

SPOTTED

Ultrasound exposure; maternal age; 'special' interests and more

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Ultrasound exposure

Autism is not associated with the frequency or duration of **prenatal exposure to ultrasound**, according to a study published 12 February in *JAMA Pediatrics*. The researchers found that children with autism in the study had been exposed to fewer ultrasounds and for shorter periods in the womb than had typical children or those with developmental delays.

Doctors tended to perform deeper ultrasound exams in the autism group than in the controls. The researchers say that higher rates of obesity in mothers of children with autism might be a factor in this finding, because having more body fat necessitates deeper ultrasound-wave penetration to image the womb.

An **accompanying editorial** says that the findings are “overall consistent” with other reports suggesting that ultrasound is not a “single causal factor” in autism. Several outlets have cited experts who are critical of the paper’s methods and findings.

SOURCES:

JAMA Pediatrics / 12 Feb 2018

Association of prenatal ultrasonography and autism spectrum disorder

<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2672728>**JAMA Pediatrics** / 12 Feb 2018

Prenatal ultrasonography and the incidence of autism spectrum disorder

<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2672722>

Maternal age

Children born to mothers over age 40 have an **increased autism risk**, according to results published 6 February in *Maternal and Child Health Journal*. The mother's education level is also tied to a child's autism status, but in complex ways: Lower education is linked to greater odds of a positive autism screening result, but higher maternal education is tied to a child being diagnosed with autism.

SOURCES:

Maternal and Child Health Journal / 06 Feb 2018

Advanced maternal age and maternal education disparity in children with autism spectrum disorder
<https://link.springer.com/article/10.1007%2Fs10995-018-2470-9>

'Special' interests

Although **'special' interests** are a key feature of people with autism, the interests that adults on the spectrum **cite as most dear to them** look fairly common. Their fascinations include music, nature, gardening and — like readers of "Spotted" — autism, according to findings published 10 February in *Autism Research*.

The ability to pursue their interests benefits people on the spectrum, the researchers say, by boosting their satisfaction with social contacts and leisure time, for example. But having a "very high intensity" in pursuing special interests is tied to reduced well-being, the results suggest.

SOURCES:

Autism Research / 10 Feb 2018

Special interests and subjective wellbeing in autistic adults
<http://onlinelibrary.wiley.com/doi/10.1002/aur.1931/abstract>

Abuse coverup

The National Autistic Society in the United Kingdom has come under fire after revelations that staff abused residents in one of its care homes. Residents **endured abuse and ridicule** that included being force-fed noxious foods and being pressured to pay for staff meals on outings, according to a report 8 February in *The Telegraph*. The home was shut down in 2016.

SOURCES:

The Telegraph / 08 Feb 2018

Autism charity accused of hiding horrific abuse at care home

<http://www.telegraph.co.uk/news/2018/02/08/autism-charity-accused-hiding-horrific-abuse-care-home/>

Animal-testing threat

Like some **autism researchers**, investigators at the U.S. Food and Drug Administration rely on monkeys as their closest-to-human animal models. An animal rights activist who pushed the agency to shut down an addiction study after four monkeys died has set his sights on other federally funded studies **involving non-human animals**, *STAT* reported 8 February.

SOURCES:

STAT / 08 Feb 2018

He calls animal testing 'taxpayer-funded torture.' He got the FDA to listen

<https://www.statnews.com/2018/02/08/animal-testing-anthony-bellotti/>

Monitoring harassment

The National Science Foundation has announced that institutions must report **findings of harassment** involving investigators who receive foundation funding. A **funding suspension** is among the consequences for grantees who have committed harassment, the agency said in an 8 February notice. Institutions also must report when grant recipients are placed on leave for a harassment investigation.

SOURCES:

Science / 08 Feb 2018

NSF requires institutions to report sexual harassment findings

<http://www.sciencemag.org/news/2018/02/nsf-requires-institutions-report-sexual-harassment-findings>

New nano-lights

The ability to control brain cells using blue light — a technique known as **optogenetics** — has

become a useful tool for autism researchers. Investigators injected mouse brains with **nanoparticles that can capture infrared light** from outside the brain and convert it into blue light inside the organ. They used the technique to trigger dopamine release from neurons engineered to respond to the blue-light signal, they reported 9 February in *Science*.

SOURCES:

Science / 09 Feb 2018

Near-infrared deep brain stimulation via upconversion nanoparticle-mediated optogenetics
<http://science.sciencemag.org/content/359/6376/679>

Survey of teen brain

The adolescent brain baffles everyone, even adolescents, but a huge U.S. federal data collection endeavor may offer some clarity. More than 7,500 children aged 9 and 10 years have joined the **Adolescent Brain and Cognitive Development study**, the National Institutes of Health announced 13 February. The project involves collecting long-term data covering health, culture, neuroimaging and even hormone analyses as the children age through their teens.

Project leaders expect a near doubling of the participant number before enrollment is complete but have released an interim set of baseline data for the first 4,500 children. Researchers hope to answer questions about everything from how screen time influences the maturing brain to the effects of genetics on development.

SOURCES:

National Institutes of Health / 13 Feb 2018

NIH releases first dataset from unprecedented study of adolescent brain development
<https://www.nih.gov/news-events/news-releases/nih-releases-first-dataset-unprecedented-study-adolescent-brain-development>

Vaccination vote

Despite a mountain of evidence showing no link between autism and vaccines, the pairing keeps **cropping up in U.S. politics**. This time, it's in an initiative that one Californian hopes to get in front of state voters in November.

According to a report published 12 February in *Mother Jones*, the initiative would dispense with

school vaccination requirements because the person who proposed it “believes cancer, autism and other diseases are linked to exposure to toxic chemicals.” However, to get onto the ballot, the proposal would have to rack up 365,880 signatures, *Mother Jones* reports.

SOURCES:

Mother Jones / 12 Feb 2018

Californians could vote to give themselves the measles

<https://www.motherjones.com/environment/2018/02/this-ballot-measure-crazy-even-by-california-standards/>

News tips

Do you have a new paper coming out? Are you making a career move? Did you see a study or news story that you want to share? Send your news tips to news@spectrumnews.org.
