



Playing multiple sports and the resulting benefits to the personal development of children



GUEST CORNER

LIZE
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Five main areas of skills development are important in a child's growth path: gross motor skills; fine motor skills; speech and language; cognitive/intellectual and social emotional skills. Participating in various sports can assist in their development to well-rounded persons, for example:

1. Physical activity enhances developing their gross motor skills in several ways:

a. Impact on bone density - weight-bearing activities (such as jumping and running) help to stimulate bone density and growth. The mechanical stress put on bones promotes mineralization that strengthens bone structure;

b. Variety of movement - playing multiple sports requires using different muscle groups strength, flexibility, muscle coordination and movement patterns. This promotes a more balanced physical development of their musculoskeletal system;

c. Improved balance and agility - exposure to various sports not only helps children to develop stronger muscles but to use their muscles in coordination, agility, and balance. In turn, this enhances the overall athleticism and adaptability in a growing body; and

d. Reduced risk of overuse injuries - an overuse injury is damage to bone, muscle, ligament, and tendons that occur over time from improper training and techniques with repetitive movements.

2. Cognitive and intellectual development - research shows that movement and physical activity a) contribute to healthy brain function by increasing blood flow, oxygen, and glucose to the brain; and b) release neurotransmitters and Brain Derived Neurotrophic Factor (or abrineurin) which help brain plasticity, memory, attention, and motivation.*

3. Social and emotional development - by a) helping children adapt to various peers, coaches, and different team demands; and b) reducing their risk of burnout. Focusing solely on one sport can lead to burnout due to the pressure, intensity, and repetitiveness of training. In contrast, playing multiple sports can keep children engaged and interested in physical activity without the risk of losing enthusiasm.

THE IMPORTANCE OF GROWTH PLATE MATURITY

A child goes through growth spurts as new active bone forms at the end of bones called a "growth plate":

- Growth plates at the end of long bones (such as thigh, lower legs, arms, hands, and feet) are soft and vulnerable during the growing years; and

- Growth plates in joints consist of multiple cartilage cells that grow in length and then change into hard mineralized bone.

For girls, bones start hardening at age 13 -15 and boys at age 15 -17. Muscles, tendons, and ligaments connect one bone to the next to form a joint and allow us to move, while muscles stretch and adapt as the bone grow in length. Physical activity before a child reaches puberty promotes the growth of healthy and stronger bones. Overuse of the musculoskeletal system in a growing bone affects and can damage the growth plate development.

UPSIDE AND DOWNSIDE OF SINGLE VS. MULTIPLE SPORTS

Specializing in a single sport usually entails an intense and year-round training in one sport to the exclusion of other sports. Many children's lives revolve around playing their favorite sports, developing skills, forming friendships, belonging to a team, and learning the competitive spirit, but this may lead to an intense focus on just one sport at a young age. Peer pressure as well as pressure from parents and coaches to join multiple leagues in one sport could contribute to the risk of overuse injuries and burnout. Training intensely and competing while still growing and developing does not allow the body enough time to recover and make the young body more susceptible to overuse injuries.

In contrast, participating in multiple sports allows a child's body to rest between seasons before the next sport season starts. Different muscle groups and skills develop and form muscle memories that can be transferred and used in other sports and movement patterns. Research by the American Orthopedic Society of Sports Medicine and the American Academy of Pediatrics shows no evidence exists that children benefit from early sport specialization in most sports, and they are subject to overuse injury and burnout from concentrated activity. The experts propose multiple sport participation as an excellent alternative to reach athletic goals and increase lifetime enjoyment of physical activity. ** The physical and psychological

benefits from playing various sports, where there is less intense training and pressure to perform, allow children to be active and simultaneously help them develop a healthier sense of their own identity.

MULTI-SPORT PAST OF SUPER ATHLETES

The chances of your child becoming a sport super star is slim, but many super sport stars played multiple sports growing up. NFL statistics show that 70% of the NFL players were multiple-sport athletes earlier in life, which includes Patrick Mahomes (baseball, football) and Deion Sanders (football, baseball). Other sport super stars who played multiple sports during their childhood include Michael Jordan (basketball, baseball); Johnny Gaudreau (baseball, hockey) and Bo Jackson (baseball, football). So, who knows, playing multiple sports might increase achieving your and your child's dream of him/her becoming a super sport star.

MAKING SPORT PART OF CHILDREN'S DAILY LIFE

Encourage children to participate and sample different sports to grow not only in athleticism, but to have fun, interact with different groups and coaches, and develop as well-rounded persons. As an experienced physical therapist, I encourage parents to raise their children to love being active and move throughout their lives, and to make physical activity a part of their lives as they mature into adults.

If your child experiences any signs of overuse injury or burnout playing sports, please contact their pediatrician or physical therapist for guidance.

* See <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5919946/>

** See <https://www.hss.edu/pediatrics-intensive-participation-single-sport-good-bad-kids.asp> and <https://publications.aap.org/pediatrics/article/153/2/e2023065129/196435/Overuse-Injuries-Overtraining-and-Burnout-in-Young?autologincheck=redirected>

Lize Lubbe is the owner of Lize Lubbe Physical Therapy with its main practice located at 892 Route 35 in Cross River and a PT Studio in the premises of Apex Fitness (where her team focus on the rehabilitation of sports-related injuries). Learn more by calling 914-875-9430, emailing contact@lizeclubbept.com or visiting www.lizeclubbept.com.



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