

Session One.**Why are fine motor skills important?**

Fine motor skills refer to the dexterity, agility and ease which one uses their hands. We all rely on good fine motor skills to function and perform many tasks at work rest and play. We never usually think about how well our hands can perform tasks until we injure, break or loose the use of a hand. When we have a cut on a finger we often become more aware of how our fingers and hands move as a well oiled unit and how frustrating it can be to perform all the simple activities when they don't work as well. Even talking on a hand held phone whilst trying to cook, type or complete activities make us realize how we need two hands that work in unison for us to complete many activities. So fine motor skills are necessary not just for writing but for virtually everything we **DO** every day.

Good hand skills are a combination of many components such as:

- Sensation and sensory feedback
- Strength
- Ability to control the opening and closing of the hand at will
- The ability to use the hand without vision (proprioception)
- Stereognosis
- Bilateral hand skills
- Grading of force and lift
- Ability to use the appropriate grasp pattern
- Ability to use in-hand manipulation skills to make minute and subtle adjustments for control
- Motor planning and the ability to coordinate a sequence of movement plans.

Children learn to control their hands from 3 months of age and keep refining and developing their hand skills until about 6 years of age. After 6 years they just get quicker until approximately 9 or 10 years when their speed and dexterity is similar to that of an adult. Of course some adults do go on to become particularly dexterous by way of practice such as Dentists, hairdressers, artists, jewelers etc to name a few.

Children growing up in the 2000's have some different experiences with their hand skills and these have an impact on how well their hands develop. Firstly many of the type of activities that young children of 2 - 6 engage in are different from in the past. There is less emphasis on chores such as weeding, raking, sweeping which all develop strength, less interaction with tasks such as cooking washing up and drying, and less emphasis on outside messy play with the environment. The more usual games and activities are playing and interacting with plastic toys, electronic toys with buttons and increased visually stimulating toys. This has a two fold effect. Firstly it

means many of the natural ways that children developed good hand skills and strength are no longer done frequently enough to develop the same skill level and secondly the use of commercially available toys usually means the toys are not heavy and rely more on buttons to operate. This impacts on the developing hand by not as much daily practice in pure strength and muscle loading and also means on action the child does get a lot of practice in is the LATERAL PINCH AND THUMB MOVEMENTS. These are the movements we use when operating a mobile phone or a game boy. This movement pattern is used more frequently in our daily life in the year 2014 than 30 years ago!

Other factors have also come into play that affects our children's hand function. We no longer complete some of the big body activities that require endurance such as riding a bike to school, walking long distances, playing at the park by climbing trees and rope ladder swings etc. Often the visit to the park has more swings and slides and less of the unstructured challenging strength and big body movement type play. This is related to the increased safety emphasis in our community but it also impacts on the way young children need to load up and use their upper body strength. Climbing up and unstable rope ladder uses a lot of hand strength and our changing type of environmental play means many children who in the past may have remediated their own "slightly at risk" hand strength issues, now don't access exactly what it is that their body needs. Pushing electronic buttons **does not work** to promote hand strength and endurance which are some of the pivotal requirements for fine motor skill development in young children.

Children are also starting formal schooling earlier than in previous generations and with earlier school starts also has come a demand and a societal push for earlier emphasis on academic learning as opposed to play. Play is children's work and good play situations promote many learning opportunities. Many children enter Kindy already holding their pencils and texta's in a certain way and some have practiced using a grasp pattern for long enough that they are reluctant to change. Changing and optimizing a young child's pencil grasp is most effective in the kindy year and the shift Does not take too long when the strategies are effective.

We as parents need to look carefully at ways we can develop our children's fine motor skills so they can develop good dexterity. Firstly it is important to realize that many children do have well developed fine motor skills and these children have and will continue to develop good fine motor skills. Some children however, need to develop better fine motor skills, pencil control skills and cutting skills. The only way that your child will develop these skills is if you target their hand skills on a one to one situation.

How well does your child use their hands and are their fine motor skills on track?

We often monitor their growth and learning skills to make sure they are progressing but their fine motor skills along with language skills are imperative in the kindy and pre-primary years.

What we do know is that children who have well organized, fully integrated movement skills often show increased competence and ease with new learning. Children who have a good understanding of how to use their bodies and whom can use their hands competently also are able to concentrate more on the cognitive aspect of the task, whereas children who are still mastering the movement control are not able to fully attend to the cognitive element. For example with writing skills: if you are trying to work out how to make your pencil go down in a straight line then it is hard to attend to the letter name and how the letter may go with other letters to form a word. A competent child may be able to work out that the word they are trying to write is "lion", but a child who is still learning the control may not be able to absorb this as their brain is still concentrating on the motor action.

The other important link to learning is in relation to endurance. Children who have well developed fine motor skills do not have difficulty finishing their work and using their muscles with ease. Children whose fine motor skills are not as well developed often have difficulty with the endurance aspect of fine motor tasks and they often only attempt a little bit and then get tired, bored or disinterested in completing the task. They may need a lot of encouragement to finish or to have an adult to assist them. In some cases they may even avoid these activities in favor of other games. This in itself means they don't practice the skills that they need to develop in readiness for school. The muscles of the hands need to develop the endurance for later writing and this comes from jobs such as colouring, cutting, dot to dots, and fine prehension tasks.

The job for the school is to engage your child in group learning situations that encompass all areas of their development. This is accomplished with care and thoughtful planning so that activities are presented that build the skills children need to practice. However they are not learned solely in the group setting, in fact many children who need a little more encouragement are far more successful when their skills can be developed on a one to one situation at home. Rather like the football player who practices his kicks in between the games, or the person learning an instrument who needs regular at home practice as well as the music lesson. Not all children need extra support but if your child does need some extra fine motor practice overwhelming evidence points to the kindy and pre-primary years being the most effective time for support. Then your child can go on to view and develop their own self concept as a competent learner and capable of performing skills as well as their peers.

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