



MELANONYCHIA

<http://www.aocd.org>

Melanonychia is a term used to describe brown or black discoloration found within the nail. It is most commonly seen in those with darker skin, although it can be found in lighter skinned individuals as well. While most of the time melanonychia is considered a normal finding, it could also be a sign of an underlying **melanoma**. This is commonly referred to as melanoma of the nail unit or nail apparatus melanoma which is a very serious disease with a high mortality rate.

There are two main pathways in which melanin (pigment) can be deposited in the nails. The first is by an increased production of melanin from melanocytes (pigment-producing cells) becoming activated. This can happen for a number of reasons. It can be physiologic, which occurs normally in those with darker skin or in those who are pregnant. It can also be caused by certain dermatologic and other systemic diseases, trauma to the nail, or even certain medications.

The second pathway melanin can be deposited in the nails is from melanocytic hyperplasia, or too many melanocytes. This is the same way that benign **moles** (nevi) and **lentiginos** form in the skin. Although most often this cause of melanonychia is benign, it may also indicate a melanoma.

It is therefore very important to determine whether melanonychia may be a sign of an underlying melanoma. Warning signs of melanoma in the nail include melanonychia developing after the age of 60, affecting only one nail (particularly of the thumb, big toe, or index finger), developing after trauma to the nail, a triangular shape to the pigment band (wider at the base and narrower towards the end of the nail), or if the pigment changes rapidly. Another clue to look for is Hutchinson's sign, where the pigment spreads from the nail itself to the perionychium (skin surrounding the nail). If there is a concern that a nail may indicate a possible melanoma a piece of the nail is cut out (**biopsied**) and sent to a lab for analysis.

A mnemonic to help determine if a nail with melanonychia may indicate a possible melanoma has been developed, using ABCDEF:

- **A** = **A**ge (for patients with new onset melanonychia between 60-80)
- **B** = **B**rown to **B**lack pigment (as in multiple different shades of pigment in the nail) with a **B**readth (width) of 3mm or more
- **C** = **C**hanges, or sudden, quick changes in size of the band of pigment
- **D** = **D**igit, for one solitary finger/toe (or digit) involved
- **E** = **E**xtension of the pigment into the skin surrounding the nail (Hutchinson's Sign)
- **F** = **F**amily history of melanoma

This information has been provided to you compliments of the American Osteopathic College of Dermatology and your physician.

The medical information provided in this article is for educational purposes only and is the property of the American Osteopathic College of Dermatology. It is not intended nor implied to be a substitute for professional medical advice and shall not create a physician - patient relationship. If you have a specific question or concern about a skin lesion or disease, please consult a dermatologist. Any use, re-creation, dissemination, forwarding or copying of this information is strictly prohibited unless expressed written permission is given by the American Osteopathic College of Dermatology. For detailed information including links to related topics on this and many other skin conditions with photos, visit: <https://www.aocd.org/page/DiseaseDatabaseHome>