

Duct Tape Therapy for the Treatment of Verruca Vulgaris

-An evidence Review of the Literature-



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Question?

- Is the home remedy of duct tape use on warts a truly effective way to resolve them?



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Background:

- Warts are benign skin and mucosa proliferations caused by HPV
- Common wart or verucca vulgaris is most commonly found on the hands and feet



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## Background

- **Verucca Vulgaris**
  - A reaction to the virus where the skin cells divide
  - Forms an excessive layering of tissue making the hard bump
- Replication occurs in differentiated cells in the upper level of the epidermis, however viral particles can be found in the basal layer



Katz, Wise, S. L. (2008, October 20). Skin Problems & Treatment Health Center. Retrieved April 17, 2008, from WebMD: <http://www.webmd.com/skin-problems-and-treatments/cryotherapy-for-warts>

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## Background:

- Affects 7-12% of the population
  - School aged children 10-20%,
    - (peak age 12-16),
  - May be increased in immunosuppressed patients
- Occur twice as frequently in whites as in blacks or Asians
- Usually asymptomatic



Gibbs, H. I. (2008). Topical Treatments for Cutaneous Warts (Review). Hoboken: John Wiley & Sons.  
Phillip, Shereff R. "Warts, Nongenital." Emedicine. WebMD. 5 May 2009. Web. 3 June 2009. <<http://emedicine.medscape.com/article/1133317-overview>>.

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## Background:

- Verucca vulgaris appear as hyperkeratotic papules with a rough irregular surface ranging from 1mm to 1cm
- Common warts are most common from human papillomavirus.
  - Most common types 2 and 4, followed by types 1, 3, 27, 29, and 57. (over 100 types identified)



Focht, D. R., Spolan, C., & Fairhead, M. P. (2003). The efficacy of Duct Tape vs Cryotherapy in the Treatment of Veruca Vulgaris (the common wart). Archives Pediatrics, 914-914.  
Phillip, Shereff R. "Warts, Nongenital." Emedicine. WebMD. 5 May 2009. Web. 3 June 2009. <<http://emedicine.medscape.com/article/1133317-overview>>.

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## Background

- Treatment Options:
  - Neglect
  - Cryotherapy (liquid nitrogen)
  - Acid Preps: (salicylic acid, cantharidin, dibutyl squaric acid)
  - Laser Therapy
  - Surgical Therapy
  - Systemic Agents (cimetidine)



de Haan, M., Spijt, M. G., van Uden, C., van Noer, P., Feren, F. J., & Krootenrus, A. (2006). Efficacy of Duct Tape vs. Placobo in the Treatment of Verruca Vulgaris (Warts) in Primary School Children. *Archives Pediatrics*, 112(1), 1121-1125.  
Philip, Shanell K. "Warts, Nongenital." *Emedicine, WebMD*. 5 May 2009. Web. 3 June 2009.  
<http://emedicine.medscape.com/article/133317/overview>

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## Studies:

- A collection of 3 studies were selected for data analysis
  - Obtained through electronic databases at the Lommen Health Sciences Library at the University of South Dakota
  - Published between 2002-2007
  - Studies include a double blind randomized controlled trial, randomized placebo controlled trial, and a randomized controlled trial



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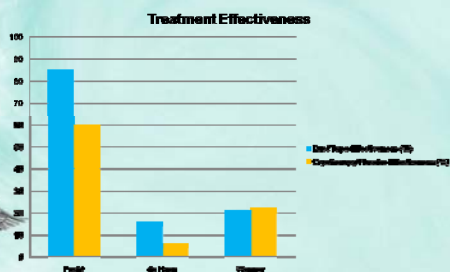
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## Results:



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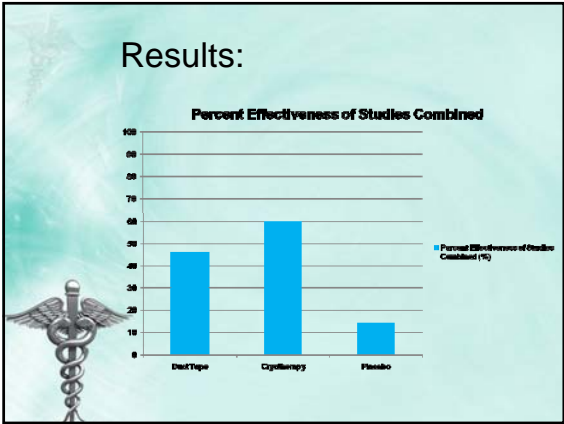
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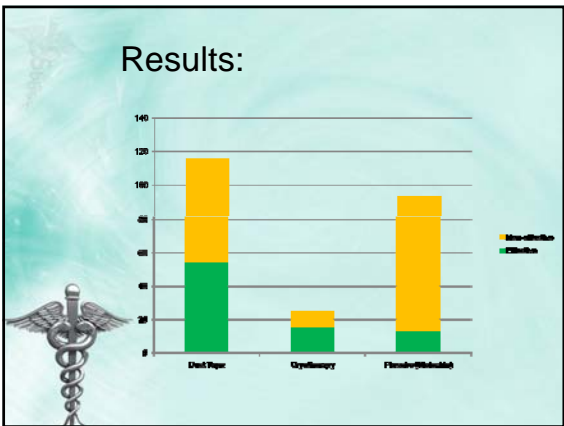
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### Results:

- duct tape vs. cryotherapy. ("Focht Study") –
  - Duct tape occlusion therapy with an 85% success rate was more effective than cryotherapy treatment with a 60% success rate.
- -duct tape vs. placebo group of mole skin. ("Wenner Study")
  - No statistically significant differences in resolution of warts with duct tape compared to mole skin with success rates of 20% to 22% respectively.
- -duct tape vs. placebo group of corn pad. ("de Haen Study")
  - Duct tape had a modest but non-significant effect on wart resolution with success rates of 16% in duct tape and 6% for the corn pad.

de Haen, M., Spigt, M. G., van Uden, C., van Neer, P., Feron, F. J., & Knotterus, A. (2006). Efficacy of Duct Tape vs. Placebo in the Treatment of *Verruca Vulgaris* (Warts) in Primary School Children. *Archives Pediatrics*, 112(1-125).  
Focht, D. R., Spoke, C., & Fairchild, M. P. (2002). The efficacy of Duct Tape vs Cryotherapy in the Treatment of *Verruca Vulgaris* (the common wart). *Archives Pediatrics*, 97(1-974).  
Wenner, R. (2007). Duct Tape for the Treatment of Common Warts in Adults. *Archives Dermatology*, 309-313.

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### Discussion:

- The few studies that have been conducted are highly variable in regards to quality, method, and completeness.
  - Ex: Wenner study and the de Haen study was that to blind the studies acrylic based duct tape (transparent) was used as oppose to rubber base (silver) that is found in conventional household duct tape. It is very possible this discrepancy in duct tape types could have affected the outcome
  - Ex: Resolution recordings were done in the Focht study over the phone and not by a professional. In this test 16% of patients did not actually finish the study.



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### Clinical Pearls:

- Overall there is a lack of evidence for rational use of duct tape for resolution treatment of common warts.
- Many different options with none as the clear most effective method.
- Patient discrepancy is a main determinate for which to use (ie: may be less painful for kids to try salicyclic acid compared to cryotherapy)



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### Questions??



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