



Pharmacy Alternatives

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THE POST SCRIPT

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Clinical



Stem Cells Show Promise for Kids with Cerebral Palsy

New research is adding to evidence that children with cerebral palsy can see meaningful gains from infusions of stem cells from their own cord blood.

A study looking at 63 kids with various types of spastic cerebral palsy found that just one dose of stem cells led to better motor function.

Children who received an infusion of 25 million stem cells per kilogram of their body weight exhibited greater gains than those who received a placebo and performed better than is typically expected of kids with similar age and diagnostic histories, the study found.

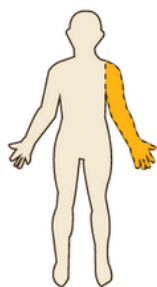
All of the children who took part in the research were between the ages of 1 and 6 and had their cord blood banked at birth. About half were treated with stem cells while the others received a placebo.



TYPES

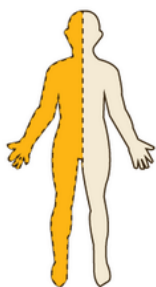
CEREBRAL PALSY

Monoplegia



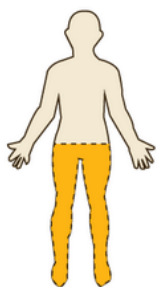
Affects one limb, usually an arm.

Hemiplegia



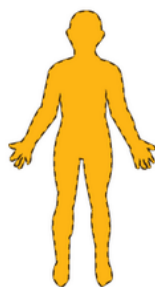
Affects one side of the body, including arm, leg, and trunk.

Diplegia



Affects symmetrical parts of the body (legs or arms).

Quadriplegia



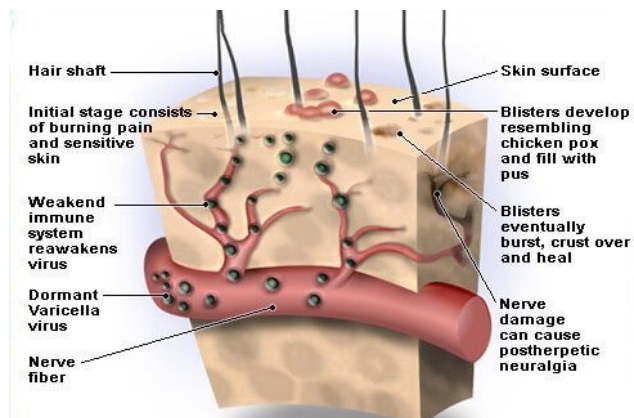
Affects all four limbs

Researchers tried a variety of doses and evaluated the participants using magnetic resonance imaging and standardized measures to track their ability to crawl, roll and perform other motor functions.

While kids with cerebral palsy do typically see their skills improve over the course of a year — particularly when aided by occupational and physical therapy — those who received an optimal dose of the stem cells progressed more than expected, researchers said.

Clinical What Triggers Shingles?

Varicella zoster is the virus that keeps on giving. The first exposure to varicella zoster virus (VZV) results in chickenpox, typically in young children. It then takes a deep dive into sensory nerve roots and enters a dormant stage that can last for decades. In one out of three people, the virus fires up again in adulthood as shingles. The question that remains largely unanswered despite research is what triggers VZV to reactivate into shingles?



According to the CDC, an individual's risk for developing shingles (herpes zoster) increases as their VZV-specific immune cells, which have been holding the virus in check, decline in number and functionality. Aging is the strongest risk factor for this decline in immunity. Statistically, half of all shingles cases in the United States are diagnosed in people aged 50 or older, and the risk continues to rise exponentially with each additional decade of life.



Several other consistent risk factors for shingles have also been identified. Women appear to be at higher risk than men, whites appear to be at higher risk than other ethnicities, and people who are immunocompromised also have an elevated risk of shingles.

A number of recent research studies have examined more potential triggers for shingles. They have focused on physical trauma, psychological stress, family history, sleep disturbance, depression, recent weight loss, smoking, tonsillectomy, diet, and exposure to pesticides or herbicides. However, none of the studies have shown conclusively that there is a connection between any of these factors and shingles.

New Study: Supplements and Pregnancy

Taking certain supplements while pregnant may reduce the risk that a child will develop autism, a new study suggests. Researchers looked at more than 45,000 Israeli children born between 2003 and 2007, tracking their development until 2015. They found that kids born to mothers who took folic acid and multivitamins before and during pregnancy were less likely to be on the spectrum.



Mothers prescribed one or both of the supplements during pregnancy were 73 percent less likely to have a child with autism, the study found. Ultimately, 572 of the children studied were diagnosed with autism.

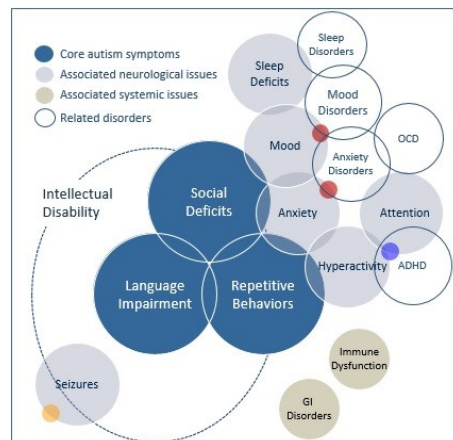
The study authors noted that their research was limited by a reliance on prescription data. Some mothers may have taken over-the-counter supplements and it's unknown if all the mothers prescribed supplements actually took them, they said. Moreover, the researchers acknowledged that other factors may have been at play in altering the children's autism risk, so further study is needed to replicate the findings.

Clinical Girls with Autism More Likely to Have Younger Siblings with ASD

Parents who have a child on the autism spectrum are more likely than other parents to see a future child diagnosed with autism, too. A new study by Harvard researchers shows the likelihood is much higher when that older child is a girl.

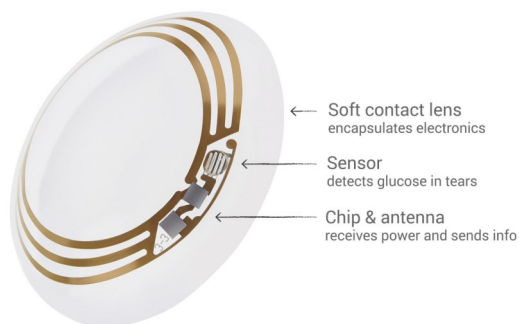
The likelihood is not a certainty, though. Even when an older son or daughter was diagnosed, more than 80 percent of future children were not found to be on the spectrum.

The study found that if an older girl had autism, among her younger siblings a brother had a 17 in 100 chance of being diagnosed with autism. A younger sister had an 8 in 100 chance of being diagnosed.



Technology and Innovation

New Smart Tech Improves Diabetes Management



Move over, test strips! Step aside, hand-held blood glucose monitors! Make way for a new generation of diabetes management tools that are changing the way patients manage their disease and their lives.

Today's innovative smart technology ranges from insulin pumps and memory chip-equipped insulin pens to sensors applied directly to skin for continuous glucose monitoring (CGM) and other wearables.

CNBC reported earlier this year that a team of biomedical engineers at Apple is involved in an initiative to develop noninvasive sensor technology to continuously monitor blood sugar levels. Verily has at least two glucose sensing/monitoring projects in the works, including a glucose-sensing contact lens. Both companies are participating in the FDA's precertification pilot program, part of its initiative to foster digital health innovation.

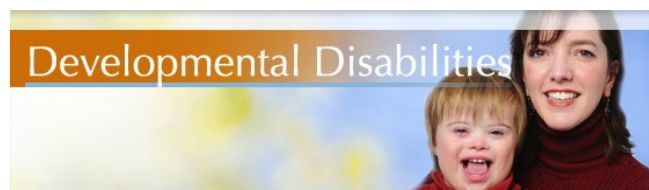
Government Relations

Developmental Disabilities are on the Rise

An increasing number of American children have developmental disabilities, the federal government says, even as autism and intellectual disability rates remain largely steady.

Between 2014 and 2016, the prevalence of developmental disabilities among kids ages 3 to 17 increased from 5.76 percent to 6.99 percent, according to figures released Wednesday from the U.S. Centers for Disease Control and Prevention.

The rise stems from an uptick in children diagnosed with a developmental delay other than autism or intellectual disability, the federal agency said.



NEW!! New Drug Approvals: FDA Approves Semaglutide for Type 2 Diabetes



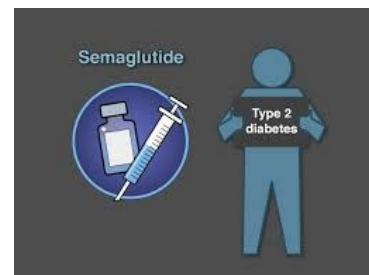
The US Food and Drug Administration (FDA) has approved semaglutide (*Ozempic*, Novo Nordisk) as an adjunct to diet and exercise for the treatment of type 2 diabetes in adults.

The long-acting glucagon-like peptide-1 (GLP-1) receptor agonist was approved in 0.5-mg and 1.0-mg doses, to be administered once weekly via a dedicated prefilled pen device.

Semaglutide is now the seventh GLP-1 receptor agonist on the US market and the third dosed once weekly. However, data suggest it might be more effective than some of its competitors.

The company's eight phase 3a trials involved over 8000 adults with type 2 diabetes, including individuals at high cardiovascular risk and those with renal disease. One of the studies, SUSTAIN-6, was a 2-year FDA-mandated cardiovascular-outcomes trial involving 3297 patients.

In the five SUSTAIN efficacy trials, semaglutide reduced hemoglobin A1c by 1.5 to 1.8 percentage points, significantly more than did active comparators. Semaglutide was also associated with a 4.5-kg to 6.4-kg weight loss. The most common side effect was mild to moderate nausea, which diminished over time.



Please come see us at our booth at the following conferences or listen to us speak on a clinical subject if you are attending!



March 22nd-25th: National DDNA Annual Conference in Orlando, FL



Educational Webinars

Topic: "Treatment of Anemia" on February 2nd, 2018 @ 1:00 PM CST

Topic: "Treatment of Anemia" on February 2nd, 2018 @ 3:00 PM CST

Topic: "Use of Inhalers" on February 12th, 2018 @ 10:00 AM CST

Topic: "Use of Inhalers" on February 12th, 2018 @ 12:00 PM CST

If you are interested in participating in any of the above [complimentary webinars](#), please email Nanette Wrobel at least one week in advance @ nwrobel@palrx.com



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