NOVARTIS

Advanced Melanoma

Understanding melanoma

Melanoma is the most serious type of skin cancer, and many times, it is caused by damage to the DNA in skin cells.[1] This damage to the DNA (often called a gene mutation) can cause cancerous tumors to form in the skin.[2] According to the World Health Organization, there are about 200,000 new cases of melanoma and 55,000 melanoma-related deaths worldwide each year.[3]

Once melanoma has been detected, doctors determine the stage of the cancer and choose an appropriate treatment. The higher the stage, the more advanced the melanoma:[4]

	There may or may not be ulceration when the skin above the tumor breaks down.
Stage 0	The tumor is only in the epidermis. It hasn't spread deeper than the outer layer of the skin.[4]
Stage I	The tumor is thicker than in stage 0 melanoma. There may or may not be ulceration when the skin above the tumor breaks down.[4] It may have grown past the epidermis and into the dermis.[4]
Stage II	The tumor is thicker than in stage I melanoma. There may or may not be ulceration when the skin above the tumor breaks down.[4] It has grown past the epidermis.[4]
Stage III	The cancer has spread to one or more regional lymph nodes.[4] Lymph nodes are part of the body's immune system, which helps the body fight disease and infection.[5] There may also be ulceration—when the skin above the tumor breaks down.[4] The tumor may have spread to small areas of nearby skin (satellite tumors) or lymphatic channels (in-transit tumors). The tumor has not spread to distant parts of the body.[4]
Stage IV	The cancer has spread to:[4] • Distant lymph nodes • Other places in the skin or parts of the body, like the lungs, liver, brain, and bones • Both

Many cancers are caused by a mutation in a gene – a permanent alteration in the DNA sequence.[6] Genes give the instructions for making proteins in the cells of the body. One type of genetic mutation is the BRAF V600 mutation.[6,7] The BRAF V600 protein works like a switch to tell cells to grow. But the BRAF V600 mutation makes the protein stay "switched on" all the time, which causes the cells to grow out of control.[6,7]

About 50% (half) of the cases of melanoma have a BRAF mutation.[8] This means there is damage to a specific gene—the BRAF gene—that has caused cancer cells to form and grow.[6,8]

Using a small piece of tumor tissue, a gene test can detect BRAF mutations and give doctors more information about the tumor.[9] Knowing a patient's mutation status can help determine which therapies may be considered as a treatment option.

Treating melanoma[10-12]

Different types of treatment are available for patients with melanoma:

Early stage melanoma (stages 0-II) often treated with surgery alone.

In treating stage III melanoma, surgery may be the first step. The goal of surgery to treat melanoma is to remove as many melanoma cells as possible from the body. This type of surgery is called resection. However, even after surgery, patients may still have some melanoma cells left in their body. Medicine after surgery targets the melanoma cells that the surgery did not remove. This type of treatment is called adjuvant therapy (or adjuvant treatment), and may be recommended for stage III melanoma. Adjuvant therapy is designed to help prevent recurrence of the cancer or keep the cancer from coming back (recurrence). Thus, patients may remain cancer free longer.

When stage III melanoma cannot be removed by surgery, the cancer is considered unresectable. Along with stage IV, these represent the most serious and life-threatening type of skin cancer. **For patients with stage III unresectable** – cancer that has spread locally, **or stage IV metastatic melanoma** – cancer that has spread to distant parts of the body, often affecting vital organs. In this case, the goals of treatment for metastatic patients are to:[12]

- Help extend life
- Keep cancer from spreading further
- Slow the growth of cancer cells, or totally stop cancer cells from growing

There are several types of treatment for stage III and stage IV melanoma.[10] Which treatment a doctor chooses depends on several factors, including:

- The stage of the cancer
- The location of the cancer
- The patient's overall health
- The patient's prognosis (how the patient's condition is most likely to change)

One treatment option for stage III and stage IV melanoma includes the use of targeted therapies. Taken orally, targeted therapies are medicines that target cancer cells to prevent them from growing and spreading. Targeted therapies may shrink tumors in people with metastatic melanoma. These therapies can also affect healthy cells. They may also delay the time that the tumors start growing again. Sometimes, 2 targeted drugs are used together. This is called targeted combination therapy. Targeted therapies are approved both as single-agent and in-combination therapies to treat patients with BRAF-positive stage III or stage IV melanoma.[10]

In addition, research is ongoing to discover new treatment strategies for melanoma that may help patients and their treatment teams better manage the disease.

Questions to ask your doctor

If you or a loved one have been diagnosed with advanced (unresectable or metastatic) melanoma, you may want to ask your doctor questions like these about your diagnosis and treatment plan:

For those who are newly diagnosed with metastatic melanoma:

- What is melanoma?
- What stage is my melanoma?
- What causes melanoma? Can certain factors increase a person's risk for melanoma?
- What is a BRAF mutation, and how do I know if I have it?
- How can I get tested for gene abnormalities like BRAF?
- What are my treatment options?
- What is a targeted therapy? Am I a candidate for it?
- What are the risks or side effects of each treatment option?
- How will treatment affect my daily life?
- Are there clinical trials that I should consider?
- Where should I go to find more information?

For those whose melanoma has progressed:

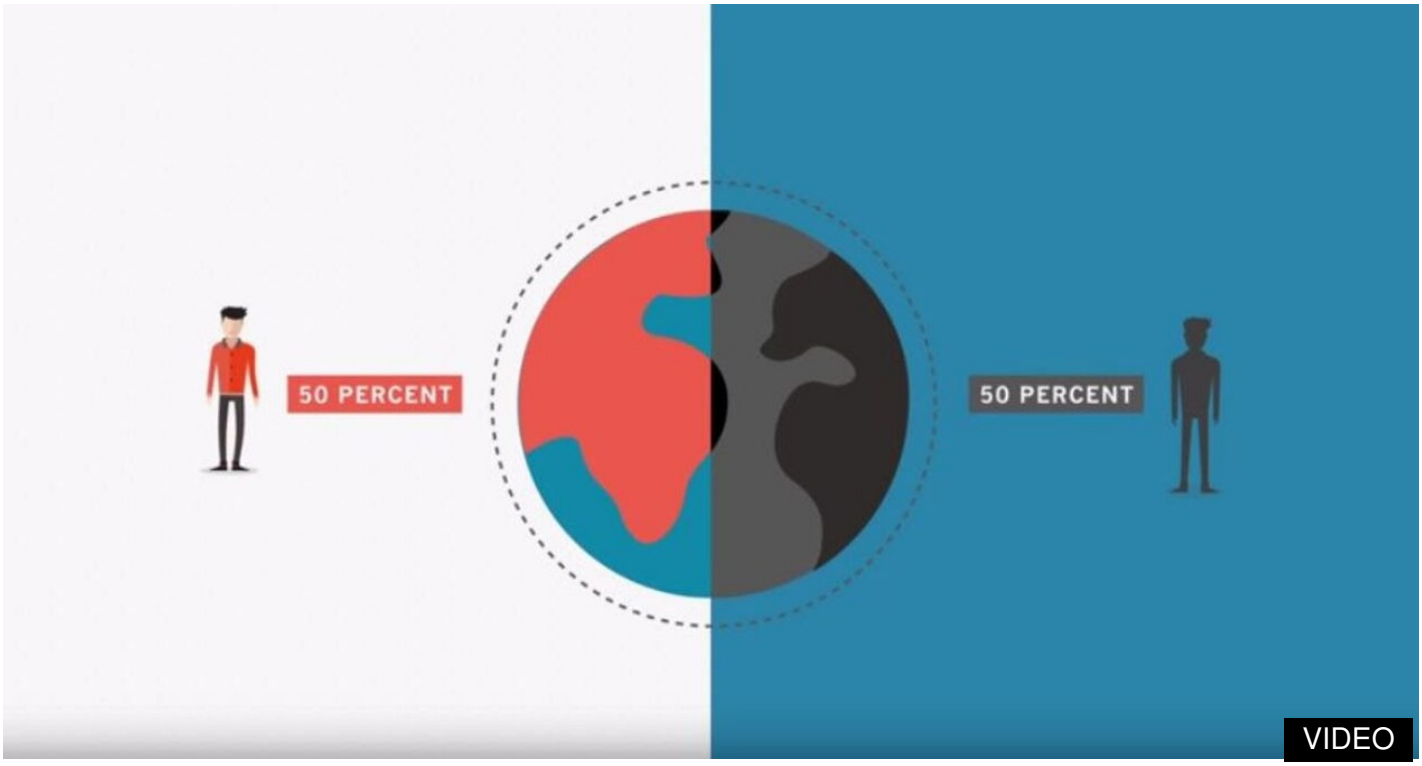
- What stage is my melanoma?
- What is my prognosis?
- Where has my cancer spread?
- Should I have any additional tests?
- Have my treatment options changed?
- What is a targeted therapy? Am I a candidate for it?
- What are the risks or side effects of each treatment option?
- How will treatment affect my daily life?
- Are there clinical trials that I should consider?
- Where should I go to find more information?

Additional resources

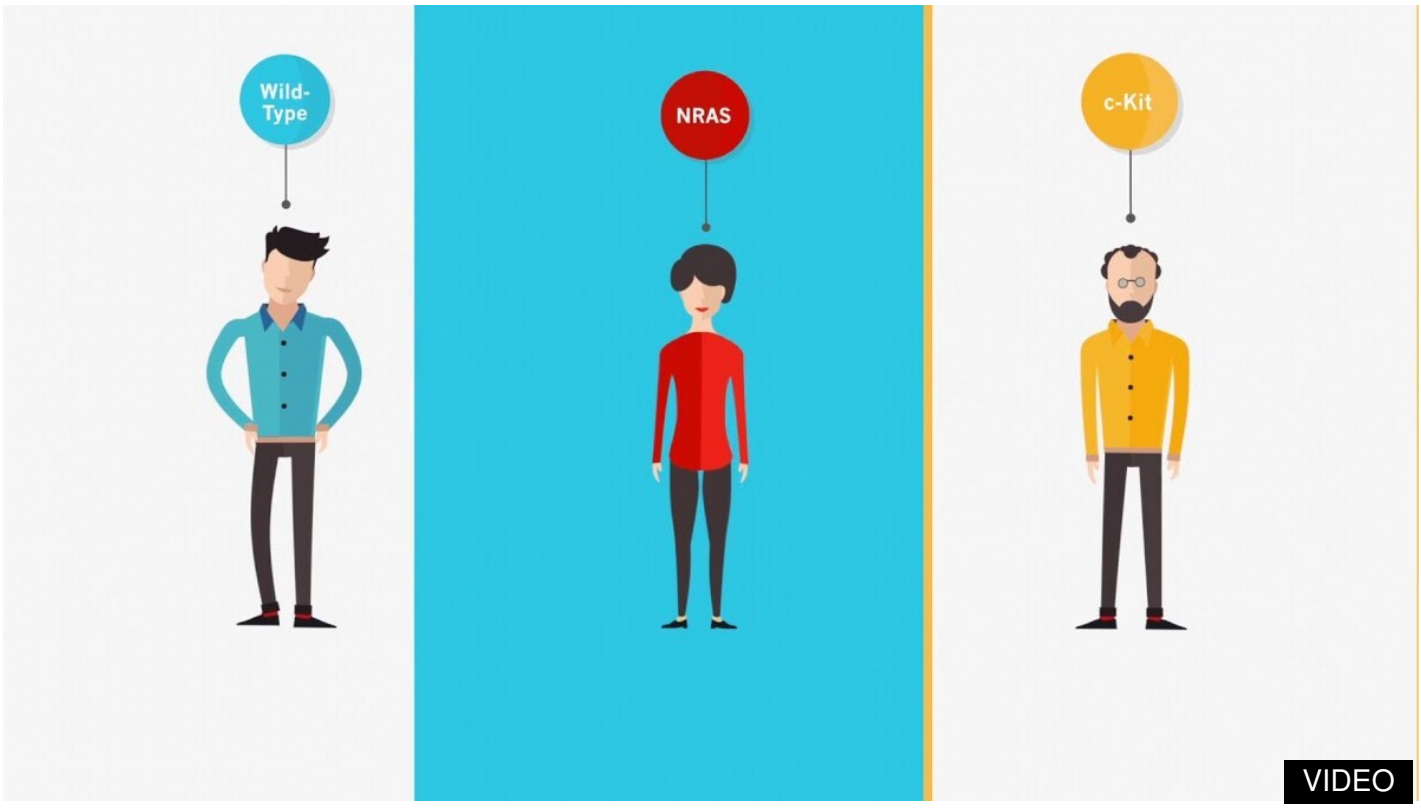
Facts About Melanoma

Spotlight on the Transformation of Metastatic Melanoma Care (PDF, 562KB)

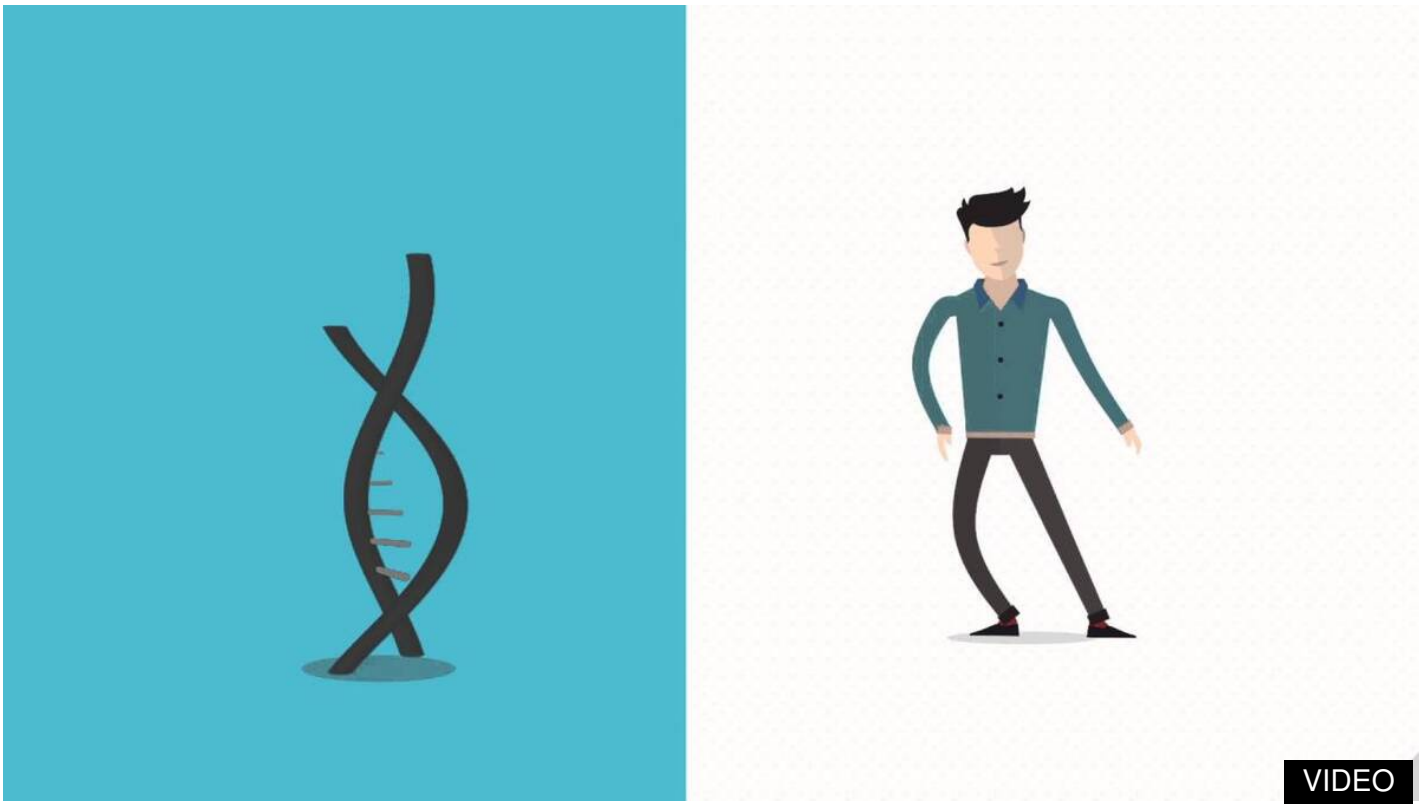
Read more about how Novartis Oncology is bringing attention and support to those battling advanced melanoma.



About Advanced (Unresectable or Metastatic) Melanoma



About Mutations in Advanced (Unresectable or Metastatic) Melanoma



Advanced (Unresectable or Metastatic) Melanoma – Why Mutations Matter

All Videos

About Advanced (Unresectable or Metastatic) Melanoma

About Mutations in Advanced (Unresectable or Metastatic) Melanoma

Advanced (Unresectable or Metastatic) Melanoma – Why Mutations Matter

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