

Foot health in people with Down syndrome

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Our feet play an important role in our daily lives. They are the foundation of our body and are essential for helping us move; they touch the ground whenever we are standing, walking or running. Therefore, having healthy feet is very important.

Children and adults with Down syndrome often develop problems with their feet. The most common foot related problems in Down syndrome are dermatological (skin) conditions, foot deformity, and poor-fitting footwear (see Table 1).

Dermatological (skin) issues: Problems with the skin of the feet and toenails are common in people with Down syndrome. Studies have shown that almost all children and adults with Down syndrome will have some type of dermatological problem of their feet. The most common dermatological problems are callus (a thickening and hardening of the skin), interdigital maceration (excessive moisture between the toes), and excessive dryness. Calluses can cause foot pain, which has been likened to standing on a rock. Interdigital maceration and excessive dryness can lead to cracking (fissures) and the breaking down of skin, which may cause infection. Toenail problems are also common and these include fungal infections, thickening of the nail, and ingrown toenails.

Foot deformity: Foot deformity is another common problem among children and adults with Down syndrome. The forefoot (front of the foot) is where many of these deformities occur, and people with Down syndrome are more likely to have forefoot problems as they often have wider feet. For example, about half of all people with Down syndrome will develop hallux valgus; this is a condition affecting the big toe that is commonly referred to as a bunion. As the deformity progresses, it can affect the rest of the foot causing more deformity in the rest of the toes. This can cause foot pain, and can lead to problems with walking and balance. Foot deformities can also create difficulty finding shoes that fit well. Flat feet are common in people with Down syndrome and can also contribute to the development of foot deformity.

Shoe fitting issues: Wearing poor-fitting footwear has the potential to cause foot pain and deformity, making walking and running more difficult. Shoe fitting issues are a major concern in children and adults with Down syndrome because few shoe styles can accommodate the wide forefoot that is common in people with Down syndrome.

Our recent study that included 48 children and adolescents with Down syndrome found that 62% wore shoes that were too long and 60% wore footwear that was too narrow.

Regular foot care is important for children and adults with Down syndrome. An annual foot health assessment by a qualified and experienced Podiatrist is recommended for children and adults with Down syndrome. Podiatrists look after problems with the skin and nails, can prescribe orthotic devices where foot deformity exists, and can consider surgical referral for severe deformity. Podiatrists may also prescribe exercises such as stretching, strengthening, as well as balance and coordination training to improve walking and running ability. They can also provide education about foot hygiene and how to select correct fitting footwear.

Table 1 Key foot issues of people with Down syndrome

Skin problems	Fissures in the skin, tinea, nail problems such as ingrown toenails and fungal infections
Deformity	Deformities of the feet such as hallux valgus
Footwear issues	Poor-fitting shoes

Callus – thickening & hardening of the skin



Fungus toes