

Cannabinoids And Skin Wound Care



In this blog, I delve deeper into the use of Whole Cannabis Extracts in treating various types of wounds, emphasizing their unique properties and molecular mechanisms. This comprehensive analysis explores how these extracts, rich in Cannabinoid acids (such as THCa and CBDA), Terpenes, Flavonoids, and Cannflavins, promote wound healing and prevent infections. It covers both scientific findings and practical experiences, including a notable case where severe bite wounds healed remarkably quickly and without complications due to the use of a THCa-dominant cannabis extract.

Wound healing is a complex process that relies on the effective collaboration between cells, growth factors, and the immune response. The phases of healing include hemostasis (blood clotting), inflammation, proliferation (formation of new tissue), and remodeling (strengthening and reorganization of newly formed tissue).

Chronic wounds, which take longer to heal, pose a significant healthcare challenge due to their resistance to conventional therapies and increased risk of infection. Integrating medicinal cannabis extracts into wound care offers a novel therapeutic approach that leverages natural anti-inflammatory and regenerative properties, with promising results.

Mechanisms of Full Cannabis Extracts in Wound Healing

Cannabis extracts can contain over **540** bioactive compounds that influence the Endocannabinoid system (**ECS**), a crucial system involved in regulating inflammation, pain, and tissue repair. Whole Cannabis Extracts that retain Cannabinoid acids such as THCa and CBDa, along with Terpenes and Flavonoids, play a significant role in wound healing due to their anti-inflammatory, antibacterial, and regenerative properties.

Cannabinoid-Acids

THCa (Tetrahydrocannabinolic Acid), CBDa (Cannabidiolic Acid), and CBGa (Cannabigerolic Acid) exhibit strong anti-inflammatory properties without the psychoactive effects of THC.

THCa, in particular, has shown the ability to reduce pain and inflammation rapidly without the need for traditional painkillers.

Terpenes

Terpenes like limonene (citrus aroma), myrcene (spicy, earthy), and beta-caryophyllene (peppery) contribute to healing through their antimicrobial and anti-inflammatory effects. Beta-caryophyllene acts as a selective CB2 receptor agonist, which can help modulate the immune system and promote tissue regeneration.

Flavonoids and Cannflavins

These are plant compounds with potent antioxidant and anti-inflammatory properties. Cannflavins A, B, and C—unique flavonoids in cannabis—block inflammatory enzymes like **COX-1** and **COX-2** without the side effects of non-steroidal anti-inflammatory drugs (NSAIDs). They reduce swelling and pain and promote a faster transition to the regenerative phase of wound healing.

Preclinical Findings

Accelerated Wound Healing with Cannabis Extracts Animal studies have shown that full cannabis extracts can significantly improve the healing of both acute and chronic wounds.

Accelerated Healing of Surgical and Burn Wounds

Animal models demonstrated that topical treatment with cannabinoid formulations, such as blends of hemp, walnut, and sesame oil enriched with THCa and CBDA, leads to faster wound contraction (shrinking of the wound), improved epithelialization (formation of new skin tissue), and minimal scarring. The wounds healed within an average of **21 days**, significantly faster than the **30 to 45 days** typically required with silver sulfadiazine, a standard **burn wound** treatment.

Antibacterial Action Against Resistant Bacteria

Studies have shown that CBDA, CBGa, and THCa have strong antibacterial effects against **MRSA** (methicillin-resistant *Staphylococcus aureus*) and other pathogenic bacteria in mouse models. These effects are comparable to those of conventional antibiotics, without the risk of resistance.



Modulation of Inflammatory Response

Cannabinoids like THCa and synthetic CB2 agonists reduced inflammatory reactions in wound models, promoted epithelial cell migration, and decreased scar tissue production. This is particularly beneficial for treating surgical and burn wounds where minimizing scarring is important.

Application of Cannabis Extracts in Human Wounds

An Inspiring Case: Experience of a Friend with Severe Bite Wounds

A remarkable example that illustrates the power of Whole Cannabis Extracts in wound healing is the case of a friend who suffered severe bite wounds to his hand while rescuing a cat from the jaws of a pit bull. Unfortunately, the cat did not survive, but my friend sustained deep wounds, including a severely damaged tendon. Instead of seeking conventional treatment, he cleaned his hand only with kitchen paper, took photos of the wounds (specifically for me), and then applied a pure THCa-Dominant Cannabis Extract to the open wounds, covering them with plasters. He repeated this daily for the first two weeks.

No Pain and No Infection

Immediately after applying the THCa extract, the pain completely disappeared and remained absent throughout the healing process. This illustrates the powerful analgesic effect of the THCa-dominant extract, which calms inflammatory processes without the side effects of traditional painkillers like opioids.

No Swelling or Inflammation

The wounds showed no signs of swelling or inflammation during the healing period, which is exceptional given the severity of the bite wounds and the typically high risk of infection with such injuries. A THCa extract effectively suppresses inflammation without adverse effects.

Complete Healing within Four Weeks

Within **four** weeks, he could fully use his hand again, and the deep wounds were completely healed without any medical intervention, antibiotics, or conventional wound care methods. This case supports the findings of scientific research and demonstrates that even severe wounds can heal quickly with the proper application of cannabis extracts. It also highlights the potential to replace or supplement traditional treatments with entirely natural, plant-based solutions.

Other Clinical Studies Confirming These Results

Chronic Non-Healing Wounds in Patients

Open-label studies in patients with chronic ulcers (open wounds that do not heal) and pressure ulcers (bedsores) show that topical administration of medicinal cannabis oils, rich in THCa, CBDa, CBGa, and terpenes, resulted in complete wound closure within **34 to 76** days. Moreover, these treatments significantly reduced the need for opioids, leading to an improved quality of life.



Epidermolysis Bullosa (EB) in Children

Self-administration of CBDA-rich oil by children with **EB**, also known as butterfly disease—a rare genetic disorder that leads to severe blistering—resulted in less blistering, faster wound healing, and significantly less pain.

EB is a complex skin condition where the skin easily damages and does not heal well.

Chronic Non-Healing Wounds

Various clinical studies have used Whole Cannabis Oils in patients with chronic wounds such as venous leg ulcers and **Pyoderma Gangrenosum**. Results showed that these wounds healed completely within an average of **54 days**, a significantly better outcome than with traditional treatments such as compression therapy or negative pressure therapy.

Mouth Ulcers and Recurrent Canker Sores

Clinical studies in Thailand have shown that CBDA paste effectively reduced the size of oral ulcers and pain within a few days. Canker sores are small, painful ulcers that frequently occur in the mouth and are difficult to heal.

Molecular Mechanisms: How Do Cannabis Extracts Work

The therapeutic effects of cannabis extracts in wound healing are facilitated by a combination of molecular interactions.

Anti-Inflammation by THCa and CBDA

These cannabinoid acids inhibit the production of pro-inflammatory cytokines such as IL-6 (interleukin-6) and TNF- α (tumor necrosis factor-alpha), substances that play a critical role in inflammation. By suppressing these processes, excessive inflammation is avoided, accelerating the transition to the regenerative phase.

Proliferation and Tissue Regeneration

Cannabinoids promote the formation of new blood vessels (angiogenesis), which is essential for supplying nutrients to damaged tissue. Terpenes like limonene and myrcene enhance these processes through their direct interaction with the immune system and cell growth.

Antimicrobial Action

Cannabis extracts can effectively suppress bacterial growth, which is particularly important for wounds prone to infection. CBDA, CBGa, and THCa show strong activity against both gram-positive and gram-negative bacteria, including resistant strains like [MRSA](#).

Future Directions for Research and Clinical Implementation

While current findings are promising, large-scale clinical trials are essential to further validate the applications of full cannabis extracts in wound healing. Key research directions include the development of standardized formulations (cannabis strains), innovative delivery methods such as nanogels and hydrogels, and exploring synergistic effects with other natural substances. Additionally, healthcare providers must be trained to use these extracts safely and effectively in clinical practice.

Conclusion

Whole Cannabis Extracts with cannabinoid acids, terpenes, flavonoids, and cannflavins offer a unique and powerful approach to wound care. The combined anti-inflammatory, antibacterial, and tissue-regenerating effects of these extracts can accelerate healing and significantly improve patients' quality of life, as evidenced by clinical studies and numerous personal experiences. The case of my friend with bite

wounds highlights the exceptional potential of THCa-dominant extracts to heal quickly and painlessly without complications. With further research and clinical validation, this natural and effective approach could become a valuable addition to modern wound care.

This report reflects my findings and insights into the therapeutic role of cannabis extracts in wound healing, even in burn and chronic wounds, and I hope it contributes to a broader understanding and application of these extracts in clinical practice.

For more detailed information, refer to the following link,

["Cannabinoids in Skin Wound Care: A Systematic Review of Emerging Preclinical and Clinical Evidence."](#)

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