

# Debunking the myths about petroleum jelly

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## Tik Tok makes Vaseline® cool again!

### A Staple of Grandma's Medicine Cabinet Gets Hot on TikTok

People have coated their faces in Vaseline for decades, but a TikTok trend with a catchy name ("slugging," anyone?) has introduced the skin-protecting petroleum jelly to new users, baffling some longtime devotees.

- Videos mentioning Vaseline increase by 46% in one year
- Vaseline company reported an increase of 327% on social media recognition



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## Methods

- Comprehensive literature review through PubMed and Google Scholar
- Relevant keywords such as “petrolatum”, “petroleum jelly”, “flammability”, “allergy”, “contact dermatitis”, “comedogenicity”, “polycyclic aromatic hydrocarbon”



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## Myth: Petroleum jelly is comedogenic

- Product’s physical characteristics are not predictors of comedogenicity
- Animal and Human studies:  
Petrolatum applied once daily for two weeks did not result in clinical or histological evidence of comedogenicity
- Decreased number of acne lesions following petrolatum use (single center, prospective, n=910)



**Fig 3.** “Slugging,” liberal application of petrolatum, on the left cheek to leave on overnight.

Strauss J. *JAAD*. 1989;20(2):272-277.  
Kligman A. *J Society Cosmetic Chemists*. 1996;47(1):41-48.



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## Myth: Petroleum jelly is flammable

From the manufacturer's website:

**Vaseline® Jelly is hypoallergenic, non-comedogenic and safe for your skin.**

When heated to extremely high temperatures of more than 400 degrees Fahrenheit, Vaseline® Jelly may give off flammable vapors. Even in summer, this isn't going to happen naturally. So leaving a jar of Vaseline® Jelly out in the sun, or inside your car on a hot day isn't a hazard.

- Myth has been traced back to manufacturers of oxygen equipment vague wording
- Non-flammable unless heated to > 400 degrees F
- **Safety Data Sheet:** Mild hazard if heated above flash point
- **NFPA\***: Flammability score 0

\*National Fire Protection Association

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## Myth: Petroleum jelly is flammable

- Can be a fire accelerant when impregnated into gauze resulting in faster ignition and spread of flame
- Reports of burns following cigarette ignition
- Use around supplemental oxygen is controversial



Ridd, M, et al. *BMJ* 2022; 376  
Hancock, M. *JPRAS* 2016; 21-27.

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## Myth: Safety of petroleum jelly use in newborns

- 7 studies and 1 meta-analysis yielded mixed results
- Many studies demonstrating
  - Decrease TEWL
  - Decrease severity of dermatitis
  - Decreased fluid requirement
  - Improved urine output and electrolyte balance

Lane, A. *Ped*, 1993;92(3), 415-419.

Nopper, A. *Ped* 1996;128(5), 660-669.

Beeram, M. *JNMA* 2006;98(2), 261

## Myth: Safety of petroleum jelly use in newborns

- Preterm neonates treated with petrolatum exhibited increased rates of cutaneous infections
  - Low birth weight newborns had increased incidence of systemic candidiasis (single-center, retrospective, n=40)
  - Increased risk of *Staph aureus* infections (25 vs 20%) but no difference in death or neonatal sepsis (multi-center, prospective, n =1191)

**Recommendation:** Do not routinely use petrolatum in neonates due to increased risk of infection however its use in those with impaired barrier function is recommended.

Lane, A. *Ped*, 1993;92(3), 415-419.

Nopper, A. *Ped* 1996;128(5), 660-669.

Beeram, M. *JNMA* 2006;98(2), 261

## Myth: you can't be allergic to petrolatum...but it's close!

- Exceedingly rare, however rare cases have been reported
- Suspected allergen: Polycyclic Aromatic Hydrocarbons
- Lowest rates in white petrolatum (longer purification process)
- Consider when intolerance to many topicals and numerous positive patch-testing results



"Angry Back"

Kundu, R. *Skinmed* 3.5 (2004): 295-296.



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## Teaching points



- Evidence-based review highlighting petrolatum's characteristics:
  - Non-flammable but may be accelerant and not to be used around an open flame
  - Non-comedogenic
  - Rare allergic properties secondary to PAH
  - Caution in low-birth-weight neonates
- For more information, please refer to our clinical review in *JAAD*...in print soon!

CLINICAL REVIEW

**Petroleum jelly: A comprehensive review of its history, uses, and safety**

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