

Children who attend group child care centers get more infections then, but fewer during school years

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Children who attend large group child care facilities before age 2½ appear to develop more respiratory and ear infections at that age, but fewer such illnesses during elementary school years, according to a report in the December issue of *Archives of Pediatrics & Adolescent Medicine*.

"Preschool children in group child care experience more frequent infections than do children cared for primarily at home, and the risk seems greater when children attend larger group child care [facilities]," the authors write as background information in the article. "These findings have created concerns that group child care may compromise the health of young children and their community. However, few studies have examined the impact of group child care on infections beyond the preschool years."

Sylvana M. Côté, Ph.D., of Ste-Justine Hospital and the University of Montreal, Quebec, Canada, and colleagues studied 1,238 families with newborns in 1998. Mothers reported whether their children went to a large child care facility (defined as a center where professional educators care for up to 10 groups of eight to 12 children), a small child care facility (home-based centers where a caretaker watches three to eight children) or were cared for at home. For eight years, the researchers regularly obtained information about how often the children had respiratory tract infections, ear infections or gastrointestinal infections

during early preschool (before age 2 ½ years), late preschool (ages 3 ½ to 4 ½) and early [elementary school](#) (ages 5 to 8).

Compared with children cared for at home until elementary school, those who began attending large group child care before age 2 ½ had higher rates of respiratory infections and ear infections during early preschool, the same risk of infection during the late preschool period and lower risks of contracting respiratory tract or ear infections during early elementary school. However, those who started in small group child care in early preschool and never went into large care settings did not have any differences in infection risk. Moreover, those who were first cared for at home but then started at any size child care facility during late preschool had a higher risk of ear infections at that time, but no other differences in infection risk.

Group child care was not associated with gastrointestinal infections at any period in the children's development.

The findings suggest that developmental processes may underlie the association between early exposure to large groups of children and reduced [infection](#) risk, the authors note. "One possible mechanism that has received empirical support in the context of long-term protection against asthma involves an increased repeated stimulation of the immature immune system by early and mild infections," they write. "Future studies are necessary to investigate this and other mechanisms that may account for the results."

"This study provides reassuring evidence for parents that their choices regarding child care (group size and age at enrollment) should not have a major effect on the health of their children from a long-term (eight-year) perspective, at least regarding respiratory tract infections with fever, gastrointestinal tract infections and ear infections," the authors conclude. "Children who initiate large-group child care early (i.e., before

age 2 ½ years) may even gain protection against infections during the elementary school years, when absenteeism carries more important consequences for school adaptation and performance. Physicians may reassure parents whose children initiate large group child care early that their child's experiencing infections is temporary and is likely to provide them with greater immunity during the [elementary school](#) years."

More information: *Arch Pediatr Adolesc Med.*
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