

13 May 2008

By: Stefan Anitei, Science Editor



hearingmojo

[Viagra Could Fix the Heart](#)

In cases of muscular dystrophy

We could say that Viagra is on the way to save lives. And it's not about sexual life; Viagra (sildenafil) could prolong the lives of people suffering from muscular dystrophy, as pointed out by a new research published in the journal Proceedings of the National Academy of Sciences. Just as it works against impotence the drug may also prevent heart failure in patients diagnosed with muscular dystrophy. Muscular dystrophy is a hereditary disease characterized by a severe wasting of the muscles; muscular weakness could set in even at the age of 5, and by the age of 13, most patients are chair bound. The condition also affects the heart muscles, gradually increasing the risk of heart failure. Most patients suffering from Duchenne muscular dystrophy (the most common type) usually die of heart attack in their 20s or 30s. Viagra and related products (Cialis (tadalafil) and Levitra (vardenafil)) prevent the breakdown of the chemical cGMP involved in keeping the blood vessels dilated. This way, the chemical maintains an erection, while at the same time the increased blood flow to the heart delivers a proper supply to its tissues, keeping it healthy and strong, more resistant to the effects of the weakening muscle fibers. Viagra and the other 2 products seem to work by inhibiting the enzyme PDE5 that degrades cGMP. "These experimental results give us hope that one day it will be possible to treat with this approach cardiac problems in patients with muscular dystrophy, and perhaps even treat other heart diseases", said Professor Jean-Claude Tardif, director of the Montreal Heart Institute Research Center. The team also introduced a gene that boosted cGMP synthesis in the mice's heart cells, which allowed the rodents to keep a healthy cardiac rhythm. Still, specialists are waiting for human trials to see the effect of Viagra on heart health.