

PAIN



Information for Health Care Professionals



Muscle Pain & Stiffness • Swelling from Injuries • Bruising

For centuries, *Arnica montana*, commonly called a Mountain daisy, has been known for its vulnerary action, but the concentrated plant extracts are unsafe for internal use. Highly diluted homeopathic preparations of Arnica montana, however, are considered safe when used as directed.

Helenalin, the plant's main active component, interferes with the regulation of genes coding for many inflammatory mediators at a **very low cytosol concentration**. Swelling and pain from inflammation are therefore reduced. Among other components, polysaccharides stimulate phagocytosis and reduce bruising.

Arnicare® topicals use the homeopathic tincture in concentrations that allow for relief of **local pain, swelling and bruising from injuries and surgical trauma**. Arnicare is also used by athletes to **relieve muscle aches from overexertion**.

Thanks to its unique mode of action and variety of preparations, Arnicare is the **#1 homeopathic topical** analgesic recommended by U.S. pharmacists to reduce muscle and joint pain, swelling and bruising.¹



PAIN

HOW IT WORKS

ADVANTAGES

SIDE EFFECTS/ DISADVANTAGES

MEDICINES²⁻⁵

Arnica topicals (<i>Arnica montana</i> , leopard's bane or mountain tobacco)	Decreases local pain, swelling and bruising associated with injuries or surgical trauma; reduces muscle aches from overexertion	Unscented; presented in different forms (gel, cream or ointment)	Should not be applied to open damaged skin or mucous membranes; do not use if you are allergic to Arnica
Acetaminophen	Analgesic	Well-tolerated; fast-acting	Internal use only; overdosing induces liver toxicity; interacts with other hepatotoxic drugs; use with care in patients with impaired kidney function; may mask other symptoms and delay treatment
Aspirin and salicylates	Analgesic; antipyretic; anti-inflammatory	Effective for mild pain and inflammation; fast-acting	Increases bleeding time; irritates gastric mucosa; risk of Reye's syndrome in children with viral infections
Ibuprofen and other NSAIDs	Analgesic; anti-inflammatory	Relieves pain and inflammation; fast-acting	Produces gastrointestinal disturbances; frequent side effects; interacts with other medications
Capsaicin	Local analgesic by depletion of presynaptic substance P	No counterirritant effect	External use only; stinging or burning feeling may be experienced locally; delayed action
Menthol, camphor, methyl salicylates and other counterirritants	Local analgesics	Long historical use; well-tolerated	External use only; strong medicinal odor; no effect on deep muscles



World Leader in Homeopathic Medicines

BoironUSAhcp.com

Pharmacology

Active Compounds

Sesquiterpenes lactones: Esters of helenalin and 11, 13-dihydrohelenalin with short-chain fatty acids

Volatile oils: Thymol, thymol esters, free fatty acids

Polysaccharides with 65% to 100% galacturonic acid; Caffeic acid derivatives: Chlorogenic acid; 1, 5-dicaffeoyl quinic acid

Flavonoids: Flavone and flavonol glycosides and their aglycones⁶

Analgesic Effects

Arnica preparations have mild analgesic properties due to the action of helenalin and dihydrohelenalin.⁶

Anti-Inflammatory Effects

Micro-molecular concentrations (as low as 10^{-20} μ M) of helenalin inhibit the activation of transcription factors: NF- κ B (transcription factor nuclear kappa-B) and NF-AT (nuclear factor of activated T-cells). NF- κ B is a central mediator of the human immune system that regulates the activation of immunomodulatory genes. These are genes for cell adhesion molecules, immunoreceptors, inflammatory cytokines and enzymes such as cyclooxygenase II and iNO synthase. These proteins are involved in the inflammatory process and play a key role in immune defense.⁷⁻⁸ The reduction in production of these various mediators of inflammation results in less pain and swelling.

Anti-Ecchymotic Effect

Arnica's polysaccharides display marked phagocytosis enhancement in vivo, which could explain the rapid disappearance of bruising.⁹

Safety Information

It is important to clearly distinguish the different preparations and concentrations of Arnica with regard to safety. Herbal extracts are concentrated, potentially irritating and unsafe for internal use. Topical forms contain various proportions of herbal extracts and are generally considered safe when used as directed. Boiron Arnicare topicals must not be applied on mucous membranes or open wounds. To relieve pain or reduce bruising affecting large areas, use Arnicare Tablets for systemic action. Homeopathic preparations are highly diluted and are used internally for systemic action without safety issues.³⁻⁵

Rare cases of allergy to Arnica extracts have been reported. Typically, a rash appears within two hours, with itchiness and, in rare cases, blisters. Patients with allergic terrain or a known allergy to plants of the daisy family (Compositae) should apply Arnicare on a small area (the size of a quarter) and wait two hours before using the topical on a larger area. The application of ice or a heating pad in the same area where Arnicare has been applied is not recommended.

Each form of Arnicare is designed for specific uses

For systemic action, extensive bruising or pain affecting large areas, use Arnicare Tablets or Arnica oral pellets. These two medicines contain Arnica montana in safe homeopathic dilutions. Boiron Arnica pellets are available in dilutions of 6C, 12C, 30C, 6X and 30X, and Arnicare Tablets contain Arnica 9C. Arnica pellets and tablets complement the action of Arnicare topicals. As expected, one study demonstrated that homeopathic dilutions, such as Arnica 5C, have no significant effect on bleeding time and platelet aggregation.¹⁰



Arnicare Tablets and Arnica Pellets

Arnicare Cream

Light texture and suitable for massaging in when appropriate for:

- Post-surgical swelling and hematoma
- Painful joints (i.e., wrists, shoulders or knees)
- Backaches

Arnicare Gel

Non-greasy, cooling gel that is quickly absorbed for:

- Post-surgical swelling and hematoma
- Painful bumps and bruises
- Overexerted muscles
- Before, during and after sports
- Physical therapy

Arnicare Ointment

Thicker texture for:

- Sprains, stretched ligaments and tendons

References used to prepare this document:

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2. Demarque D, Jouanny J, Demarque, Poitevin B. *Pharmacology and Homeopathic Materia Medica*. Sainte-Foy-lès-Lyon: Boiron; 1997. 3. Martindale 30th Edition. The Pharmaceutical Press. London, UK.
4. *PDR for Herbal Medicines*. 3rd ed. Thomson. 5. CPG Sec. 400. 400 Conditions Under Which Homeopathic Drugs May be Marketed. *US Food and Drug Administration*. Available at www.fda.gov/ora/compliance_ref/cpg/cpgdrg/cpg400-400.html.
6. Wichtl M. Arnicae flos. *Herbal Drugs and Phytopharmaceuticals*. CRC Press, Boca Raton, FL, 1994:54-59.
7. Lyss G, Schmidt TJ, Merfort I, Pahl HL. Helenalin: an anti-inflammatory sesquiterpene lactone from Arnica selectively inhibits transcription factor NF- κ B. *Boil. Chem*; 378:951-61, 1997.
8. Merfort, I. Arnica: New Insights on the Molecular Mode of Action of a Traditional Medicinal Plant (Translated from German). *Forsch Komplementarmed Klass Naturheilkd* 2003; 10 (suppl. 1): 45-48.
9. Puhlmann J. Immunological active polysaccharides of Arnica montana cell cultures. *Phytochemistry* 1991; 30(4):1141-145. 10. Baillargeon L, Drouin J, Desjardins L, Leroux D, Audet D. The effects of Arnica Montana on blood coagulation. Randomized controlled trial. *Le Medecin de Famille Canadien*. November 1993.



Gel

1.5 oz and 2.6 oz

Drug Facts

Active ingredient Purpose

Arnica montana..... Trauma, muscle pain & stiffness, swelling from injuries, discoloration from bruising

The letters HPUS indicate that this ingredient is officially included in the Homeopathic Pharmacopoeia of the United States.

Uses

- temporarily relieves muscle pain and stiffness due to minor injuries, overexertion and falls
- reduces pain, swelling and discoloration from bruises

Warnings

For external use only.

Avoid contact with eyes, mucous membranes, damaged skin or wounds. **Do not use if** you are allergic to Arnica montana or to any of this product's inactive ingredients.

When using this product ■ use only as directed ■ do not bandage tightly or use a heating pad.

Stop use and ask a doctor if condition persists for more than 3 days or worsens.

Keep out of reach of children.

If swallowed, get medical help or contact a Poison Control Center right away.

Directions

Apply a thin layer of Arnicare Gel to affected area and massage gently as soon as possible after minor injury. Repeat 3 times a day or as needed.

Other information

- do not use if glued carton end flaps are open or if the tube seal is broken
- store at 68-77°F (20-25°C)

Inactive ingredients

alcohol, carbomer, purified water, sodium hydroxide

Questions or comments?

www.Arnicare.com
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1-800-BOIRON-1
 (1-800-264-7661)
 Distributed by Boiron Inc.
 6 Campus Boulevard
 Newtown Square, PA
 19073-3267

Cream

1.33 oz and 2.5 oz

Drug Facts

Active ingredient Purpose

Arnica montana..... Trauma, muscle pain & stiffness, swelling from injuries, discoloration from bruising

The letters HPUS indicate that this ingredient is officially included in the Homeopathic Pharmacopoeia of the United States.

Uses

- temporarily relieves muscle pain and stiffness due to minor injuries, overexertion and falls
- reduces pain, swelling and discoloration from bruises

Warnings

For external use only.

Avoid contact with eyes, mucous membranes, damaged skin or wounds. **Do not use if** you are allergic to Arnica montana or to any of this product's inactive ingredients.

When using this product ■ use only as directed ■ do not bandage tightly or use a heating pad.

Stop use and ask a doctor if condition persists for more than 3 days or worsens.

Keep out of reach of children.

If swallowed, get medical help or contact a Poison Control Center right away.

Directions

Apply a thin layer of Arnicare Cream to affected area and massage gently as soon as possible after minor injury. Repeat 3 times a day or as needed.

Other information

- do not use if glued carton end flaps are open or if the tube seal is broken
- store at 68-77°F (20-25°C)

Inactive ingredients

alcohol, caprylyl glycol, carbomer, cetyl palmitate, EDTA disodium, glycerin, lauroyl macroglycerides, pegoxol-7 stearate, purified water, sodium hydroxide, sorbic acid, 1,2-hexanediol

Questions or comments?

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Ointment

1 oz

Drug Facts

Active ingredient Purpose

Arnica montana..... Trauma, muscle pain & stiffness, swelling from injuries, discoloration from bruising

The letters HPUS indicate that this ingredient is officially included in the Homeopathic Pharmacopoeia of the United States.

Uses

- temporarily relieves muscle pain and stiffness due to minor injuries, overexertion and falls
- reduces pain, swelling and discoloration from bruises

Warnings

For external use only.

Avoid contact with eyes, mucous membranes, damaged skin or wounds. **Do not use if** you are allergic to Arnica montana or to any of this product's inactive ingredients.

When using this product ■ use only as directed ■ do not bandage tightly or use a heating pad.

Stop use and ask a doctor if condition persists for more than 3 days or worsens.

Keep out of reach of children.

If swallowed, get medical help or contact a Poison Control Center right away.

Directions

Apply a thin layer of Arnicare Ointment to affected area as soon as possible after minor injury. Repeat 3 times a day or as needed.

Other information

- do not use if glued carton end flaps are open or if the tube seal is broken
- store at 68-77°F (20-25°C)

Inactive ingredients

alcohol, purified water, white petrolatum USP-NF

Questions or comments?

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