

**E.A.Nefedova**

State institution  
“Dnipropetrovsk medical  
academy of the Ministry  
of Health of Ukraine”

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## **MODIFYING EFFECT OF IRON CITRATE TO CARDIOTOXICITY OF LEAD ACETATE IN AN EXPERIMENT**

**ABSTRACT. Background.** Generally recognized and urgent problem for industrial regions of Ukraine are heavy metal pollution, with priority toxicants are lead and its compounds. Search for new possible bioantagonists of lead compounds - a problem relevant to modern medicine. **Objective.** The aim of this experimental work was to study the effect of low doses of lead acetate alone and lead acetate in combination with iron citrate, obtained with nanotechnology, to the course of cardiogenesis of rats. **Methods.** The study conducted on embryos of white rats. In the experiment, there were 3 groups of animals: control group isolated administration of lead acetate group and the combined administration of lead acetate and iron citrate. **Results.** Experimental results showed cardiotoxicity of lead acetate, which was determined to reduce the thickness of the compact myocardium wall of ventricles of the heart, reducing thickness fibrillation, ventricular septal thinning. Violation of delamination processes and ventricular myocardium compaction, under the influence of isolated lead acetate, manifest violation of the formation of trabecular ventricular myocardium layer and formation of atrioventricular valve openings: shortening valves, change the content and scope of the atrioventricular valves accompanied by the formation of additional anomalous tendon chords. **Conclusion.** The influence on the course of cardiogenesis in the group combined effects of lead acetate and iron citrate showed recovery of myocardial thickness and ventricular fibrillation, no violations in the formation of valvular heart rat embryos, indicating a positive impact on iron citrate cardiotoxicity of lead acetate.

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### **Citation:**

Nefedova EA. [Modifying effect of iron citrate to cardiotoxicity of lead acetate in an experiment]. *Morphologia*. 2014;8(4):63-8. Russian.

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