



# TRAINING MANUAL

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**Training Manual**

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## **PLEASE READ THIS BEFORE CONTINUING.**

### **MEDICAL DISCLAIMER**

This training manual is provided for information only. In no way should any of the information found here be a substitute for professional medical care by a qualified physician or other health care professional. Patients should ALWAYS check with the if they have any concerns about their condition or treatment. Axia Medical Solutions will, to the best of its ability, refer any patient questions or concerns back to the physician. Axia Medical Solutions is not responsible or liable, directly or indirectly, for ANY form of damages whatsoever resulting from the use (or misuse) of information contained in or implied in this training manual.

The products offered by Axia Medical solutions are not to be considered therapeutic or healing agents.

### **LIABILITY**

Axia Medical Solutions is responsible for the distribution of the products, only. No liability is assumed for the use or misuse of the products.

Therefore, all patients should be tested for product sensitivity before enrollment into one of the treatment regimens. This is the sole responsibility of the physician.

## I Overview

This overview is intended to provide the reader with a basic understanding of the importance of normal human skin function, the processes of normal skin at the cellular level, and the contributing factors to and effects of aging on normal skin.

When we think of aging skin, whether a result of natural aging, photodamage, or the environment, we think of wrinkles, creases, sleep lines, large pores, rhytides, sagging skin, folds, uneven skin tone and texture, dryness, and hyper and hypopigmented areas. These unwelcome changes are a result of changes in the normal functioning of the skin. In order to initiate improvement and maintain healthy skin, the normal functions of the skin must be reestablished.

Normal skin function is a result of the cellular components of the skin working as they were intended. As a prelude to understanding the mechanisms of action for the **Dermesse™** skin care system, a brief explanation of normal cellular functioning follows.

### Anatomy of the Skin

Skin is a waterproof, flexible, but tough protective covering for your body. It is the body's largest organ, covering the entire outside of the body. It functions as a protective shield keeping out water, insects, heat and cold, sunlight, dirt, and gases. It also keeps in body fluids such as water and blood, hormones, minerals, vitamins, and heat.

Additionally, the skin plays an important role in protecting the body from microorganisms. The skin accomplishes this in several ways; Through the continual shedding of the upper layer of the skin (desquamation), through the existing normal flora of the skin, and through the excretion of sebum and sweat which contain fatty acids and lactic acid respectively all of which assist in protecting against unwanted microbes.

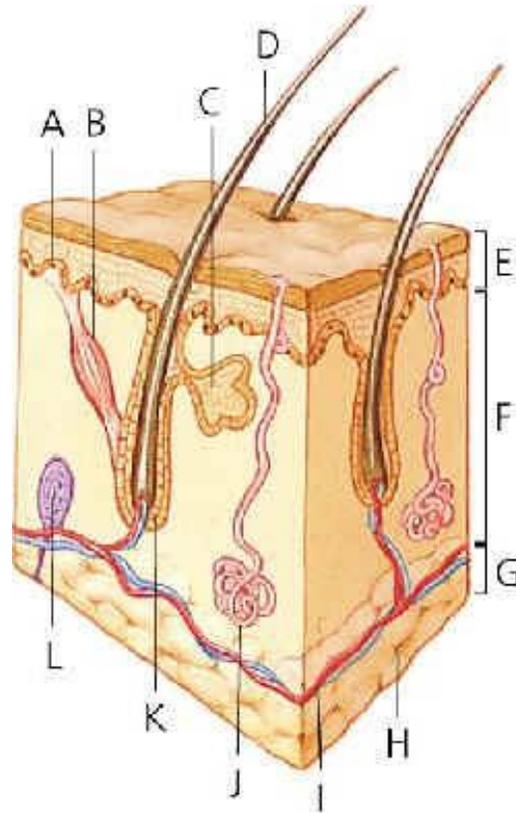
Over different parts of the body, the thickness and color of the skin and the number of sweat glands, sebaceous glands, hair follicles, and nerves vary. The top of the head has many hair follicles; the soles of the feet have none. The soles and the palms have much thicker epidermis and keratin layers. The fingertips and toes contain many nerves and are extremely sensitive to touch.

The skin tends to change throughout a person's lifetime. A baby's skin has a much thicker fat layer (subcutaneous) and a much thinner layer of protective keratin. As people age, they lose much of the underlying fat, the dermis and epidermis become thinner, the elastic fibers in the dermis become fragmented, and the skin becomes more wrinkled. The flow of blood in the skin also decreases with age; so damaged skin heals more slowly in older people. Older skin also makes less protective oil, so the skin dries out more easily.

The skin is composed of three layers, the epidermis, the dermis, and the subcutaneous layer. Each layer performs specific tasks.

## ***Cross-Section of Human Skin:***

- A. [melanocyte](#)
- B. [muscle](#)
- C. [sebaceous gland](#)
- D. [hair shaft](#)
- E. [epidermis](#)
- F. [dermis](#)
- G. [subcutaneous tissue](#)
- H. [fat](#)
- I. [arterial blood vessel](#)
- J. [sweat gland](#)
- K. [hair follicle](#)
- L. [Pacinian corpuscle](#)



## EPIDERMIS

<p><b>Epidermis</b> (protection layer)</p>	<p>The epidermis is the thin translucent outer layer of the skin. The epidermis itself has several layers determined by the cellular content:</p> <ul style="list-style-type: none"><li>• <b>Stratum Corneum</b> This is the uppermost layer and contains continually shedding, dead, flattened, non-nucleated, and non dividing <b>corneocytes</b>, which are transformed keratinocytes. The keratin present in this layer is a protein formed from the remains of the dead keratinocytes and protects the skin from harmful substances.</li><li>• <b>Keratinocytes</b> This layer contains living keratinocytes (squamous cells), which help provide the skin with what it needs to protect the rest of the body. Keratinocytes make the transformation from being living cells to the dead cornified cells of the stratum corneum.</li><li>• <b>Basal Layer</b> The basal layer is the inner layer of the epidermis, containing <b>basal cells</b>. Basal cells continually divide, forming new keratinocytes and replacing the old ones that are shed from the skin's surface. The cycle from cell division of a keratinocyte to exfoliation takes approximately 40 days or roughly 6 weeks. The body is willing to expend the energy necessary to accomplish this process due to the importance of healthy skin as a protector.</li><li>• The lowest level of the epidermis contains <b>melanocytes</b>, which are cells that produce <b>melanin</b>, the dark colored pigment of skin. The function of melanin is to provide pigmentation and is the first physiochemical defense against the damaging ultraviolet rays of the sun. Melanocytes produce pigment granules, called <b>melanosomes</b>, which are picked up by keratinocytes. One melanocyte provides pigmentation to approximately 36 keratinocytes.</li></ul>
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## DERMIS

<p><b>Dermis</b> (structural layer)</p>	<p>The dermis is the middle layer of the skin and is responsible for water binding, wound repair, and diffusion regulation involving hormones, salts, and other metabolic substances. It contains pain and touch receptors, whose tentacles reach up to the skin surface, and many of the functional glands of the skin: sweat glands, sebaceous glands (which produce the oil sebum to help moisturize the skin), and hair follicles. Also within the dermis lie blood vessels that provide nutrition to the skin and nerves that branch throughout the layers of the skin.</p> <p>Important components of the dermis and their function include:</p> <ul style="list-style-type: none"><li>• <b>Proteins</b> The dermis is held together by a fibrous insoluble protein called <b>collagen</b> which is the most abundant protein in the body. <b>Elastin</b> is a protein substance that forms the principal constituent of yellow elastic tissue and gives the skin its resiliency and feel. Glycosaminoglycans (GAGs) produce a highly hydrated, gel-like matrix that helps to maintain water balance, and act as a support system for the components of the dermis. <b>Hyaluronic acid</b> and <b>chondroitin sulfate</b> (found in cartilage and bone) are glycosaminoglycans.</li><li>• <b>Fibroblasts</b> Fibroblasts are responsible for producing collagen, elastin, and glycosaminoglycans.</li><li>• <b>Blood Supply</b> A <b>blood supply</b> is necessary to transport nutrients to the normally functioning skin and to remove waste products generated through cellular metabolism. An adequate blood supply must be present. The <b>blood vessels</b> present are the arterioles which bring oxygenated blood from the heart and lungs; veinules which return oxygen-depleted blood back to the heart and lungs; and capillaries which are the primary sites for exchange of oxygen and nutrients.</li></ul>
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## SUBCUTANEOUS FAT

<p><b>Subcutaneous Fat</b> (cushioning layer)</p>	<p>The <b>subcutaneous fat</b> layer is the deepest layer of skin and insulates the body from heat and cold and serves as an energy storage system. It consists of a network of collagen and fat cells and it helps conserve the body's heat while protecting other organs from injury by acting as a "shock absorber."</p> <ul style="list-style-type: none"><li>• <b>Adipose Cells</b> This layer consists of cells containing fatty deposits, called Adipose cells.</li><li>• <b>Subcutaneous Fat</b> The subcutaneous fat lies on the muscles and bones, to which the whole skin structure is attached by connective tissues. The attachment is quite loose, so the skin can move fairly freely.</li></ul> <p>The subcutaneous fat is organized into fat lobules, which are separated by collagen fibers. When these lobules become grossly distended and engorged with too much fat the areas of attachment become more obvious and the skin cannot move as easily and gives rise to <b>cellulite</b>. These characteristic cellulite patterns tend to develop from the teens onwards.</p> <ul style="list-style-type: none"><li>• <b>Other</b> Blood vessels and nerves are present in the dermis and it may also house the hair follicles when they are in the growing phase.</li></ul>
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## **II Products**

### **DERMESSE SYSTEM APPROACH**

**Cleanser Cream**

**Cleanser Gel**

**Toner**

**Skin Lightener HQ**

**Exfoliator**

**Exfoliator Forte**

**Balancer HQ**

**Sun Protector HQ**

### **Enhancers**

**Moisturizer**

**Eye Cream**

**Vitamin C Serum 5%**

**Vitamin C Serum 10%**

### **Other**

**Tretinoin information**

**Hydroquinone information**

## **Dermesse™ system approach**

The signs of aging are a result of cellular damage and a reduction in normal cellular activity resulting from sun damage and environmental factors, commonly termed extrinsic ageing, or the natural aging process which is largely determined by genetics, referred to as intrinsic ageing.<sup>12,14,15,16</sup> In order to combat the signs of aging, an effective skin care program must produce results at the cellular level. The Dermesse™ products do just that.

The importance of correcting skin damage at the cellular level is evident. For the serious patient, cover-up cosmetics or quick cure products are not appropriate and do not offer long-term results.

The Dermesse™ products have been formulated specifically for this program to enhance the effects of the prescription ingredients, hydroquinone and tretinoin, and to return skin functioning to its normal 6 week cycle.

Prescription strength 4% hydroquinone is included in the Dermesse™ product line and the prescription strength tretinoin is available through the pharmacist with a physician's prescription.

The inclusion of hydroquinone and tretinoin in the program provide significant benefits to the patient as documented in numerous investigative and clinical publications.

- Safety and efficacy in the treatment of fine facial wrinkles, mottled hyperpigmentation, and skin roughness.<sup>1,2,4</sup>
- Significantly reduces fine wrinkling, mottled hyperpigmentation, roughness, and laxity.<sup>2</sup>
- Long lasting results and sustained clinical improvement with the use of tretinoin for up to 4 years.<sup>3</sup>
- Restoration of collagen and increase in collagen formation.<sup>5,8,10,13</sup>
- Produces histological changes such as epidermal thickening, granular layer thickness, and stratum corneum compaction.<sup>2,4,6,11</sup>
- Improvement in coarse wrinkling, sallowness, and looseness with perceptible improvement.<sup>7</sup>
- Increased blood flow and angiogenesis.<sup>9</sup>
- Deposition of glycosaminoglycans and lightening of actinic lentigines.<sup>10</sup>
- Hydroquinone<sup>17,18</sup> is a known skin lightening agent that acts at the cellular level by inhibiting melanin production by melanocytes.

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**Note:** Several references and sources of information on tretinoin have been presented in this section. It is recommended that any additional information on tretinoin be researched by the individual accounts.

## Cleanser Cream

### Purpose

Formulated for sensitive skin, this cleanser gently removes impurities leaving the skin clean and refreshed. The combination of Aloe Vera and other botanical extracts provide a feeling of comfort to irritated skin. This pH compatible cleanser is designed for all skin types.

### Directions

Apply to damp face and throat with moistened fingertips or a gentle sponge. Rinse completely with lukewarm water. Blot dry with a towel.

Key Ingredients	Action in System
Aloe Barbadensis Leaf Juice	Anti-irritant that provides a refreshing sensation
Carthamus Tinctorius (Safflower) Seed Oil	An emollient, moisturizing, plant oil
Prunus Armeniaca (Apricot) Kernel Oil	A natural exfoliant
Squalane	A nutrient-rich oil involved in the process of cell growth
Panthenol	Derived from vitamin B Complex with humectant, emollient, and wound healing properties
Simmondsia Chinensis (Jojoba) Seed Oil	A natural emollient with moisturizing properties
Hedra Helix (English Ivy) Extract	Astringent properties
Ulmus Fulva (Slippery Elm) Bark Extract	Anti-irritant and anti-inflammatory
Ascorbic Acid (Vitamin C)	Form of Vitamin C, acts as an antioxidant

### Complete Ingredient Listing

Water, Aloe Barbadensis Leaf Juice, TEA-Lauryl Sulfate, Glycerin, Cocamide DEA, Carbomer, Triethanolamine, Panthenol, Carthamus Tinctorius (Safflower) Seed Oil, Prunus, Armeniaca (Apricot) Kernel Oil, Squalane, Simmondsia Chinensis (Jojoba) Oil, Fragrance, Methylparaben, Hedera Helix (Ivy) Extract, Ulmus Fulva (Slippery Elm) Bark Extract, BHT, Propylparaben, Diazolidinyl Urea, Ascorbic Acid, Saponins, BHT.

# Cleanser Gel

## Purpose

This cleanser is gentle on the skin yey effective in removing oil, makeup, and other impurities. Enhanced with Aloe Vera and botanical extracts this cleanser leaves the skin feeling clean, clear, and refreshed. Its natural pH balance makes it suitable for all skin types.

## Directions

Apply to damp face and throat with moistened fingertips or a gentle sponge. Rinse completely with lukewarm water. Blot dry with a towel.

Key Ingredients	Action in System
Aloe Barbadensis Leaf Juice	Anti-irritant that provides a refreshing sensation
Ascorbic Acid (Vitamin C)	Form of Vitamin C, acts as an antioxidant
Hedra Helix (English Ivy) Extract	Astringent properties
Panthenol	Derived from vitamin B Complex with humectant, emollient, and wound healing properties
Simmondsia Chinensis (Jojoba) Seed Oil	A natural emollient with moisturizing factors
Ulmus Fulva (Slippery Elm) Bark Extract	Anti-irritant and anti-inflammatory

## Complete Ingredient Listing

Water, Aloe Barbadensis Leaf Juice, TEA Lauryl Sulfate, Propylene Glycol, Cocamidopropyl Betaine, Cocamide DEA, Hydroxyethylcellulose, Methyl Gluceth-10, Panthenol, Hedra Helix (Ivy) Extract, Ulmus Fulva (Slippery Elm) Bark Extract, Fragrance, Simmondsia Chinensis (Jojoba) Seed Oil, Isopropyl Myristate, Diazolidinyl Urea, Ascorbic Acid, Methylparaben, Propylparaben, Saponins, Red 33.

# Toner

## Purpose

An essential lotion to be used after cleansing. This alcohol-free toner soothes skin with Aloe Vera and botanical extracts. Formulated to restore the skin's normal pH balance, this toner prepares the skin leaving a smoother and more refreshed feeling.

## Directions

After cleansing, apply Toner onto the face and throat with a cotton ball using circular motions. **Do not rinse off.**

Key Ingredients	Action in System
Allantoin (Uric Acid Extract)	An effective anti-irritant
Aloe Barbadensis Leaf Juice	Anti-irritant that provides a refreshing sensation
Centaurea Cyanus (Cornflower) Flower Extract	Antibacterial and anti-inflammatory properties
Chamomilla Recutita (Matricaria) Flower Extract	Anti-irritant and antioxidant with soothing properties
Citric Acid	Natural pH adjuster
Glycolic Acid	A natural exfoliant
Hamamelis Virginiana (Witch Hazel) Extract	Anti-inflammatory agent, potent antioxidant properties

## Complete Ingredient Listing

Water, Aloe Barbadensis Leaf Juice, Hamamelis Virginiana (Witch Hazel) Extract, Sodium PCA, Polysorbate 80, Glycolic Acid, Allantoin, Citric Acid, Chamomilla Recutita (Matricaria) Flower Extract, Centaurea Cyanus (Cornflower) Flower Extract, Benzethonium Chloride, Fragrance, Disodium EDTA, Menthol, Saponins, FD-C Blue 1.

# Skin Lightener HQ

## Purpose

Indicated for the depigmentation of dark areas of the skin such as age spots, liver spots, freckles, and other unwanted areas of melanin hyperpigmentation.

## Directions

Apply a thin layer to affected areas as needed, or as directed by a physician. If no improvement is seen after 2 to 3 months of treatment, use of this product should be discontinued. Lightening effect of this product may not be noticeable when used on very dark skin. Sun exposure should be limited by using a sunscreen, a sun block, or protective clothing to cover bleached skin when using and after using this product in order to prevent darkening from recurring.

Key Ingredients	Action in System
Ascorbic Acid (Vitamin C)	Form of Vitamin C, acts as an antioxidant
Glycolic Acid	A natural exfoliant
Hydroquinone	A compound known to successfully reduce the intensity of freckles, melasma, and general brown patching by inhibiting melanin production
Tocopheryl Acetate (Vitamin E)	Stable antioxidant

## Complete Ingredient Listing

**Active Ingredient:** Hydroquinone 4%

**Other Ingredients:** Ascorbic Acid, Butylated Hydroxytoluene, Cetyl Alcohol, Edetate Disodium, Glycerin, Glycolic Acid, Methylparaben, Propylparaben, Purified Water, Saponins, Sodium Lauryl Sulfate, Sodium Metabisulfite, Stearyl Alcohol, Metabisulfite, Tocopheryl Acetate (Vitamin E).

## Balancer HQ

### Purpose

Indicated for the depigmentation of dark areas of the skin such as age spots, liver spots, freckles, and other unwanted areas of melanin hyperpigmentation.

### Directions

Apply a thin layer to affected areas as needed, or as directed by a physician. If no improvement is seen after 2 to 3 months of treatment, use of this product should be discontinued. Lightening effect of this product may not be noticeable when used on very dark skin. Sun exposure should be limited by using a sunscreen, a sun block, or protective clothing to cover bleached skin when using and after using this product in order to prevent darkening from recurring.

Key Ingredients	Action in System
Ascorbic Acid (Vitamin C)	Form of Vitamin C, acts as an antioxidant
Glycolic Acid	A natural exfoliant
Hydroquinone	A compound known to successfully reduce the intensity of freckles, melasma, and general brown patching by inhibiting melanin production
Tocopheryl Acetate (Vitamin E)	Stable antioxidant

### Complete Ingredient Listing

**Active Ingredient:** Hydroquinone 4%

**Other Ingredients:** Ascorbic Acid, Butylated Hydroxytoluene, Cetyl Alcohol, Edetate Disodium, Ethylhexyl Palmitate, Glycerin, Glycolic Acid, Methylparaben, Phenyl Trimethicone, Propylparaben, Purified Water, Saponins, Sodium Lauryl Sulfate, Sodium Metabisulfite, Tocopheryl Acetate (Vitamin E).

# Exfoliator

## Purpose

An exfoliating lotion that improves the skin's texture and helps to maintain smooth, clear skin.

## Directions

Apply a thin layer to the skin once a day or as directed by a physician.

**WARNINGS:** For external use only. Avoid contact with the eyes. A mild burning sensation is to be expected. If burning is severe, discontinue use and consult a physician. KEEP OUT OF REACH OF CHILDREN.

Contains Alpha hydroxy acid that may increase sensitivity to the sun and the potential for sunburn.

Key Ingredients	Action in System
Caprylic/Capric Triglyceride	Derived from coconuts, considered a good emollient and thickening agent
Glycolic Acid	A natural exfoliant
Glyceryl Stearate	A fatty acid with emollient and lubricant properties
Stearic Acid	A fatty acid used as an emollient
Simmondsia Chinensis (Jojoba) Seed Oil	A natural emollient with moisturizing factors

## Complete Ingredient Listing

Water, Glycolic Acid, Triethanolamine, Stearic Acid, Glyceryl Stearate, PEG-100 Stearate, Caprylic/Capric Triglyceride, Propylene Glycol, Isopropyl Palmitate, Cetyl Alcohol, Simmondsia Chinensis (Jojoba) Seed Oil, Dimethicone, Diazolidinyl Urea, Methylparaben, Propylparaben, Saponins.

# Exfoliator Forte

## Purpose

Specially formulated with a higher concentration of AHA, this Exfoliator aids in the removal of unwanted impurities, including dead skin cells, providing a soft and smooth texture feeling.

## Directions

Apply a thin layer to the skin once a day or as directed by a physician.

**WARNINGS:** For external use only. Avoid contact with the eyes. A mild burning sensation is to be expected. If burning is severe, discontinue use and consult a physician. KEEP OUT OF REACH OF CHILDREN.

Contains Alpha hydroxy acid that may increase sensitivity to the sun and the potential for sunburn.

Key Ingredients	Action in System
Ascorbic Acid	Form of vitamin C, acts as an antioxidant
Glycolic Acid	A natural exfoliant
Glyceryl Stearate	A fatty acid with emollient and lubricant properties
Stearic Acid	A fatty acid used as an emollient
Simmondsia Chinensis (Jojoba) Seed Oil	A natural emollient with moisturizing factors
Urea	Good water-binding and exfoliating properties

## Complete Ingredient Listing

Water, Glycolic Acid, Stearic Acid, Glyceryl Stearate, PEG-100 Stearate, Caprylic/Capric Triglyceride, Propylene Glycol, Triethanolamine, Isopropyl Palmitate, Cetyl Alcohol, Simmondsia Chinensis (Jojoba) Seed Oil, Dimethicone, Diazolidinyl Urea, Ascorbic Acid, Methylparaben, Propylparaben, Saponins.

# Sunscreen HQ SPF15

## Purpose

This product is PABA free and protects from UVA and UVB rays. It contains sunscreens and hydroquinone to help prevent darkening of the skin from recurring. This product is not intended for use to prevent sunburn. Indicated for the treatment of unwanted areas of melanin hyperpigmentation. Can be used on the face, neck or hands.

## Directions

Apply a thin layer to affected areas as needed, or as directed by a physician. If no improvement is seen after 2 to 3 months of treatment, use of this product should be discontinued. Lightening effect of this product may not be noticeable when used on very dark skin. Sun exposure should be limited by using a sunscreen, a sun block, or protective clothing to cover bleached skin when using and after using this product in order to prevent darkening from recurring.

Key Ingredients	Action in System
Ascorbic Acid (Vitamin C)	Form of Vitamin C, acts as an antioxidant
Hydroquinone	A compound known to successfully reduce the intensity of freckles, melasma, and general brown patching by inhibiting melanin production
Octinoxate	UVB protector, also known as octylmethoxycinnamate. Range = 280-310
Oxybenzone	UVA protector. Range = 270-350
Tocopheryl Acetate (Vitamin E)	Stable antioxidant

## Complete Ingredient Listing

**Active Ingredient:** Hydroquinone 4%, Octinoxate 7.5%, Oxybenzone 3.5%

**Other Ingredients:** Ascorbic Acid, Butylated Hydroxytoluene, Cetyl Alcohol, Edetate Disodium, Glycerin, Methylparaben, Propylparaben, Purified Water, Saponins, Sodium Lauryl Sulfate, Sodium Metabisulfite, Stearyl Alcohol, Tocopheryl Acetate (Vitamin E).

# Moisturizer

## Purpose

A moisturizing formula designed to hydrate the skin and help maintain the skin's own natural moisture.

## Directions

Apply liberally to face, neck and hands.

Key Ingredients	Action in System
Aloe Barbadensis Leaf Juice	Anti-irritant that provides a refreshing sensation
Glycerin	Derived from plants and acts as an emollient, slip agent, and humectant. Present in all natural lipids.
Glyceryl Stearate	A fatty acid with emollient and lubricant properties
Hydrolyzed Collagen	Gives skin structure and functions as a humectant, water binding agent
Mineral Oil	A natural clear, odorless oil. Non-allergenic, and can't become a solid and clog pores. Considered the safest, most nonirritating moisturizing ingredient. Also known to be efficacious in wound healing.
Proline	An amino acid with natural water binding properties
Sorbitol	A humectant, thickening agent, and slip agent

## Complete Ingredient Listing

Water, Glycerin, Glyceryl Stearate, Stearic Acid, Cetyl Alcohol, Phenyl Trimethicone, Mineral Oil, Aloe Barbadensis Leaf Juice, Ethylhexyl Palmitate, Sodium Lactate, Sodium PCA, Sorbitol, Hydrolyzed Collagen, Proline, Sodium Lauryl Sulfate, Triethanolamine, Methylparaben, Fragrance, Potassium Sorbate, Propylparaben, Saponins.

# Eye Cream

## Purpose

Helps reduce the appearance of fine lines and wrinkles.

## Directions

Cleanse face, then apply sparingly with moistened fingertips.

Key Ingredients	Action in System
Aloe Barbadensis Leaf Juice	Anti-irritant
Carthamus Tinctorius (Safflower) Seed Oil	An emollient, moisturizing, plant oil
Ethylhexyl Palmitate	Non-clogging fatty acid
Glycerin	Derived from plants and acts as an emollient, slip agent, and humectant
Glyceryl Stearate	A fatty acid with emollient and lubricant properties
Glycosaminoglycans Hydrolyzed	A natural component of skin tissue with water binding properties. Also known as mucopolysaccharides.
Hydrolyzed Collagen	Gives skin structure and functions as a humectant
Oryza Sativa (Rice Bran) Oil	An emollient, non-fragrant plant oil
Retinyl Palmitate (Vitamin A)	Strong antioxidant with anti-wrinkle properties
Sorbitol	A humectant, thickening agent, and slip agent
Stearic Acid	A fatty acid used as an emollient
Tocopheryl Acetate (Vitamin E)	Stable antioxidant

## Complete Ingredient Listing

Water, Aloe Barbadensis Leaf Juice, Ethylhexyl Palmitate, Petrolatum, Glycerin, Stearic Acid, Glyceryl Stearate, PEG- 100 Stearate, Carthamus Tinctorius (Safflower) Seed Oil, Oryza Sativa (Rice Bran) Oil, Sorbitol, Cetyl Alcohol, Sorbitan Stearate, PEG-40 Stearate, Sodium PCA, Lanolin Alcohol, Beeswax, Hydrolyzed Glycosaminoglycans, Dimethicone, Cyclomethicone, Dimethiconol, Hydrolyzed Collagen, Fragrance, Methylparaben, Propylparaben, Diazolidinyl Urea, Tocopheryl Acetate (Vitamin E), Retinyl Palmitate (Vitamin A), BHT, Saponins.

## Vitamin C Serum 5%

### Purpose

This serum is a potent antioxidant, designed to help minimize the damaging effects of free oxygen radicals.

### Directions

Apply 2 to 3 drops of the serum to desired areas. Massage with fingertips.

### Key Ingredients

### Action in System

Ascorbic Acid

Antioxidant

L-Ascorbic confirmation

### Complete Ingredient Listing

Propylene Glycol, Ethoxydiglycol, Ascorbic Acid, Ceteth – 20, Diglycerin, Fragrance.

**NOTE: Serum may appear cloudy if cold due to precipitation. Warm the bottle in your hands or run under lukewarm water to re-suspend the precipitates.**

## Vitamin C Serum 10%

### Purpose

This serum is a potent antioxidant, designed to help minimize the damaging effects of free oxygen radicals.

### Directions

Apply 2 to 3 drops of the serum to desired areas. Massage with fingertips.

### Key Ingredients

### Action in System

Acsorbic Acid L-Ascorbic confirmation	Antioxidant
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### Complete Ingredient Listing

Propylene Glycol, Ethoxydiglycol, Ascorbic Acid, Ceteth – 20, Diglycerin, Fragrance.

**NOTE: Serum may appear cloudy if cold due to precipitation. Warm the bottle in your hands or run under lukewarm water to re-suspend the precipitates.**

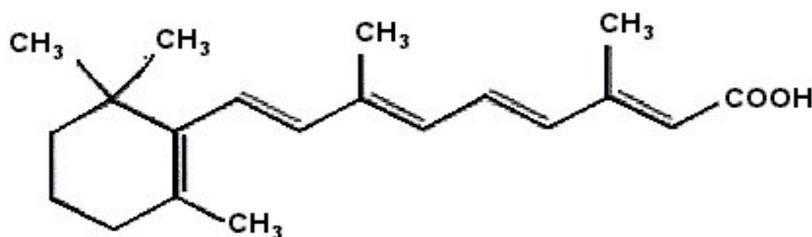
## Tretinoin Information

**Chemical name:** (all-E)-3,7-dimethyl-9-(2,6,6-trimethyl-1-cyclonexen-1-yl)-2,4,6,8-nonatetraenoic acid.

**Generic name:** Tretinoin or trans-retinoic acid.

**Brand names:** Renova®, a registered trademark of Ortho Pharmaceutical Corporation.  
Retin-A®, a registered trademark of Ortho Pharmaceutical Corporation.  
Avita®, a registered trademark of Bertek Pharmaceuticals Inc.

**Structure:**



**Discussion:** Introduced over 30 years ago, tretinoin has been used to treat acne vulgaris and more recently, the effects of photoaging. There have been numerous publications investigating the positive effects of tretinoin in the treatment of photodamaged skin<sup>1-11,13</sup>. The PDR has extensive information on tretinoin presented under each of the different prescription brand names.

In the August 1997 article *Separating the reality from the hype*, vol 102, no.2, postgraduate medicine, Albert M. Kligman, MD, PhD writes of "... topical tretinoin's ability to improve the appearance of photoaged skin by reducing wrinkles, decreasing laxity, bleaching hyperpigmented spots, and bringing about a smoother surface, a more uniform texture, and a rosy glow. Structural changes underlying these cosmetic benefits include correction of epidermal atrophy, deposition of new collagen, generation of new vessels (angiogenesis), and enhancement of mitogenesis (increasing cell turnover). Enhanced mitogenesis promotes shedding of melanin-laden keratinocytes, resulting in bleaching (depigmentation)." He goes on to say that, "Another capability of retinoids is evacuation of materials retained in dilated follicles, which the laity recognizes as large pores. Retained materials include bundles of vellus hairs and microcomedones consisting of horny impactions of corneocytes. Bacteria and yeasts heavily colonize these impactions, distending the orifices and giving the appearance of blackheads." When it comes to safety, Dr. Kligman says, "Safety is not a big issue with tretinoin. After decades of use, not a single instance of irreversible side effects, such as scarring, congenital malformations, or systemic abnormalities, has been recorded."

# Hydroquinone Information

**Chemical name:** 1,4-benzenediol

**Generic name:** Hydroquinone

**Selected brand names:** Lustra®, A registered trademark of Medicis  
Solaquin Forte®, a registered trademark of ICN  
Clear, Distributed by OMP  
EpiQuin™, a trademark of SkinMedica

Each gram of Dermesse Skin Lightener, Sunscreen HQ, and Balancer contain 40mg of Hydroquinone per gram of base.

**PHARMACOLOGY:** It has been well documented that the topical application of hydroquinone produces a reversible depigmentation of the skin by inhibition of the enzymatic oxidation of tyrosine to 3,4-dihydroxyphenylalanine (dopa) (Denton, C. et al., 1952)<sup>1</sup> and suppression of other melanocyte metabolic processes (Jimbow, K. et al., 1974)<sup>2</sup>.

The selective inhibition of the enzyme tyrosinase affects melanogenesis in the melanocytes resulting in cessation of melanin formation with the subsequent reduction in pigmentation.

NOTE:

- 1) Exposure to sunlight or ultraviolet light will cause repigmentation.
- 2) Test on a small area of the skin for sensitivity or possible allergic reaction.
- 3) The safety of topical Hydroquinone during pregnancy or in children 12 years or younger, has not been established.

Hydroquinone has the following structural formula:



**REFERENCES:**

1. Denton, C., A.B. Lerner and T.B. Fitzpatrick, "Inhibition of Melanin Formation by Chemical Agents," *Journal of Investigative Dermatology*, 18:119-135, 1952.
2. Jimbow, K., H. Obata, M. Pathak, and T.B. Fitzpatrick, "Mechanism of Depigmentation by Hydroquinone," *Journal of Investigative Dermatology*, 62:436-449, 1974.

### **III Approaches**

Five regimens are presented. The physician has the option of modifying any regimen or to customize a unique regimen to better address the degree of treatment required for a patient or to address the concerns of the patient as to their level of tolerance and their willingness to adhere to a specific regimen in light of social and professional commitments.

**Aggressive Regimen**

**Standard Regimen**

**Mild Regimen**

**Maintenance Regimen**

**Customized Regimen**

## Aggressive Regimen

The Aggressive Regimen provides maximum correction for patients with significant pigmentation problems and skin damage. Positive results are evident in patients with dark pigmentation spots, deep sun damaged skin, or patients exhibiting other unsightly aesthetic skin irregularities associated with aging.

The patient should be informed of the strength of the program and the potential side effects associated with the use of a high concentration of tretinoin.

NOTE: If the patient easily tolerates the tretinoin, any increase in either concentration or mixing percent (tretinoin to Dermesse™ Balancer) that will optimize the benefits of the program, should be evaluated by the physician.

### Benefits of the Aggressive Regimen

- Improves areas of deep skin damage
- Improves skin texture
- Reduces large pores
- Improves areas of pigmentation
- Creates an even skin tone
- Improves areas of scarring
- Regimen requires the shortest length of time for improvement

Daily steps	AM	PM	Comments
1 Cleanser	X	X	Two Cleanser exist Cream: Dry, sensitive skin Gel: Normal, oily skin
2 Toner	X	X	
3 Skin Lightener HQ	X	X	Use ½ to 1 gram
4 Exfoliator	X		Two strengths exist Exfoliator: Sensitive skin Exfoliator Forte: Thick or severely damaged skin
5 Balancer	X	X	Apply ½ gm of Balancer with 1 gm of Tretinoin
6 Sunscreen HQ	X		Apply in the morning as needed

Three 6 week cycles provide optimum results.  
The first 6 week cycle is the strongest reaction.

## Standard Regimen

The Standard Regimen is an effective yet patient tolerant program that is ideal for treating patients with minimal to moderate skin damage. Emphasis is on helping to eliminate fine lines and wrinkles, correcting skin color imperfections, and slowly building tolerance in the skin.

### Benefits of the Moderate Regimen

- Reduce pore size
- Create smooth skin
- Provide adequate hydration
- Improve skin tone and color
- Improve skin texture
- Repair minor sun damage
- Regimen provides a fast response

Daily steps	AM	PM	Comments
1 Cleanser	X	X	Two Cleanser exist Cream: Dry, sensitive skin Gel: Normal, oily skin
2 Toner	X	X	
3 Skin Lightener HQ	X	X	Use ½ to 1 gram
4 Exfoliator	X		Two strengths exist Exfoliator: Sensitive skin Exfoliator Forte: Thick or severely damaged skin
5 Balancer		X	Apply ½ gm of Balancer with ½ to 1gm of Tretinoin
6 Sunscreen HQ	X		Apply in the morning as needed

Three 6 week cycles provide optimum results.

## Mild Regimen

The Mild Regimen provides a slow and comfortable approach to skin health. The reaction is minimized resulting in reduced skin stimulation. The treatment program requires a longer time frame due to the gentle approach of the regimen. This regimen is effective for patients with thin or sensitive skin since it will allow the patient to build tolerance to the program and thereby eventually progress to a more intense regimen for added improvement.

### Benefits of the Mild Regimen

- Provides skin hydration
- Smooths rough areas
- Slight improvement in skin tone and color
- Minimal effect on sun damaged areas
- Minimizes clogged and enlarged pores
- Allows patient to build tolerance
- Effective in controlling acne breakouts

Daily steps	AM	PM	Comments
1 Cleanser	X	X	Two Cleanser exist Cream: Dry, sensitive skin Gel: Normal, oily skin
2 Toner	X	X	
3 Skin Lightener HQ	X	X	Use ½ to 1 gram
4 Exfoliator	X		Two strengths exist Exfoliator: Sensitive skin Exfoliator Forte: Thick or severely damaged skin
5 Balancer		X	Apply ½ gm of Balancer with ½ gm of Tretinoin
6 Sunscreen HQ	X		Apply in the morning as needed

Three 6 week cycles provide optimum results

## Maintenance Regimen

The Maintenance Regimen is to be implemented after completion of one of the treatment regimens. It is designed to allow the patient to maintain the improvements and benefits that they achieved during the treatment period.

Daily steps	AM	PM	Comments
1 Cleanser	X	X	Two Cleanser exist Cream: Dry, sensitive skin Gel: Normal, oily skin
2 Toner	X	X	
3 Skin Lightener HQ		X	2 times a week
4 Exfoliator	X		2 times a week Exfoliator: Sensitive skin Exfoliator Forte: Thick or severely damaged skin
5 Balancer	X	X	2 times a week
6 Sunscreen HQ	X		Apply in the morning as needed

## Customized Regimen

The physician has the option of creating an individualized treatment program for the patient to better address the patient's level of treatment and tolerance for the products.

The patient personal guide instructions sheet can be customized for this purpose.

Variables to consider in developing a customized program for an individual patient include but are not limited to:

- Determining the strength of tretinoin (0.025%, 0.05%, 0.1%).
- Adjusting the ratio of Balancer to Tretinoin. Combinations of ½ gm of Balancer to ½ gm to 1.5gm of tretinoin can be considered. No more than 1gm of tretinoin is recommended.
- Adjusting the amount of Skin Lightener from between ½ gm to 1 gm.
- Choosing the best Cleanser, or Exfoliator.
- Including or eliminating the use of the enhancing products.
- Adjusting daily requirements (once a day, twice a day, skipping days), especially at the beginning.
- Determining the amount of time for each skin cycle. Building up to the 6 weeks

**THE SUGGESTIONS LISTED ABOVE CAN ALSO BE INCORPORATED INTO ANY OF THE PREDEFINED REGIMENS (AGGRESSIVE, STANDARD, MILD, or MAINTENANCE).**

## **IV Charts and Forms**

**Fitzpatrick Skin Type Classification**

**Determining your Skin Type**

**Facial Profile**

## **Fitzpatrick Skin Type Classification**

### **Skin Type**

- I** Always burns, never tans. Extremely fair skin, blonde or red haired, freckled complexion, blue or green eyes. Example: Irish or Scottish.
- II** Always burns, tans minimally. Fair skinned, sandy to brown hair, blue, green, or brown eyes. Caucasian.
- III** Sometimes burns, tans gradually. Average skin, brown hair and brown eyes.
- IV** Burns minimally, always tans. Olive skin, brown or black hair, dark brown or black eyes. Caucasian, Mediterranean type.
- V** Rarely burns, tans well. Dark brown skin, black hair, black eyes. Middle Eastern, Hispanic, some African.
- VI** Never burns, deeply pigmented. Black skin, black hair, black eyes. African.

## DETERMINING YOUR SKIN TYPE

Skin type is determined genetically and is one of the many aspects of overall appearance. Genetics also determines the eye color, hair color, and the way skin pigments react to light. The way your skin reacts to sun exposure is important in correctly assessing your skin type. Recent tanning such as sun bathing, or artificial tanning such as tanning creams affect the evaluation of your skin color.

### Genetic Disposition

	0	1	2	3	4	Score
What color are your eyes?	Light blue, Gray, Green	Blue, Gray or Green	Blue	Dark Brown	Brownish Black	
What is the natural color of your hair?	Sandy Red	Blond	Chestnut/DarkBlond	Dark Brown	Black	
What color is your skin (non-exposed areas)?	Reddish	Very pale	Pale with Beige tint	Light Brown	Dark Brown	
Do you have freckles on unexposed areas?	Many	Several	Few	Incidental	None	
<b>Genetic Disposition Total</b>						

### Reaction to Sun Exposure

	0	1	2	3	4	Score
What happens when you stay too long in the sun?	Painful redness, blistering, peeling	Blistering followed by peeling	Burns sometimes followed by peeling	Rare burns	Never had burns	
To what degree do you turn brown?	Hardly or not at all	Light color tan	Reasonable tan	Tan very easy	Turn dark brown quickly	
Do you turn brown with several hours of sun exposure?	Never	Seldom	Sometimes	Often	Always	
How does your face react to the sun?	Very sensitive	Sensitive	Normal	Very resistant	Never had a problem	
<b>Reaction to Sun Exposure Total</b>						

### Tanning Habits

	1	2	3	4	5	Score
When did you last expose your body to sun (or artificial sunlamp/tanning cream)	More than 3 months ago	2-3 months ago	1-2 months ago	Less than a month ago	Less than 2 weeks ago	
Did you expose the area to be treated to the sun?	Never	Hardly ever	Sometimes	Often	Always	
<b>Tanning Habits Total</b>						

Add up the total scores for each of the three sections for your Skin Type Score. This will give you a better evaluation of your skin type.

Summary	
<b>Total for Genetic Disposition</b>	
<b>Total for Reaction to Sun Exposure</b>	
<b>Total for Tanning Habits</b>	
<b>Skin Type Score</b>	

### Your Fitzpatrick Skin Type

Skin Type Score	Fitzpatrick Skin Type
<b>0-7</b>	<b>I</b>
<b>8-16</b>	<b>II</b>
<b>17-25</b>	<b>III</b>
<b>25-30</b>	<b>IV</b>
<b>Over 30</b>	<b>V-VI</b>

name \_\_\_\_\_ date \_\_\_\_\_

physician \_\_\_\_\_ phone \_\_\_\_\_



forehead:

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eyes:

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cheeks:

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mouth / lip / chin:

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notes:

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## V Corporate Policies

**Ordering:** Please fax orders to 760-931-8266 or call Customer Service at 866-494-4466.

**Customer Service:** To place an order, inquire about the status of an order, or to talk to a Customer Service Representative please call 866-494-4466.

**Payment Terms:** Net 30 days upon credit approval.

**Past Due:** Shipments will be held on delinquent accounts past 45 days. There is a 2.5% finance charge on unpaid invoices after 30 days.

**Returns:** Must obtain a Return Goods Authorization (RGA) number from Axia. A 25% restocking fee will be charged. Credit will be issued once the product is received at the Axia warehouse.

**Insurance:** all merchandise is covered under the product liability insurance.

**Guarantee:** All products are guaranteed to be in compliance with the Food, Drug, and Cosmetic Act to meet or exceed all applicable USA Federal and State regulations.

**Conditions of Sale:** As a condition of the sale of the Company's products to a medical professional (Customer), the Customer agrees to be bound to the following conditions:

- The products will be made available only to the Customers patients for their use only, at the Customers office, spa, clinic, or other location where patients are treated. Products will not be sold to a third party for resale.
- The products can be advertised by the Customer through print advertisements, direct mailings, in-office promotional, or web-site listings.
- Web-site sales are **prohibited**.
- Pricing to the patient will be within 5% of the Company's suggested retail price.

In the event any of the above stated conditions are not adhered to, the Company has the right to discontinue sales of the products to the Customer.

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Carlsbad, CA 92011  
866-494-4466**