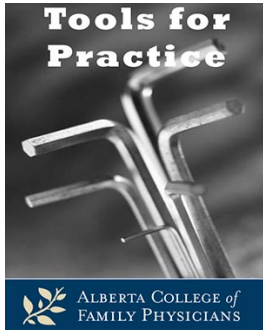


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## Acid, freeze, or duct tape: What works best for common warts?

**Clinical Question: What is the efficacy of commonly used treatments for non-genital warts?**

**Bottom-line: Highest quality primary care evidence finds warts resolve with cryotherapy (39%) and salicylic acid (24%) more than no treatment (16%) at 13 weeks. Cryotherapy has more pain and blistering (up to ~80%), but greater patient satisfaction (~70%). Evidence for duct tape is limited and inconsistent.**

### Evidence:

- Highest-quality primary care Randomized Controlled Trial (RCT):<sup>1</sup> 240 children and adults, new warts, cryotherapy (2-10 seconds via cotton applicator three times every two weeks), daily 40% salicylic acid (SA), or no treatment. Cure at 13 weeks:
  - All warts: Cryotherapy 39%, SA 24%, no treatment 16%.
    - Versus no treatment: SA Number Needed to Treat (NNT)=13, cryotherapy NNT=5.
  - Plantar warts: Cryotherapy 30%, SA 33%, no treatment 23% (none statistically significant):
    - No patient >12 years old had spontaneous resolution of plantar warts.
  - Other outcomes cryotherapy versus SA:
    - Patient satisfaction: 69% versus 24%, NNT=3.
    - Adverse effects:
      - Pain: 81% versus 12%, Number Needed to Harm (NNH)=2.
      - Blistering: 51% versus 9%, NNH=3.
- High quality primary/secondary care RCT:<sup>2</sup> 229 patients >12 years old, mostly recalcitrant plantar warts (median duration >1 year), randomized to cryotherapy (~10 seconds via spray or probe, every 2-3 weeks) or daily 50% SA. At 12 weeks, cryotherapy versus SA:
  - Cure: No difference (both 14%).
  - Patient satisfaction: 62% versus 41% SA, NNT=5.
    - Blistering: 2% versus 0.
- Systematic review of RCTs.<sup>3</sup>
  - Limitations: Small heterogeneous studies, incomplete reporting, high risk of bias

- Cryotherapy not significantly better than placebo (three RCTs, 227 patients) but equivalent to SA (four RCTs, 707 patients) which is superior to placebo with NNT=6, (six RCTs, 486 patients)
- Duct tape: Inconsistent RCT findings.<sup>4-6</sup>
  - Cure: 17% versus 12% placebo (not statistically significant).
  - Limitations: Short follow-up (six weeks),<sup>4</sup> added clear duct tape to moleskin<sup>5</sup> and no evidence of blinding or intention-to-treat.<sup>6</sup>

**Context:**

- Warts affect up to 1/3 of school-aged children<sup>7</sup>
  - Transmission appears increased:
    - When family member or classmates have warts.<sup>8</sup>
    - With communal shower use (plantar warts).<sup>9</sup>
- Spontaneous resolution occurs in ~50% at ~1 year<sup>10</sup> and appears greater in:
  - Younger children.<sup>1,10</sup>
  - Non-plantar warts.<sup>1</sup>

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