

Don't feel like exercise? Scientists find compound that may help you work out harder

June 12 2012

As science rushes to develop safe weight loss drugs, a new research report approaches this problem from an entirely new angle: What if there were a pill that would make you want to exercise harder? It may sound strange, but a new research report appearing online in *The FASEB Journal* suggests that it might be possible.

That's because a team of Swiss researchers found that when a hormone in the brain, erythropoietin (Epo), was elevated in mice, they were more motivated to exercise. In addition, the form of erythropoietin used in these experiments did not elevate red blood cell counts. Such a treatment has obvious benefits for a wide range of health problems ranging from Alzheimer's to obesity, including [mental health disorders](#) for which increased physical activity is known to improve symptoms.

"Here we show that Epo increases the motivation to exercise," said Max Gassmann, D.V.M., a researcher involved in the work from the Institute of Veterinary Physiology, Vetsuisse-Faculty and Zurich Center for Integrative Human Physiology at the University of Zurich in Switzerland. "Most probably, Epo has a general effect on a person's mood and might be used in patients suffering from depression and related diseases."

To make this discovery, Gassmann and colleagues used three types of mice: those that received no treatment, those that were injected with

human Epo, and those that were genetically modified to produce human Epo in the brain. Compared to the mice that did not have any increase in Epo, both mouse groups harboring human Epo in the brain showed significantly higher running performance without increases in [red blood cells](#).

"If you can't put exercise in a pill, then maybe you can put the motivation to exercise in a pill instead," said Gerald Weissmann, M.D., Editor-in-Chief of The [FASEB Journal](#). "As more and more people become overweight and obese, we must attack the problem from all angles. Maybe the day will come when [gyms](#) are as easily found as [fast food restaurants](#)."

More information: Beat Schuler, Johannes Vogel, Beat Grenacher, Robert A. Jacobs, Margarete Arras, and Max Gassmann. Acute and chronic elevation of erythropoietin in the brain improves exercise performance in mice without inducing erythropoiesis. *FASEB J.* [doi:10.1096/fj.11-191197](https://doi.org/10.1096/fj.11-191197)

Provided by Federation of American Societies for Experimental Biology

Citation: Don't feel like exercise? Scientists find compound that may help you work out harder (2012, June 12) retrieved 25 April 2024 from <https://medicalxpress.com/news/2012-06-dont-scientists-compound-harder.html>

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