

**Title:** Differences in Physical Fitness Level between Preschool Children and Children Attending Gymnastics Training

**Objectives:** The aim of this master's thesis is to compare and evaluate the statistical significance of the measured results in the field of physical fitness level in children aged 5-7 years, with one group consisting of girls who attend a gymnastics training program, the other group consisting of children who do not attend the training program.

**Methods:** The measurement is based on a combination of the MCA battery and the Preschool Fitness Test. The data was collected once in kindergartens and gymnastics clubs in the capital city of Prague. A total of 88 children participated in the testing, from which a sample of 35 probands was subsequently selected. The group of girls from sports preparations was represented by 19 girls with an average age of 5.66 years (s.d. =  $\pm 0,25$ ). The group of girls from kindergartens was represented by 17 girls with an average age of 5.73 years (s.d. =  $\pm 0,81$ ).

**Results:** The result is a comparison of basic statistical indicators and an evaluation of statistical significance between a group of gymnasts and girls from kindergarten who engage regularly in organized physical activity. Based on the evaluation of the t-test, statistical significance was found for the following tests: standing long jump, range of joint mobility in forward bending, moving plates and beep test. The following tests were evaluated as statistically insignificant: shuttle run 4 x 5 m, jumps on the mat and throws with the right and left upper limb

**Keywords:** artistic gymnastics, Active start stage, physical fitness, health-related fitness, testing, motor performance