

## Daycare puts children with lung disease at risk for serious illness

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Exposure to common viruses in daycare puts children with a chronic lung condition caused by premature birth at risk for serious respiratory infections, according to a study from Johns Hopkins Children's Center published in the October issue of *Pediatrics*.

The researchers say their findings should prompt pediatricians to monitor their prematurely born patients, regardless of age, for signs of lung disease and to discuss the risks of daycare-acquired infections with the children's parents. These risks, the researchers found, include increased emergency room visits and medication use and more days with breathing problems.

"Daycare can be a breeding ground for viruses and puts these already vulnerable children at risk for prolonged illness and serious complications from infections that are typically mild and short-lived in children with healthy lungs," said lead investigator Sharon McGrath-Morrow, M.D., M.B.A., a lung specialist at Hopkins Children's.

Investigators interviewed the parents of 111 children ages 3 and under with chronic lung disease of prematurity (CLDP) about their child's daycare attendance, infections, symptoms, emergency room visits, hospitalizations and use of medications.

Children with CLDP who attended daycare (22 out of the 111) were nearly four times more likely to end up in the ER with serious respiratory symptoms than those who didn't attend daycare, were twice

as likely to need corticosteroids, and were more than twice as likely to need [antibiotics](#). Children who attended daycare were nearly three times more likely to have breathing problems at least once a week compared to those not attending daycare.

Because the often serious complications caused by these infections can land children in the hospital and require prolonged treatment, the investigators are urging pediatricians to make parents aware of the risk.

"Repeated infections in children with [lung disease](#) of prematurity can also put them on a fast track to lifelong respiratory problems and chronic lung damage, so prevention in early life is crucial," McGrath-Morrow says.

The researchers advise parents of children with CLDP to avoid — whenever possible — sending their children to daycare during the first two years of life because most of the catch-up lung growth occurs during that time. Most children with CLDP improve with age as their lungs mature, but about one-fourth continue to have respiratory problems as adults, the investigators say.

Among the 22 children with CLDP who attended daycare, 37 percent went to the ER for worsening symptoms since their last day in daycare, compared to 12 percent of children who did not attend daycare. More than 15 percent of those who attended daycare were hospitalized for viral illness, compared to 6 percent among those who didn't attend daycare. Thirty-nine percent of those in daycare needed [corticosteroids](#) for their illness and 50 percent of them required antibiotics, compared to 19 percent and 26 percent, respectively, for those who were not in daycare. Children in daycare had more respiratory episodes in the week before their visit to the doctor. More than half of the [children](#) in daycare had [respiratory symptoms](#) in the week before their visit, compared to 29 percent of those not enrolled in daycare.

CLDP develops in about a quarter of babies born at or before 26 weeks of gestation, according to the investigators, but even those born as late as 32 weeks of gestation can develop the condition, the researchers say.

**More information:** [www.pediatrics.org/](http://www.pediatrics.org/)

Provided by Johns Hopkins Medical Institutions

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