

How to avoid common injury types in Children - Part 1 – Signs of wear

eNews Topic – Nuna-Tri Kids – August 3rd 2010 – Scott Murray – Podiatrist.

Children are reasonably resilient, but when you combine the amount of impact that goes with their activities, the risk of injury will clearly increase. Many children will play every sport available to them, and if you include school lunchtimes, recess etc. it becomes difficult to monitor and manage how much they actually do.

With this in mind, we need to focus on those variables which fall at least somewhat under our control. Maintaining healthy footwear and resting are two of these variables. Injuries commonly occur when children's shoes are at the end of their life span. This is typically when children present to me at **active feet** and @ Croydon Sports Medicine clinic.

As we commonly see with children's shoes at **active feet**, notice of a shoes wear is typically only taken when their toes are beginning to poke through the side or front of the shoe, or if pain is starting to limit their ability to participate in their regular activity. The issue with this is, in nearly all cases, the shoe is already well past its used-by date. A shoe may have begun its life being the most appropriate, best functioning and fitting shoe for your child, but with time and wear it has become responsible for early injury onset. This can be avoided by replacing the shoes. There are 2 main reasons why shoes are excessively worn out:

1. Shoes being worn for purposes for which they were not designed.
2. One pair of shoes being used for all activities including school-based and extra-curricular activities. Although this is not necessarily a reason for excessive wear, it is more the rate that the shoe wears which is the concern (usually only about 3-4 months of wear and the shoes have broken down).

The area in which a shoe will wear first is the Midsole. Consisting primarily of EVA foam, the Midsole is designed to absorb impact and cushion the foot upon impact. The EVA foam cell structure contains millions of tiny air bubbles that compress and rebound, returning the Midsole to its original shape. The 'memory' of this position will change over time as the cell structure breaks down and the air in the bubbles dissipates.

Signs of wear – where to look and what to look out for

Below is a guide on some of the signs of shoe wear.

Place one hand inside the shoe towards the front and the other hand on the outside (outsole) where the big toe joint impacts/sits. Push your forefinger (inside) and thumb (outside) against each other; you should not be able to feel your fingers pressing through the mid-sole/outsole. If you get the sensation of the Midsole pushing back against your fingers, it is possible there is more life remaining in the shoes.

Have a close look through the heel impact pad area and along the lateral (outside) edge of the Midsole foam and check for impact lines, commonly called Crow's Feet. If these lines are visible, then push with your thumb along the edge of the Midsole. If the foam compacts down very easily then it is likely the shoes are past their prime.

Finally, check the Outsole (the layer of rubber on the outside of the Midsole). Again check the 2 main impact areas; including the lateral heel contact point and the forefoot (across all toes). If you can see that the Outsole has worn down through to the Midsole, it is a strong indicator that the shoes are worn out.

Please remember that these are only a guide, and you are always welcome to come into **active feet** to have one of our Podiatry trained staff provide an assessment of the shoe's wear. Also take the time to have a chat with Brett Payne (**active feet** Heathmont – Store Manager) about footwear and footwear management. We can support you in making the right decision.

Thank you. Scott Murray – **active feet** Staff Member and Podiatrist at Lifecare Croydon Sports Medicine (Croydon & Ashwood).