

# Youngest hip and thigh fracture patients heal just fine with single-leg casts

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Challenging a longstanding practice of casting both legs in children with hip and thigh fractures, a new Johns Hopkins Children's Center study shows that such fractures heal just as well in single-leg casts, while giving children greater comfort and mobility.

The findings of the study, which involved 52 Johns Hopkins patients ages 2 through 6, are published online June 13 in *The Journal of Bone & Joint Surgery*.

Casting both [legs](#) and hips has long been thought the only way to assure proper healing and pelvic immobilization in young children who wiggle around and are in perpetual motion, the researchers noted.

Not so, the new Hopkins study shows.

"The single-leg approach not only appears to be just as effective and safe as double-leg casting in terms of healing, but also it makes the child's life much easier and requires less complicated daily care," says senior investigator Paul Sponseller, M.D. M.B.A, director of pediatric orthopedics at Johns Hopkins Children's Center.

Surgical repair is the treatment of choice for hip and thigh fractures in older children, but those younger than 6 years of age do better with casting only, the investigators say. The American Academy of Orthopaedic Surgeons recently recommended casting as the first line of treatment for children younger than 5 to avoid general anesthesia and

surgical complications.

The cast works by immobilizing the hips and thighs so that bones or tendons can heal properly, but it can also be cumbersome and uncomfortable. Casting can restrict motion and cause skin problems, aches and pains, increased muscle pressure and reduced blood flow to nerves and tissue. [Casting](#) also requires more complex daily maintenance by parents and other caregivers.

In the new study, 28 of the 52 children seen at Hopkins were randomly assigned to get double leg casts, while the remainder got single leg casts. The researchers used bi-weekly X-rays to monitor bone healing and questionnaires to gauge parental ease of care and the child's comfort and physical functioning.

While children in both groups healed equally well without any major complications, those in single-leg casts reported greater comfort and mobility, fit more easily in car seats, got dressed more easily and sat more comfortably in chairs, the study showed. Also, the parents and caregivers of [children](#) in single-leg casts reported taking less time off from work to provide care. They had, on average, eight fewer days missed from work, the researchers say.

Provided by Johns Hopkins University School of Medicine

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