

Moles and melanoma in children and teens

WHAT ARE MOLES?

"Moles" (melanocytic nevi) are common, raised or flat skin lesions that contain an increased number of melanocytes. Melanocytes are the cells in our skin that make pigment (melanin), which accounts for our skin color. Moles are most often tan or brown in color, but sometimes they can be skin-colored, pink, or even blue.

Moles may be present at birth (congenital melanocytic nevi; see below) or may develop during childhood or young adulthood (acquired melanocytic nevi). Moles tend to increase in number during the first two decades of life, and teenagers often have a total of 15-25 moles. Sun exposure can stimulate the body to make more moles.

WHAT IS A MELANOMA?

Melanoma is a type of skin cancer that can be deadly if it spreads throughout the body. Therefore, early detection and removal of a melanoma, before it grows deeper, is very important. Melanoma is more common in adults but occasionally develops in teenagers, especially those with risk factors such as many moles (e.g. >50-100) and a family history of melanoma. It very rarely occurs in children before puberty.

HOW CAN I TELL THE DIFFERENCE BETWEEN A MOLE AND A MELANOMA?

Melanoma can often be suspected based on its appearance. It can present as a new irregular brown-black spot or pink-red bump. It may also develop from a pre-existing mole that changes to become irregular in shape.

CONGENITAL MELANOCYTIC NEVI ("BIRTHMARK" MOLES)

Congenital melanocytic nevi are moles that are present at birth or become evident in the first year of life. They are found in 1-3% of newborn babies. These nevi often enlarge in proportion to the child's growth and are classified based on their projected final adult size, with categories ranging from small (<1.5 cm) to giant (>40 cm). Giant congenital melanocytic nevi can cover a large

Here are some helpful tips that can help to detect melanoma:

1 ABCDEs OF MOLES THAT RAISE SUSPICION FOR POSSIBLE MELANOMA:

ASYMMETRY: Asymmetry means that when you draw a line through the middle of a mole, the two halves do not match in color, size, shape, or surface texture.

BORDER: The border of a melanoma tends to be irregular or ill defined. In contrast, the border of a mole is usually crisp and well demarcated.

COLOR: Multiple different colors or dark black, blue, white, or red areas within the mole.

DIAMETER: Size greater than 0.6 cm (1/4 of an inch, the size of a pencil eraser). This is only a guideline, and many normal moles are this large or even a bit larger.

EVOLUTION: Changes in size, shape, color, or thickness, especially if it is more rapid or different than what's occurring in the other moles on the individual's body. For example, normal moles in children often become more elevated and soft ("squishy") slowly over time. Any sudden development of a firm bump would be worrisome. In addition, a new symptom such as bleeding, itching, or crusting should prompt evaluation.

2 The "ugly duckling" sign means being suspicious of a mole that is very different – in shape, color, or behavior – than other moles in a particular child.

3 In children, a melanoma spot can appear as a growing pink or red bump that may or may not bleed.

4 If you are worried about a spot or bump on your child's skin, do not hesitate to call your provider and have it examined. Sometimes removing (biopsy) the lesion so it can be evaluated under the microscope is helpful.

portion of the body (e.g. in a 'bathing trunk' or 'cape' distribution) and are rare, found in fewer than 1 in 20,000 newborn infants.

The risk of melanoma arising within a congenital melanocytic nevus depends in part on the size of the birthmark. Small and medium-sized congenital melanocytic nevi have a low chance of developing a melanoma within them. This risk is less than 1% over a lifetime and is extraordinarily low before puberty. On the other hand, approximately 5% of giant congenital melanocytic nevi develop a melanoma, often during childhood. Therefore, a dermatologist should follow children with giant congenital melanocytic nevi especially closely, and any focal change (e.g. a superimposed pink or black bump) in any congenital nevus should be brought to a physician's attention. Occasionally, children with giant and/or numerous (e.g. >20) congenital melanocytic nevi also have an increased number of melanocytes around their brain, which is referred to as neurocutaneous melanocytosis.

Congenital melanocytic nevi are managed on an individual basis depending on their location, size, appearance, and evolution over time. Factors that may prompt surgical excision of a congenital nevus include cosmetic concerns (especially on the face, where the surgical scar may be preferable to the nevus), difficulty in monitoring the lesion, and worrisome changes in its appearance. Excision of larger congenital nevi often requires multiple procedures, and complete removal may be impossible. A thorough discussion with a dermatologist and/or plastic surgeon is recommended.

WHAT CAN I DO TO PROTECT MY CHILD'S SKIN AND PREVENT MELANOMA?

1. PROTECTION FROM SUN EXPOSURE.

People with fair skin, intermittent exposures to large amounts of sun (e.g. while on vacation), and sunburns during childhood or adolescence have increased risk for melanoma. All children and adolescents should be protected from the sun, by using a broad-spectrum (SPF 30 or more) sunscreen, and wearing a hat and protective clothing.

2. REGULAR SKIN CHECKS AT HOME AND BY A PEDIATRICIAN AND/OR DERMATOLOGIST.

It is difficult to memorize the way every single mole looks, but if you look at moles once a month, you may more easily notice changes. On the other hand, don't check more than once a month or you might not notice a change. Full skin exams by a physician (pediatrician, family doctor or dermatologist) should be done at least once a year, especially if your child has many moles, they are hard to follow, or there is a family history of melanoma. A dermatologist should be consulted if there is a specific concern.



The Society for Pediatric Dermatology
8365 Keystone Crossing, Suite 107
Indianapolis, IN 46240
(317) 202-0224
www.pedsderm.net

The Society for Pediatric Dermatology and Wiley-Blackwell Publishing cannot be held responsible for any errors or for any consequences arising from the use of the information contained in this handout. Handout originally published in *Pediatric Dermatology*, Vol. 32, No. 2 (2015).

Contributing SPD Members:
Sarah Stein, MD
Ki-Young Yoo, MD

Committee Reviewers:
Andrew Krakowski, MD
Aimee Smidt, MD

Expert Reviewer:
Julie Schaffer, MD