Probiotics: make little or no difference in patient rated symptoms for eczema

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**BACKGROUND:** Eczema is a common skin disease affecting up to 25% of children and 2–3% of adults.1 There is currently no known cure for eczema but there are a wide range of treatments available to relief symptoms. Probiotics have been suggested as a potential treatment for eczema. Low microbial diversity in the neonatal period is associated with the development of eczema in the first year of life.2 Probiotics are proposed to influence the gut microbiome and potentially may improve the symptoms and signs of eczema.3

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<thead>
<tr>
<th>Outcome measured</th>
<th>Success</th>
<th>Evidence</th>
<th>Harms</th>
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<tbody>
<tr>
<td>Participant- or parent-rated symptoms of eczema</td>
<td>There was no evidence that probiotics improved the symptoms of eczema. Using a combined (0–20) score for sleep disturbance and itch, participants in the control group had mean scores ranging from 2–7.9. The groups that were given probiotics had a mean score of 0.44 points lower than the control group but the confidence intervals indicated this could be anywhere from 1.22 points lower to 0.33 points higher.</td>
<td>This evidence is of moderate quality and is based on 754 participants from 13 studies.</td>
<td>There were 105 adverse events reported from 624 participants in 8 studies. These were mainly gastrointestinal events and they were equally represented in the groups that consumed the probiotics and the control groups.</td>
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<td>Participant- or parent-rated participant quality of life</td>
<td>There was also no evidence to suggest that probiotics substantially changed eczema with a OR of 0.40 (0.14 to 1.15)</td>
<td>This evidence is of low quality and is based on 135 participants from three studies.</td>
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<td>Parent-rated family quality of life</td>
<td>There was no evidence that probiotics improved overall quality of life for the family with a difference of 0.03 (–0.36 to 0.42) standard deviation units.</td>
<td>This evidence is of low quality and is based on 552 participants from six studies.</td>
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<td>Parent-rated family quality of life</td>
<td>There was no evidence that probiotics improved overall quality of life for the family with a difference of 0.19 (–0.56 to 0.18) standard deviation units.</td>
<td>This evidence is of very low quality and is based on 358 participants from three studies.</td>
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All people residing in New Zealand have access to the Cochrane Library via the Ministry website www.health.govt.nz/cochrane-library

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**CLINICAL BOTTOM LINE:** This Cochrane review showed that using probiotics probably makes little or no difference to eczema symptoms as reported by parents or sufferers of eczema. Probiotics also may make no difference to quality of life of sufferers or their families. However, there is currently no evidence to suggest probiotics cause any adverse effects either. Authors of this review also did a trial sequential analysis to determine the influence of future studies and showed that these results are unlikely to change with future research.4

**References**


