Poor motor performance linked to poor academic skills in the first school years

October 28 2013

Children with poor motor performance at the school entry were found to have poorer reading and arithmetic skills than their better performing peers during the first three years of school. However, no relationship was found between cardiovascular fitness and academic skills, according to a new study published in *Medicine & Science in Sports & Exercise*.

The study investigated the relationships of cardiovascular fitness and motor performance in the first grade to reading and arithmetic skills in grades 1–3 among 174 Finnish children as part of The Physical Activity and Nutrition (PANIC) Study at the University of Eastern Finland and The First Steps Study at the University of Jyväskylä. Children who performed poorly in agility, speed and manual dexterity tests and had poor overall motor performance in the first grade had lower reading and arithmetic test scores in grades 1–3 than children with better performance in motor tests. Especially children in the lowest motor performance third had poorer reading and arithmetic test scores than children in the other thirds. These associations were stronger in boys than girls. Unexpectedly, however, cardiovascular fitness was not related to academic skills.

The findings of the study highlight the importance of motor performance and movement skills over cardiovascular fitness for children's school success during the first years of school. The academic development of children with poor motor performance should be carefully monitored and appropriate actions to support the development of reading, arithmetic and movement skills should be started when

needed.

Provided by University of Eastern Finland