



## The Formulation and Evaluation of Turmeric Skin Cream

<sup>1</sup>Akash Balasaheb Chavan,<sup>2</sup> Mahesh Pandurang Bhosale

<sup>1</sup>Student, <sup>2</sup>Professor

Dharmaraj Shaikshanik Pratistans College of Pharmacy Walki, Ahmednagar

### ABSTRACT :

Turmeric (*Curcuma longa*) is a flowering plant in the ginger family that has long been used medicinally for its potential anti-inflammatory properties. The most active ingredient is turmeric, which has been studied extensively, but very few moisturizing conditioners contain turmeric. and The objective of this review was to formulate and evaluate an Ayurvedic skin cream containing crude drugs containing *Curcuma Longa* (turmeric) extracts. Comparative standardization was performed for one marketed formulation and one in-house formulation. The demand for herbal cosmetics is increasing on the world market and are priceless gifts of nature.

Curcuminoids obtained from *Curcuma longa* have properties such as photoprotection, anti-aging, anti-wrinkle, moisturizing, antioxidant, astringent, anti-irritant, antimicrobial and anti-inflammatory properties. Our goal was to develop a stable cream loaded with nano transferosomes that could correct morphological defects and penetrate deeper into the cellular level of the dermis, producing an anti-wrinkle effect.



### Background:

*Curcuma longa*, commonly called turmeric, belongs to the Zingiberaceae family and is derived from rhizomes. Curcumin is known to have good anti-inflammatory and skin-protective effects. Traditionally, curcumin has been included in many natural herbal remedies to treat skin infections

**Keywords :** *Curcuma longa*, Zingiberaceae, Curcumin, turmeric, Curcuminoids, cutometer, novel creams

### Introduction :

Research has been done to extract, purify, isolate curcumin from the *Curcuma Longa* plant and then create an herbal moisturizer that contains curcumin. *Curcuma Longa* is a member of the Zingiberaceae family, turmeric is derived from their rhizomes. The dark orange color of turmeric is due to lipophilic polyphenolic carotenoids known as curcuminoids. Ayurveda and #039; is both the science of life and. Ayurveda - The ancient health science of India, because life is synonymous with health, Ayurveda is considered the foundation of human health and #039; like science. Ayurveda and #039; the approach to healing is holistic. It does not treat individual organs separately, but treats the body as a whole. More importantly, it does not provide temporary relief, but fights the disease and helps to eliminate it. This Ayurvedic cream evaporates into the skin, rejuvenating and revitalizing the skin from within, leaving it soft, supple and youthful. Pure and natural and containing the amazing properties of turmeric and sandalwood oil, turmeric cream gives the skin a glow that cosmetics alone cannot maintain. It also protects the skin from the sun's ultraviolet rays and preserves the original color of your skin pigments. Curcumin can have curative effects on various human diseases and has shown anti-proliferative effects in several cancers. Recent studies show that curcumin is great for wrinkles and prevents inflammation and free radicals. In particular, curcumin has anti-inflammatory and anti-proliferative effects



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**Objective :**

The purpose of this evaluation work was to formulate a cream that does not cause side effects or side effects. The cream also works as a fairness experience in everyday life, removing the signs of aging. It also has nutritional value that gave the skin the nutrients it needed.

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**Use of turmeric cream:**

- Turmeric For Skin Whitening
- Turmeric For Glowing Skin
- Turmeric To Treat Acne
- Turmeric To Banish Dark Circles
- Turmeric Moisturizes Dry Skin
- Turmeric For Preventing Early Signs Of Aging



- Turmeric For Reducing The Appearance Of Stretch Marks

- Formulation of turmeric skin cream

Sr. No.	Ingredients	Quantity (%w/w)
1	Curcumin (95%)	16
2	Stearic acid	5.1
3	Lanolin	3
4	Borax	1
5	Liquid paraffin	7
6	Glycerine (moisturizer conditioner)	4.2
7	Cetyl alcohol	3.9
8	Ethylenediaminetetraacetic acid (EDTA) (preservative)	0.2
9	Water	q.s (Quantity sufficient)
10	Sandalwood Oil (Perfumes)	q.s (Quantity sufficient)

*List of ingredients*

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### Method of Preparation:

Preparation of the alcoholic extract of the crude drug: Take 5 grams of crude drug ie. turmeric in an Erlenmeyer flask and then 100 Take 5 grams of crude drug ie. turmeric into an Erlenmeyer flask and then 100 ml of ethanol was added to it, then the Erlenmeyer flask was sealed with aluminum foil. This mixture was then left to soak for 5 days.

Preparation of the oil phase: Stearic acid (18%) and lanolin were placed in a porcelain dish and the mixture was melted at 700 °C. Preparation of the aqueous phase:

Water, glycerin and borax and heat to the same temperature as the melted stearic acid and lanolin. Mix the oil phases in the water phase with constant stirring Add preservative and perfume. Mix them thoroughly to get a smooth product.

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### Methodology:

- The cream is made by melting a mixture of lanolin and stearic acid at 70 degrees.
- In another beaker, put 20 ml of water, 7 ml of glycerin and 1 g of borax and melt this mixture at 70 degrees.
- Mix both the solutions into a homogeneous mixture and then add turmeric to it
- Then add perfumes and preservatives to it. Heat the mixture at 40°C until the cream hardens.
- Then keep the cream for 24 hours so you can observe its changes
- Then pour the cream into a container and label it
- Perform all cream assessment tests



#### Step wise preparation of turmeric cream Result:

- Emulsion Type: This dye confirms that all formulations were o/w type emulsion creams.
- Color test: the continuous phase is red, which means that the emulsion is o/w type
- Dilution test: the emulsion is o/w type and it is diluted with water, it remains stable because water is the dispersion medium.
- pH test: The pH of the cream was found to be between 6-7, which is good for the pH of the skin. The pH of all formulations was closer to the required skin.
- Homogeneity: the formulations ensure an even distribution of the extracts in the cream. This was confirmed by visual appearance and touch, smooth, watery, without roughness
- Appearance: the color of the cream did not change during long-term storage of the preparations.
- Type of use: After applying the cream, the ointment on the skin was not greasy
- Removeability/Washability: The cream applied to the skin was easily removed by washing with tap water.
- Irritation test: The composition does not show redness, swelling, inflammation and irritation during irritation tests. These formulas are safe for the skin
- Particle coarseness: No particles are formed.

11. acid value:

Acid value =  $n \times 5.61 / w$

n= The number of ml of NAOH required

w= the weight of substance

Acid value =  $44.6 \times 5.61 / 10$

Acid value =  $250.206 / 10$

Acid value = 25.0206

#### DISCUSSION:

In this work, it was decided to extract and formulate an Ayurvedic skin cream. The Ayurvedic skin cream was an O/W type emulsion, so it can be washed off with plain water, which improves customer consultation. Our study showed that both marketed and in-house formulations were more stable. Both

commercial and in-house formulations had a nearly constant pH, were homogeneous, emollient, nongreasy, and easily removed after application. The stable preparations were safe for skin irritation and allergic sensitization. Curcuma Longa extract has antiseptic, anti-inflammatory properties and also improves skin whitening. Sandalwood oil increases skin radiance and has emollient properties. Therefore, all these properties are beneficial to normal human keratinocytes, and it is also safe and stable. Marketed turmeric creams are mainly for cosmetic use. They do not provide information about the amount of curcuminoids contained in the preparation. Quantitative standards of turmeric rhizomes obtained confirm IHP-2002 standards. This supports their use in formulation. The herbal face cream was an O/W emulsion, so it is easy to wash off with water, which improves customer compliance. Ash formation showed no absence of titanium dioxide, zinc oxide, chlorides, sulfates, and phosphate salts. Products made with phase inversion technology produced a better internal phase and showed better physical stability under long-term storage conditions.

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## CONCLUSION:

Turmeric-based skin cream is a cosmetic product that contains quantitative amounts of curcuminoids. It is also safe and stable. Curcuma longa or sandalwood oil was used to make the cream. Turmeric has great medicinal value in traditional Indian medicine and Ayurvedic preparation. The stability parameters of the preparations showed that there were no significant differences during the study period. During the stability study, it was found that the cream is more stable; Thus, this study concluded that it is possible to develop an Ayurvedic skin cream containing a plant extract that can be used as an antiseptic and beautifier. The aim of this study was to develop an herbal cream. Curcumin-containing moisture treatment cream was evaluated in several physico-chemical tests and the results were obtained according to the standard value. Curcumin is a natural pigment derived from Curcuma longa that has held medicinal values. This herbal cream is one of the good alternatives to synthetic cream. More detailed stability studies are needed to improve the overall quality of the products.

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