

Elevated stress levels among Norway's youngest in childcare

February 24 2017, by Redaksjonen Gemini

Researchers measured the stress hormone cortisol in 112 toddlers from 85 different childcare centres in six municipalities, approximately five months after they started attending. Children with the longest childcare days (8-9 hours) showed an increase in cortisol during the day.

Cortisol is a hormone that indicates [stress](#). Excessive stress can evoke emotional reactions associated with challenges that the individual does not have the capacity to handle.

Several international studies have previously found that [young children](#) have an increased level of cortisol on their full-day childcare days, while the level when they are at home remains steady or declines. This has led to speculation that childcare settings pose challenges for young [children](#), from being in a large group, managing interactions with other children, to being away from their parents. No studies have examined whether childcare stress has negative effects in the long term. That is simply not known.

Researchers at three Norwegian regional centres for child and adolescent mental health - the Norwegian University of Science and Technology's RKBU Central Norway, RBUP East & South and the University of Oslo - have now found that Norwegian toddlers exhibit an increase in the [stress hormone cortisol](#) on their childcare days, with lower levels on their days at home.

Furthermore, the study, published in the journal *Early Child*

Development and Care, found that children with the longest childcare days (8-9 hours) showed an increase in cortisol during the day. Children who were in childcare seven hours per day or less showed no increase.

For both groups, cortisol was measured around 10 a.m. and 3 p.m. These findings indicate a correlation between the amount of time children spend in childcare and their [stress levels](#).

This is important information, since most Norwegian one- and two-year olds spend more than 40 hours per week in childcare. It appears that toddlers who have the longest childcare days must mobilize extra resources to handle [childcare](#) challenges and/or the long separation from their parents. These children require great understanding from their caregivers and parents.

The researchers stress that the study has several limitations and that the results therefore should be interpreted with caution. The study should be followed up by a larger study with a broader range of participants, to see whether the findings are the same and to have the opportunity to examine any differences between different groups of children.

More information: May Britt Drugli et al, Elevated cortisol levels in Norwegian toddlers in childcare, *Early Child Development and Care* (2017). [DOI: 10.1080/03004430.2016.1278368](https://doi.org/10.1080/03004430.2016.1278368)

Provided by Norwegian University of Science and Technology

Citation: Elevated stress levels among Norway's youngest in childcare (2017, February 24) retrieved 30 December 2022 from <https://medicalxpress.com/news/2017-02-elevated-stress-norway-youngest-childcare.html>

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