G®NGE INSIGHTS

By physiotherapist Hannah Harboe

Body Wheel and training fall reflexes

Some children may take a tumble more often than others, and for any number of reasons:

- A child's joints are softer than an adult's.
- A child's bones are softer and more elastic, and their muscle volume is smaller. The young child generally finds it more difficult to stabilise his/her joints than older children and adults.
- Some children are genetically predisposed to hypermobile joints.
- A child who is lively and inquisitive moves fast and may tend to fall more frequently than a quieter child.
- A tendency to fall may also be observed in a child who finds it difficult to register input received from the proprioceptive sensory system that registers the position of the joints and muscle tension.

Children are normally good at cushioning their falls and are seldom seriously injured.

The mechanism in which we break a fall with our hands is called the fall reflex.

Some children tend to hit their head and the area around the mouth. This may indicate that they do not have an adequate fall reflex, i.e. they do not break their fall properly with their hands. Alternatively, the child's fall reflex may be impaired due to a lack of muscular strength in the arms that prevents him/her from protecting the head from colliding with whatever he/she falls onto.

Rolling over a Body Wheel is a good exercise to train the fall reflexes and the arms' capacity to cushion the fall with good force.

The Body Wheel is available in two sizes. The slightly curved shape with raised rubber edges helps the child to lie safely on his/her abdomen on the Body Wheel. There is a modest degree of friction between the rubber edges and the surface that makes it easy to manage and control the rolling movement of the Body Wheel.

The firm surface of the Body Wheel helps to make the child feel safer than if he/she was asked to roll on a squashy therapy ball.





Case:

Maja is 2 years old. Her parents have contacted me because they find that she grazes her face whenever she takes a fall. She falls more often and more heavily than the other children at the nursery.

When I examine Maja, two things strike me:

- She has very soft joints in her feet and a tendency to walk on the inside of the foot (arch). She trips over her own feet when she runs.
- 2. When she falls, she stretches out her arms to cushion the fall but is not able to muster the force needed to prevent her face from hitting the floor.

I have a good chat with her parents and recommend new shoes. Maja's footwear must fit well and the space allowed for growth should be less than for other children. I advise them that Maja's footwear must have an enclosed heel, preferably a boot that fits firmly around the ankle. Her footwear must neither be heavy nor too wide at the toes.

Then we start to train.

Maja's arms need strengthening. Wheelbarrow walking, i.e. her parents holding her thighs while encouraging Maja to walk on her hands, is a good exercise – and good fun! As she gradually becomes stronger, her parents can hold her further down her legs, and once she is confident, she can do wheelbarrow walking alone on the Body Wheel.

We also teach Maja to cushion a fall on the Body Wheel using her arms. Maja lies on her stomach over the Body Wheel. I support her back and pelvis. The exercise involves pushing her rhythmically forward on her arms and back onto her feet. The better Maja breaks the forward movement, the more speed and force I can put into my push.

Maja thinks this exercise is great fun. She discovers that her arms can support her weight and she pushes back from the floor with both hands.

Maja's parents are encouraged to do these two exercises every day. The exercise programme takes no more than 5-10 minutes and should be done early in the day to ensure that Maja is not tired.

After only 10 days of training, Maja's parents find that she is stronger. With the exercises and wearing her new shoes, Maja dares to run around more freely at the nursery and no longer falls more than usual for a child of her age.





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