



# JUVENILE PLANTAR DERMATOSIS

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Juvenile plantar dermatosis (JPD), also known as "wet and dry foot syndrome", is a skin disorder of the feet that commonly affects children from ages 3 to 14. JPD is frequently seen in children with **eczema**, but it is not a requirement for diagnosis.

The primary underlying mechanism involved in the development of JPD is a cycle of excessive moisture followed by rapid drying, which leads to cracking and fissuring of the plantar surfaces of the feet. The keratin layers of the feet become excessively hydrated from sweat or water exposure, and then with rapid drying they become super-dehydrated. Repeated exposure to this cycle results in the accumulation of micro-damage to the bottom of the feet. Risk factors for developing JPD include **hyperhidrosis** (excessive sweating), the use of non-breathable footwear, and the wearing of thin socks with poor absorptive abilities.

Juvenile plantar dermatosis presents as a red, scaly lesion that affects the weight-bearing regions of the sole of the foot. The initial lesions are symmetrical, red macules with a somewhat shiny appearance that can be found on the bottom of the foot. These macules eventually coalesce to form many erythematous patches with associated scaling. Fissuring and cracking of the skin is very common. One unique finding in JPD is that the toe webs are spared.

The diagnosis of JPD is based primarily on physical examination of the feet. A personal history of eczema is a strong contributing factor in most cases. Also, many individuals will report a history of excessive sweating of the feet and sometimes the palms as well.

The treatment for JPD is simple, to reduce the amount of "wet-to-dry" cycles that the feet experience. The best method is prevention. This can be accomplished by obtaining more breathable footwear, wearing thicker more absorbent socks, and by avoiding rapid drying of dampened feet. Keeping shoes on the feet as much as possible is also helpful in preventing drying out. The mainstay of treatment for JPD is the use of an occlusive, soothing ointment that is applied to the affected areas of the foot immediately after shoe removal or emersion from a water source. The ointment keeps the plantar surfaces of the feet from drying out too rapidly, thus preventing the sequelae of JPD.

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

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