

# Want a healthy brain? Scientists say, go for a run

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(Medical Xpress)—Physical exercise is just as important as cognitive exercise when it comes to maintaining a healthy brain, according to a new University of Queensland study released today.

A study conducted by scientists in the Bartlett laboratory at UQ's Queensland Brain Institute found the mechanism by which exercise increases the number of stem cells that are actively generating new nerve cells in the brain and reverses the decline normally observed as animals age.

"We have found that Growth Hormone (GH) originally discovered as a potent stimulator of animal growth is increased in the brain of running animals and this stimulates the activation of new neural stem cells," says QBI scientist Dr Daniel Blackmore.

The study was carried out in older mice, which show the same cognitive decline as humans.

"In this model of ageing we found that the number of active [neural stem cells](#) dramatically declines with age, but exercise dramatically reversed this, increasing stem cell numbers," Professor Perry Bartlett, the Director of QBI, and team leader, said.

"If we blocked the action of GH in the brains of these running animals, however, no such increase occurred, indicating GH was the primary regulator of this process.

"We are currently determining whether this growth GH–dependent increase in stem cell activity is able to reverse the [cognitive decline](#) seen in old animals by increasing production of new [nerve cells](#)."

Provided by University of Queensland

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