



# MASTOCYTOMA

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A mastocytoma is a type of **mastocytosis** that presents as a solitary collection of mast cells in the skin. Mast cells are made in the bone marrow and are part of the body's immune system. These cells, once activated, release a variety of proteins and chemicals that create allergic reactions and attract other cell types to fight off infections. Mastocytosis can either be cutaneous (affecting only the skin) or systemic (affecting various parts of the body). Cutaneous mastocytosis is more common, and overall represents 1 in 500 encounters with pediatric dermatologists. Mastocytosis are more common in childhood, but can also appear during adulthood. In addition, of all the types of mastocytosis, mastocytomas represent 10-35% of cases.

These solitary collections of mast cells are most often present at birth, but they can also develop during the first few weeks of life. Mastocytomas are typically red-brown in color and vary in shape and size (usually less than 1 centimeter) being flat on the skin surface, a small raised bump in the skin, or as a small tumor in the skin. The tumor is benign, and not considered to be dangerous. There is typically only one lesion on the skin, but multiple lesions can occur. Mastocytomas are most commonly found on the back of the hands or the wrist, but they can be found anywhere. In rare cases, mastocytomas have been found on the lung.

Because mast cells release many proteins and chemicals when they're activated, mastocytomas are also sensitive to being touched or rubbed. When a mastocytoma is agitated, it turns red, swelling in size, and can even blister; this is known as a positive "Darier's sign." Occasionally, a single mastocytoma can cause body-wide symptoms, most often flushing (reddening of the skin).

An easy way to diagnosis this lesion is to stroke it and wait a few minutes to see if it swells. A diagnosis can also be confirmed by doing a shave or punch **biopsy** which will show increased numbers of mast cells using special stains (Giemsa or toluidine blue).

Most solitary mastocytomas will go away on their own without treatment, by age 10 or earlier. These lesions will not progress to a malignant disease, so they will not spread to nearby or distant parts of the body.

There is no therapy needed for mastocytoma. However if these lesions are causing irritation, covering a mastocytoma with a special type of bandage (hydrocolloid dressing) will prevent rubbing of the lesion, stopping the release of the mast cell's proteins and chemicals, ultimately preventing it from swelling or blistering. **Antihistamines** can also be used to prevent the activation of the mast cells.

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