

# How Melanoma Develops: Causes and Pathology

Watch the video up to minute 5.34, and choose the correct answers:

[https://www.youtube.com/watch?v=H\\_XafvR7D0](https://www.youtube.com/watch?v=H_XafvR7D0)

**What is the focus of George's presentation?**

- a. The causes and pathology of melanoma.
- b. Treatment options for advanced-stage skin cancer.

**What does George highlight as the most important factor in decreasing melanoma mortality?**

- a. Aggressive screening and novel therapies.
- b. The development of better surgical techniques.

**What is the projected number of new melanoma cases in the U.S. for 2021?**

- a. Around 106,000.
- b. Around 50,000.

**What percentage of newly diagnosed cancers in the U.S. does melanoma account for?**

- a. 6%.
- b. 12%.

**Which type of UV radiation is most closely associated with causing burns that contribute to melanoma?**

- a. UVB radiation.
- b. UVC radiation.

**What is the pattern of sun exposure most commonly linked to melanoma?**

- a. Intense, intermittent exposure and sunburns.
- b. Chronic, mild exposure over long periods.

**What happens to melanocytes when exposed to UV radiation?**

- a. They proliferate uncontrollably, leading to melanoma development.
- b. They die off like other skin cells when damaged by UV rays.

**What factor contributes to the high mutational burden in melanoma tumors?**

- a. UV radiation causing DNA mutations.
- b. Chronic infections in the skin tissue.

**What type of DNA mutation is most common in melanoma due to UVB exposure?**

- a. A switch from C to T in the DNA sequence.
- b. A switch from A to G in the DNA sequence.

**Which factor is NOT listed as a significant cause of melanoma?**

- a. UV radiation exposure.
- b. Pollution levels in urban environments.