

## **Melanoma - Latest Research [1]**

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 09/2015

**ON THIS PAGE:** You will read about the scientific research being done now to learn more about this type of cancer and how to treat it. To see other pages, use the menu on the side of your screen.

Doctors are working to learn more about melanoma, ways to prevent it, how to best treat it, and how to provide the best care to people diagnosed with this disease. The following areas of research may include new options for patients through clinical trials. This section is not meant to be a complete list of new clinical trials since this field is changing rapidly. Always talk with your doctor about the diagnostic and treatment options best for you.

- **Enhanced prevention and early detection methods.** There is ongoing research on better prevention and early detection strategies for melanoma. Both primary and secondary prevention are important. Primary prevention involves keeping melanoma from developing, while secondary prevention includes methods of early detection. One promising area is the screening of [people with a high risk of developing melanoma](#) [3].
- **Targeted therapy.** As discussed in the [Treatment Options](#) [4] section, targeted therapy is a treatment that targets specific genes or proteins. Ongoing research has identified a number of molecular pathways and activated or mutated genes in melanoma. Clinical trials are testing new drugs to inhibit the MAP kinase pathway and other pathways that melanoma might use to grow and spread. Strategies to prevent the melanoma from becoming resistant to treatment are also being tested such as using combinations of drugs or exploring new schedules of giving drugs to patients.

- **Immunotherapy.** Researchers are studying new checkpoint inhibitors and immunotherapies directed at other parts of the immune system. These include LAG3 inhibitors, OX40, CD137 agonists, GITR agonists, and IDO inhibitors.
- **Adoptive cell transfer (ACT).** Another type of experimental immunotherapy involves altering a person's white blood cells, known as lymphocytes, in a laboratory to increase their ability to fight the tumor. The changed cells are given back to the patient, often in combination with interleukin-2 or other immunotherapies. These types of treatments are known as adoptive cell transfer (ACT).
- **Vaccines.** Therapeutic vaccines that may improve the specific immune response to melanoma have been the focus of multiple clinical trials. Melanoma peptide vaccines are being evaluated in clinical trials for patients with both localized and advanced melanoma. Research has shown that vaccination can cause the immune system to fight melanoma, even in advanced disease, but these therapies are still considered experimental. The vaccines are made using certain proteins found only on a melanoma tumor and are given as an injection; the person's immune system then recognizes the proteins and destroys melanoma cancer cells. To date, no vaccines have shown clinical benefit in patients. Learn more about cancer [vaccines](#) [5].
- **Palliative care.** Clinical trials are underway to find better ways of reducing symptoms and side effects of current melanoma treatments in order to improve patients' comfort and quality of life. For example, patients with melanoma that has spread to the brain are often excluded from clinical trials. However, there are increasingly more clinical trials specifically for people with brain metastases.

## Looking for More About the Latest Research?

If you would like additional information about the latest areas of research regarding melanoma, explore these related items that take you outside of this guide:

- To find clinical trials specific to your diagnosis, talk with your doctor or [search online clinical trial databases now](#) [6].
- Review research announced at ASCO's recent scientific meetings about advances in the treatment of melanoma, especially for metastatic disease, by reading these [easy-to-understand summaries](#) [7] or by listening to a [short podcast](#) [8] led by an ASCO expert in melanoma.

- Visit ASCO's [CancerProgress.Net](#) [9] website to learn more about the historical pace of research for melanoma. Please note this link takes you to a separate ASCO website.
- Visit the website of the [Conquer Cancer Foundation](#) [10] to find out how to help support research for every cancer type. Please note this link takes you to a separate ASCO website.

*The [next section in this guide is Coping with Side Effects](#) [11], and it offers some guidance in how to cope with the physical, emotional, and social changes that cancer and its treatment can bring. Or, use the menu on the side of your screen to choose another section to continue reading this guide.*

---

### **Links**

[1] <http://www.cancer.net/cancer-types/melanoma/latest-research>

[2] <http://www.cancer.net/about-us>

[3] <http://www.cancer.net/node/19254>

[4] <http://www.cancer.net/node/19258>

[5] <http://www.cancer.net/node/24721>

[6] <http://www.cancer.net/node/24878>

[7] [http://www.cancer.net/research-and-advocacy/research-summaries?field\\_page\\_topic\\_tid\\_2=All&field\\_page\\_topi c\\_tid=282&date\\_filter%5bvalue%5d%5byear%5d=](http://www.cancer.net/research-and-advocacy/research-summaries?field_page_topic_tid_2=All&field_page_topi c_tid=282&date_filter%5bvalue%5d%5byear%5d=)

[8] <http://www.cancer.net/node/31556>

[9] <http://www.cancerprogress.net/timeline/melanoma>

[10] <https://www.conquercancerfoundation.org/research-results>

[11] <http://www.cancer.net/node/19261>