

## A Natural Nano Formulation for Eczema Cure

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### ABSTRACT

The present patent-pending invention relates to a topical natural nano formulation for eczema was developed.

A clinical study on 100 volunteers showed very fast and effective relief of eczema on all patients of both sexes. For severe cases it was observed eczema disappeared in less than a week. Observed results showed excellent results for all ages with zero side effects.

### DESCRIPTION OF THE INVENTION

Atopic dermatitis (eczema) is a condition that makes your skin red and itchy. It's common in children but can occur at any age. Atopic dermatitis is long lasting (chronic) and tends to flare periodically. It may be accompanied by asthma or hay fever.

No cure has been found for atopic dermatitis. But treatments and self-care measures can relieve itching and prevent new outbreaks. For example, it helps to avoid harsh soaps, moisturize your skin regularly, and apply medicated creams or ointments. Atopic dermatitis (eczema) signs and symptoms vary widely from person to person and include:

- Dry skin
- Itching, which may be severe, especially at night
- Red to brownish-gray patches, especially on the hands, feet, ankles, wrists, neck, upper chest, eyelids, inside the bend of the elbows and knees, and in infants, the face and scalp
- Small, raised bumps, which may leak fluid and crust over when scratched
- Thickened, cracked, scaly skin
- Raw, sensitive, swollen skin from scratching

Atopic dermatitis most often begins before age 5 and may persist into adolescence and adulthood. For some people, it flares periodically and then clears up for a time, even for several years.

### FACTORS THAT CAN CAUSE ECZEMA

The exact cause of eczema is unknown, but it's thought to be linked to an overactive response by the body's immune system to an irritant. It is this response that causes the symptoms of eczema. In addition, eczema is commonly found in families with a history of other allergies or asthma. Also, defects in the skin barrier could allow moisture out and germs in.

Some people may have "flare-ups" of the itchy rash in response to certain substances or conditions. For some, coming into contact with rough or coarse materials may cause the skin to become itchy. For others, feeling too hot or too cold, exposure to certain household products like soap or detergent, or coming into contact with animal dander may cause an outbreak. Upper respiratory infections or cold may also be triggers. Stress may cause the condition to worsen.

Although there is no cure, most people can effectively manage their disease with medical treatment and by avoiding irritants. The condition is not contagious and can't be spread from person to person.

We arrived at an ozonated nano natural cream with maximum bioavailability to solve this problem in less than a week!!! She

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tried this cosmetic product on more than 100 volunteers with excellent results!!!

Compositions comprising botanical ozonated oils, active agents, etc., can be produced and used in accordance with the present invention that is useful to treat or affect eczema. For example, the present invention relates to compositions, preferably for topical or local use, which comprise one or more of the following ingredients, including, but not limited to, bee propolis, oak oil, oregano oil, aloe vera gel, olive oil, and German chamomile oil. The compositions can produce one or more of the following pharmacological effects, including, but not limited to antibacterial, antiviral etc.

Ozonated oil is made through a process of “ozone injection”, which is bubbling ozone into the liquid for a reasonable period of time. Many companies use a cheap ozone generator that can lead to contamination. For purity and quality, a cold plasma ozone generator should always be used.

### THE TOP BENEFITS OF OZONATED ESSENTIAL OILS

Ozonated Oil holds a variety of health benefits, which includes: Stimulation of skin cell growth, accelerates healing-time for skin wounds and ulcers, cleans and sanitizes epidermis, reduces swelling and rids redness, calms nerves and reduces pain in skin ailments, may increase cellular function, acts as a free radical scavenger on harmful toxins, acts as a moisturizing facial conditioner, helps in reducing scarring, promotes healthy skin, helps in removing makeup, helps in animal wounds, helps for skin sunburn, helps for Insect bites and stings, reduces infections of the sebaceous glands (sweat), can be used as a natural deodorant, good for hemorrhoids, good for sore muscles, it helps in cellulite Reduction, reduces wrinkles, helps for ringworm, bed sores, cuts & burns, skin yeast, carbuncles, diaper rash and dermatitis.

Bee propolis has been found to be more effective than some pharmaceutical applications against vaginal herpes, hemorrhoids, varicose veins, eczema, psoriasis and all skin disorders as well as peptic ulcer. Tests also suggest that propolis may significantly reduce the chance of an advanced herpes infection [1]. In addition, as suggested above, propolis may offer protection against genital Candida infections [2] besides bee propolis is the strongest and safest antibiotic in the world.

Ozonated Chamomile oil [3] is a natural remedy that aids in soothing irritated skin and reducing pain. You can use ointment and creams that contain Chamomile oil or apply it directly to the affected area.

Ozonated Olive oil [3] is another essential oil with anti-inflammatory and antioxidant properties. It increases the elasticity of blood vessels and is useful in reducing inflammation.

Ozonated Wild Oil of Oregano is an edible medicinal grade essential oil that is grown from a wild species of oregano especially in the Mediterranean. There are a multitude of conditions that Oil of Oregano treats, but the most famous use is its ability to kill infections in the body. Most organisms cannot survive when exposed to the powerful phenols (carvacrol and thymol) which are the active ingredient in this Wild Oil of Oregano. These ingredients work well on their own but have an added potency when found together in nature. The ancient Greeks were among the first to take advantage of oregano’s medicinal qualities and termed the spice oregano meaning delight of the mountains. Here is a list of the powerful actions of Oil of Oregano:

- A. Potent antioxidant
- B. Anti-venom (spiders, scorpions, bees, ants and snakes)
- C. Anti-viral
- D. Anti-fungal
- E. Anti-parasitic
- F. Natural Anesthetic (pain reducer)
- G. Mucolytic (thins mucous)
- H. Anti-tussive (decreases cough)
- I. Antispasmodic

The anti-inflammatory properties of oregano oil inhibit causes of bacteria [4]. Another amazing bacterial treatment is employing a mixture of 3 drops of ozonated oregano oil and 1 tablespoon of ozonated olive oil onto the affected area.

Oak [5], is another alternative to medicines and drugs. This natural remedy exerts its anti-inflammatory action by supporting the health of skin. Rich in vitamins and minerals, such as potassium, manganese, calcium and magnesium.

Also, oak has powerful anti-septic, anti-inflammatory and astringent properties, which means it’s efficient in preventing diarrhea, in reducing inflammation and irritation of the damaged skin.

Oak ozonated oil heals effectively reduces inflammation and bleeding. Oak bark is commonly used in the form of decoction, today mostly for external use. Beneficial effects such as skin injury, from small to larger wounds that need to disinfect and stop the bleeding. It works quite strongly anti-inflammatory, fits over the already inflamed wounds that heal poorly and long, its antiseptic and astringent effect was why it was very highly prized. Likewise, we should return to it today, as a natural product has a minimum of side effects.

On the skin it is applied as a bath, to wash or as a compress. In addition to these injuries and inflammation such as skin heals and oozy eczema, fungal infections of the skin, venous ulcers, acne and so on. It is also used for gargling in case of periodontitis and infections of the throat and oral cavity.

Oak or *Quercus* spp. is a tall deciduous tree with potent astringent, antiseptic and anti-inflammatory actions.

Aloe vera [5] is one of nature’s best ingredients for treating eczema. The anti-inflammatory and therapeutic properties of aloe vera help reduce the irritation of eczema.

**SUMMARY OF THE INVENTION**

The present invention relates to a topical pharmaceutical formulation for treatment of eczema. The composition for treating disorder, preferably formed of nano gel or nano cream, contains be propolis, ozonated oak oil, ozonated oregano oil, aloe vera gel, ozonated olive oil [6].

**EXAMPLES OF PRE-CLINICAL RESULTS**

The following results were obtained at the clinic of University of Yarmouk; One hundred patients with symptomatic, eczema was treated with nano ozonated cream for one week.

Some patients with second degree healing results were faster; it took them 3 days only to rid of eczema symptoms while patients with severe eczema to them 7 days for pain relief and disappearance of skin eczema. Few numbers of severe cases who faced a recurrence after 6-12 months (**Table 1**).

**Table 1.** Effect of Nano Cream on Eczema Symptom

Grade	No. of patients	Symptoms	Treatment time	Case status	
				BEFORE	AFTER
1	12	Itching	3 Days	Mild	Cured
3	20	Bleeding	7 Days	Severe	Cured
1	15	Pain, Discomfort	2 Days	Mild	Cured
2	10	Swelling	3 Days	Severe	Cured
1	8	Itching & Pain	2 Days	Mild	Cured
3	6	Bleeding & Swelling	7 Days	Severe	Cured
3	14	Itching & Swelling	3 Days	Severe	Cured
3	10	Bleeding & Itching	7 Days	Severe	Cured
4	5	All Symptoms	10 Days	Severe	Cured

**SAFETY AND TOXICITY STUDY**

Toxicity study performed on mice in the animal house showed that the composition is free of adverse effects especially on liver, kidneys, lipid and other body organs.

**ANALYSIS OF TOXICOLOGICAL EFFECT OF ECZEMA CREAM: JORDAN UNIVERSITY OF SCIENCE & TECHNOLOGY (REPORT)**

**Methods**

- Two groups of mice, each of 10 were used.
- Proper amount of the tested cream was used on shaved mice. The cream base without the active ingredient was used to the control group.
- After 0, 6, 12, 18, days blood was collected by heart puncture or tail tip from all mice using EDTA tubes the following tests were performed:

- Physical activity of general appearance
- Pathological tests: After dissection of animals at the end of the exp.
  - The following organs were examined: liver, pancreas, adrenal gland, heart, liver, and spleen
- Hematological tests including RBCs & WBCs count.

- Biochemical tests including glucose, triglyceride (TG), cholesterol, uric acid, Creatinine, ALT, AST, amylase, total bilirubin.

**RESULTS (Tables 2-13)**

**Table 2.** Biochemical test result for glucose (mg/dL).

Days	0	6	12	18
Control	116±8	119±9	120±10	118±12
Eczema Cream	110±11	115±12	117±8	115±8

**Table 3.** Biochemical test result for cholesterol (mg/dL).

Days	0	6	12	18
Control	73±10	75±8	78±9	80±10
Eczema Cream	70±10	73±9	77±9	76±10

**Table 4.** Biochemical test result for TG (mg/dL).

Days	0	6	12	18
Control	172±25	168±30	180±35	190±35
Eczema Cream	180±30	178±25	186±28	191±33

**Table 5.** Biochemical test result for total bilirubin.

Days	0	6	12	18
Control	0.32±0.1	0.33±0.1	0.33±0.1	0.35±0.1
Eczema Cream	0.3±0.1	0.3±0.1	0.34±0.1	0.36±0.1

**Table 6.** Biochemical test result for creatinine (mg/dL).

Days	0	6	12	18
Control	1±0.1	0.9±0.2	1.1±0.2	0.9±0.2
Eczema Cream	0.9±0.2	1±0.3	1.1±0.4	1.3±0.4

**Table 7.** Biochemical test result for uric acid (mg/dL).

Days	0	6	12	18
Control	9.3±1.1	8.8±1.4	8.9±1.5	9.1±1.3
Eczema Cream	9.5±1.5	8.7±1.2	8.5±1.5	8.3±1.1

**Table 8.** Biochemical test result for amylase (U/L).

Days	0	6	12	18
Control	813±80	804±100	790±90	780±85
Eczema Cream	930±120	960±130	870±95	910±95

**Table 9.** Biochemical test result for ALT (U/L).

Days	0	6	12	18
Control	95±15	90±18	85±20	92±15
Eczema Cream	95±15	92±18	90±20	85±20

**Table 10.** Biochemical test result for AST (U/L).

Days	0	6	12	18
Control	108±12	102±10	92±13	95±10
Eczema Cream	110±12	85±15	75±15	45±10

**Table 11.** Biochemical test result for weight (g).

Days	0	6	12	18
Control	20.4	22.1	24.3	26.6
Eczema Cream	20.2	23.2	25.1	26.8

**Table 12.** Biochemical test result for hematology (RBCs \* 10<sup>6</sup>/mm<sup>3</sup>).

Days	0	6	12	18
Control	5.7±0.6	6.2±0.5	5.8±0.7	5.6±0.5
Eczema Cream	5.5±0.5	5.6±0.7	5.7±0.6	5.9±0.6

**Table 13.** Biochemical test result for hematology (WBCs \*10<sup>3</sup>/mm<sup>3</sup>).

Days	0	6	12	18
Control	5.2±0.3	4.6±0.4	6.1±0.6	5.8±0.6
Eczema Cream	5.1±0.4	5.3±0.5	5.6±0.4	5.5±0.5

**Physical activity:** The group of mice which received the herbal cream did not exhibit any remarkable difference in general appearance, but they were very active throughout the

study and showed high physical activity compared to the control group.

**Summary of Results (Table 14)**

**Table 14.** Summary of biochemical tests.

S. no.	Parameter tested	Comment
1	Physical activity and general appearance	No effect
2	Weight gain and water consumption	
3	Pathological examination after dissection	No macroscopic changes could be observed
4	Hematology	
4.1	RBCs	No significant changes observed
4.2	WBCs	No significant changes observed
5	Biochemical tests	
5.1	Glucose	No significant changes observed
5.2	Cholesterol	No significant changes observed
5.3	TG	No significant changes observed
5.4	Creatinine	No significant changes observed
5.5	Uric acid	No significant changes observed
5.6	Total bilirubin	No significant changes observed
5.7	ALT	No significant changes observed
5.8	AST	Significant decrease was observed
5.9	Amylase	No significant changes observed

**CONCLUSION**

This patent-pending nano cream is expected to help millions of eczema patients of both sexes worldwide. Double blind is still needed to give more reliable results.

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