

How Exercise Could Lead to a Better Brain

April 27, 2012

The New York Times:

The value of mental-training games may be speculative, as Dan Hurley writes in his article on the quest to make ourselves smarter, but there is another, easy-to-achieve, scientifically proven way to make yourself smarter. Go for a walk or a swim. For more than a decade, neuroscientists and physiologists have been gathering evidence of the beneficial relationship between exercise and brainpower. But the newest findings make it clear that this isn't just a relationship; it is the relationship. Using sophisticated technologies to examine the workings of individual neurons — and the makeup of brain matter itself — scientists in just the past few months have discovered that exercise appears to build a brain that resists physical shrinkage and enhance cognitive flexibility. Exercise, the latest neuroscience suggests, does more to bolster thinking than thinking does.

The most persuasive evidence comes from several new studies of lab animals living in busy, exciting cages. It has long been known that so-called “enriched” environments — homes filled with toys and engaging, novel tasks — lead to improvements in the brainpower of lab animals. In most instances, such environmental enrichment also includes a running wheel, because mice and rats generally enjoy running. Until recently, there was little research done to tease out the particular effects of running versus those of playing with new toys or engaging the mind in other ways that don't increase the heart rate.

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