

Fitness for Primary-School Children

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**Mid-stretching exercise
for strengthening
spinal column**

Synaptic connections of brain are fully developed by the age of ten. New connections are formed, while learning a motor skill. An efficient and an effective primary-physical-education curriculum, formulated by taking into account differences in growth trajectories and variations in the developmental-milestones achieved, due to hereditary (based on precedence graphs —temporal ordering) as well as environmental factors (based on influence graphs —spatial ordering), may form the bases of lifelong physical, mental, emotional as well as social fitness. The importance of fitness for primary-school children can never be underestimated. During a preparticipation physical examination of boys and girls enrolled in schools run by the Armed Forces of Pakistan, the first author was shocked to find out that the students (sons and daughters of active servicemen) were not able to touch their toes without flexing knees and lacked stamina. Fitness testing must be integrated with unclothed-physical examination. Tests should evaluate strength, muscular endurance, flexibility and height-weight rating or body composition. These examinations should be based on performance considerations and improvements achieved as compared to previous semester as well as psychological disorders (trends of anorexia and bulimia). These evaluations should include thorough checks of posture and gait (walking and running) During these checkups, students' heights and weights should be recorded to generate their growth-and-obesity profiles, which guide the students to achieve proper height and maintain optimal-weight-for-height. Students learn from classmates as well as their teachers often copying others and sometimes helping friends. At times, they work as individuals, *e. g.*, walking heel-to-toe (motor coordination) or touching toes without flexing knees (flexibility) and, on other occasions, they work in unison, without competition, *e. g.*, during PT display. There are

activities, which involve coordination and competition, *e. g.*, team sport. Peer learning is no substitute for learning from teachers, who have a wealth of knowledge and a multitude of personal-skills. A guarded-graduated-training routine should ensure health- as well as skill-related fitness (performance considerations), at the same time preventing exercise-related injuries (safety considerations). *Guarded* conveys the concept that different body ligaments are in stable equilibrium, locally, during various exercise phases and *graduated* means that sequential exercise phases are related by infinitesimal transformations. Physical activities should be preceded by proper warm up and end with cool down, accompanied by proper milk/water intake and the students properly attired. Gymnastic clothing should neither be loose enough to get caught into apparatus/fall into face nor so tight to restrict free movement. It should not have zippers to damage apparatus or straps, which get tangled into apparatus. American Academy of Pediatrics (Committee on Sports Medicine) recommended lightweight clothing for exercising child. Gym clothing should expose maximum skin and have only one layer of absorbent material in order to facilitate sweat evaporation. Students should be barefoot indoors and wear sneakers outdoors. Boys should be stripped-to-waist, younger ones dressed in briefs only, whereas older students may put on figure hugging half-pants, reaching to knees. Girls can wear leotards combined with stockings, if desired.

Keywords: Health-related fitness, skill-related fitness, fitness testing, motor examination, principles of training

Conflict of Interest Statement: No potential conflict of interest is identified for this work

Grant Sponsor: Dean's (Science) Research Grant, University of Karachi, number DFSR/2009

Research Ethics: Project initiated after Institutional Review Process and conducted in compliance with ethical and human-right standards in our region.

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