

**BALLET DANCE AND SCOLIOSIS: HOW THEY ARE RELATED?****Abdussalam AYAD***Lviv State University of Physical Culture,  
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**Introduction.** Scoliosis develops amongst females at precisely the time that girls begin seriously training in ballet. Ballet is often recognized complication of dieting, weight loss, physical training and delay in menarche in young women. In addition to losing weight, dancers begin their training early in life, usually before adolescence.

**Aim.** The main aim is based on researchment of changes in skeletal proportions of ballet dancers, as the ballerinas are taught to hold their spines in opposite state to the spine natural curves.

**Methods.** Analysis of literatures, social methods, mathematics – static data.

**Results.** Scoliosis comes from a Greek word that means crooked or twisted, the medical term refers to a spine that twisted and curves to the side [3].

Scoliosis is a three-dimensional deformity of the spine. In its most common form, idiopathic scoliosis (70%–80% of cases), the causes are unknown. AIS is discovered at 10 years of age or older [2].

Starting ballet at a younger age, increased frequency of ballet training and increased duration of ballet are associated with an increased risk for developing the abnormal curvature seen in scoliosis.

In a study of scoliosis in young ballet dancers by Michelle P. Warren, M.D., J. Brooks Gunn, Ph.D., Linda H. Hamilton, L. Fiske Warren, M.D., and William G. Hamilton, M.D. was found that there was a significantly higher incidence of scoliosis in ballet dancers than the general population. The incidents of scoliosis in the general population is around 2–4% [1].

In a survey of 75 dancers (mean age 24.3 years) in four professional ballet companies, they found that the prevalence of scoliosis was 24% and that it rose with increases in age at menarche. Fifteen of eighteen dancers (83%) with scoliosis had had a delayed menarche (onset at 14 years or older), as compared with 31 of 57 dancers (54%) without scoliosis. The dancers with scoliosis had a slightly higher prevalence of secondary amenorrhea (44%vs.31%) and the mean duration of their amenorrhea was longer (11.4±18.3vs.4.1±7.4 months), and they scored higher on a questionnaire that assessed anorectic behavior [1].

**Conclusion.** According to the study published in the New England Journal of Medicine the prevalence of scoliosis was 24% and that it rose with increases in age at menarche, when studying the incidence of scoliosis and ballet dancers. When the incidence of idiopathic scoliosis in the general population is only approximately 5%. Of course that idiopathic scoliosis effects females 8 times more frequently than males and give that the majority of ballet dancers are female it would make sense that we would find a higher incidence of scoliosis and ballet dancers. So, menarche and prolonged intervals of amenorrhea that reflect prolonged hypoestrogenism may predispose ballet dancers to scoliosis.

**References**

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