

Atopic dermatitis and bathing

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Clinical question

Can atopic dermatitis (AD) be improved with more baths or showers, bleach baths, or bath additives?

Bottom line

More frequent bathing (and likely showers) (ie, 1 to 2 times/day) improves symptoms meaningfully ($\geq 30\%$) for about 40% more patients than less frequent bathing (with moisturizers afterward). Research does not support bleach baths, bath additives, or water softeners. Frequent plain-water bathing (mild soap as needed) and immediate application of moisturizers are advised.

Evidence

Differences are statistically significant unless noted.

- Frequency: In a crossover RCT (N=42), children with moderate-severe AD were treated with 2-week treatments of either twice-daily or twice-weekly baths (moisturizers applied after baths but otherwise twice daily).¹
 - Patients with symptom improvement ($\geq 30\%$): 58% twice-daily baths versus 15% twice weekly; number needed to treat=3.
 - Mean symptom score (0 to 103, higher score worse): baseline score of 42; twice-daily baths improved 21 points more than twice weekly.
- Showers versus baths: No RCTs were found; only 1 non-RCT² and 1 intervention cohort.³ Children who added a shower daily at school had improved AD scores.
- Bleach baths for general AD: A systematic review⁴ (4 RCTs, 116 patients) of those with moderate-severe AD compared bleach bath (5 to 10 min, 2 times/week) to regular bath. At 4 weeks, there was no significant difference in AD scores, surface area with AD, or staphylococcal colonization. Limitations included the trials being small, short, or heterogeneous. Other studies had similar findings.⁵ There were no increased adverse events.
- Bleach baths for AD with clinical bacterial infection: An RCT found a reduction in score of submerged sites in bleach bath (N=22); this group was also treated with nasal mupirocin and was more severe at start.⁶ In a crossover RCT (N=40), there was no difference in AD severity.⁷
- Additives: A systematic review (5 RCTs, N=111) had inconsistent reporting and high risk of bias.⁸ An RCT (N=482) assigned children with moderate AD to either a bath additive group (clinician or patient choice) or a no additive group; after 1 year, no benefit was found.⁹

- Water softener: An RCT (N=336) randomized children with moderate-severe AD living in a hard-water area (≥ 200 mg/L calcium carbonate) to either an ion-filter water softener group or placebo; after 12 weeks, no difference was found.¹⁰

Context

- Guidelines and reviews recommend regular bathing and application of moisturizers (ointment or thick creams) immediately after, while skin is still damp.¹¹⁻¹³
- Advocacy for bath alterations, like bleach baths, persists,¹¹⁻¹³ but evidence does not support benefit.¹²

Implementation

There is inadequate evidence for an optimal bathing technique for eczema. While daily short baths in luke-warm water are recommended,¹¹ there is no high-level evidence for temperature or duration. An RCT of children with eczema compared washing one side of the body with either soap or water alone, but there was no statistical or clinical difference in eczema outcome.¹⁴

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Competing interests
None declared

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