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Physical Development

What is Socio-emotional Development?

The growth of a young child›s physical abilities is truly amazing. Think of all the physical abilities a child must develop to adjust to the world: learning to see and recognize others, rolling over, holding a bottle or cup, picking up and interacting with objects. Crawling across the floor is a task young children engage in that involves physical development. It also involves activities such as running around outside, jumping on the bed, grasping a parent›s finger or using a pencil to draw in a coloring book.

Physical development in children refers to an increasing ability to control and use small and large muscles and the mastery of balance and coordination that occurs as children gain muscle strength. Physical development provides the foundation for skills such as rolling over, crawling, climbing, running, participation in sports and even writing. These are all complex physical tasks that require strength, coordination and perception.

Physical development means the natural evolving and growing of a child into an adult. There are certain marks in development that happen over a certain period of time. A young child›s physical growth first begins as muscles gain strength with use and children gradually develop coordination. The development of muscular control is the first step in this process.

Physical development in the form of stature and growth will occur for up to 20 years after a baby is born. As height as well as weight increases, a person›s proportions will change as well. As a baby, most people have a relatively large head in proportion to their bodies, and this becomes less so as a baby grows. By the time they reach adulthood, most people have a relatively small head, with a long torso and long limbs. The speed of physical development is most rapid in the months immediately after birth. After a rapid spurt for the first couple of years, growth is slow until puberty.

Physical development provides children with the abilities they need to explore and interact with the world around them. They also are developmental moments, those windows of time when parents or caregivers can see the ways in which a young child is growing and developing new skills and abilities.

Factors affecting Physical Development

There are many physical factors that can affect a child›s development and which can begin at the moment of conception.

One of the factors that will influence the development of the fetus will be to do with age. Teenage mothers can often be too immature to bear the responsibility of a baby will tend to live in an unstable environment with neglected health. Older mothers have a higher risk factor of bearing a child with health issues.

A poor diet can cause malnourishment, leading to prematurity, physical and neural defects and still birth. Disease can range from rubella, mumps, diabetes to name but a few, and all can have a negative impact on the unborn child.

Stress and anxiety can cause biochemical changes in the body that communicates the stress that the mother is feeling to the fetus. Worse still, the mother may try to cope with her stress and unhappiness by using alcohol or drugs to dull her perception of reality, which again can cause damage to the fetus.

If this wasn›t enough, the baby will then have to go through the process of birth which can end up in a number of ways including a cesarean, forceps or suction delivery, all of which carry their own risks, such as infection and damage to the child.

Premature babies tend to lag behind because they still need assistance to survive. Most babies have caught up with their peers on terms of physical development by the time that they are 4 years old, whilst some can be slow to achieve physical and cognitive milestones.

Factors that affect physical development:

Genetic and hereditary

A number of studies have shown than physical growth both in body and height is governed by hereditary factors. They suggest that weight can also be observed to follow similar patterns that correlate with growth spurts. Puberty signifies a marked growth spurt with a rapid increase in size and weight.

Environmental

Physical growth is dependent on the kind of food that

we eat and how much of it that we consume. Nutritional content is very important and without the correct diet, height and size can become impaired leading to low weight or obesity.

Education and family income can also play a part in child development. In wealthier countries the association between wealth and being thin can come from people being intellectually informed about their diet, and having the means to afford such luxuries such as low fat foods. Evidence also shows that parents will model unhealthy eating habits for their children, who are also dependent on their parents for what is put on the food table.

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Hormones

The pituitary gland initiates change in the body by secreting a hormone into the bloodstream and will also indirectly trigger other glands to release chemicals too. Puberty will herald important physical changes in growth and height.

All the above factors will have some determination in determining when these changes come about, and can include genetic, physical exercise, family factors involving conflict ,economic background and self perception and behavioral issues.

Gross and fine motor skills

All of us are individuals and we will learn to do thing in unique ways. For example when a baby is born he will slowly learn to use processes such a crying, laughing and smiling, and will practice mastering the skill of self automation. Some babies may find novel ways of using their skills such as moving around on their bottoms instead of crawling, or even pulling them upright and leaving out the crawling stage altogether.

Initially we can see that motor skills develop in line with maturation of the neural and muscular systems, but where gross motor skills can be said to be a reaction to global influences and exposure to a certain stimulus, fine motor skills will be enhanced by available opportunity and a supportive environment.

In conclusion, there are many factors that can be considered to have a major influence on the development of a child. In comparison to other animals on the planet the human being takes a long time to reach full maturation.

Theorists suggest that the reason for this is that we are influenced by the confines of our environment, with factors such as culture, nutrition and the opportunities for experience shaping our physical make up, and allowing us time to build the necessary knowledge and skills to survive in a complex society of modern life.

Parenting Growth

From the moment parents greet their newborn, they watch the baby›s progress eagerly, anticipating every inch of growth and each new developmental milestone along the way. But how can they tell if their child is growing properly?

Physical growth refers to the increases in height and weight and other body changes that occur as a child matures. Hair grows; teeth come in, come out, and come in again; and eventually puberty hits. It›s all part of the growth process.

What›s Normal?

The first year of life is a time of astonishing change during which babies, on average, grow 10 inches (25 centimeters) in length and triple their birth weights.

Given all the growth that occurs then, new parents might be surprised when their child doesn›t continue to grow through the roof after the first year. But no child continues the rate of growth experienced during infancy. After age 1, a baby›s growth in length slows considerably, and by 2 years, growth in height usually

continues at a fairly steady rate of approximately 2½ inches (6 centimeters) per year until adolescence.

No child grows at a perfectly steady rate throughout this period of childhood, however. Weeks or months of slightly slower growth alternate with mini «growth spurts» in most children. Kids actually tend to grow a bit faster in the spring than during other times of the year.

A major growth spurt occurs at the time of puberty, usually between age 8 to 13 years in girls and 10 to 15 years in boys. Puberty lasts about 2 to 5 years. By the time girls reach age 15 and boys reach age 16 or 17, the growth associated with puberty will have ended for most and they will have reached physical maturity.

What Parents Can Do

You can do a few things to help ensure that your child grows and develops normally. Critical to kids› overall health and wellness are:

- **Enough rest:** Sleep patterns vary by age and individual child, but most kids need an average of 10 to 12 hours of sleep per night. Sleep gives growing bodies the rest they need to continue growing properly.

- **Proper nutrition:** A balanced diet full of essential vitamins and minerals will help kids reach their full growth potential.

- **Adequate exercise:** Because obesity is a problem for many kids, parents should make sure that their kids exercise regularly and eat healthy. Bicycling, sports, or any enjoyable activity that will motivate kids to get moving will promote good health and fitness and help them maintain a healthy weight.

Talking to Kids about Growth

Kids differ in growth and development during childhood — just like adults, some kids are taller or shorter. Generally, girls hit puberty earlier than boys. All of this is usually completely normal.

Try to avoid comparing growth among siblings or other children. Drawing attention to height, for example, will only make kids feel self-conscious about their size. Encourage your kids to accept their own growth and development. Explain that some kids grow and develop at different rates — and late bloomers usually catch up eventually.

Kids have many questions about growth, from why their teeth fall out to difficult to topics such as perspiration. Answer questions honestly and even initiate conversations about growth to help kids understand the many changes they›re facing. This will help them accept the changes positively.

Kids who are short often face teasing by peers and may need help coping. You can help by supporting your child›s self-esteem. For example, although it might be difficult for a small boy to make the cricket team, emphasizing alternatives, may make him feel better about himself and what he can do. It›s important to try to understand your child›s feelings and to keep the lines of communication open. Another way to boost your child›s mood is to encourage activities that don›t focus on height or weight. Emphasize special talents or individual qualities, such as musical aptitude or a love of reading.

If You Suspect a Problem

Some parents worry about their child›s growth and development, but it can be reassuring to know that most kids who are short or delayed in development are healthy and normal. For example, shorter parents tend to have shorter children and not all kids develop at the same rate.

If you have concerns, the first step is to consult your doctor, who can thoroughly evaluate your child and your family history and, if necessary, order tests to see if there›s a medical condition affecting growth. The doctor may choose to monitor your child›s growth more frequently on a growth chart for further evaluation.

Children's Physical Activity Guide

Physical activity starts at an early age. Babies take pleasure from discovering and then controlling their own movements. They delight in realizing they can get themselves from one place to another, first by crawling and later by walking and they relish practicing and polishing their newly developing skills.

Physical Activity Recommendations for Infants

While there are no specific activity requirements for infants this is an important stage for motor development.

- At this age children explore and learn to use their body parts. Providing a variety of appropriate toys for a baby will assist in body awareness and movement.

- Infants can learn to recognize, explore and control objects, sights, sounds and textures. Try to ensure that toys stimulate all the senses i.e. touch, sound, sight, smell and movement.

- It is normal for babies to investigate the world by putting things into their mouths. This is an important developmental stage so parents need to be vigilant in ensuring that toys given to babies are washable, non-toxic and non-breakable. Anything that will fit into a small film canister is small enough to choke a child under three

- Babies learn how to get desired reactions from objects, so ensure some toys are interactive or reactive to the infant's body movements whilst still ensuring they are safe for babies to use. Small children delight in being the cause! It is an empowering experience for them. Toys that rattle and squeak are popular as are toys that move in response to the baby's actions.

Physical Activity Recommendations for Babies on the Move

As children further develop their motor skills they begin to crawl and walk. It is advised that toddlers exercise for at least 60 minutes per day with half of this time made up of planned physical activity. As children of this age are naturally active little beings, this is not as difficult a task as it might seem. Try to include many different forms of movement and positively reinforce children's every effort.

- Focus on developing basic motor skills such as walking, jumping and rolling and stopping a big ball. (Throwing and catching will develop a little later). Blow up beach balls are often easier for very young children to handle. (Balloons may be fun to play with and move slowly making them easier for children to handle, but must be used with extreme care as burst balloons can cause choking and suffocation. Blow up beach balls have most of the

advantages of balloons without the dangers.)

- Mobility can be promoted by providing lots of opportunities for children to move. Encourage young children to crawl or toddle to their destination both inside the house and in the garden.

- Toddlers are interested in how to use new objects, so look for objects and equipment that encourage active play.

- At this age children are expanding their understanding of object permanence so games including hide-and-seek are great fun and provide experiences that encourage skills of problem solving.

- Make-believe play is wonderful for toddlers to experience and helps them to understand many of the daily activities they see grown-ups do.

Physical Activity Recommendations for Preschoolers

Preschool children are developing their basic motor skills and can benefit from opportunities to practice these skills. Research suggests that preschool aged children need two hours of physical activity per day with one hour devoted to planned activities and one hour made up of unstructured physical play.

- Preschoolers are beginning to explore relationships between objects and how parts and wholes fit together, so try activities such as building houses out of boxes.

- This is a great time to develop the ability to play with other children. Go to the local park, organize play dates or enroll in organized physical activities that focus in this age group. (Before enrolling any child in such an activity make sure you are happy with the activities in which children will be engaged and of the approach taken by the instructor or coach.)

- Both large and small motor skills develop during this stage. Physical activities should include both. Practicing simple sports skills have been found to increase the likelihood of children participating in sports at a later date whereas children with poor basic skills are more likely to avoid sport. Balancing, jumping, kicking, throwing and catching balls, hitting a ball or other object with a bat, throwing something like a ball or a bean bag towards a target are all fun activities that young children will enjoy.

- Children thrive on routine and are learning how to plan ahead. Introduce a structured sporting activity that children can plan towards and look forward to each week.

Physical Activity Recommendations for School aged (+5 year olds)

A combination of moderate and vigorous activities for at least 60 minutes a day is recommended. However, more is better and up to several hours of activity each day is not a problem. This can be broken into short bursts of 10 to 15 minutes, so ensure children have lots of opportunities to get moving.

- Moderate intensity activities can include a brisk walk, a bike ride or any sort of active play.

- More vigorous activities will make children 'huff and puff' and include organized sports such as soccer and fitness classes, as well as activities such as running and swimming laps for older children.

- •Children typically accumulate activity in intermittent bursts ranging from a few seconds to several minutes, so any sort of active play will usually include some vigorous activity.

- While many sporting teams enroll children in the late preschool/early school years, not all children enjoy or are ready for such activities. Be guided by children's interests and abilities. While for some children finding a passion in sport can be one of easiest ways for maintaining exercise throughout childhood and adolescence and into adulthood this may not suit all children. Organized sport and other structured activities are not the only way to engage in physical activities.

- Take advantage of children's interests and skills. There is some evidence to suggest that children are more likely to participate in physical activity throughout childhood and into adulthood when they enjoy what they do.

- When children do show an interest in team sports such involvement provides real opportunities to learn group and interpersonal skills such as cooperation and conflict resolution.

- School aged children are also developing competence in following rules designed by others as well as creating their own rules to follow with peers.

In ECD programs, based on what they know of and observed in young children, early childhood teachers design their programs to meet their students' developmental needs. Play and active learning are considered key tools to accommodate those needs and facilitate the children's education. Typical activities include:

- Sorting and stacking blocks and other manipulatives (mathematical knowledge).
- Singing and dancing, or acting out a story (emergent literacy).
- Growing plants from seeds, exploring the outdoors, and investigating at sand and water tables (science).
- Trying on various roles and interacting with one another at housekeeping and other dramatic-play centers (social studies).

However, over here this teaching method is found to be scarce. This is due partly to our society's long-entrenched belief that the functions of the mind are more significant than the functions of the body. Moreover, society has labored for years under the misguided notion that the mind and body are separate entities, resulting in the determination that learning should occur via the eyes and ears only.

Due to an increasing emphasis on academics and accountability, policy makers are demanding more and more testing, which requires more and more seatwork.

Today, time spent with "educational" products is replacing active, sensory experiences with passive experiences. What teachers don't realize is that rote learning is the result of sheer memorization. Authentic learning involves comprehension. And until a child is developmentally ready to understand what the numbers, letters, and words he's reciting represent –

until the information has some relevance to his life there will be no comprehension.

Some rote learning has its place, of course; it's how most of us learned our ABCs and numbers – not to mention the multiplication tables and the state capitals. However, unless a child is going to grow up to become a contestant on television game shows, memorizing facts will have little use in life once he's passed all the tests schools require of him. Active, authentic learning, on the other hand – the process of exploration and discovery, of acquiring knowledge, of knowing how to acquire it (no one can memorize all the facts!) – will serve children endlessly. Moreover, active, authentic learning is far more likely than rote learning to foster a lifelong love of the learning process.

Additionally, recent brain research is confirming what many educators have believed all along: the mind and body are not separate entities. Research confirms that not only do children learn by doing – and that movement is the child's preferred mode of learning – but also that physical activity activates the brain much more so than doing seatwork. While sitting increases fatigue and reduces concentration, movement feeds oxygen, water, and glucose to the brain, optimizing its performance. Furthermore, learning by doing creates more neural networks in the brain and throughout the body, making the entire body a tool for learning. Active learning is also more fun for young children, which means it matters more to them!

It may not be acceptable to run, jump, and dance in the classroom just for the joy and the physical and social/emotional benefits of it (sad but true). But what if movement, play, and music have cognitive benefits? What if they can be used to help children meet standards and pass standardized tests?

They can! When a child bangs on pots and pans, he learns more about cause and effect than he ever could by clicking on the limited choices offered on a piece of paper. He's also experimenting with sound and the force of her muscles. He learns more from manipulating blocks and puzzle pieces than from seeing images on paper – because she can't feel the images on the paper. Helping to set a table or pouring water or sand from one container to another teaches more mathematics concepts than out-of-context numbers on paper. The sights, sounds, textures, and smells of the outdoors offer more lessons in scientific principles than any two-dimensional media possibly could.

When you give children the opportunity to physically

move over, under, around, through, beside, and near objects and others, they better comprehend prepositions – those little words so essential to language and life. When they perform a "slow walk" or skip "lightly," adjectives and adverbs become much more than abstract concepts. When they're given the opportunity to physically demonstrate such action words as stomp, pounce, stalk, or slither – or descriptive words like smooth, strong, gentle, or enormous – word comprehension is immediate and long lasting. The words are in context, as opposed to being a mere collection of letters. This is what promotes emergent literacy and a love of language.

Similarly, if children take on high, low, wide, and narrow body shapes, they'll have a much greater understanding of these quantitative concepts – and opposites – than do children who are merely presented with the words and their definitions. The concept of magnetism will be much more fascinating to children if they play with magnets – and then pretend to be them. The same fascination – and understanding – results when children have personal experience with such scientific concepts as gravity, flotation, evaporation, balance and stability, and action and reaction.

When you use activities such as these during circle or group time, substitute them for more traditional lessons, or use them as follow-ups to your curriculum or theme lessons, you are teaching to the whole child, using the physical and social/emotional, as well as the cognitive. That results in enduring and meaningful lessons and children who will move in leaps and bounds toward becoming lifelong learners.

Keeping an Eye out

Children develop at different rates, but most follow a general timeline (though preemies may be off schedule by a few weeks or months). If your child doesn›t seem to be meeting milestones within several weeks of the average, ask his pediatrician about it. It may be nothing, but if your child does have a delay, you›ll want to catch it early so you can get a diagnosis and begin treatment.

As a general rule, trust your instincts. If something seems odd or wrong to you about the way your baby moves, ask about it. After all, you know your child best. The following are possible warning signs of a problem; print this out and use it as a checklist to measure your baby›s development.

Call the pediatrician if your child:

Age	Warning Signs:
Newborn to 2 months	❁ after 2 months, doesn›t hold his head up when you pick him up from lying on his back ❁ after 2 months, still feels particularly stiff or floppy ❁ after 2 months, overextends his back and neck (acts as if he›s pushing away from you) when held cradled in your arms ❁ after 2 or 3 months, stiffens, crosses, or «scissors» his legs when you pick him up by the trunk

Age	Warning Signs:
3 to 6 months	❁ by 3 or 4 months, doesn›t grasp or reach for toys ❁ by 3 or 4 months, can›t support his head well ❁ by 4 months, isn›t bringing objects to his mouth ❁ by 4 months, doesn›t push down with his legs when his feet are placed on a firm surface ❁ after 4 months, still has Moro reflex (when he falls backward or is startled, he throws out his arms and legs, extends his neck, and then quickly brings his arms back together and begins to cry) ❁ after 5 or 6 months, still has the asymmetrical tonic neck reflex (when his head turns to one side, his arm on that side will straighten, with the opposite arm bent up as if he›s holding a fencing sword) ❁ by 6 months, can›t sit with help ❁ after 6 months, reaches out with only one hand while keeping the other fisted

Age	Warning Signs:
7 to 9 months	❁ at 7 months, has poor head control when pulled to a sitting position ❁ at 7 months, is unable to get objects into his mouth ❁ at 7 months, is not reaching for objects ❁ by 7 months, doesn›t bear some weight on his legs ❁ by 8 months, can›t sit independently

Age	Warning Signs:
9 to 12 months	❁ after 10 months, crawls in a lopsided manner, pushing off with one hand and leg while dragging the opposite hand and leg ❁ at 12 months, is not crawling ❁ at 12 months, can›t stand with support

Age	Warning Signs:
13 to 24 months	❁ by 18 months, can›t walk ❁ after several months of walking, doesn›t walk confidently or consistently walks on toes ❁ after his second birthday, is growing less than 2 inches per year (get more on a normal growth rate)

Age	Warning Signs:
36 months	❁ alls frequently or is unable to use the stairs ❁ drools persistently ❁ can›t manipulate small objects

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