



# Associated- and involuntary movements

Have you ever thought that it is adorable when your child is slightly sticking out his tongue or contorting his face in a funny manner when attempting a challenging task (or even a simple one)? In occupational therapy this is referred to as an associated movement and it does not always point to such adorable facts.

The definition of an associated movement: “Associated movement refers to the involuntary and non-functional spontaneous movements associated with the performance of difficult or stressful intentional motion.”

Examples of this may be:

- Sticking out the tongue when writing or performing complex tasks
- When squeezing an object in one hand as hard as they can, involuntarily squeezing the other hand as well.
- If a child is asked to extend a leg against resistance (restrictive or challenging movement) while sitting down, involuntary movement is seen in the other leg as well.

Associated movements like these may indicate to an immature nerves system, or a poorly integrated nerves system. It may also indicate poor muscular control. However, research has shown that associated movements occur often in children under the age of 8, because they are still in intensive developmental phases. There is a very fine line between associated movements pointing to a lack of development or poorly a challenging task requiring intensive effort from the child. As the child grows older and the nervous system becomes more mature and developed they can outgrow these associated movements.

At a later stage of the child’s development, associated movements can be a soft indicator of a neurological deviation. Associated movements should not be confused with involuntary movements which are defined as movements that is done without one’s consciousness or against one’s will. These are usually caused by neurological disorders such as: movement disorders, Parkinson’s disease, Huntingtons disease, Tardive dyskinesia etc.

Because there is such a fine line between associated movements during development and associated movements due to neurological disorders, caution should be exercised before jumping to conclusions. If you suspect your child suffers from unnecessary associated movements, consult an expert.