

Associated and involuntary movements

Article on In-hand Manipulation

Hoe om te identifiseer of my kind sal baat by arbeidsterapie

Tips!

OT Terminology



A Quarterly Insight into the Occupational Therapy World

De Newsletter

current topics >>>

About us...

De Wet OT's is a well-established Occupational Therapy practice based in Hazeldean Office Park, Pretoria East.

We have fully equipped therapy rooms at various schools, where we are dedicated to help each child reach their full potential.

De Wet Occupational Therapists, consists of five enthusiastic therapists who strives to deliver excellent therapy and service love and passion!



De Wet

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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.

If you suspect your child is suffering from unnecessary associated movements, consult an expert.

There is a very fine line between associated movements pointing to a lack of development or poorly a challenging task requiring intensive effort form 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 indictor 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, Huntington's 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.

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.

In-hand manipulation

In-hand manipulation is the ability to move, adjust or change the orientation of an object in the hand without the use of the other hand.



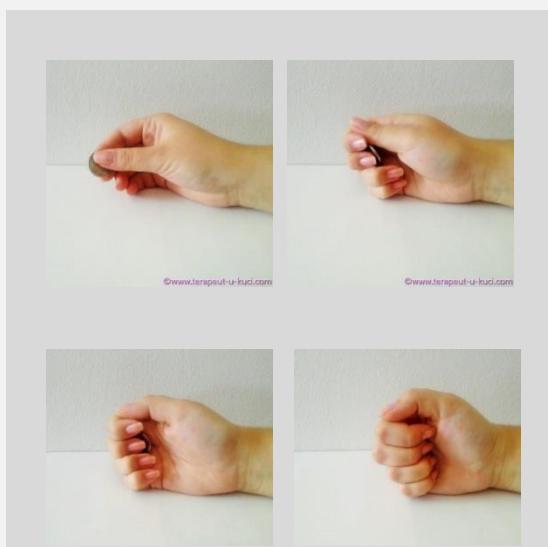
Examples of these include “squirreling” coins in the palm, twirling a pencil within the fingers and turning a coin from heads to tails. This requires appropriate developed integrity of the hand, isolation of finger movements, and control of movements.

Implications of poor in-hand manipulation:

- Using both hands for an activity that typically requires only one.
- Stabilizing objects against the body or an external support.
- Poor fine motor skills.
- Tool usage is likely to be poor (cutting, drawing, using a knife/fork)
- Poor hand preference. These children may swap hands regularly during a task due to muscle fatigue.
- Lack of accuracy. They appear clumsy when handling objects or slow to complete tasks.

How to improve in-hand manipulation:

- Ensure appropriate positioning of the child.
- Improve proximal stability.
- Present objects in the child's midline.
- Provide tactile discrimination experiences.
- Improve isolation of finger movements. Movements should require flexion, extension, abduction and adduction.
- Provide repetition of movements.



Activities to improve proximal stability:

- Moving objects from fingers to palm.
- Moving objects from palm to fingers.
- Shifting objects (turning pages, pick-up paper, string beads, fasten and loosen buttons).
- Moving objects around.
- Bilateral hand function activities (tie shoelaces, style hair, use tools – screwdriver, craft).



Uitvalle te identifiseer.

Hoe om:

Te weet of my kind kan baat by arbeidsterapie

Om optimaal te funksioneer en gereed te wees vir leer, moet kinders se **sensoriese sisteme** geïntegreerd wees. Hierdie sisteme is die **fondasie** waarop verdere ontwikkeling plaasvind.

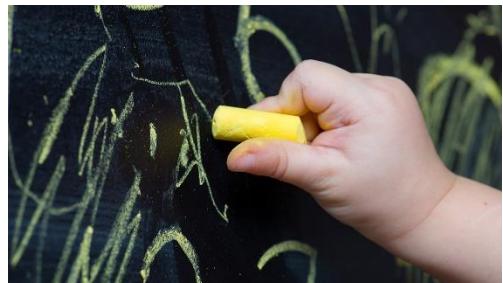
GROF MOTORIESE VAARDIGHEDEN

‘n Kindjie met swak grof motoriese vaardighede kom voor as ‘n kind met:

- Swak **uithouvermoë**, is lêerig en vroetelrig in die klas.
- Hy/Sy sukkel om **stil** te sit en **beweeg konstant** rond op die stoel.
- Hulle het ook ‘n **swak postuur** tydens staan en sit aktiwiteite. Soek eksterne **ondersteuning** op die mat; w-sit en ondersteun kop met hand.
- Hierdie kinders het ook **onvoldoende balvaardighede** en hulle vermy balansaktiwiteite.
- Hulle **vermy midlynkruising** en skuif hulle lyfies of die papier om net aan die een kant te werk.
- So ‘n kind het **swak samewerking** tussen 2 liggaamshelftes.
- Is geneig om **deurmekaar en slordig** te werk.
- **Instruksies volg** is ook uitdagend en stappe moet eenvoudig deurgegee word.

FYN MOTORIESE VAARDIGHEDEN

As ‘n kind se grof motoriese vaardighede nie goed ontwikkel is nie, sal dit ‘n **direkte invloed** op sy **fyn motoriese vaardighede** hê. Kinders met swak fyn motoriese vaardighede presenteer met:



- ‘n Verkeerde **potloodgreep**.
- Hulle het **swak inkleurvaardighede**, druk hard of sag op die potlood.
- Hulle handjies word gou moeg.
- Hulle is geneig om ‘n potlood styf vas te hou en **werk met hand/arm in die lug**.
- **Swak skêrhantering** en knipvaardighede.
- Sukkel met **los- en vasmaak** van kledingstukke/veters.
- Hulle kan nie **klein objekte manipuleer nie** en vind dit uitdagend om papier te skeur.
- Swak **nateken/kopieëring** van prentjies kom ook voor.
- **Dominansie** is nie vasgelê nie.

PERSEPTUELLE VAARDIGHEDEN

Kinders wat swak perceptuele vaardighede het is:

- Onseker oor **basiese konsepte**.
- **Menstekening** is onvoldoende en sukkel om links en regs te onderskei.
- Prentjies word **agterstevoor/ onderstebo /te groot/te klein geteken**.
- Teken of skryf van regs na links en **spieëlskrif** kom voor.
- Swak **ruimtelike oriëntasie** van boeke/papiere.
- Hulle sukkel om **verskille/ooreenkomsste** te herken en vind dit uitdagend om basiese inligting te onthou.
- So ‘n kind sukkel om rympies en liedjies aan te leer en om ‘n **legkaart** te bou.

SKOOLVERWANTE VAARDIGHEDEN

Kinders wat nie beskik oor voldoende skoolverwante vaardighede nie sukkel met:

- **Skrif** en **transkripsies**, skrif is onnet en skryf met onnewerdegte lettergrootte en onvoldoende spasiëring.
- Verkeerde **lettervorming** en verkeerde beginpunte van letters en getalle.

- Hulle sukkel om letters **korrek te kopieë** en letters word bo die lyn geskryf en nie op die lyn nie.
- Hulle is geneig om verkeerd van die bord af te skryf en **spieëlskrif** kom dikwels voor.
- **Omkerings** van letters bv b/d en omruiling van klanke en getalle bv, 9/6 sop/pos is teenwoordig.
- **Woordbou** en **sinskonstruksie** is onvoldoende.
- Hulle laat **letters weg** bv geld-gld.
- Sukkel om **klanke en spelreëls** aan te leer.
- Hulle sukkel met **ruimtelike terme** vorentoe, agtertoe, meer as, minder as.
- Lees met ‘n vinger of verloor die plek.
- Woordjies word **geklank, leesspoed** is stadig en hulle lees sonder begrip.
- Hulle sukkel om **woorde te memoriseer** en stories terug te vertel.

AANDAG EN KONSENTRASIE

Kinders wat sukkel met aandag en konsentrasie kom voor as:

- **Impulsief en vroetelrig**.
- Hierdie kinders sukkel om te **fokus** en moet herinner word om te werk.
- Werk te **stadig** of te **vinnig** en voltooi dikwels nie take nie.
- **Instruksies** moet dikwels herhaal word.
- Hulle konsentrasie is **wisselvallig** en hulle is maklik **afleibaar**.
- Hierdie kinders vind dit moeilik om te luister, **dagdroom** en werk **ongeorden**.



TIPS! TIPS! TIPS! TIPS! TIPS! TIPS! TIPS! TIPS!

Chores By Age

2 - 3 Years Old

- Make bed
- Take clothes to laundry room
- Put away laundry
- Pick up toys
- Dust furniture
- Feed pets
- Put clothes in dryer
- Match socks
- Clear place after meals

4 - 5 Years Old

- Set the table
- Clear the table
- Help cook dinner
- Carry and put away groceries
- Water plants
- Take sheets off bed
- Sort laundry
- Pull weeds
- Make a small snack
- Fold towels

6 - 9 Years Old

- Vacuum
- Fold laundry
- Put away laundry
- Sweep the floor
- Clean counters
- Empty dishwasher
- Help cook (wash produce, find ingredients, simple cutting)
- Get mail
- Rake Leaves

10 - 15 Years Old

- Do laundry
- Mow the lawn
- Wash the car
- Cook a meal
- Wash dishes
- Clean the bathroom
- Take out trash
- Mop the floor
- Supervise younger siblings
- Load Dishwasher

YOUR CHILD'S TIMELINE OF FINE MOTOR DEVELOPMENT

Approx Age of Onset (months)	Fine Motor Skill
0	Reflexes such as grasping
1-3	Reaching (ineffective)
3	Grasping
4-5	Reach and grasp
6-7	Control of reach and grasp
9	Pincer grasp
10	Clasps hands
12-14	Releases objects crudely
18	Controlled release

YOUR CHILD'S TIMELINE OF GROSS MOTOR DEVELOPMENT

Approx Age of Onset (months)	Gross Motor Skill
1-2	Holds head up and steady
2-3	Holds up head and chest with arms during tummy time
2-3	Sits with support
3-4	Rolls from tummy to back
6-7	Rolls from back to tummy
6-8	Sits without support
8-9	Pulls toward standing position
9	Crawls
9-10	Walks with support (holding hands)
11-12	Stands without support
12-13	Walks without support

OT Terminology...

Words, sentences and phrases commonly used by teachers and therapists.



Balance & Equilibrium!

Static balance is the ability to maintain a functional posture during immobility.

Dynamic balance is the ability to maintain a functional posture during motor actions where the line of gravity is shifted.

Problems in this area influence a child's ability to make quick postural adjustments and to maintain balance during any activity that demands this adjustment.

Equilibrium is the automatic responses against change in the posture or movement to retain balance.

Eye movements:

This is the ability of your eyes to work together smoothly and in a coordinated manner. Adequate eye control has an influence on reading, copying from the blackboard and participation in sport. Weak head and neck control further affects these functions, and this can further disadvantage the child in his school-related tasks.

Anti-gravity... This is the ability to assume and maintain the prone extension and supine flexion postures against gravity. The core muscles as well as neck muscles play a major role in maintaining these positions. The ability to maintain anti-gravity postures is important for postural stability and endurance during the maintenance of a good sitting posture during table activities such as writing, cutting, colouring etc. This often has a negative effect on a child's work tempo, concentration and neatness of work.

coming soon >>>

In The Next Issue

Article 3

Tips to improve...

Food and concentration.

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Fine motor co-ordination This refers to the ability of the child to work **quickly** and **accurately** with the hands. Activities that place demands on this skill include drawing, tearing, cutting, pasting, writing, doing buttons, tying shoelaces and picking up small objects with the fingers. Low muscle tone, inadequate co-contraction and poor shoulder stability may contribute to fine motor insecurities.



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De Wet Occupational Therapists

IT'S NOT ALL
:-) SUNSHINE
&
RAINBOWS
BUT A GOOD AMOUNT
OF IT ACTUALLY IS