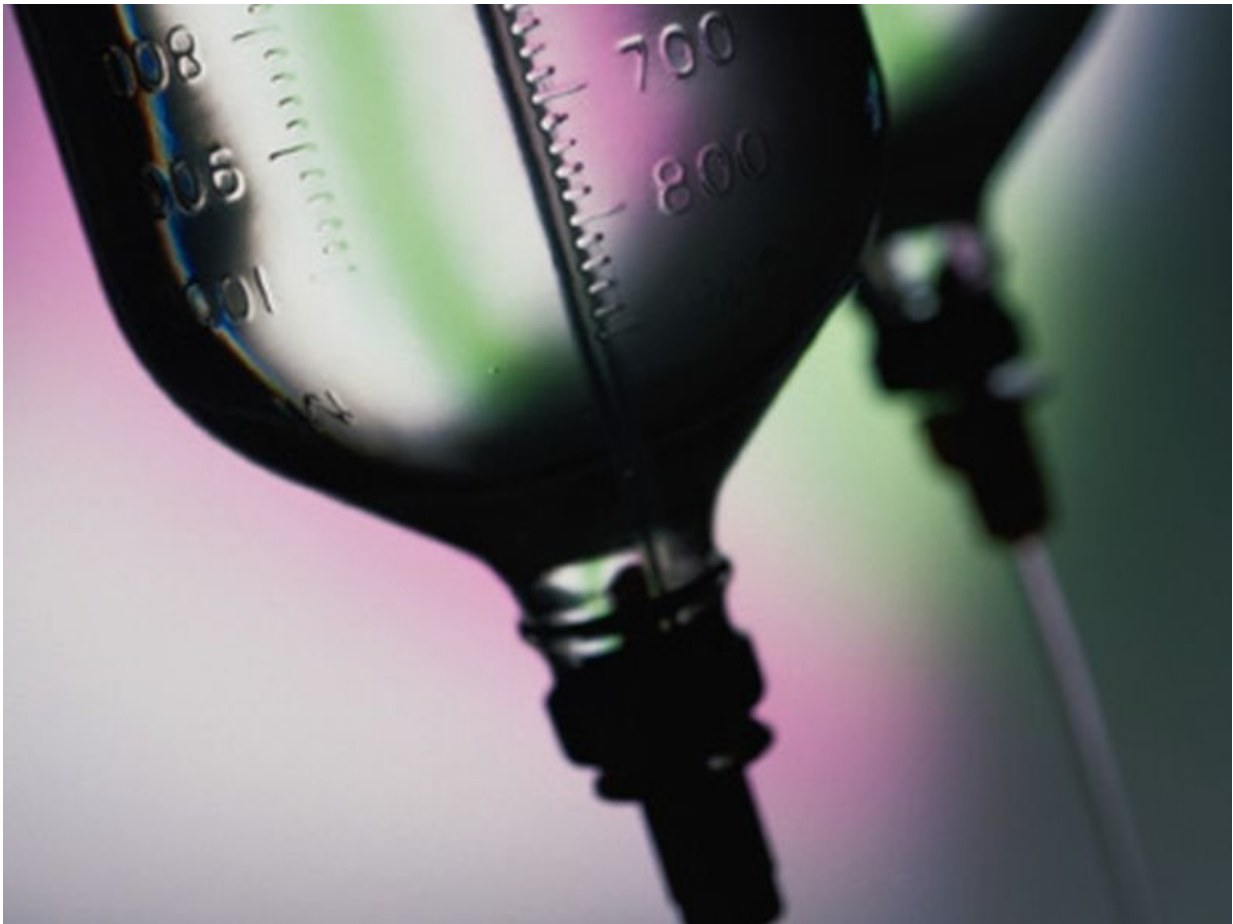


Cord blood improves motor function with cerebral palsy

November 29 2017



(HealthDay)—Infusion of autologous umbilical cord blood improves

whole brain connectivity and motor function in young children with cerebral palsy (CP), according to a study published online Oct. 28 in *Stem Cells Translational Medicine*.

Jessica M. Sun, M.D., from the Duke University Medical Center in Durham, N.C., and colleagues conducted a Phase II trial of autologous cord blood (ACB) infusion in children with CP to test whether ACB could improve function. Placebo or a single intravenous infusion of 1 to 5×10^7 total nucleated cells per kilogram of ACB was administered to 63 children ages 1 to 6 years with CP at baseline, followed by the alternate infusion one year later. At baseline and at one and two years post-treatment, [motor function](#) and magnetic resonance imaging [brain connectivity](#) studies were performed.

The researchers observed no difference in mean change in Gross Motor Function Measure-66 (GMFM-66) scores at one year between placebo and treated groups, although a dosing effect was identified. At one year after ACB treatment, there were significantly greater increases in GMFM-66 scores, above those predicted by age and severity, among those who received doses $\geq 2 \times 10^7/\text{kg}$. Additionally, there were significant improvements in Peabody Developmental Motor Scales-2 Gross Motor Quotient scores and normalized [brain](#) connectivity.

"Results of this study suggest that appropriately dosed ACB [infusion](#) improves brain connectivity and gross motor function in young children with CP," the authors write.

More information: [Abstract](#)
[Full Text](#)

Copyright © 2017 [HealthDay](#). All rights reserved.

Citation: Cord blood improves motor function with cerebral palsy (2017, November 29)
retrieved 5 May 2024 from
<https://medicalxpress.com/news/2017-11-cord-blood-motor-function-cerebral.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.