

New Test Can Help Predict Patients That Benefit Most From Chemotherapy for Lung Cancer

Researchers found that patients with non-small cell lung cancer (NSCLC) whose tumors had no or low levels of a protein called MSH2, benefitted more from chemotherapy after surgery than patients with high levels of MSH2. Cancer cells use the MSH2 protein to repair damage from chemotherapy with cisplatin (Platinol). Patients with low MSH2 levels who received chemotherapy with cisplatin lived about 16 months longer than those who did not receive chemotherapy. Patients with high MSH2 levels who received chemotherapy lived for about 9 months less than those who did not receive chemotherapy. This study also showed that measuring MSH2 levels and levels of another protein called ERCC1 was better able to predict which patients would benefit from chemotherapy after surgery. ERCC1 is a previously identified protein that also repairs damage to tumor cells. Patients with low levels of both proteins who received chemotherapy lived 26 months longer than those who did not receive chemotherapy.

What this means for patients

Measuring MSH2 and ERCC1 levels is a new and easily performed test that can be used to predict the benefit of chemotherapy for patients with NSCLC, said lead author Pierre Fouret, MD, PhD, Professor at Institut Gustave Roussy in Villejuif, France and Université Pierre et Marie Curie in Paris. This is an important step toward more personalized treatment for patients who have had surgery for lung cancer. Determining whether a patient will benefit from a treatment can help to spare patients from the side effects and costs of a treatment that is unlikely to help them. Talk with your doctor about the factors that may help determine the best treatment for you.

What to Ask Your Doctor

- What type of lung cancer do I have?
- What are my treatment options?
- Are there other tests that I may need to help find the best treatment for me?
- What treatment do you recommend?

For More Information

[Cancer.Net Guide to Lung Cancer](#) [1]

[ASCO Answers Fact Sheet: Lung Cancer](#) [2]

[Cancer Screening](#) [3]

[ASCO Expert Corner: A Decision Aid Tool for Lung Cancer](#) [4]

[Lung Cancer Treatment Plans and Summaries](#) [5]

Links:

[1] <http://www.cancer.net/patient/Cancer+Types/Lung+Cancer>

[2] http://www.cancer.net/sites/cancer.net/files/vignette/ASCO_Answers_Lung.pdf

[3] <http://www.cancer.net/patient/All+About+Cancer/Risk+Factors+and+Prevention/Cancer+Screening>

[4] <http://www.cancer.net/patient/All+About+Cancer/Cancer.Net+Feature+Articles/Expert+Information+from+ASCO/ASCO+Expert+Corner%3A+A+Decision+Aid+Tool+for+Lung+Cancer>

[5] <http://www.cancer.net/patient/Survivorship/ASCO+Cancer+Treatment+Summaries>