

## Training Your Brain like a Memory Athlete

According to an article in Science Daily, researchers of the journal Neuron found that 40 days of daily 30-minute training sessions can



double a person's memory capacity. Study participants were given a list of 72 words and were asked to memorize as many of the words as they could. Before the training, participants recalled an average of 26 words but after the training they were capable of recalling an average of 62. Study author, Martin Dresler, an Assistant Professor of Cognitive Neuroscience at Radboud University Medical Center said, "Not only you can induce a behavioral change, but training also induces similar brain connectivity pattern as those seen in memory athletes." This showed an increase in the brain usage of what memory experts call a loci training, where lists of information are associated with a specific place in the mind.

Source: [www.labroots.com/trending/neuroscience/5636/training-brain-memory-athlete](http://www.labroots.com/trending/neuroscience/5636/training-brain-memory-athlete)

## How Depression Can Change Brain Structure

Researchers at the Los Angeles Children's hospital discovered that a person's brain experiences structural changes when they are depressed. Dr Bradley S. Peterson, researcher at the Saban Research Institute stated, "Our findings suggest that thickening of the cerebral cortex is a compensatory, neuroplastic response that helps to reduce the severity of depressive symptoms. Patients who are off the medication have a thickened cortex, and the thicker it is, the fewer the symptoms they have. Treatment with medication then reduces the severity of symptoms, which in turn reduces the need for biological compensation in the brain – so that their cortex becomes thinner, reaching thickness values similar to those in healthy volunteers." Seeing evidence of how the shape of the brain was literally changing is a significant step forward in understanding the neuroplasticity of the brain. Knowing more about what the brain does in response to illness or injury will allow medical professionals to treat patients in better ways.



Source: [www.labroots.com/trending/neuroscience/5605/depression-changes-brain-structure](http://www.labroots.com/trending/neuroscience/5605/depression-changes-brain-structure)

## Why is Cancer Unavoidable Two-Thirds of the Time?

Here's a perplexing and unsettling reality: People who do their best to adopt a healthy lifestyle, including limiting exposure to unhealthy environments, can reduce their cancer risks, at best, by 40 percent. Cancer can still strike for the other 60 percent of the time, despite our most conscious health efforts. Scientists at the Johns Hopkins School of Medicine say the root of the problem rests in DNA copying mistakes in

cells. In two-third of the time, cancer arises due to genetic typos caused by errors in DNA. According to Bert Vogelstein, one of the most prominent figures in the field of cancer biology, "Mutations will occur, no matter what your environment is, but you can take steps to minimize those mutations by limiting your exposure to hazardous substances and unhealthy lifestyles."

Source: [www.labroots.com/trending/cancer/5617/cancer-unavoidable-two-thirds-time](http://www.labroots.com/trending/cancer/5617/cancer-unavoidable-two-thirds-time)

## Gluten-free Diet Linked to Increased Diabetes

**G**luten, a general name for the natural proteins found in grains like wheat, rye and barley acts as a sort of glue, lending pliability, elasticity and structure to baked goods and breads. An intolerance to gluten is one symptom of celiac disease. People have understandably become concerned about reducing or even eliminating gluten from their diets and it has become easier to find gluten-free food. However, researchers have found that a diet free of gluten can develop a person's risk of developing Type 2 diabetes. A study conducted at Harvard University was aimed at determining if gluten consumption affected the health of the people who have no reason to avoid it. Since gluten-free products have increased in recent years the researchers wanted to know what effect a low gluten diet had on people without celiac disease. The results showed that reducing gluten

consumption in people without the disease offered no long-term health benefits. The researchers observed that those who ate less gluten also tended to eat less cereal



fiber; cereal fiber is known to protect against the development of Type 2 diabetes.

Source: [www.labroots.com/trending/cell-and-molecular-biology/5519/gluten-free-diet-linked-increased-diabetes-risk](http://www.labroots.com/trending/cell-and-molecular-biology/5519/gluten-free-diet-linked-increased-diabetes-risk)

## Zika Vaccine Trials Begin

**T**he fight against Zika has taken a huge step forward. The US is enrolling volunteers for testing an experimental vaccine. This is one of the first Zika vaccines that has been used for broader human testing. The first volunteer got a dose of the vaccine in Houston



in late March. The next step is to test 90 adults with different doses to test which one works best. After that, researchers aim to test the vaccine in more than 2000

volunteers in five countries at risk of Zika virus. Traditionally vaccines imitate an infection to train the body to fight against it. However, this one is slightly different - it is called a DNA vaccine and it will contain a genetic material from the actual virus that resemble Zika enough to trick the immune system in building up a defense. While Zika is a mild illness in most adults causing fever, joint pain and sometimes conjunctivitis, it can be catastrophic in pregnant women, causing their babies to be born with severe neurological damage and brain defects including microcephaly. Some studies have shown an association with Guillain-Barre syndrome, a condition that attacks the nervous system, but that link has not been proven conclusively. The trials are expected to be complete by 2019.

Source: [www.labroots.com/trending/neuroscience/5697/zika-vaccine-trials-begin](http://www.labroots.com/trending/neuroscience/5697/zika-vaccine-trials-begin)

## Virtual Conference on Cancer Research & Oncology, 2017

**T**he 5th Annual LabRoots Cancer Research & Oncology Virtual Conference will be taking place on October 11-12, 2017. LabRoots invites research professionals, scientists, and clinicians to this premier online conference,



making it easier and more cost-effective to learn about recent advances in cancer research. The virtual conference is free for all attendees, encouraging worldwide collaboration and connections between young researchers and field experts. So,

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