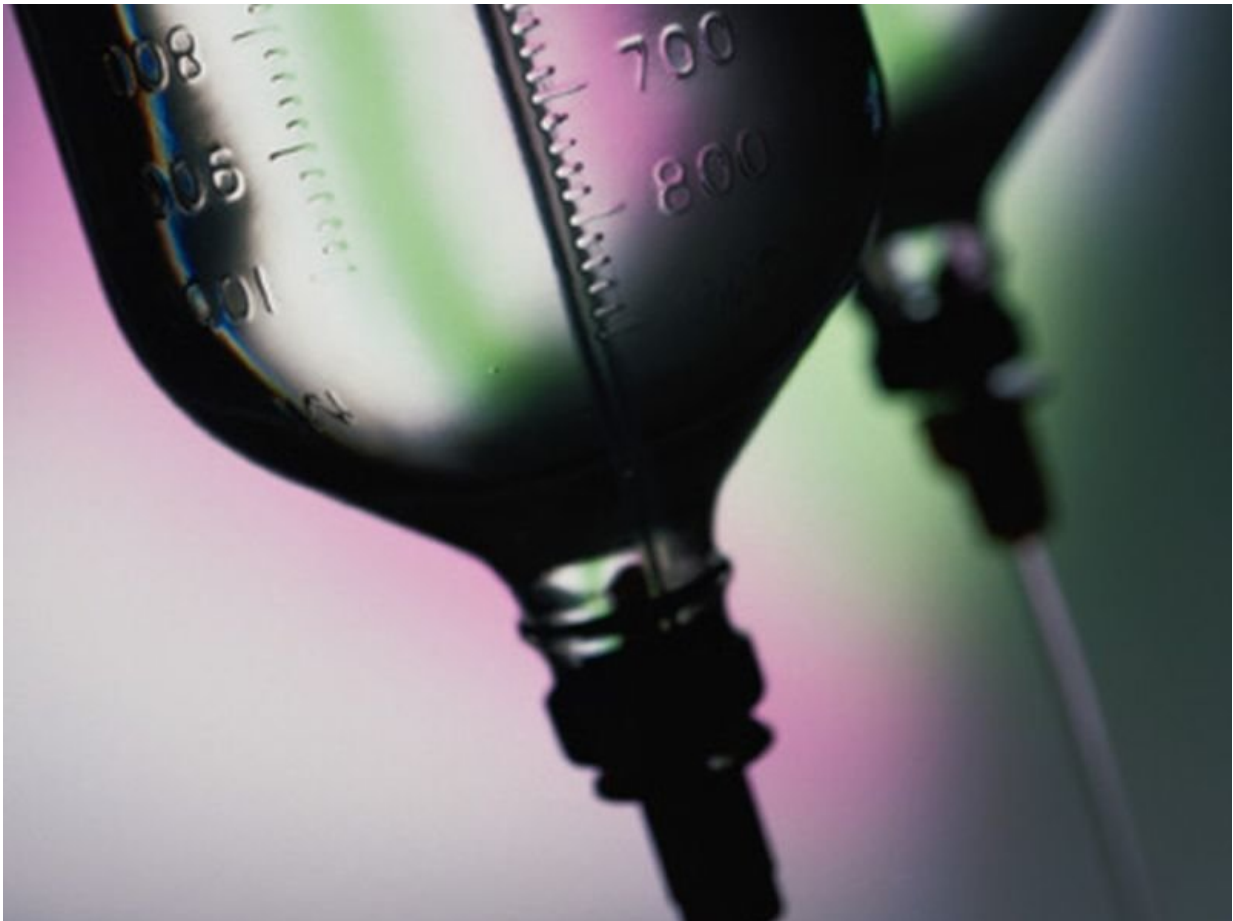


Cord blood improves motor function with cerebral palsy

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(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 $\geq 2 \times 10^7$ /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](#)
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