

Managing Pain with Topical Analgesics

What Are Topical Analgesics?

Topical analgesics are medications applied directly to or near an area of pain to provide localized pain relief. Topical preparations may be preferred when pain is concentrated in a specific area or when oral pain medications are not well tolerated. Available in a variety of formulations, including creams, patches, and sprays, topical analgesics provide residents with effective alternative treatment options for managing certain types of pain.

What Are Examples of Topical Analgesics?

A list of the most common types of topical analgesics, along with example medication names, has been provided below for reference. Based upon the drug's active ingredient, strength, and/or formulation, products may be available over the counter (OTC) or by prescription (Rx) only.

1. Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)

- **Examples:** Diclofenac (Voltaren®, Aspercreme®)
- **Preparations:** gel, patch, solution
- **Mechanism:** reduces inflammation and related pain signaling pathways
- **Indications:** osteoarthritis pain and acute pain associated with minor strains and sprains

2. Local Anesthetics

- **Examples:** Lidocaine (Lidoderm®, Asperflex®)
- **Preparations:** cream, gel, lotion, ointment, patch, solution, spray
- **Mechanism:** disrupts pain signaling pathways from sensory nerves
- **Indications:** localized neuropathic (nerve-related) pain, as well as temporary relief of minor aches and pains of the joints and muscles

3. Counterirritants

- **Examples:** Menthol; Methyl Salicylate (Salonpas®); Camphor (Bengay®, Icy Hot®); Capsaicin (Zostrix®, Qutenza®)
- **Preparations:** cream, gel, lotion, patch, solution, spray
- **Mechanism:** induces hot, cold, or minor irritation sensations to offset other feelings of pain and discomfort
- **Indications:** temporary relief of minor aches and pains of the joints and muscles, as well as localized neuropathic pain

Are Topical Analgesics Safe?

As the skin is comprised of multiple layers of cells, on average, less drug is absorbed following topical administration compared to oral. With less drug exposure overall, and comparable efficacy to oral preparations for select conditions, providers may favor topical products for those at increased risk of systemic adverse effects or potential drug interactions.

However, topical preparations still carry their own unique considerations and risks, including local skin reactions such as redness, irritation, itching, or blistering. The summary below provides guidance on key “Dos” and “Don’ts” of topical analgesic therapy.

Dos and Don’ts of Safe and Effective Topical Analgesic Therapy

Do	Don’t
✓ Inform the provider of all Rx and OTC topical products being used ✓ Wash hands before and after application of the medication ✓ Apply only to the indicated treatment area as directed ✓ Monitor the application site for redness, swelling, blistering, or other adverse skin reactions ✓ Notify your provider if pain worsens or doesn’t improve after an adequate trial of therapy	✗ Apply the medication in large amounts or more frequently than directed ✗ Apply to wounds, irritated or damaged skin unless instructed ✗ Layer multiple topical products over the same area of skin unless directed ✗ Place a heating pad or other heat source over the application site, as it may alter drug absorption ✗ Tightly bandage or cover the application site unless instructed

Key Takeaways

- Topical analgesics are applied directly to or near the site of pain for localized pain relief.
- There are multiple types of topical analgesics, differing in indications, mechanisms of action, and formulations.
- Generally, topical analgesics are well tolerated but may cause adverse skin reactions, such as redness or blistering, at the site of application.
- Before starting a new topical analgesic, notify your provider of all other topical products you are currently using, including OTC and prescription products.

Did You Know?

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References

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