

# LIVE WELL WORK WELL

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## HOW THE HUMAN BRAIN PROCESSES Differently When Outdoors

The brain acts much differently when we're outdoors than when we're inside the lab, a new study has found.

"It happens when we're doing normal, everyday activities, like riding a bike," explained Kyle Mathewson, a neuroscientist in University of Alberta's Department of Psychology.

Mathewson and his research team put EEG equipment into backpacks and had subjects perform a standard neuroscience task while riding a bike outside. The task involved identifying changes in an otherwise consistent set of stimuli, such as a higher pitch in a series of beeps. They had previously performed the same experiment on stationary bikes inside their lab, but in the new study the scientists were able to record laboratory quality measurements of brain activity outdoors using portable equipment.

"Something about being outdoors changes brain activity," said Joanna Scanlon, graduate student and lead author on the study. "In addition to dividing attention between the task and riding a bike, we noticed that brain activity associated with sensing and perceiving information was different when outdoors, which may indicate that the brain is compensating for environmental distractions."

"If we can understand how and what humans are paying attention to in the real world, we can learn more about how our minds work," said Scanlon. "We can use that information to make places [safer], like roadways."

"If we want to apply these findings to solve issues in our society, we need to ensure that we understand how the brain works out in the world where humans actually live, work, and play," said Mathewson, who added that almost everything we know about the human brain is learned from studies in very tightly controlled environments.

Next, the researchers will explore how this effect differs in outdoor environments with varying degrees of distraction, such as a quiet path or a busy roadway.

Frontiers. "Students more engaged and attentive following outdoor lesson in nature: Following an outdoor lesson in nature, students were more engaged with their schoolwork, and their teachers could teach uninterrupted for almost twice as long." ScienceDaily. [www.sciencedaily.com/releases/2018/01/180111115340.htm](http://www.sciencedaily.com/releases/2018/01/180111115340.htm) (accessed May 18, 2018).





# DIABETES DOUBLES

## the Chances of Developing Cataracts

People with diabetes are twice as likely to develop cataracts as the general population, and the relative risk is highest in those aged between 45 and 54, according to a new study published in the journal *Eye*.

Researchers analyzed medical records from 56,510 diabetes patients aged 40 or over and found that they were diagnosed with cataracts at an overall rate of 20.4 per 1,000 people. This compares to a rate in the general population of 10.8 per 1,000.

Diabetics aged between 45 and 54 were considerably more likely than non-sufferers to develop cataracts. Those diabetic patients aged between 45 and 49 were 4.6 times more likely to, and diabetics aged between 50 and 54 were 5.7 times more at risk than their healthy counterparts.

Co-author Rupert Bourne, Professor of Ophthalmology at Anglia Ruskin University's Vision and Eye Research Unit, said: "The report has shown that having diabetes doubles your risk of being diagnosed with a cataract and that this risk is six times higher if a diabetic patient has significant diabetic retinal disease, called diabetic maculopathy.

"This is only the second such report on cataract incidence in the UK's diabetic patients since the 1980s and it further emphasizes the importance of the NHS Diabetic Eye Screening [program] in early identification and treatment of diabetic eye disease to prevent sight loss."

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# MENTAL HEALTH CLINICIANS

## Need to Better Engage Men with Depression

The number of Australian men seeking clinical intervention to deal with depression has increased by approximately 10% in the last 10 years, says Zac Seidler Ph.D. candidate at the University of Sydney's School of Psychology, but men still account for three-quarters of Australia's suicides. The overall number of suicides has largely remained static in that time.

In new findings published in *Australian Psychologist*, Seidler says mental health clinicians need to change the way they deliver treatment for it to have an impact on the male suicide epidemic.

"A lot more of men now seek help but many aren't engaging with their treatment and therefore don't stay as long as they should," he said. "With available data suggesting many men who commit suicide seek professional help beforehand, this is a critical period in many people's lives, and one we ought to be getting right."

Seidler's research shows most mental health strategies have a heavier emphasis on unstructured talk therapy. While offering some short-term benefits, many men participating in his research found a lack of structure and progress to be a waste of time and money. In some cases, they found a "talkfest" had a detrimental effect, making them angrier.

"A concerted effort towards active and empowering treatment should decrease the burden on clinicians through shorter treatment periods using a clear, structured approach. It should also increase men's mental health literacy and equip them with the skills they need to deal with depression so they are prepared when the next crisis arises."

University of Sydney. "Mental health clinicians need to better engage men with depression." ScienceDaily. [www.sciencedaily.com/releases/2017/10/171029220112.htm](http://www.sciencedaily.com/releases/2017/10/171029220112.htm) (accessed May 17, 2018).

# SAFE FIREWORKS HANDLING TIPS

## for the Fourth of July

Nothing says "Fourth of July" like fireworks, but doctors at Vanderbilt University Medical Center urge caution with consumer fireworks and suggest leaving these displays to the experts.

"Fireworks are explosives and need to be treated as such," said Corey Slovis, M.D., professor and chair of the Department of Emergency Medicine. "If you do not want your child handling or being close to explosives, then keep them at a safe distance away from fireworks."

The three types of fireworks that keep hospital emergency departments busy during this holiday period are bottle rockets, firecrackers, and sparklers.

While it is best to leave fireworks to the professionals, if you plan to have fireworks at your celebration, follow these precautions and set some rules in advance.

- Always read and follow all warnings and label instructions.
- Never allow children to play with or light fireworks.
- The adult lighting the fireworks should always wear eye protection.
- No one should ever have any part of the body over the fireworks.
- Use fireworks outdoors only.
- Be sure other people are out of range before lighting fireworks.
- Always have water handy (a garden hose and a bucket).
- Light fireworks on a smooth, flat surface away from the house. Also keep away from dry leaves and other flammable materials.
- Light only one firework at a time.
- Never throw or point fireworks at other people or animals.
- Never shoot fireworks in metal or glass containers.
- Never re-light a dud firework.
- Dispose of all fireworks by soaking them with water and throwing them away.

Vanderbilt University Medical Center. "Doctors urge caution with Fourth of July fireworks." ScienceDaily. [www.sciencedaily.com/releases/2014/06/140630113447.htm](http://www.sciencedaily.com/releases/2014/06/140630113447.htm) (accessed May 15, 2018).

## JUNE RECIPE

### Creamy Pesto Pasta

- 6 oz. whole wheat spaghetti
- 1-2 cloves of garlic
- ½ cup reduced-fat Parmesan cheese
- 1 Tbsp olive oil
- 2 Tbsp basil
- ½ cup fat free half and half

Cook spaghetti according to package instructions, drain, and set aside. Mix Parmesan, basil, garlic, and olive oil in a blender and blend until smooth. Spoon mixture into a saucepan, set to low heat, and whisk in half and half. When mixture is smooth, add in pasta. Stir gently until all noodles are coated with sauce. Serve warm (sauce will become thick as it cools).

**Optional:** For a smoother consistency, add in 1 Tbsp of white cooking wine to sauce mixture. You can also serve with grilled chicken or shrimp.  
Yield: 4 servings. Each serving provides: Calories- 225 Carbs- 35g Protein- 9g Fat- 6g

Retrieved from: <http://staylean.blogspot.com/2010/02/creamy-pesto-pasta.html>

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