictionary.cambridge.org/dictionary/english/symptom>
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