



## What's under the Mistletoe? Some fun holiday evidence from PEER

### Clinical Question: Are there any therapeutic benefits to kissing?

**Bottom Line: Kissing freely for 30 minutes while listening to soft music may improve surrogate markers of atopy (like wheal reactions on allergy test). Another small RCT found that advice to increase kissing improved relationship satisfaction and even slightly reduced (0.15mmol/L) total cholesterol. We did not identify studies of mistletoe. Further research is required.**

#### Evidence:

- Effect on atopy: 2 cross-over randomized controlled trials (RCTs)<sup>1,2</sup> of adults with allergic rhinitis or atopic dermatitis who “do not kiss habitually.” Randomized to compare hugging to kissing a lover or spouse freely for 30 minutes while listening to soft music [examples: *When You Wish Upon a Star*, *Love is a Many Splendored Thing*, *Can You Feel the Love Tonight*].
  - RCT, 60 individuals:<sup>1</sup>
    - Skin prick test wheal measurement before kissing was ~8mm and ~5.4mm immediately after kissing (statistically different).
    - Kissing caused a 30% relative reduction in neurotrophins.
  - RCT, 48 individuals:<sup>2</sup>
    - Kissing reduced immunoglobulin-E and 3 out of 5 cytokines.
  - Hugging: no effect on any outcome.
- RCT exploring kissing and effect on relationship happiness and cholesterol: 52 (50% male, age 19-67) university staff and students randomized to advice to increase kissing with their partner compared to no advice, followed 6 weeks.<sup>3</sup>
  - Advice to kiss included: "Set aside a few minutes each day"; "Kiss each other more often"; Tell your spouse or romantic partner what you have been instructed to do"; "We hope you enjoy this".
  - Advice for kissing led to statistically significantly:
    - Less relationship conflict compared to control.
    - Improved relationship satisfaction (out of 7): 5.6 increased to 6.2, control unchanged.
    - Reduced stress (out of 7): 3.6 reduced to 2.9, control unchanged.
    - Reduced total cholesterol (4.73 to 4.58mmol/L), control unchanged.

**Context:**

- Observational data suggest attractive people (self-rated) report more kissing and greater kissing satisfaction while older people less satisfied with the amount of kissing.<sup>4</sup> Cause-and-effect have not been established.
- Kissing should likely be limited to close household contacts during COVID-19 pandemic.
- RCT<sup>5</sup> of the effect of maternal kissing of “boo-boo’s” was fictitious and not reported here. The fictitious nature was only noted after the article garnered attention.<sup>6</sup>
- Effect of mistletoe on kissing has not been studied, but any associations may be confounded by eggnog and holiday cheer.

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**Disclosures:**

Authors do not have any conflicts of interest to declare.

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