

# ABSTRACT

**Title:** The vital capacity of lungs in novice figure skaters

**Aims:** The main aims of this study were 1. to compare the forced vital capacity (FVC) at rest between young female figure skaters and girls of the same age; 2. to find how the free skate influences respiratory functions in young female figure skaters.

**Method:** A personal spirometer was used to test the 20 young female figure skaters aged 11–14 years in this empirical research. Data from a festival of sport for kids “Sporťáček” were used to compare FVC among young female figure skaters and athletes from several other sports. Data were analyzed using non-parametric statistic methods.

**Results:** Compared to athletes from other sports, FVC of young female figure skaters was significantly lower, the same result was also found after conversion on FVC index (FVC/BMI). The level of selected respiratory measures did not differ significantly immediately after free skate nor a minute after the performance. However, there was an increasing trend found immediately after free skate compared to the level at rest.

**Conclusions:** Specific training loads in the figure skating may negatively influence FVC. FVC as well as some other respiratory measures may slightly increase immediately after performance.

**Key words:** figure skating, spirometry, breathing, older school age