

## Friendship makes a difference in stress regulation

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Social rejection can cause stress in preschoolers, adolescents, and adults. But what happens in middle childhood, a time when peer rejection can be particularly stressful and friendships are key? A new study has found that friendships serve as a buffer against the negative effects of classmates' rejection.

The study, conducted by researchers at Radboud University Nijmegen in the Netherlands, appears in the journal *Child Development*.

Cortisol, a human stress hormone, mobilizes energy and helps us respond to potential threat when we're under stress. Increased levels of cortisol are adaptive—they help us adapt how we function to changing circumstances and cope with stressors when they occur—but chronically high levels can have negative effects on how we function, especially on our immune system.

This study looked at almost 100 fourth graders—an age that's been understudied in this regard—to determine whether victimization and exclusion by peers were related to increases in cortisol, and whether friendships moderated this association. The children were part of a longitudinal study on infant and child development that was carried out in the Netherlands and designed to be representative of the Dutch population.

Researchers asked children to nominate classroom peers who were often bullied, picked on, or excluded by other children. They also asked



children about the number of friends they had within the classroom, and the quality of their best friendships. In addition, they questioned the children's parents about behavior problems, and they measured children's cortisol levels through saliva collections five times on each of two consecutive school days.

Children who were excluded by their classmates had elevated levels of cortisol at school, the study found. And they had a smaller decline in cortisol over the course of the day. Both of these findings may indicate that exclusion is stressful. This was even more pronounced for excluded kids who had few friends or had friendships that were characterized as low in quality.

Victimization by <u>classmates</u> wasn't associated with increased cortisol levels, suggesting that victimization is not as stressful as exclusion.

"Together, the results demonstrate that although friends cannot completely eliminate the stress of exclusion at school, they do reduce it," according to Marianne Riksen-Walraven, professor of developmental psychology at Radboud University Nijmegen. "And the number and quality of children's <u>friendships</u> can serve as a buffer against being rejected."

## Provided by Society for Research in Child Development

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