How To Wave Goodbye To Overpriced, Dangerous & Useless Skin Care Products
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Table Of Contents

* List of Recipes
* IMPORTANT: Membership Area
* Due Diligence = Critical!
* Chapter 1: Welcome To The Murky, Confusing and Frustrating World Of Safe Skin Care
* Chapter 2: Why, Oh Why, Does Our Skin Deteriorate?
* Chapter 3: A Peek Into Your Cosmetic Jar
* Chapter 4: The Layers Of Your Skin
* Chapter 5: Cleaning Your Skin
* Chapter 6: Exfoliating Your Skin
* Chapter 7: Skin Stimulation And Protection
* Glossary of Natural Skin Care Terminology
List of Recipes

Safe Cleanser #1
Safe Cleanser #2
Liquid Skin Cleanser #3
Occasional Amazing Cleanser #4
Toner #1: Witch Hazel
Toner #2: Pine
Toner #3: Good Ole’ Vinegar
Sugar Scrub Recipe
#1: Basic Beeswax Cream
#2: Even Richer Beeswax Cream
#3: Basic Body Lotion
#4: Five Oil Skin Cream
Vitamin C Serum Or Gel #1
Vitamin C Serum #2
Carnosine Cream
Carnosine Gel
Vitamin A Cream
Hyaluronic Acid Cream
Vitamin E Cream
Lycopene Cream
Alpha Lipoic Acid Cream
Niacinamide Cream
Oat Beta Glucan Cream
Green Tea Cream
CoQ10/Ubiquinol Cream
CoQ10 & Vitamin E Cream
Idebenone E Cream
Multiple Ingredient Anti-Aging Cream #1
Multiple Ingredient Anti-Aging Cream #2
We have a password protected area on BlissPlan that is just for buyers of our natural skin care product information. It lists ingredient sources, tips, etc.

http://blissplan.com/diy-beauty

Password: beautiful-me

If you have anything you would like to share, please don't be a stranger! Let us know and we'll post it in the member area.

This is just for YOU so please don't share with others.
Due Diligence = Critical!

Don't be fooled by advertising. Just because a website or store claims they're all about natural beauty doesn't necessarily mean it's true.

Here's a great example. This is a "base cream" from the Personal Formulator site which is listed in the sources section of the private member area and the owner makes the point that it's uncolored and unscented, which is good, of course. [http://www.personalformulator.com/wvss/product_info.php?products_id=528]

Sadly, it's pretty awful!!!

**Everyday Cream Base**

[40209EC]

Here are the ingredients: Water (Aqua), Carthamus Tinctorius (Safflower) Seed Oil, Propylene Glycol, Isopropyl Palmitate, Glyceryl Stearate, PEG-100 Stearate, Ceteareth-20, Cetearyl Alcohol, Stearic Acid, Myristyl Myristate, Carbomer, Dimethicone, Triethanolamine, Methylparaben, Propylparaben, DMDM Hydantoin, Iodopropynyl Butylcarbamate, Tetrasodium EDTA

Here are the **HEALTHY** ingredients in the formula above: Water (Aqua), Carthamus Tinctorius (Safflower) Seed Oil, Propylene Glycol, Isopropyl Palmitate, Glyceryl Stearate, PEG-100 Stearate, Ceteareth-20, Cetearyl Alcohol, Stearic Acid, Myristyl Myristate, Carbomer, Dimethicone, Triethanolamine, Methylparaben, Propylparaben, DMDM Hydantoin, Iodopropynyl Butylcarbamate, Tetrasodium EDTA

**In other words ... forget this stuff!!!**

So why did we leave this site in our list of sources? It's because they do have some interesting and valuable goodies - just not this stuff.
Here's another example of how we have to tiptoe through the minefield of natural skin care because this site makes a big deal our of being 'natural':


Ingredients: Water, hemp oil, propylene glycol, stearic acid, cetyl alcohol, glyceryl stearate, extracts of avocado, chamomile, lavender, sage and witch hazel, dimethicone, allantoin, carbomer, methylparaben, disodium edta, triethanolamine, imidazolidinyl urea, propyl paraben, aloevera, and vitamin e = again, it's loaded with dangerous chemicals although it's not as bad as the first one.

It's easy to find lots of examples just from your Internet browser but these two make the point: we MUST do our own due diligence.

"How do I know if a ingredient is healthy?"

There is a booklet included in your package of skincare information that's called "Dangerous Chemicals You Never Want On Your Face". Just refer to it whenever you have a question. It includes the most common skin additives and lists sources to find uncommon ones.

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About Base Cream

"What is a base cream?"

A good base cream is very valuable because you can use it as the base for all your skin care products. All you have to do is add the ingredients mentioned in all the formulas in this book. It's a great time saver.

"Since most of them are so awful, what should I use?"

Above all else, it should have natural ingredients. And it's even better if it's inexpensive. So here are three examples of creams I've used.
Here are the ingredients: Distilled Water, Aloe Vera Leaf Juice, Sunflower Seed Oil, JoJoba Oil, Meadowfoam Seed Oil, Stearic Acid, Soy Oil, Cetyl Alcohol, Emulsifying Wax, Vegetable Glycerin, Palmitic Acid, Vitamin E, Potassium Sorbate, Vitamin C, Citric Acid, Germall Plus

I’m not too thrilled about the cetyl alcohol but otherwise it’s pretty good. And the price is ... drum roll ... only $7.95 for a pound (at the time of this writing). Wow, that is incredibly cheap. [http://www.naturesbouquet.com/body-lotion-hand-lotion.htm]

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Egyptian Magic Cream is all natural: olive oil, bees wax, honey, bee pollen, royal jelly, bee propolis

If you have any allergies to bees, obviously it won't work. But if you don't, you can buy this cream on Amazon, eBay or lots of other shopping sites, as well as the home site, egyptianmagic.com. It costs much more than the cream above, though.

CAUTION: there are Chinese copies of Egyptian Magic and heaven only knows what's in it so be sure to choose a reputable source.

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Another possibility is to make your own which I have done many times. There's a
wonderful basic cream recipe on page 54 of this book. And it's ...

Simple. Cheap. Easy. And totally natural!
Chapter 1: Welcome To The Murky, Confusing & Frustrating World Of Safe Skin Care!
What do you want in a skin care product?

I'm sure it's exactly what I want. We want products that are:

1. Effective
2. Safe and healthy
3. Affordable - meaning we don't have to take out a second mortgage to pay for them

When I set out to find products that meet those qualifications, I thought it would be fairly easy.

WRONGO!

"Hey, why do you say they aren't safe? All my skin products are well known brands from national companies."

Can you look at this list and guess what it has in common?
Yes, that's right. There are many skin care products on the market that have those ingredients in them!

According to the Food & Drug Administration [FDA], the US governmental agency who should be overseeing these concoctions, these are raw materials actually used in certain beauty products.

**TRUTH**: Major manufacturers are selling skin care products that may be effective - but in no way are they safe! And there's no question that they know this.

**TRUTH**: Don't assume the word "natural" means safe. It might but don't count on it.

**TRUTH**: Even people who SAY they're concerned about safety either don't know what they're talking about - or don't care. For instance, here's a recipe I found on a "safe cosmetics" site:

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**Homemade Vitamin C Serum**

- 1/4 teaspoon of Lysorbic Acid (Vitamin C) powder or crystals
- 5 ml distilled water
- 5 ml of propylene glycol
- small amber or dark blue glass bottle

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Sounds OK unless you know your ingredients ... in this case propylene glycol which is strong enough to remove barnacles from boats! The Environmental Protection Agency [EPA] considers PG so toxic that it requires workers to wear protective gloves, clothing and goggles and to dispose of any PG solutions. Because propylene glycol penetrates the skin so quickly, the EPA warns against skin contact to prevent awful consequences such as brain, liver, and kidney damage.

Does that sound like something you want on YOUR face?

**The Truth About the FDA**

If you live in the US and you're expecting the FDA to guarantee your safety, forget it. Cosmetic products and ingredients are not subject to FDA pre-market approval authority, with the exception of color additives.

So who is responsible for ensuring the safety of skincare products?

The cosmetic manufacturers! Isn't that a hoot? Sort of like the prisoners running the penitentiary. And if you don't live in the US, don't assume your situation is any different. It isn't. Beauty companies can promise almost anything they like and get away with it. And sell it at an astronomical price.

**Maybe They Aren't THAT Dangerous?**

Perhaps a small amount of chemical in a single skin care product wouldn't be too worrisome. But think about this ...

* Every human being in a first world country is exposed to multiple chemicals every single day.

* Not only are there gigantic numbers of chemicals, but we have literally no idea how they react with each other.
* Further, throw all of these nasties into an oven - a biological oven that 'cooks' at 98.6 degrees (like YOUR body) - and who knows what will happen?

* And, some of these additives are simply terrifying.

Example: I was recently at a Home Depot looking for some liquid cement or super glue. On the back of one package was a label that said, "Warning: POISON". The chemical referred to toluene and the directions warned me not to allow any of this stuff to touch my skin. Well, guess what? Toluene appears in many cosmetics and unsuspecting customers are Liberally applying it to the delicate skin on their face!

There's a law firm advertising for clients in a lawsuit against toluene usage [http://www.weitzlux.com/Toluene/exposure/lawsuit/information_4262.html] yet ... "The safety of Toluene has been assessed by the Cosmetic Ingredient Review (CIR) Expert Panel. The CIR Expert Panel evaluated all available scientific data and concluded that Toluene is safe as a cosmetic ingredient."

As we shall see, some of these chemicals are linked to cancer, birth defects and other serious health problems that are on the rise in the human population. Major loopholes in federal law allow the $35 billion cosmetics industry to put unlimited amounts of chemicals into personal care products with no required testing, no monitoring of health effects, and inadequate labeling requirements.

According to the FDA, only eight ingredients are banned from cosmetics in the United States. The European Union has banned more than 1,000.

We just don't know what effects these products have, long-term. But testing would require millions of dollars, and lots of time, which beauty care companies simply don't have in an age that thrives on
introducing a new product every few months.

Women and men haven't been taught to read beauty labels ... until now. Hopefully a "label revolution" is on the way: just as women have been taught how to read food labels and make wise choices, women will begin to look more closely at the ingredients in their beauty products.

A few years ago, trans fats were in thousands of grocery items. Scientists knew how dangerous these were to our health, but they were cheap fats with a long shelf life, so the food industry kept using them. As the public educated themselves, demand for products that were "trans fat free" began to capture the attention of manufacturers. If they wanted to sell their products, they had to remove the trans fats. Today, companies must clearly label the amount of trans fat in every product and hopefully that will occur in the skin care industry, too.

**Chemicals Doing Double Duty**

Even in familiar, trusted brands, we simply don't know what we're really using. The simplest of products can contain an enormous number of chemicals. These chemicals aren't just used in cosmetics, either and skin care products - they have double lives. My former "gentle" eye makeup remover contains chemicals also found in antifreeze, pesticide, toilet bowl cleaner, furniture stripper, tire cleaner and gas treatments.

**Noxzema**

Noxzema has been around for 100+ years and most of us know it - many of us have used it. And honestly, it's one of the better creams - "better" in the sense that it has less chemicals than most.
**Ingredients:**
* Water
* **Stearic Acid:** stearic acid is prepared by treating animal fat with water at a high pressure and temperature & it's used in plastics, when making plaster casting and for softening rubber. In skin care products it's neutralized with **triethanolamine** which has been implicated in cancer, endocrine disruption and irritation of the eyes, lungs and skin!
  * Linseed Oil
  * Soybean Oil
  * Fragrance
* **Ammonium Hydroxide:** is a known **carcinogen** and damages the organs of animals, and thus we must raise questions about its safety for humans.
  * Camphor,
  * Menthol
  * Eucalyptus Oil
* **Propylene Glycol:** this is a truly terrible product. In our list of really dangerous additives, we discuss propylene glycol at length.
  * Gelatin
* **Calcium Hydroxide:** this is a fairly low-level risk, but has nonetheless been implicated in cancer and organ system toxicity.

And Noxzema is one of the BETTER ones!

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"ENRICHED WITH COLLAGEN"

As we will see, preserving and aiding collagen in the skin is one of the keys to gorgeous skin, so it sounds really great to have skin care products enriched with collagen, doesn't it?

There are currently twenty-five facilities in the United States that convert **slaughterhouse waste** into raw materials for cosmetics. But getting information about the waste is difficult at best. If you see any of these ingredients on the label, you won't know if they came from slaughterhouse waste or were synthetically created. Many of the manufacturers don't even know. The companies that supply raw materials to the company may not divulge that information. Your best bet is to look for labels that say "No Animal By-Products," or "100
Percent Vegan" - or even better ... make your own skincare products!

Whatever you apply on the skin can be absorbed into the body. Nicotine and birth control patches work on this principle. Applying beauty products may allow any ingredient to be absorbed into your skin and your bloodstream. Many beauty products are specifically engineered to penetrate the skin's barrier to deliver the chemicals and create "results".
Chapter 2: Why, Oh Why, Does Our Skin Deteriorate?
"Healthy skin is clear, luminous and beautiful."

Most folks don't realize that our skin is literally an organ of our body. And obviously, it's unique because it's the only organ we can actually see. Our skin accounts for about 15% of our body weight and every square inch contains 65 hairs, 100 oil glands, 650 sweat glands, 78 yards of nerves and 19 yards of blood vessels. Wow! It's a complicated system, for sure.

Our skin is our "envelope" and in our over-polluted, chemical-laden world it is under constant attack by outside and inside forces. Inside, the main forces that destroy the beauty and integrity of our skin are:

- Inflammation
- Free radicals
- Lack of water
- Excessive sun

We will discuss each of these problems in detail - and each one of them has at least a partial answer. But our first job is to understand the problems we face if we want gorgeous skin.

From the outside, our skin is assaulted by:

- The effect of the sun
- Pollution of every kind
- Agents that cause inflammation
- Free radicals in the atmosphere
*Toxic chemicals*

The job of every human who cares about their skin is to:

1) Repair damage as much as we can...
2) Protect what we have ...
3) Delay inevitable aging ...

Every day we need ...

+ **Antioxidants** to disarm free radicals, which ultimately damage the cell membrane and cause it to lose water ...
+ **Anti-inflammatory agents** to reduce inflammation, which releases free radicals that damage cellular structures and cause water loss
+ **"Hydrophobic" ingredients** - these prevent water loss from all cells and maintain the skin's barrier
+ **Collagen builders**

And that's exactly what you will learn to create for yourself!
Chapter 3: A Peek Into Your Cosmetic Jar
Ingredients in skin care products are not equal. Every product - EVERY product - contains both active & inactive components.

**ACTIVE INGREDIENTS**: these are the magical ones that actually affect your skin. Any decent skin care product will contain at least one active ingredient.

**INACTIVE INGREDIENTS**: these are the 'base' of the product that make it smooth or not, oily or not, creamy or not. They don't have much effect on your skin ... EXCEPT FOR THE DEADLY CHEMICALS that are used in most products.

**IT IS TEMPTING** ...

It's tempting to put multiple active ingredients in one product - but be cautious.

1. There are several reasons but the most important is YOU - your face is different from mine and every one else's on the planet. You absolutely **must find out what works for you**. If there are multiple active ingredients in one jar, you absolutely won't know which ones are working - and which ones are not.

2. Further, sometimes chemicals **interact** with each other in ways that aren't favorable to your skin. This can make them ineffective, or even damaging to your delicate skin.

3. Also, some ingredients only work in very high concentrations and it might not be possible to accommodate multiple ingredients into one cream, lotion or serum.
Chapter 4: The Layers Of Your Skin
You might not know much about your skin. In fact, you might not care much about your skin - except for how it looks. But if we don't understand our skin and how it works then we won't be able to make good decisions about the correct products for the dewy, smooth, young-looking skin we all want to display to the world.

So, please bear with me just a bit and I'll make this as short and painless as possible ...

**ON TOP: THE EPIDERMIS**

At the top is a layer of dead skin cells that is known as the stratum corneum. This skin barrier is incredibly tiny, being about 1/10th the thickness of a piece of paper. At birth, these cells are thick and juicy, bursting with health, vitality and water.

The epidermis has been compared to a brick and mortar wall and this is an appropriate description.

Each 'brick' is a dead skin cell and the 'mortar' is made of lipids. Lipids are "fat soluble molecules". Yawn. But the importance of lipids on top of our skin becomes apparent when we realize that they have two vital functions:
1. Keep our moisture in ...
2. Keep nasties out ...

Obviously, the more moisture in our skin cells, the plumper, smoother and more "dewy" they will appear, which is exactly what we want.

**PROBLEMS IN THE EPIDERMIS**

Over time, two breakdowns in the epidermis contribute to the degeneration of our skin.

1. The dead skin cells, the bricks, start to pile up and up and up as they get thicker and thicker. This makes our skin look **dull and rough**. Touch a newborn's skin and yours and notice the difference in texture. These epidermal cells constantly renew themselves. When we're young, every 30 days or so we have a new set. But this process slows down over time until it takes about 60 days on average. They tend to pile up and become more and more dry, resulting in the dull looking skin we all dread and despise.

This is why **exfoliating the skin is so important**. Exfoliation **breaks down the layers of dead skin to reveal the live skin underneath**.

2. The lipids themselves diminish and the result is that **interior moisture escapes and intruders stroll casually in**. The stratum corneum contains three types of lipids - ceramides, cholesterol and free fatty acids and ceramides account for about half of the lipids in this outermost layer. This is why so many skin care companies focus on these fats, especially ceramides, and why we need to care as well.

The condition of epidermis determines how **"fresh"** your skin looks and also how well your skin absorbs and holds moisture. **Wrinkles**, however, are formed in lower layers.
The Dermis

Right beneath the epidermis is the dermis which is mostly fluid and fibers. The two main fibers are collagen and elastin and they form a tight mesh in youthful skin.

They are critically important because collagen is responsible for the structural support and elastin for the resilience of your skin.

When we're young, our dermis has lots of collagen and elastin and our skin looks smooth and plump. But as we age, we produce less collagen and elastin, and what we do have declines in quality. Thus, exactly what we don't want - less fill and support. Our skin loses its ability to spring back into shape.

Free Radicals and the Destruction of Collagen & Elastin

Do you breathe?

Silly though that question sounds, the reason for asking it is that you can be certain that you have free radicals in your body right now. Free radicals have become a terrorist today and you can find frequent references to the danger of free radicals in today's literature. But they're a by-product of oxidation or burning oxygen in our cells. Without free radicals, we couldn't exist.

The problem, of course, is when we have too many free radicals. When that happens, they attack the protein in collagen and elastin,
leading to sagging and wrinkles. Without going all technical, free radicals "steal" an electron from other atoms - like our collage and elastin friends - and they don't like it! They're weaker once they're mugged this way (no wonder).

THE CAUSES OF FREE RADICALS?

The #1 cause is ultraviolet rays - alias sun damage.

Breathing in air pollutants causes massive amounts of free radicals.

And so does smoking...

Alcohol is a huge no-no!

The constant bombardment in our clothing, food supply, etc., causes them to form.
That's where **antioxidants** come in. They neutralize free radicals and get them out of our bodies - exactly what we want. So we'll be talking a LOT about free radicals and we have numerous ways to minimize their nasty effects. Yee-ha!

Wrinkling of the facial skin, then, is the result of a combination of factors - the slowing down of epidermal renewal because of the breakdown of collagen and elastin when under attack by free radicals.

Wrinkles develop in the dermis when our fibrous production declines. In effect we have a fissure or groove, much like a canyon. These 'canyons' can be greatly accelerated by the sun [the scientific term for the deterioration of the fibers is "solar elastosis", meaning that the damage is sun induced.]

In our younger years, our dermis includes a large amount of **hyaluronic acid**. Hyaluronic acid is like a **sponge** in that it retains internal water, making the skin look plump and healthy. You won't be surprised to learn that this hyaluronic acid supply declines over the years.
From the explanation above, it's easy to see what substances need our attention for great looking skin:

1) Collagen
2) Elastin
3) Hyaluronic acid
4) And water, which is covered in a separate report

**WHAT SKIN CARE PRODUCTS CAN DO FOR THE HEALTH & APPEARANCE OF OUR SKIN**

So it becomes clear what skin care products MUST do if they're going to help our skin improve its appearance - AND health:

1) Reduce the thickness of the cells of the stratum corneum (the dead skin-cell layer)

2) Build the epidermis by improving the quality and amount of our:
* Collagen
* Elastin
* Hyaluronic acid
Chapter 5: Cleaning Your Skin
THE VITAL IMPORTANCE OF PROPERLY CLEANING YOUR SKIN

There is really only one "rule" for cleaning your skin ...

If you're an adult - even a young adult - **don't use soap**! It's too harsh and drying. An old wives saying is "Soap should only touch our body from the neck down". Those old wives were smart.

Even the best and most 'natural' soap isn't good for our skin and I ought to know because I used it for years. **It was soap damage that propelled me into making my own skin care products so don't repeat my mistake.**

Another "no-no" is **alcohol**. Alcohol is incredibly drying to the skin which is obviously not what we want.

Today, the buzzwords are "**alpha hydroxy acid**" and "**beta-hydroxy acid**". These are interesting products and we'll get to them. But since cleansing products are rinsed off quickly, the only real qualification is that your skin feels **soft and comfortable** – and never dry, tight or "scratchy".

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**Most cleaners contain 3 kinds of ingredients:**

1. **OIL:** the function of oil is to remove other oils ...

2. **SURFACANTS:** there are fancy chemicals definitions for surfacants that are confusing and unnecessary - it's enough to say that surfacants loosen dirt from the skin's surface so that it can be washed away ...

3. **WATER:** washes away the gunk mentioned above ...
WATER FOR YOUR SKIN

Use **warm – never hot** – water to loosen the gunk on your face. Then use a dab of cleaner. Run it over your face for about 20-30 seconds, rinse it off and **pat** (don't rub) your face dry.

WHAT DO I USE TO CLEAN MY SKIN?

The sad truth is that most affordable cleaners have questionable ingredients in them. and most of the expensive cleaners have the same ingredients.

Regardless, **there is no reason at all to pay high prices since the cleanser is washed off your face in less than a minute.** These silly examples below are a **big waste of your money**!

```
Tracie Martyn Amla Purifying Cleanser
The Skin Clarifying Concentrate that deep cleans skin; "washing away" fine lines and wrinkles.

$ 65.00 x 1 = $ 65.00

Delete item
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Tracie Martyn cleanser = $65
If you're going to use a cleanser that isn't 100% healthy for your skin, then you might as well use Noxzema or Cetaphil [which sells at my local Walmart for less than $10 for 16 ounces and will last for a long time].

I am obsessed with natural products but the actual cleanser is the least important product.
If you'd like to make your own cleansers, here are a couple you can whip up. Be aware that **the first two cannot be made far in advance since the ingredients need to be refrigerated**.

**Safe Cleanser #1**

**Ingredients:**
1 teaspoon honey
1 teaspoon yogurt

**Directions:**
Mix together and rub on massage on your face, then rinse with warm water.

**Safe Cleanser #2**

**Ingredients:**
1 teaspoon yogurt
1/2 teaspoon mayonnaise
1/2 teaspoon oatmeal

**Directions:**
Grind the oatmeal in a food processor until it's more like flour than oatmeal. Mix with the other ingredients, massage into face and rinse.
Safe Cleanser #3

Ingredients:
1/4 cup honey
1 Tablespoon liquid soap
1/2 cup glycerin

Directions:
Mix the three ingredients and put onto a soft damp cloth or face sponge and rub it gently into your skin. Rinse thoroughly.

A note about glycerin: if you decide to use glycerin in your skin care products make sure it is plant glycerin and not animal glycerin.

Occasional Amazing Cleanser #4

Perhaps once per week, or when time allows, make your own homemade alpha hydroxy acid (AHA) cleanser. AHAs naturally occur in fruit. Yes, ordinary fruit that we get at the market will make a gorgeous cleanser. All you have to do is puree or mash one of these: papayas, pineapples, oranges, lemons, limes, grapefruits, or apples with sugar cane. You can puree or mash any combination of these and mix it with milk for a mask that can be left on for up to 30 minutes. My skin feels absolutely marvelous when I take
Did you know that Cleopatra, one of the most famous beauties in history, supposedly swore that her big beauty secret was milk. Cleo used goats milk rather than cows milk and one reason is that goats milk has a higher concentration of fat than cows milk. [I also suspect that cows were in short supply in ancient Egypt].

A friend of mine uses powdered goat milk and swears by it but I have not personally tried it.

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**An Extra Tip If You Have Clogged Pores**

When my daughter went through an acne phase in her teenage years, she was a huge fan of Biore strips. The description for these states: "This weekly pore refining treatment for the nose area instantly removes pore-clogging dirt, oil and blackheads. In just one use, Biore Deep Cleansing Pore Strips are twice as effective as the leading pore cleanser at getting rid of pore-clogging build-up and blackheads. Helps reduce the appearance of pores with regular use. For best results, do not use more often than once every three days."

I read about the 'pore-unclogging' power of baking soda so she experimented with putting the soda in water or in cleansers - her favorite was Cetaphil. She swore that the baking soda ~ Cetaphil combination was much more effective than Biore strips, plus it was gentler to her skin. Don't rub too hard, though.
DO I NEED A TONER?

The need for toner is a question of great controversy with "experts" on both sides vehemently arguing both sides of the question.

The only point on which both sides agree is that those of us with oily skin can most likely benefit from the use of the toner whereas for the rest of us it's more questionable.

The purpose of a toner is to pick up any gunk left over from using your cleanser. In my view the sensible way to decide this for your skin is, as always, to test. Use your cleanser and then run cotton over your face to see if any left over 'stuff' appears. Yes it's true that no researcher would be happy with such an unscientific test but it's good enough for our purposes.

Or, use toner for a while then go without it and let your face determine whether it's happier with or without it.

One argument in favor of toner is that it "closes" our pores but I have to question whether or not that's a good thing? Since the point of our skincare products is to stimulate, build and repair our skin after using the toner, aren't we defeating the purpose?

If you would like to make your own inexpensive and healthy toner here are three recipes you can use.

**Toner #1: Witch Hazel**

The easiest possible toner is pure witch hazel. Most witch hazels on the market contains 14-15% alcohol. Alcohol is drying and should be avoided.
Toner #2: Pine

I found this recipe in a book years ago and am madly in love with it. It reminds me of Christmas.

**Ingredients:**
- 2 cups fresh pine needles
- 1 cup good water
- 1/2 cup pure witch hazel
- Essential oil of your choice {optional}

**Directions:**
Mix the pine needles with the water and simmer then gently until the pine needles lose their green color and turn 'brownish'. Let the water cool and strain our the needles and discard them. Now, add the witch hazel and a few drops of essential oil. The essential oil is for those who really dislike the smell of witch hazel because the oil can cover up the smell. Personally, I rarely bother with the essential oil since I like the smell, but that's an individual choice.

Toner #3: Good Ole' Vinegar

**Ingredients:**
- 2 cups good water
- 1/4 cups apple cider vinegar
10 drops favorite essential oil

**Directions:**
Mix together and apply with a cotton ball.
Chapter 6: Exfoliating Your Skin
As we saw earlier, one of the main causes of less-than-gorgeous skin is that dead skin cells pile up on the epidermis or the top layer of the skin. Unless these dead cells are removed, our skin will never look its best. So we need to **exfoliate once or twice each week – but no more often than every three days**. Yes, exfoliation is important but it's easy to overdo it.

Obviously, we naturally exfoliate or our skin that would grow so thick that we just might resemble **reptiles**. In fact, I seriously question whether younger people have to exfoliate at all. However this natural ability becomes less efficient as we age and from the 40's onward, we need to give Mother Nature a hand.

![Aren't I a handsome fellow?](image)

**4 More Reasons Why We Might Need Periodic Exfoliation**

#1. It would seem logical that exfoliating our skin would thin it, wear it down, but in fact it has the opposite effect [yeah!]. Actually, our skin grows **thicker** and **the thicker it is, the fewer wrinkles we will have**.

#2. We've mentioned removing dead cells and how this alone will improve our appearance, but removing this "roof" of dead skin cells will also **allow our skincare products to penetrate more deeply**
into our skin.

#3. Exfoliation may stimulate the natural ability of our skin to produce collagen. **Building collagen from within will always be more powerful than adding it from without.**

#4. Clogged pores can, and will, often turn into small bumps beneath our skin and exfoliation either helps to open up those pores or to prevent them from clogging in the first place.

**HYDROXY ACIDS AS EXFOLIATORS**

The most popular exfoliators on the market today are **alpha hydroxy acids** [AHAs]. The most common are **lactic acid** [from milk], **glycolic acid** [from sugarcane] and **citric acid** [from citrus fruit].

**THREE REASONS TO CONSIDER AHAS**

#1. These acids have the ability to "unglue" the dead skin cells from the epidermis, thus exposing the live cells so that new skin cells can grow.

#2. It is even possible that alpha hydroxy acids may stimulate the body's production of elastin and collagen, exactly what we need for beautiful skin.

#3. Glycolic acid, especially, has the ability to pull moisture into newly exfoliated skin.

===================================================================

SOMETHING TO THINK ABOUT: AHAs have been used for centuries as beauty products but, naturally, there is a synthetic version that is used for such disconcerting purposes as removing rust!
These synthetic alpha hydroxy acids are usually used at 70% concentration and thus are considered a hazardous material. In fact, the US government has labeled any concentration over 10% as dangerous, yet 8-10% is the concentration that experts claim is necessary to have any effect on our skin.

A FIERCE DEBATE OVER THE SAFETY OF AHA EXFOLIATORS

Glycolic acid and other AHA exfoliators can be extremely irritating to the skin, but nevertheless, glycolic acid in particular is very popular for use in a exfoliator pads.

Skin 'gurus' like Dr. Denise insist that unless these pads "sting" they are not doing our skin any good. But we have to ask whether being stung by acid truly is a good idea? Pain and discomfort are signals from the body, telling us that it is not happy, so caution is required.

There are also symptoms of irritation which include redness, burning, itching and even scarring.

My personal experience was unfortunate. I used these pads for several weeks – and suddenly my skin became red, swollen and irritated, all symptoms of inflammation. So if you decide to use alpha hydroxy acids as exfoliants, allow your skin to tell you whether it likes them or not.

There is no danger from using alpha hydroxy acids from fruit– it is only the synthetic AHAs which are questionable. This is not a one-size-fits-all but a personal decision.

NOTE: you will often see these ingredients listed as individual acids, such as "glycolic acid", etc.
Making Your Own AHA Pads

There is no reason to pay high prices for these pads when you can make them inexpensively at home. And, it's a lot safer to make your own because the danger of your skin becoming irritated and inflamed is greatly reduced. Yes, your alpha hydroxy pads may not be as strong as the expensive ones from manufacturers but they're not only safer, you can also use them more often.

Simply mix up one of the following solutions and dip cotton pads in it.

Begin with baking soda and add one of the following:

**GLYCOLIC ACID**
+ sugar from sugar cane or sugar beets
+ unripe grapes

**CITRIC ACID**
+ orange juice
+ lemon juice
+ lime juice
+ pineapple juice
+ grapefruit juice

**LACTIC ACID**
+ milk
+ yogurt
+ sour cream
+ buttermilk

===================================================================
Glycolic Acid Warning: Glycolic acid might make a user's skin especially sensitive to sunlight so be extra cautious about too much time in the sun.
===================================================================
**Beta-Hydroxy Acids**

Beta-hydroxy acids [BHAs] are similar to AHAs but they are more efficient at cutting through the grease, oil and wax on your skin and many users are much less sensitive to the BHAs.

The main component of BHAs is salicylic acid which is made from willow bark, the main ingredient in aspirin.

Citric acid can act as both a BHA and an AHA so use the recipes above to make your own if you're interested. You can find a source for salicylic acid in the member area.

**What Is a "Chemical Peel"?**

A chemical peel is done in a doctor's office using glycolic acid levels of 50% or even more. The patient's face will be red and raw for approximately a week. Personally, I am horrified by such a process but some swear that it's rejuvenating effects are worth the pain and suffering. Clearly, this is an individual choice.

**Other Natural Exfoliants**

It's certainly not necessary to use acids to exfoliate your skin. Two simple and inexpensive, yet very effective, exfoliants come from sugar and oatmeal.

The sugar recipe is below and to use oatmeal simply put oatmeal flakes in a dry blender for a few seconds until the oatmeal is powdery rather than being in flake form [this step is not necessary but it makes the oatmeal easier to use]. Then simply scrub your face with the oatmeal. I prefer sugar, though, because it's a lot less messy.
Sugar Scrub Recipe

I found a recipe for a sugar scrub that I tinkered with until it suits me. The original recipe calls for white sugar, but I have found the brown sugar to be much more pleasing. Also, the original recommended tangerine and lemon peel, but at the time I had a lime only. So I peeled the lime and let it dry for about two days. Then I put it in my blender and shredded it into powder.

Ingredients:
3/4 cup organic turbinado sugar
2 tablespoons citrus peel
1/4 cup almond oil
1/2 teaspoon vanilla or any essential oil that pleases you - this step isn't necessary, but it makes the experience much more pleasant.

Directions:
Mix with a wooden spoon and use 2-3 times a week.

If you decide to use an exfoliant please remember that the idea is to micro polish your face not scratch it. So don't get too enthusiastic in your scrubbing.
Chapter 7: Skin Stimulation & Protection
The 5 Kinds of Skin Care Products

Skin care products come in three formulations:

1. Creams
2. Lotions
3. Serums

Let's talk about creams and lotions first. Here are our choices:

1. Use a cream/lotion without concern for its ingredients …
2. Buy a pay-through-the-nose natural cream …
3. Use inexpensive creams and lotions from discount stores that are 'sort of' OK …
4. Make your own natural and inexpensive creams/lotions that are from natural plants - but need to be refrigerated …
5. Make your own natural and inexpensive creams/lotions that are from natural plants - but DON'T need to be refrigerated …

1. Use a Cream/Lotion Without Concern For Its Ingredients

Some folks think my concern over the chemicals in cosmetics and skin creams is grossly exaggerated and they're simply looking for inexpensive but effective products. Since you're reading this you're probably not a member of that group and we've talked enough about that option.

2. Buy A Pay-Through-The-Nose Natural Cream

There are some truly luscious skin care products that are all-natural [or so they claim - you need to check out the ingredients to be certain].
Here are some of the more popular or famous ones.

**Age-Defying Marine Collagen Cream**
- Replenish and hydrate! This triphase homogenized Pevonia Collagen Cream combines Equanat and Marine Collagen moisture and provide UV protection. Anti-aging, it softens fine wrinkles while replenishing vital nutrients.
- **Price:** $75.00

**Eminence Rosehip Whip Moisturizer**
- **Price:** $58.00

**RE9 Advanced Firming Body Cream**
- **Price:** $68.00
These are substantial investments for unknown products. Will they work on your skin? There's no way of knowing until you've spent significant money.

3. Use Inexpensive Creams and Lotions From Discount Stores That Are "Sort-Of" OK

Cetaphil is a great example. I know personally that even dermatologists recommend it and it's inexpensive.

How impressive - the 'Best of Beauty Hall of Fame'. And it only has eight ingredients: water, cetyl alcohol, propylene glycol, sodium lauryl sulfate, stearyl alcohol, methylparaben, propylparaben, butylparaben.

The problem is that the only ingredient that's safe is ... the water! The rest are awful!!!
4. Make Your Own Creams and Lotions
   - That Need Refrigeration

There are luscious recipes everywhere and we've discussed some of them here - using fresh fruits for AHAs, for example. They're great on a leisurely Saturday afternoon when you have lots of time to get beautiful. But when you're running out the door in the morning, late for work (again), they're totally impractical.

5. Make Your Own Creams and Lotions
   That DON'T Need Refrigeration

All of the creams and lotions below have been tested by numerous people [mostly women] or they wouldn't be included in this product. But always, Always, ALWAYS, make a small amount at first. Why?

* Everyone's skin is different and what works beautifully for your best friend or your sister may be a disaster for your skin.

* Always remember that our skin changes as we age and a brilliant choice at 25 is a disaster at 50.

* Our skin's needs change with the seasons. We usually need heavier formulations in the cold months.

* Another reason not to make large amounts is that these recipes do not have to be refrigerated but they will age. Part of what makes store-bought skin care products so deadly is the preservatives that keep them on the shelf for years.

I don't use preservatives at all but there are a few people who want to use some and here are three that are considered of "low concern" by chemical safety authorities:

* Steareth-2
* Steareth-20
* Steareth-21
It's very easy to make your own formulas. As we promised, you don't need to be a chemist. I use an old scale [see below] and a set of plastic measuring spoons.

The formula below, for instance, calls for 1 ounce of cream to 1/4 teaspoon of carnosine. I simply add cream to my jar until the scale says there's one ounce in the jar, add the carnosine and stir. Quite simple. I bought the jars for $.25 each at a cheap store in a strip mall but they can easily be found online.

Here are several recipes for making your own creams and lotions.
**Basic Beeswax Cream**

**Ingredients:**
1/2 ounce pure beeswax  
2.5 ounces olive oil or grapeseed oil  
4 ounces distilled water  
6-12 drops of any essential oil that pleases you

**Directions:**
Combine the oil and beeswax and carefully melt. This can be done on the stove in a double boiler or in the microwave - but watch it carefully. Once it's melted, add the water and beat with a hand mixer until creamy - the beating is what makes your lotion creamy. Add your essential oils, if desired.

**#2: Even Richer Beeswax Cream**

**Ingredients**
1/2-1 oz beeswax (the more wax you use, the thicker the cream)  
1/8 cup jojoba oil  
1/8 cup grapeseed oil  
1/4 cup lavender water or rosewater  
1 tsp vegetable glycerin  
1 tsp borax
Directions:
Melt the beeswax into the oils in a double boiler placed on medium heat. When melted, remove the mixture from heat and pour in all other ingredients. Mix with a hand-held mixer until it reaches a thick, creamy consistency. Apply cream to face with clean fingers, massage into skin, rinse well with warm water. Particularly good for dry skin.

The borax referred to here, also known as sodium borate, isn't the stuff you use in your washing machine. We want cosmetic grade borax which is also a preservative and used frequently in making soap. And personally, I'm not worried about preservatives for reasons already mentioned so I don't use borax.

#3: Basic Body Lotion
{No beeswax}

Ingredients
1/2 cup water, at room temperature
1 tablespoon lecithin granules
1/2 cup oil (I usually use olive, almond, macadamia nut, or grape seed)

Directions:
Pour the water and lecithin granules into a double boiler and allow the lecithin granules to melt in the water. When the lecithin is just melted, slowly add the oil to the mixture until well mixed. Cover and leave to cool to room temperature.
Feel free to vary the oils and, of course, you can add essential oils for their lovely fragrance, if desired.

#4: Five Oil Skin Cream

**Ingredients**
1 Tablespoon cocoa butter  
1 Tablespoon lanolin  
1 Tablespoon coconut oil  
1 Tablespoon wheat germ oil  
1 Tablespoon spring water  
1 to 2 drops almond oil

**Directions:**
In a double boiler slowly melt the cocoa butter, lanolin, coconut and wheat germ oils, being careful not to allow them to boil. Add the water and almond oil and stir to mix.

#5: Lovely Green Tea Lotion

**Ingredients**
1 Tablespoon lecithin  
1 cup prepared green tea (leave 2 green tea bags or tea leaves soaking in hot water for a few hours to concentrate the tea as much as
possible)
3 Tablespoons green tea oil/concentrate

Directions:
Combine the green tea and lecithin granules and melt them in a double boiler just until the lecithin dissolves. Remove from heat and slowly stir in the green tea oil and allow to cool.

Your Skin and Collagen: Why Collagen Creams Are Pointless

The purpose of this phase of skincare is to encourage your skin to create its own collagen.

The marketplace abounds with so-called "collagen creams" but this is not the way to go. As you already know from our discussion of the structure of the skin, collagen is produced – or not – in the dermis, the lower layers of the skin. Applying external collagen cream results in molecules that are too large to penetrate the epidermis. This means the collagen creams never penetrate to the dermis where they are needed but instead just sit on the surface of the skin and do no good at all.

Instead, what we must do is stimulate the skin to produce its own collagen. If the cream, lotion or serum we use is also an antioxidant then it's even better.
Stimulating Collagen with Vitamin C

Vitamin C serums or gels are perfect for skin stimulation. Vitamin C benefits our skin in two important ways.

First, vitamin C is essential for the synthesis of collagen. In fact, without vitamin C there is no collagen as the British Navy discovered many years ago when large numbers of sailors died of scurvy.

A person who is dying of scurvy stops making collagen and his body falls apart – his joints fail because he can no longer keep the cartilage and tendons strong.

The remedy was fresh limes which provided desperately needed vitamin C and resulted in British sailors being called "limeys". OK, the history lesson is over.

Secondly, vitamin C is an antioxidant and can help to stop the damage caused by free radicals.

Other great benefits of vitamin C are that it provides some limited protection from the sun and it remains on the skin for up to 72 hours. Quite a wonderful product and definitely worth experimenting with for beautiful skin.

Truth #1 About Most Commercial Vitamin C Products

Most vitamin C products on the market do not contain sufficient vitamin C to be useful to your skin, no matter the cost of the product. This is another reason for YOU to be in charge of your own skin care products so you can ensure that they contain sufficient vitamin C to help your skin.
Truth #2 About Most Commercial Vitamin C Products

Vitamin C is **easily oxidized**, which means it interacts with the oxygen in the air and its usefulness declines. Many of the commercial products were manufactured months – even YEARS – ago and are not only useless but may be damaging.

Notice the Dr Denese vitamin C serum pictured here. I used this on my face for weeks before I knew what I was doing - **damaging my skin**! The yellow color that looks like an egg yolk means that the vitamin C has oxidized. Was I horrified? Absolutely.

Truth #3 About Most Commercial Vitamin C Products

Price is not a guarantee of either freshness or potency. The **only** way you can be certain that your vitamin C is helping your skin is by making it yourself.

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**Vitamin C Serum or Gel**

**Ingredients:**
- 1/2 teaspoon of L-ascorbic acid powder
- 2 teaspoon of good water
- 2 teaspoonful of a thickening agent

**Directions:**
Mix the water and L-ascorbic acid powder in a glass container and stir until the powder is dissolved. If it doesn't completely dissolve,
warm it slightly and keep stirring until dissolved. Water and L-ascorbic acid powder mix well, but if you simply can't get it to dissolve, continue until it seems that no more will go into the solution and then strain it through cheesecloth or tissue paper.

Make certain you use L-ascorbic acid and no other form of vitamin C. If you use the regular kind of vitamin C that many of us take in supplement form, it will not do your face much good.

**The Thickening Agent:** there are multiple choices for thickening agents that are natural and will be welcomed by your face and body. Here are some healthy choices.

The amount of thickening agent that you use as a personal choice. Add a very small amount and keep adding until your vitamin C potion has the consistency that you desire.

**Less thickening = a serum**  
**More thickening = a gel**

Examine your serum or gel each time you apply it, checking for that unwelcome yellow color. Unfortunately, a clear color doesn't absolutely guarantee a lack of oxidation sets the first stage of oxidation is the production of "dehydroascorbic acid", which is colorless. For this reason I make vitamin C serum often, in small amounts that I use up quickly.

Vitamin C serum/gel is acidic and irritates the skin of some people. If this happens to you, consider one of the vitamin C serum recipes below or reformulate the recipe above and include less vitamin C.
Vitamin C Serum #2: Ascorbyl Palmitate

Ascorbyl palmitate is an oil soluble (not water soluble) and more stable form of vitamin C. However, some skin responds to the formulation above and not this one, and vice versa.

Ingredients:
1/4 teaspoonful of ascorbyl palmitate
1 ounce of cream

Directions:
Ascorbyl palmitate is a white powder that is easily mixed in a cream. Keeping in mind that this IS an acid, it’s probably best to reduce the amount of ascorbyl palmitate slightly because the amounts above are about as strong as you want any ascorbyl palmitate solution to be.
Carnosine Gel or Cream

Many view a wrinkle as a "wound". If this is so, any safe substance that heals these wounds is highly desirable and carnosine is one of those substances because it rejuvenates connective tissue.

Even more amazingly, carnosine helps with cell "senescence". There is a biological principle called the "Hayflick Limit". According to a researcher (surprisingly named Hayflick :-) a cell has a limited
A cell divides and creates a new cell and with each division its ability to do so becomes weaker ... until it can't divide, or reproduce, again. This is senescence and it's the step right before cell death. As you might imagine, as the cells grow weaker they appear less attractive.

This **cell degeneration can be reversed** – and relatively quickly – by carnosine or L-carnosine. Experiments in Australia have revealed that cells cultured with carnosine lived longer and retained their youthful appearance and growth patterns.

To make this even better, carnosine is one of the **most powerful antioxidants known**. It's a great heavy metal scavenger. And no substance is better for reversing protein glycation or cross-linking which reduces the elasticity of our skin and consequently results in more and more wrinkles.

Carnosine has a remarkable revitalizing and regenerating effect on skin fibroblasts. These are cells which gives skin its strength and resilience by making fresh collagen and elastin.

Whew! that's a lot of benefit from one simple substance.

### Carnosine Cream

**Ingredients:**

1/4 teaspoon of carnosine  
1 ounce of cream

**Directions:**

Carnosine easily dissolves in a cream so all that is necessary is to add it and stir.
**Carnosine Gel**

**Ingredients:**
1/4 teaspoonful of carnosine
1 teaspoon good water
3 teaspoonfuls of a thickening agent

**Directions:**
Mix the water and carnosine in a glass container and stir until the powder is dissolved. If it doesn't completely dissolve, warm it slightly and keep stirring until dissolved. When it is dissolved as much as possible, add your thickening agent.

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**Skin Building and Sealing**

Our skin-building recipes are "lipid" based which means they are fat soluble, or oil soluble, rather than dissolving in water. They also build collagen and are more moisturizing.

Lipid based products help to create the "lipid skin barrier" which helps to keep water in the skin causing the cells to be plumper and smoother. The lipid skin barrier is the interface between the dermis and epidermis which is where this moisture is stored. Mother Nature uses certain lipids to build and maintain the lipid barrier so obviously it's best to use her ingredients.

Here are the products that help to prevent moisture loss and to help repair the lipid skin barrier:
1. Essential fatty acids  
2. Ceramides  
3. Linoleic and linoleic acids

Other lipids may not help to reinforce the barrier but might even make it worse because they won't fit properly.

**THE SECRET OF THE MOVIE STARS: VITAMIN A AND RETINOLS**

As we already know, youthful, healthy collagen is the secret to spectacular skin. Goldie Hawn, Madonna and Jennifer Lopez are only a few of the celebrities that rave about the power of this wonderful substance. But what does vitamin A actually do?

1. Increases the production of collagen  
2. Exfoliates the epidermis and removes many of the built-up dead skin cells  
3. Increases the production of new sales

The term "retinol" simply refers to vitamin A. More accurately, retinol is simply a form of vitamin A along with retinal and retinyl palmitate.

Oddly enough, vitamin A itself, regardless of its form, has very little effect on the skin. Instead, it converts to a metabolic form of itself called retinoic acid, also known as tretinoin. Skin cells naturally convert vitamin A into retinoic acid and if there is a sufficient amount the results on your skin can be dramatic.
Topical Tretinoin and Its Problems

The best-known topical tretinoin or vitamin A creams are Retin-A, Differin and Renova. These are more potent than over-the-counter products but have many problems.

**First problem**: they require a doctor's prescription which means an added expense for doctor visits. Also, this sends an alert of possible complications because why else would it require a doctor's supervision?

**Second problem**: the compounds themselves are expensive, expensive, expensive.

**Third problem**: they have side effects. The Renova manufacturer mentions the following possibilities ... "difficulty in breathing; swelling of your face, lips, tongue or throat; burning; stinging; tingling; itching; swelling; dryness; peeling; discolored skin; irritation" ... and then adds "This is not a complete list of side effects and others may occur". No thanks!

**Fourth problem**: these products are relatively unstable and, as mentioned previously, what you buy might be years old and therefore no longer potent.

**Fifth problem**: the cream may not be effective. This is because there may not be enough active ingredient to make a difference. A relatively large amount of tretinoin needs to be delivered to affect the quality of the skin.

*Please note, though, that too much isn't a good idea either because it may be irritating to your skin.*

Our advice: **make your own that vitamin A cream and see if your skin is happy with it**. If it isn't very effective you can gradually raise the potency.

In addition, making your own cream will ensure that it *will not "go*
bad" but will retain its power. It's simple and inexpensive as well.

**Vitamin A Cream**

<table>
<thead>
<tr>
<th>Ingredients</th>
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<tbody>
<tr>
<td>20,000 IU soft gels of vitamin A</td>
</tr>
<tr>
<td>One ounce of base cream or lotion</td>
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</table>

**Directions:**
These two mix easily and simply with a spoon.
Apply once or twice per day.

**Warning:** The prescription forms of Vitamin A make skin very susceptible to skin damage. Be extra careful in this regard, even though your own preparations are much less risky.

**Hyaluronic Acid**

Hyaluronic acid [also known as Hyaluronan] is a "humectant". Humectants attract water and carry it to the skin and so keep it moist. The two most common in use today are propylene glycol and hyaluronic acid.

If you remember our information on propylene glycol you will already know that it is quite dangerous which leaves us with hyaluronic acid as a safe alternative and it is natural to the human body.

Hyaluronic acid acts like a **sponge**, keeping water inside each cell. Imagine a fluffy new goose down pillow that is almost bursting with
stuffing – and then think about pillow many years later when it has been flattened by use and we can imagine the function of hyaluronic acid. In fact, this valuable acid can maintain up to **1000 times its weight in water**! Cells loaded with water look plump, juicy and radiant.

Hyaluronic acid is a major component of your extracellular matrix, the liquid between your cells. In that location the acid retains water, hydrate your cells, carries nutrients to your cells and carries away waste material. In short, it keeps your cells healthy and resilient.

The problem is that as we age our supply of hyaluronic acid decreases. And excessive sun only hastened the demise of this wonderful substance because it actually degrades it to the point that it becomes a free radical and thus switches from being positive force for our skin to a negative force.

**The Problem With Most Hyaluronic Acid Solutions**

The molecules in a hyaluronic acid solution and are too large to penetrate the skin and bring in desirable moisture so these solutions can be used as a barrier to help keep moisture from escaping but they cannot add any moisture. Actually, glycolic acid is better for this purpose [see AHAs].

It's possible that taking a supplement of hyaluronic acid may help your skin. In Japan the word Toki means "skin of a porcelain doll" and the Japanese have invented a supplement called Toki. Unfortunately, as you can see, Toki is quite expensive.
Ouch!

You won't be surprised to learn that hyaluronic acid solutions can be quite expensive. for instance, these are the results on a popular shopping portal.
Of course, you can make your own hyaluronic acid cream for a much lower cost.

**Hyaluronic Acid Cream**

**Ingredients**

1/4 teaspoon hyaluronic acid
Two ounces of base cream or lotion

**Directions:**
These two mix easily and simply.

This is a **2% solution** but most of the skin gurus insist that a hyaluronic acid solution must be **at least 10%** or it won't do anything for your skin. In fact, if it doesn't "sting", it won't do you any good – or so they claim. If they are correct than the recipe would be **1 1/4 teaspoons for every 4 ounces of cream or a little over 1/4 teaspoon per ounce**.

Our recommendation: **begin with a lower strength and increase the dosage if necessary**.

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**Do You Have Joint Paint?**

Hyaluronic acid is now frequently suggested as a way to keep joints strong and supple. In combination with glucosamine and chondroitin, it is quite popular as a joint supplement. Some folks even get hyaluronic acid injections for knee joint problems.

If that's you, and none of these three supplements work, you might try ASTAXANTHIN! My right knee was causing me terrific pain and nothing affected the pain. So in desperation, I tried astaxanthin and within 3-4 weeks my pain was gone.

My friend Todd had such pain in both of his knees that he sometimes crawled up the stairs of his home, rather than walked. On my recommendation, he tried astaxanthin. About two months later I asked him if it had helped and he told me he was thinking of jogging again!

To make it even better, astaxanthin is a very potent antioxidant.

Will it work for you? I don't know, but it's inexpensive, it can't harm you in any way and it's worth a try.
Free radicals are the arch enemy of beautiful skin. These unstable oxygen molecules, produced by natural aging, stress, pollution and sun, attack the healthy cells of our skin and cause the collagen to break down. The good news is that we have potent weapons in our defense arsenal, including such antioxidants as vitamin E, green tea and coenzyme Q10.

Vitamin E is fat soluble so it protects the fatty component of the cell, like the membranes. This is the potion that my skin seems to like better than any other and I use it religiously twice a day. I literally saw differences in my skin in two weeks as it became brighter, fresher and more luminous. Of course this doesn't mean that your results will be identical to mine because everyone's skin is different.

There are different forms of vitamin E including alpha, beta, delta and gamma. It's best to use a combination, if possible. Many, if not most, of the vitamin E creams on the market use synthetic versions because they're cheaper. If you use these off-the-shelf brands you may not be getting the full effects of this marvelous product.

**Vitamin E Cream**

**Ingredients:**
Two 400 IU softgels of vitamin E (preferably as mixed D-tocopherols and D-tocotrienols)
One ounce of base cream or lotion

**Directions:**
The vitamin E and cream or lotion can be easily mixed with a spoon. This is an incredibly simple...
The Limitations of Synthetic Vitamin E Creams

It's very important that you use natural vitamin E rather than the synthetic variety. Our skin and cells do not recognize synthetics but instead they see them as enemies so don't be tempted by the lower price of the fakes. This is one reason that many of the creams on the market are ineffective - because the manufacturer has used a cheaper synthetic version.

Also, a purchased vitamin E cream may not contain enough of this active ingredient to do your skin any good.

VITAMIN A + VITAMIN E CREAM

You can combine vitamin a and vitamin E into one cream. It's prepared just like the creams mentioned above. Add the content of one or two 400 IU vitamin E softgels and one or two 10,000 IU vitamin A softgels to one or two ounces of base cream.

VITAMIN E + VITAMIN C CREAM

Vitamin E is a useful addition to many skin care formulas because it is compatible with most skin care ingredients, easy to mix with most base creams and can be used as both antioxidant and a preservative against rancidity. Vitamin E may be particularly useful when combined
with vitamin C because studies indicate that these antioxidants may have **synergistic** effect.

For example, in a 2003 study published in the Journal of Dermatology, researchers reported that the combination of vitamin C and E provided significantly greater protection against oxidative damage and various signs of sunburn than either of the vitamins alone.

Also, the combination of C and E (but neither of the vitamins alone) reduced the level of UV-induced DNA damage thus acting as a **sunscreen**.

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**LYCOPENE**

Lycopene is an **extremely potent antioxidant** and a very useful weapon in the war against free radical damage in our skin. Some tests suggest that it is 100 times more effective than Vitamin E!

Lycopene also has some cellular effects and is especially effective in tissues with high fat and lipid content - like skin.

It also is a mild sunblock, with an SPF of 3. This is minor and won't protect against direct sunlight, but will definitely help to counter some of the increased sensitivity resulting from use of vitamin A creams and lotions. Just don't count on this for strenuous outdoor protection, although it certainly helps in such situations as absorbing sunlight through a car window.

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**LYCOPENE CREAM**
Ingredients:
One ounce of cream or lotion
15 mg Lycopene
Vitamin E 400 IU [see directions for vitamin E cream above]

Directions:
These three ingredients are easily mixed together with a spoon.

NOTE: Lycopene will give your cream a burnt orangish tint. That's a good sign chemically, because it means your ingredients are active.

However, be aware that it will give your skin a faint tint as well. Some folks like this as it looks like a bronzing lotion or light tan.

If the color bothers you, however, use less lycopene. Of course, that will mean that your cream is less potent.

This color is harmless and will disappear shortly after discontinuing use of the cream.

Lipoic or Alpha Lipoic Acid Cream

Lipoic acid or alpha lipoic acid (ALA) creams and lotions have become one of the hottest products in skin care, mostly thanks to the enormously influential [and expensive!] Nicholas Perricone. About ALA, the well-known doctor states:
"The first line of defense against free radical damage belongs to a compound in the body known as alpha lipoic acid (ALA). ALA is one of the most powerful anti-aging, anti-oxidants, anti-inflammatories available. Alpha lipoic acid boosts energy production in your cells; just as it helps the mitochondria portion of the cell change food to energy. The higher the energy level in the cell, the more youthful we remain. The importance of alpha lipoic acid - the metabolic antioxidant—is hard to overstate."

He goes on ...

* ALA is the only antioxidant that can boost cellular levels of glutathione, an antioxidant of tremendous importance in overall health and longevity and essential for the functioning of the immune system. People with chronic illnesses such as AIDS, cancer, and autoimmune diseases generally have very low levels of glutathione. White blood cells are particularly sensitive to changes in glutathione levels, and even subtle changes may have profound effects on the immune response.

* ALA helps regulate glucose metabolism. Sugar can be extremely damaging to our cells if it is not well controlled, as sugar can react with molecules within the cell in a permanent bond called glycation. Once these bonds between sugar and protein are formed, they become mini-factories for the generation of free radicals that can attack our cells and their mitochondria and produce inflammation.

Alpha lipoic acid helps prevent these damaging glycation reactions, while also increasing the cell’s ability to utilize glucose. When taken orally as a supplement, ALA can concentrate in both the cell and mitochondrial lipid membranes, where it protects both from free radical damage, thus preventing the commencement of an inflammatory cascade.

* ALA works synergistically with other antioxidants in the skin to reduce the damaging inflammatory effects of ultraviolet radiation.

* ALA’s capacity to regulate production of nitric oxide, which controls blood flow to the skin when applied topically, helps to transform the
complexion from dull, pasty, and pale to vibrant and glowing. Topical ALA will also reduce puffiness in the face and eye area, decrease wrinkles and pore size.

Unfortunately, Dr. Perricone's wonder cream is quite expensive:

Further, as we've seen before, we have no idea how long ago the potion was prepared so it might have lost its potency. ALA does NOT store well, so if you make your own, plan to remake it frequently or you should keep it in your refrigerator [something that I like to avoid].

Obviously, making our own is cheaper and we will know that our product is fresh.
Lipoic acid 300-900 mg

Directions:
Mix thoroughly with a knife, spoon or a utensil like a Q-tip. Mix thoroughly if you want to get rid of small specks of undissolved powder.
Note that ALA mixes poorly with water so it's best to use an oil-based cream or lotion only.

LIPOIC ACID AND DMAE CREAM

If you have read our report on DMAE cream, and decided that you wish to make it, please know that it combines well with ALA. Add the DMAE first, followed by the ALA. This combination is currently very popular - and expensive - with face care manufacturers.

NIACINAMIDE CREAM OR LOTION

Niacinamide is a form of vitamin B3 and is NOT the same as its better-known cousin, niacin. Niacinamide has multiple benefits for the skin, including:

1) It is an antioxidant that destroys free radicals ...

2) It helps with cellular rejuvenation to reduce lines and wrinkles ...

3) It helps to reduce hyper-pigmentation spots, (those ugly brown spots), like those that often appear on the hands ...
4) It is **anti-inflammatory**, reducing the fiery swelling that creates antioxidants in the first place ...

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### Niacinamide Cream

**Ingredients:**
- 4 ounces of base cream
- 1 teaspoon of niacinamide

**Directions:**
Niacinamide easily dissolves in water so you might wish to dissolve the powder in a small amount of water first, and then add it to your cream.

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### Oat Beta Glucan Cream

**Oat beta glucan** has an awesome advantage over many other would-be cosmetic miracles. Many (actually, most) products fail as skin 'saviors' simply because their molecules are so large that they **cannot reach the interior of the dermis**. There is strong evidence that oat beta glucan can!

We have mentioned the view that wrinkles are 'wounds' ... well, **oat beta glucan is quite powerful when it comes to healing wounds**.

In addition it:
* Stimulates collagen production  
* Is anti-inflammatory  
* It activates immune cells  
* It is very moisturizing  

NOTE: To make a cream or lotion with oat beta glucan, it is necessary that the oat contain 50% of beta glucan. If it doesn’t, you will be wasting your time and money!

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**Oat Beta Glucan Cream**

**Ingredients:**
1 gram of oat bran Nature’s Way Oat Bran Standardized, 54% Beta Glucan [see below]  
10 teaspoons of water  
10-15 teaspoons cream or lotion  

**Directions:**  
This formulation is slightly more complicated than previous ones, due to the high fiber content of the oats, and must be done in multiple steps:  

#1: Mix 2, 500 mg capsules of Nature's Way (or 1000 mg of another oat product) with 10 teaspoons (50 ml) of water. Carefully heat the mixture on the stove or in a microwave until the oat is mostly dissolved. This is a delicate procedure and if you're heating on the stove, stir constantly. DO NOT let this boil!  

#2: When you've dissolved as much oat as possible, strain what's left through tissue paper or a very fine strainer.
#3: Mix your serum with 10-15 teaspoons of cream.

As you know, we always want to keep our skin care products fresh, so what I do is store half of my serum in the refrigerator and mix the other half with cream. It might 'gel' in the frig but you can reheat it slightly and it will once again liquefy and can be easily mixed with cream.

GREEN TEA CREAM

Green tea is another potent antioxidant and contains substances that are especially good for our skin like polyphenols. Polyphenols are plant substances most commonly found in fruit skins. In the body, they reduce the risk of cardiovascular disease and cancer. They act as scavengers of oxygen and nitrogen-free radicals, protecting the fatty membranes of cells, proteins and DNA.

Green tea is also famous for its key ingredient Epigallocatechin Gallate (EGCG), which protects against digestive and respiratory infections. It helps block the cancer-promoting actions of carcinogens and ultraviolet light - meaning it can help repair sun damage.

GREEN TEA CREAM

Ingredients:
Coenzyme Q10 (CoQ10) is wildly popular as both an internal and external supplement for health and skin beauty. CoQ10 is a natural substance in the body, but - no surprise - production declines as we age.

CoQ10 is critical in the production of energy within each cell in the human body. CoQ10 is essential for the health of cells, tissues, and organs, and CoQ10 acts as part of another class of substances - enzymes. The role of enzymes is to facilitate, and act as a catalyst for countless chemical reactions in the human body.

It has powerful antioxidant effects, and destroys free radicals in your body and skin.

I take CoQ10 daily because it gives me energy. One of the functions of CoQ10 is to help our cells produce Adenosine-5'-triphosphate (ATP). Think of ATP as a nuclear reactor inside each cell.

No ATP = no energy.

Bioavailability refers to our body's ability to actually make use of a particular substance and it is incredibly important. We can load ourselves up with all kinds of supplements - but if the body is unable
to use them, they're useless.

When speaking of CoQ10 it's important to know that there is a fairly new form that is much more bioavailable than 'regular' CoQ10. It is called **ubiquinol**. The standard form of supplemental CoQ10 is called ubiquinone and, until recently, ubiquinone was the only form of CoQ10 available.

Now after many years of research, Japan's largest CoQ10 producer has succeeded in developing a stable form of ubiquinol - an active bioavailable form of CoQ10. Following oral supplementation with the standard ubiquinone form of CoQ10, most of it is reduced to the usable form of CoQ10, ubiquinol, either during absorption or after the appearance of Coenzyme Q10 in the blood. Now, we can use ubiquinol directly and get the same results with about 1/8 of the usual dosage of CoQ10.

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**CoQ10/Ubiquinol Cream**

**Ingredients:**
1 capsule of Swanson's Ubiquinol (100 mg)
1-2 ounces of base cream

**Directions:**
My skin ADORES Ubiquinol and I use one capsule per ounce. However, since this is the Superwoman of CoQ10, and a fairly new product, it's always best to be cautious. Therefore, use a small amount and if it seems to make no difference, add more. Along with vitamin E, it's a powerhouse for my skin. Always remember, though, that everyone is different.
COQ10 & VITAMIN E CREAM

Is it possible that CoQ10 and vitamin C are synergistic - meaning they promote each other? I don't know for sure, but they certainly are a powerhouse for my skin, and that of my daughter.

CoQ10 & Vitamin E Cream

Ingredients:
1 capsule of ubiquinol/CoQ10
400 IU of vitamin E [see our vitamin E recipe for the kind of supplement you need]
2 ounces of cream

Note: I use twice as much CoQ10 & vitamin E, but that's based on my own experimentation. Please start at a lower level until you figure out what your skin likes.

Directions:
Simply mix all ingredients together as they easily dissolve.

IDEBENONE CREAM

"Idebenone" is a synthetic CoQ10. There are some differences, but
the research on the value of idebenone is less than persuasive. In fact, it's almost non-existent. However, when a product is "hot", such considerations often become irrelevant to those in search of beauty.

My take on idebenone: the body prefers natural substances, ingredients that it detects as 'itself'. Human history is loaded with disasters that were touted as being better than those of Mother Nature. Since CoQ10, especially the ubiquinol form, is so effective, and so inexpensive, why not use the real thing? If future research reveals compelling evidence about the efficacy of idebenone, we can certainly add it to our skin care regime. For now, stick with the real thing.

However, if you wish to make your own idebenone cream, here is a recipe.

<table>
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<tr>
<th><strong>Idebenone Cream</strong></th>
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**Ingredients:**
1/4 teaspoon idebenone
1 ounce of cream

**Directions:**
Simply mix the two together.

Be aware that idebenone is reddish brown in color, so your cream will be that color as well. Once it sinks into your skin, the color will disappear.
As you've learned by now, free radicals are deadly to our skin and our hopes for a youthful, smooth, taut look. If we can eliminate these free radicals, we can accomplish two things:

1. Preserve our skin at its current state and (mostly) retard further aging.
2. Possibly even reverse the at least some of the damage that has already occurred.

If you want your head to swim, read about free radicals. The large numbers, each with different characteristics, is mind boggling. The best way to protect ourselves is to use a combination of methodologies.

First, we should be taking internal supplements, along with watching our diets carefully to ensure that we're getting the antioxidant protection that we need.

Next, we can include multiple antioxidants in one cream to ensure the widest possible protection against multiple free radicals.
**Multiple Ingredient Anti-Aging Cream**

**Ingredients:**
- 600 mg lipoic acid [see direction for making lipoic acid cream]
- 500 mg green tea extract [see directions above]
- 400 IU vitamin E [see direction for making vitamin E cream]
- 2 ounces of base cream

**Directions:**
If you’re using Swanson’s liquid green tea extract these are easily mixed together.

Some sources, however, sell green tea extract in powder form. If you are using a powder, you must first turn it into a liquid. This can be done by mixing the green tea powder in a tablespoon of water and heating it gently until it dissolves. Once it has dissolved and cooled, it can be added to the lipoic acid and vitamin E.
Excess sun is a concern for anyone interested in good-looking skin. Sun damage is a major cause of so many of the symptoms we associate with "aging".

Yes, we need a certain amount of sun to have an adequate supply of vitamin D. But Scarlett O'Hara and all her southern belle friends were probably wise to protect themselves from sun. Being tanned was considered horrifying!

But what can we use as sun protection? It's not an easy question. For instance, a headline from our local paper states, "CDC Finds 97% of Americans Contaminated by Sunscreens".

"The Center for Disease Control (CDC) released a new study showing that nearly all Americans are contaminated with oxybenzone, a widely-used sunscreen ingredient. This chemical
so far has been linked to allergies, hormone disruption, and cell damage, as well as low birth weight in baby girls whose mothers are exposed during pregnancy. Oxybenzone is also a penetration enhancer, a chemical that helps other chemicals penetrate the skin."

The article continues ... "And interestingly, as sunscreen sales have risen, so has the rate of skin cancers."

Coincidence or not?

There are companies that make "organic: sunscreens but all the ones we've seen have synthetic chemicals in them (although there might be some exceptions).

Example: here is the formula for an "all natural, organic" sunscreen from Aubrey Organics (copied exactly):

Padimate O (PABA Ester). Inactive Ingredients INCI: Alcohol denat., glycerin, Hamamelis virginiana (witch hazel) extract, Prunus amygdalus dulcis (sweet almond) oil, Aloe barbadensis (aloe) leaf juice*, aqua, panthenol (vitamin B-5), glyceryl linoleate and glyceryl linolenate .

On the surface, it looks good until I check the Cosmetics Database and discover that the very first ingredient has a rating of "6" which is way beyond any comfortable level.

What about the minerals titanium dioxide and zinc oxide. Minerals are natural, so they must be OK right? The truth is they generate free
radicals and we've talked about them constantly as a terrible agent of destruction in our skin. I recently discovered that titanium dioxide is used in window glass because it degrades anything that touches it! This might be desirable in window glass but it isn't on your skin.

The following excerpt is taken from a book called *Sunscreen Photobiology—Molecular, Cellular and Physiological Aspects*.

"Illumination of titanium dioxide suspensions with sunlight can degrade organic materials and purify drinking water, while illumination with short wave UV kills human cells. This work shows that the distinction between 'chemical' sunscreens and 'physical' sunscreens, attractive though it may be to those who market them, is not based on any significant difference. Both varieties have the potential to produce reactive species that can tack biological materials (human skin cells) when they are exposed to normal sunlight ... What is established is that particles of titanium dioxide as large as 220 nm can enter human cells in culture, and so it seems entirely plausible that if titanium dioxide does pass through skin it could enter cells under the skin (carrying with it the absorbed UVA and UVB radiation and hydroxyl radicals)."

We've done a lot of research into sunscreens. The bottom line is this: we have found NO sunscreen formulations which we consider to be safe.

What we do: we're inside during the hottest part of the day. When we're in the sun we always look for shade and wear a hat, with a long-sleeve shirt to protect our arms.

This is a very individual decision, of course, and you might not like this advice/information. In fact, if you're a sun worshiper you certainly do not - but you should know the truth about the subject.

And, perhaps as I write these words someone may be creating a safe sunscreen.
Glossary of Natural Skin Care Terminology
**AGRIMONY LEAF**: Calming, astringent and toning. Beneficial as an eye wash. Also anti-inflammatory.

**ALGAE**: Obtained from seaweed, algae is a natural moisturizer and is claimed to prevent wrinkles. Added to salt baths to boost detoxifying action.

**ALGINATED ZINC TRIPLEX**: A combination of hydrolyzed algin (which is derived from brown seaweed) and zinc sulfate to reduce the conditions favorable to acne by helping to regulate oil production, destroy acne bacteria and reduce skin inflammation.

**ALLANTOIN**: An extract of the comfrey plant. Has the ability to help heal minor wounds and skin ulcers, and to stimulate the growth of healthy skin cells.

**ALMOND MEAL**: Almond meal helps replenish skin oils lost during the cleansing process while producing a gentle massaging effect during exfoliation.

**ALMOND OIL**: Pressed from the ripe seeds (nut) of the almond tree. A versatile, carrier oil, good for all skin types. Ground almonds make for excellent natural abrasives, they help replenish the oils lost from the skin during the cleansing process and produce a gentle massaging effect in exfoliators. Very lubricating and can relieve itching and inflammation.

**ALOE VERA**: Indigenous to East and South Africa, Mediterranean countries and tropical or subtropical countries including the West Indies, Mexico and Southern United States. Aloe gel has been used for centuries in skin care and has produced wonderful results in replenishing lost moisture from the skin. When applied to skin injuries, minor wounds, chemical or radiation burns, poison ivy, rash, etc., aloe works very quickly with dramatic results. The application of aloe vera on burns produces soothing relief immediately. It is easy to grow your own aloe plants in the house.

**ALPHA HYDROXY ACIDS**: Natural plant extracts that improve the look and condition of skin by accelerating the exfoliation of outer dead skin cells revealing younger fresher skin. Additionally, AHA's stimulate collagen synthesis, boost skin elasticity and increase cell renewal.

**ALPHA LIPOIC ACID**: Alpha lipoic acid has been referred to as a "universal antioxidant" because it's soluble in both water and oil, which permits its entrance to all parts of the cell.
**ALTHEA ROOT**: Slightly pungent and mossy. Emollient, soothing, healant, demulcent, mucilaginous. Excellent in therapeutic type skin products.

**ANGELICA ROOT** *(ARCHANGELICA OFFICINALIS)*: Cultivated in Europe and native or Northern Europe. Commercially available throughout the world. Also grows wild from Labrador to Minnesota in the U.S. Has soothing effects on nerve endings of the skin on topical applications.

**ANIONIC SURFACTANTS**: Anionic refers to the negative charge these surfactants have. They may be contaminated with nitrosamines, which are carcinogenic. Surfactants can pose serious health threats. They are used in car washes, as garage floor cleaners and engine degreasers - and in 90% of personal-care products that foam.

**ANISE OIL**: well known for its sweet aroma and taste. Antiseptic and slightly astringent. Helps induce perspiration.

**ANTIOXIDANTS**: A group of vitamins, minerals, and enzymes that help protect our body from the formation of destructive, reactive molecules, known as free radicals. Antioxidants, such as Vitamins A, C, and E, the mineral selenium, and other nutrients also act as free radical scavengers, neutralizing the free radical particles.

**APPLE CIDER VINEGAR**: A sour, sharp-tasting liquid containing acetic acid. Produced from the fermentation of the juice of various fruits or berries, or from honey, molasses, or even cereal grains as in malt vinegars. Cosmetic vinegars, also called toilet vinegars, have been used as a complexion aid for centuries. Vinegar closes pores and preserves or restores the skin's natural acidity (pH balance). Vinegar keeps both oily and dry complexions soft and fresh and can combat the ravages of alkaline soaps and make up.

**APRICOT KERNEL OIL**: An extremely desirable moisturizer rich in Vitamins A and E, apricot kernel oil is extracted from the inedible kernels found in the apricot pit. Helps skin retain elasticity and suppleness without feeling greasy.

**ARNICA EXTRACE**: An herb found in the northern hemisphere. The dried flower heads have long been used as an astringent and to treat skin disorders. Has been used externally to treat bruises and sprains. Anti-inflammatory and soothing.
**ASCORBIC ACID/ASCORBYL PALMITATE VITAMIN C**: A preservative and anti-oxidant used to help prevent free radical damage in the skin. The white or pale yellow powder will darken slightly when exposed to the air.

**ASTRINGENT**: Effective on oily and blemished complexions. Performs a tightening action on the skin and pores.

**AVOBENZONE**: Approved by the FDA (Food and Drug Administration) in 1998 for sunscreens. While traditional chemical sunscreens could block against UVB (the "burning rays") and UVAII wavelengths, they could not adequately block out UVAI rays, the ones responsible for the skin damage that results in wrinkles, hyper pigmentation, etc. Avobenzone-containing sunscreens (as well as physical sunscreens) now offer full protection against all of the sun's damaging rays. Its safety is quite controversial.


**AZTEC MARIGOLD**: Used for its cleansing and deodorizing properties, aztec marigold is an anti-fungal and antibacterial. A wonderful emollient oil which has a soothing effect on the skin.

**BALM MINT**: Extract from the leaves and flowers of the balm mint plant, melissa officinalis. An antibacterial and anti-inflammatory that has a calming, soothing effect on the skin. Contains a balsamic essential oil that produces antibacterial ozone.

**BALSAM OF PERU**: An essential oil with a very rich, vanilla-like fragrance. Promotes healthy growth of skin, and can be used for eczema, chapped hands.

**BASIL OIL**: Compresses of basil have long been used to calm inflammation and swelling of the skin.

**BAY OIL**: Steam distilled from the leaves and branches of the bay plant, bay oil is prized for its antiseptic and emollient qualities. Possesses a warm, spicy fragrance.

**BEARBERRY EXTRACT**: Contains a natural hydroquinone sugar complex that is more stable than synthetically-derived hydroquinone. Used in an encapsulated
liposomal form that delivers the active ingredients directly to the cellular level. Fades hyper-pigmentation spots on the skin by interfering with melanin synthesis.

**BEE POLLEN:** Consists of plant hormones, proteins, amino acids, enzymes, carbohydrates, vitamins, minerals and other nutrients, which bees mix with their own saliva and store as food for the winter. Energizing to the body, nourishing and rejuvenating to the skin, and sweetly scented.

**BEESWAX:** Yellow beeswax is from the honeycomb and is soft with a honey-like odor. Beeswax is a natural emulsifier used in cosmetics since prehistoric times. Adds a wonderful natural smell and color to products, and helps to seal and protect the skin when used in moisturizing products.

**BENTONITE CLAY:** A white clay found in North America. Oil-absorbing and cleansing, it is used for its excellent refining action on enlarged "pores" and oily areas of the skin. A natural clay that is an effective skin clarifier. Takes its name from Fort Benton where bentonite deposits are found. Used in facial masks.

**BERGAMOT OIL:** Antiseptic, energizing and uplifting. Used to calm irritated skin, psoriasis and stress.

**BETA-CAROTENE:** Substance found primarily in carrots and other "orangey" members of the fruit and vegetable families. Beta-carotene is a member of the carotenoids, which are highly pigmented (red, orange, yellow), fat-soluble compounds naturally present in many fruits, grains, oils, and vegetables (green plants, carrots, sweet potatoes, squash, spinach, apricots, and green peppers). Alpha, beta, and gamma carotene are considered pro-vitamins because they can be converted to active vitamin A. Used to give products a yellow to orange-red color. A very powerful antioxidant.

**BILBERRY EXTRACT:** extracted from the leaves and fruit of the shrub, bilberry is an astringent, cooling herb that tones the skin. It is also a natural alpha hydroxy acid.

**BIOFLAVONOIDS:** Naturally found throughout the plant kingdom. Clinical studies have demonstrated that bioflavonoids help reduce inflammatory edema while stimulating circulation.

**BLADDERWRACK:** Bladderwrack is a seaweed. This extract is recommended
for toning the skin and stimulating cell activity. Great in baths, bladderwrack provides various minerals and salts that cleanse and refresh the skin.

**BLUE VERVAIN LEAF**: Acts as a relaxant in cases of muscle tension. Infused as an eye compress for tired eyes and inflamed eyelids.

**BOIS de ROSE OIL**: Used for many skin problems from irritation and dryness to puffiness and congestion. It is extracted from the rosewood tree.

**BISABOLOL**: A myrrh-type gum resin obtained from African trees. Reduces sensitivity and inflammation. Soothing and vaso-constrictive.

**BROMELAIN**: A proteolytic enzyme (digests proteins), obtained from the pineapple plant, a perennial herb with many varieties. The bromelain may be derived from either the stem or the fruit juices. Bromelain hydrolyzes proteins and digests dead cells on the surface of the skin.

**BURDOCK EXTRACT**: Extracted from the root and used for its healing properties on acne skin. Excellent as a cleansing extract on oily skin conditions and extremely effective on refining and clearing the skin.

**BUTTERMILK**: A specialty milk richer in fats and emollients than whole cow's milk. For centuries milk has been used as a natural, soothing skin cleanser and softener.

**CALCIUM CARBONATE**: A mildly abrasive natural chalk. It is an absorbent for facial oils and helps smooth out the complexion.

**CALENDULA FLOWERS**: Pleasant, mild floral, depending on variety. Aromatic when used in cooking. Soothing, anti-inflammatory, healant, used in ointments for cuts, bruises, sores and burns; has detergent and cleansing properties, as an astringent and refresher.

**CAMPHOR**: Cooling, highly stimulating herb. Used for oily skin and acne.

**CANDELILLA WAX**: A natural wax from the candelilla plant, grown in Mexico. Obtained by boiling the plant. Gives formulas body and sheen. Used in cosmetics as a thickener.

**Carnauba Wax**: Derived from the leaf of a Brazilian palm known as "the tree
of life." An edible material wax often used in making candies, it has the highest melting point of any material wax found on earth.

**CARRAGEENAN**: Derived from a red seaweed; another name is irish moss. Used for its excellent emollient qualities and is a soothing emollient or skin softening agent to treat chapped and dry skin.

**CARRIER OILS**: Essential oils are very concentrated and can not be used directly on the skin, as they can cause irritation. Therefore essential oils are diluted before being applied, into carrier oils. Extracted from nuts, kernels, seeds, and are sometimes called vegetable oils. Mostly commonly used in skin care are sweet almond, apricot kernel, avocado, grapeseed, olive, vitamin E oil, and wheat germ Oil.

**CARROT POWDER**: Vitamin rich, garden grown carrots are fresh dried and gently ground to a powdered form. Carrots, rich in beta carotene, nourish the skin and help improve skin tone and color. Works as a natural antioxidant, to help reverse free radical damage.

**CARROT SEED OIL**: A thin, yellow oil distilled from ground seeds. Rich in Carotene and valued for its soothing, relaxing properties. It stimulates cell renewal as well as the sweat and sebaceous glands, and is a great benefit to mature or dry skin. Protects skin exposed to weather extremes and is indispensable for hikers, skiers and outdoor athletes. Helps to deter or reduce wrinkles. Has a heavy, woody, earthy, fruity scent.

**CASTILE SOAP**: A soap of vegetable oil origin, usually olive oil.

**CASTOR OIL**: Is the oil extracted from the castor bean. It is a moisturizer and natural pigment dispersant.

**CEDARWOOD OIL**: Astringent and cleansing oil with a mild, balsamic, pleasant fragrance. Steam distilled from various types of cedars. Good as a base note to blend with floral scents for use in personal care products.

**CEDAR LEAF OIL**: Is antiseptic and astringent. Balances and regulates oil production. Often used for it's aromatic scent.

**CHAMOMILE FLOWERS**: A low-growing plant, characterized by little flowerheads and numerous tubular yellow "rays". Aromatic, strong scent; used
as a fragrance component. Soothing, sedative, softening, calmative, anti-inflammatory, sun protecting, wound healant.

**CHLOROPHILLIN-COPPER COMPLEX**: A water soluble derivative of chlorophyll. Used as a deodorizing agent in mouth washes, breath fresheners and body deodorants.

**CINNAMON OIL**: The natural essential oil of the cinnamon tree obtained by steam distillation of the leaves, bark and twigs. Used in skin care preparations for its spicy, awakening fragrance.

**CITRIC ACID**: Natural alpha hydroxy acid found in citrus fruits. It is a gentle exfoliator for skin.

**CITRONELLA OIL**: Derived from citronella grass. A fragrant oil used in insect repellents. Citronella oil is used as a raw material in the manufacture of other oils and is extensively used in soap making.

**CLAY**: Clay consists of tiny particles of minerals (rocks) which were carried along by rivers in previous geological years and then deposited in the earth, now excavated. Variously enriched and colored by the particulars of their geographical location, clays may be red, green, or white and their properties vary according to the trace elements they contain. Used for health and beauty treatments throughout the ages, in both mud packs and face masks. Its drawing action removes impurities from deep within the pores, leaving the skin clean, clear, and stimulated.

**CLOVE OIL**: Essential oil from the buds of an aromatic tropical evergreen. Warming, antiseptic, disinfectant and a pain reliever. Lends a sweet, spicy note to skin care formulations.

**COLTSFOOT HERB**: Conditioning, moisturizing. Contains silica and cystine, important amino acids to maintain healthy skin.

**COMFREY LEAVES**: Astringent, cleansing, a healant to rough and abused skin, anti-inflammatory. Wound healing due to natural allontoin, carotene and mucopolysaccharides.

**CAJEPUT OIL**: Used for its antiseptic and analgesic properties.
**CALENDULA**: Used to soothe inflammation of the skin and mucous membranes. Calendula extract is used in herbology to reduce body scars, soothe chapped skin and eliminate broken capillaries. Considered to be an excellent remedy for red eyes and any skin abrasions or soreness.

**CAMPHOR**: A cooling and antiseptic extract, with firming and toning properties to the skin. Extracted from the bark of 50 year old trees in China, Borneo and Japan.

**CARNUBA WAX**: Emollient and moisturizing and used for its skin protectant properties.

**CASTOR OIL**: The seed of the castor oil plant, extracted from the bean. Soothing and emollient to the skin.

**CEDARWOOD OIL**: Stimulating, antiseptic and revitalizing, the oil is used for sluggish and sallow skins to stimulate blood circulation and oxygenation.

**CETYL ALCOHOL**: A fatty alcohol which is in the form of a waxy crystalline. Used for its lubricating and emollient properties in skin moisturization but actually DRIES the skin!

**CHAMOMILE**: Popular as an excellent skin soother and anti-inflammatory agent. Reputed to bring down swelling and pain in the skin and mucous membranes. Used extensively in professional skin care as a herbal extract and for its essential oil called azulene.

**CHINESE SCHIZANDRA BERRY**: Like ginseng, schizandra is an adaptogenic agent that improves overall health and is specifically indicated function (lethargy). Research on this plant has focused on the forty active lignans, a type of plant carbohydrate, found in this species. These compounds have demonstrated greater antioxidant properties than both vitamins C and E in fighting free radicals, hence the claims that chinese schizandra is anti-carcinogenic and anti-mutagenic.

**CLOVE OIL**: Used for its anti-inflammatory properties.

**COLLAGEN**: is the major fibrous protein of the extracellular connective tissues and comprises from 25% to 35% of our body's protein. Soluble collagen can be compared to a sponge because of its ability to trap water in its intercellular
spaces. As collagen ages, the fibers aggregate into larger collagen strands and become less soluble. This less soluble condition, plus the addition of calcium deposits, squeezes the moisture out, induces further aggregation of collagen and causes shrinkage of the fiber length. The net result is a loss of skin elasticity and the formation of wrinkles.

**CONEFLOWER EXTRACT**: Extracted from the native American plant, Echinacea angustifolia, coneflower extract was originally used as an antidote for snake bites and other venomous conditions. The juice of the root was used to heal burns and soothe topical pain. Coneflower extract has been clinically demonstrated to aid in healing and act as an anti-inflammatory agent.

**COMFREY**: Highly-prized since the Middle Ages for its healing properties, Comfrey helps to reduce skin inflammation, soothe irritation and improve skin texture.

**CORN COB MEAL**: A finely milled powder from corn cobs. The extremely fine milling of the meal ensures that no harsh abrasiveness is left in the action of this exfoliant. Gives complete cell debris removal without drying or scratching.

**CORNFLOWER EXTRACT**: Used as an anti-inflammatory extract, and obtained from the flowers of the plant. Very soothing and sedating to the skin and mucous membranes. Similar in action to the essential oil of chamomile called azulene. Often used around the eye area as an anti-red measure.

**CORN OIL**: Obtained from wet-milling the grain of "zea mays" (Indian corn) used as an emollient and softener.

**CUCUMBER EXTRACT**: Extracted from the succulent fruit of the vine and used for its tightening properties. Imparts a cool action and an anti-inflammatory action to the tissues.

**CYPRESS OIL**: Soothing and calming. Reduces circulation and has vaso-constrictive properties.

**COCOA BUTTER**: Triglycerides of fatty acids made from the beans of the cacao tree. Cocoa butter is a superb emollient that softens and protects chapped skin, relieves irritation and diminishes signs of wrinkling and stretch marks. Has a sweet chocolate smell. It is also helpful as a binder or thickener in natural cosmetic formulas where chemical thickeners are not used.
COCONUT OIL: The flesh of the coconut is rich in emollient fat, and when pressed yields a white, sweetly scented, super moisturizing oil, which is a solid at room temperature but easily melts on the skin. The consistency of coconut oil helps to bind and emulsify natural formulations where no chemical emulsifiers are desirable. Usually blended with other fats, coconut oil is the volatile, fragrant oil popularly used in suntan products. It protects skin from the elements by forming a thin film which is not absorbed. Coconut oil is useful as an "after-sun" oil, and it is revitalizing to dry, damaged hair. Surfactants derived from coconut oil have good cleansing properties and are known for their mildness.

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oil have good cleansing properties and are known for their mildness.

**COMFREY**: Contains allantoin, a skin ingredient that promotes healing, and is known for its regenerating and soothing properties. The extract of the Comfrey plant is anti-inflammatory, astringent and emollient. Aids the healing of open wounds, cuts, burns, and bruises.

**COMFREY ROOT EXTRACT**: is an extract containing the active healing components of the root.

**COPPER PEPTIDE**: Studies have shown that copper peptide promotes collagen and elastin production, and also acts as an antioxidant. It is possibly dangerous because copper, in excess, is quite toxic to the human body. More research is needed.

**CORNMEAL**: Milled from corn and corn cobs, these natural abrasives are effective, yet safe, for your skin.

**CORN STARCH**: Highly absorbent product derived from the corn plant. Absorbs both moisture and oils. Produces a soft, soothing feeling in face masques. An ingredient added to cremes and lotions to help the product spread on the skin more easily.

**CRANBERRY EXTRACT**: Naturally acidic extract, has an astringent effect on gums.

**CUCUMBER EXTRACT**: The juice is mildly astringent, yet soothing and can help reduce puffiness of the skin. Cucumber also has a slight bleaching action which aids in removing dead skin cells.

**CYPRESS OIL**: Steam distilled from the needles, twigs and cones of this tall evergreen, a native of southern Europe. Clear to greenish-yellow, with a sharp and spicy smell, which is warm, woody and resinous with a lemony undertone. Stimulates circulation and has a detoxifying effect on the body. In skin care formulations, cypress regulates oil production, making it useful for controlling acne and dandruff, which are both caused by over-activity of the skin's oil glands. Also used to treat broken capillaries and varicose veins. Often used in cosmetics for men due to its astringent effect and because cypress oil can stop bleeding from shaving nicks and cuts.
**DANDELION ROOT & LEAF EXTRACT**: Described as a "simple bitter," Dandelion is used to treat many types of digestive dysfunctions. It is said to have a restorative effect on the liver, gallbladder and spleen. Dandelion is also an excellent choice as a diuretic because it does not deplete the body's potassium balance like most diuretics.

**DAMIANA LEAF**: Used by Indians for hundreds of years, is used as an anti-depressant and to restore nervous system balance.

**DEAD SEA MUD**: Precious clay obtained from the Dead Sea in Israel. Its drawing action removes impurities from deep within the pores, leaving the skin clean, clear, and stimulated. Minerals from the Dead Sea are known for their reviving, toning and purifying qualities.

**DEAD SEA SALTS**: Obtained from the Dead Sea in Israel. Composed of salts of potassium, chlorine, sodium, calcium and magnesium as well as sulfur and bromine compounds. These salts are famous for their reviving, toning and purifying qualities.

**DIATOMACEOUS EARTH**: A porous and pure form of silica formed from fossil remains of algae. Absorbs up to four times its own weight in water gels on the skin surface when used in masques. A fine siliceous earth composed chiefly of the cell walls of diatoms, any of numerous microscopic, unicellular, marine or fresh-water algae. Effective in destroying soft bodied larval pests.

**DIMETHICONE**: An organic silicone, used as a skin protectant and moisturizer. Found naturally in Horsetail herbal extract, silicones form a "mesh" over the skin and slow down transepidermal moisture loss from the skin. Well tolerated by even the most sensitive skins, they have a filming action on the skin surface and smooth fine, dry lines.

**DMAE/DIMETHYLAMINOETHANOL**: DMAE in skin care products shows remarkable effects when applied topically to skin, resulting in the reduction of fine lines and wrinkles.


**EGG OIL**: Natural mixture of fat soluble emollients and emulsifiers, extracted from the whole egg. Mixture of phospholipids, fatty acids and cholesterol.
Provides excellent emollient properties. Protects against dehydration and has lubricating and anti-friction properties on the skin.

**ELDER FLOWERS**: Extracts of flowers are used as fragrance components and, because of their slightly astringent nature, are used in under-eye and other skin products. Elder is a cleanser and moisturizer to the skin and hair. Healing and gentle, smoothes wrinkles, fade freckles and soothe sunburn.

**EMOLLIENT**: A skin conditioning agent which helps maintain the smooth, soft pliable appearance of the skin. Sweet almond oil and apricot oil are botanical emollients used in most of Burt's Bees creams, salves and balms. While the terms moisturizer and emollient are often used interchangeable, the two functions are different; however they often occur at the same time.

**EMU OIL**: Emu oil is from the Emu bird and exhibits anti-inflammatory and significant wound healing activity. It is used on burn patients and is known to significantly reduce recent keloid scarring; it is used as a warm-up rub prior to exercising and sports, and is used by doctors worldwide. Many folks use it as a relief for psoriasis, eczema, age-spot reduction, stretch mark reduction, roseola, rosacea and keratosis. **Destroying healthy birds when multiple vegetable alternatives exist seems pretty shabby to us.**

**EMULSIFIER**: Agent used to assist in the production of an emulsion. Emulsifiers enable oils to be dispersed throughout a water base to form a cream or lotion that does not separate. Common emulsifiers used in the cosmetics industry are synthetic chemicals such as polysorbate 60 or steareth-20.

**EMULSION**: A stable system in which two liquids, which would not normally go into solution, are held in suspension by a small amount of an emulsifier.

**ESSENTIAL OILS**: A volatile, rapidly evaporating oil obtained from the leaves, stem, flower, seed or root of a plant, usually carrying the characteristic of the plant. Essential oils add fragrance to our skin care products, as well as contribute to their healthful and beautifying qualities through their various abilities to tone, balance, relax, cleanse and invigorate. Although all essential oils are "fragrant", not all "fragrances" are essential oils. True essential oils must be plant derived. Used in cosmetics, aromatherapy, medicine, perfumery and flavoring.

**ESTER**: Compounds formed by the reaction of an acid or an alcohol. The esters
used in cosmetics are usually emollients and mostly designed to spread easily and penetrate into the contours of the skin more readily. They tend to resist rancidity better than natural oils and are designed to be used in place of these in products.

**EUCALYPTUS OIL**: This oil is a strong antiseptic with healing and stimulating properties. A vaso-dilator that improves blood circulation. Thin colorless oil derived from the leaves of the Eucalyptus tree, a native of Australia. Eucalyptus trees are the tallest deciduous trees in the world, some of them reaching a height of 500 feet. Stimulating and antiseptic oil valued for its penetrating fragrance with a medicinal note to it. Most people are familiar with this scent as it is often used in cough and cold remedies like Vick's Vapor Rub. Inhaling its camphor-like smell opens up sinuses and clears congestion. Often used to fight colds and coughs, as it has strong antibacterial, expectorant and cough-suppressant properties. Insects are repelled by the smell of Eucalyptus oil so it is used in many herbal insect repellents. A popular medication used to relieve joint pains, muscular aches and the swelling of arthritis. Also used for its soothing and refreshing properties.

**EVENING PRIMROSE OIL**: An essential fatty acid oil, rich in gamma-linoleic and gamma-linolenic acids. Also known as vitamin FF. Hydrating to the skin, it helps restore the moisture and lipid balance to dry skin conditions.

**EXFOLIANT**: A product or ingredient which is used to remove unwanted tissue or waste products from the skin and other body surfaces. An exfoliant's gentle abrasive action removes dirt, leaving the skin soft and radiant.

**EYEBRIGHT LEAF**: This plant has been used for centuries as a topical application for eye irritations. It has a toning effect on the surface of the eye, and has excellent astringent and anti-inflammatory properties to aid problems due to allergic reactions, airborne pollution and conjunctivitis. Eyebright is known to give brilliance and sparkle to the eyes.

**FD&C Colors**: Synthetic colors made from coal tar. Contain heavy metal salts that deposit toxins onto the skin, causing skin sensitivity and irritation. Animal studies have shown almost all of them to be carcinogenic.

**FENNEL SEED**: Used in facial steams and baths for deep cleansing. Seeds are used to reduce inflammation, or chewed to sweeten breath. Fennel has been used for years as a digestive stimulant, especially to treat excess gas and
bloating. It is used regularly in Chinese hospitals for intestinal obstruction and is used in the traditional "gripe" water formulas given to babies with colic.

**FEVERVIEW**: Once known to soothe migraines and stomachaches, feverfew has a broad range of antioxidant and anti-inflammatory benefits. When used in skin care products, this natural flower helps to soothe irritation and redness associated with dry or sensitive skin.

**FIR NEEDLE**: Thin clear oil derived through steam distillation of the needles of the pine tree. Strong antiseptic qualities. Quite useful in the sauna, and in a bath, pine eases stress and mental exhaustion. Pine is a familiar scent to most of us, reminding us of cool, green forests. Often used in household cleaning products and in men's toiletries.

**FRAGRANCE**: Added to a product to make it more pleasing to the consumer. Fragrance on a label can indicate the presence of up to 4,000 separate ingredients, many toxic or carcinogenic. Symptoms reported to the USA FDA include headaches, dizziness, allergic rashes, skin disorganization, violent coughing and vomiting, and skin irritation. Clinical observation proves fragrances can affect the central nervous system, causing depression, hyperactivity, and irritability. If you want fragrance in a product, look for essential oils.

**FREE RADICALS**: Very reactive atoms or molecules that can cause damage to our cells, impairing our immune system and leading to degenerative diseases.

**GABA** (Gama Amino Butyric Acid): When added to treatment creams, this amino acid is supposed to simulate a Botox-like effect. It may help to smooth fine lines, wrinkles and crows feet around the eyes and mouth, and between the brows. Its safety is currently controversial.

**GENTIAN ROOT**: Gentian Root is used to stimulate digestion. Dr. John Scudder M.D. claims, "it is one of the most efficient remedies I have ever used to address feeble or slow digestion". It is also known to have anti-inflammatory effects.

**GERANIUM OIL**: Anti-inflammatory and soothing. Used for skin irritations and dermatitis. Geranium oil has a fresh, sweet floral fragrance obtained through steam distillation. Highly therapeutic, antiseptic and astringent. Helps user relax and cope with pain. Brings a radiant glow to skin.
GINSENG ROOT: Used in creams, gels, tonics, facial masks, in wrinkle and other treatment preparations. Known for its ability to deliver oxygen to the cells.

GINGKO EXTRACT/MAIDENHAIR: An extract of the "gingko biloba" plant, a sacred tree to the Chinese. Increases moisture retention in the upper layers of the skin, and soothes irritation in sensitive skins.

GLUCOSE, GLUCOSE OXIDASE & LACTOPEROXIDASE: When combined with glucose (sugar), Glucose oxidase and lactoperoxidase (natural enzymes), act to preserve by consuming oxygen. A method to make natural cosmetics inhospitable to micro-organisms.

GLYCERIN: A natural humectant and emollient. NOTE: if you're concerned about healthy skin care, only used plant derived glycerin, not animal glycerine. Glycerine can be sticky if your skin is dry.

GLYCOLIPIDS: Used to enhance and restore the barrier function of the skin, regulate the skin's ability to bind and retain moisture and help restore the intercellular regulatory balance.

GLYCOSAMINOGLYCANS (GAGs): The skin is composed of two distinct areas, epidermis and dermis. The epidermis consists of many layers of dead skin which are supported by the dermis. The dermis is a three dimensional network of collagen fibers and elastin, surrounded by a gel-like substance which is composed glycosaminoglycans (formerly called mucopolysaccharides), non-collagen proteins and water.

GRAPEFRUIT OIL: Obtained by expression (squeezing) of the fresh peel of the grapefruit. A yellowish liquid used for its cooling and anti-inflammatory properties. It is considered uplifting, cleansing and clearing. Stimulating to the lymphatic system and toning to the skin.

GRAPEFRUIT SEED EXTRACT: Extract from the seeds of the grapefruit. A natural bactericide, preservative and stabilizer that is both tonic and astringent. Depending on preparation, it CAN be natural and healthful ... but it may not be.

GRAPE SEED EXTRACT: A rich source of free radical scavengers (anti-oxidant. An excellent anti-oxidant and rich source of proanthocyanidins, a flavenoid type molecule that protects capillary walls and inhibits enzymes that break down collagen and elastin.
**GRAPE SEED OIL**: Expressed from grape seeds. Rich, soothing, carrier oil that imparts shine and is widely used in hypo-allergenic moisturizers because it does not cause allergic reactions.

**GREEN CLAY**: A highly-effective cosmetic clay used for its sterilizing and purifying qualities. Very absorbent and cleansing to the skin sebum. Detoxifies and exfoliates. Produces a cooling effect on the skin, constricts follicles and deep cleanses the epidermis.

**GREEN TEA**: Green tea is known to contain two active groups of chemicals known as xanthines and polyphenols or catechins. The xanthines include components such as caffeine, theobromine and theophylline. These active agents have been demonstrated to suppress inflammation and irritation, and more recently, they have been shown to reduce cellulite. When used in conjunction with hydroxy acids, green tea extract will reduce irritation due to the xanthines. Polyphenols (also known as catechins) exhibit powerful anti-oxidant properties. As a matter of fact, these anti-oxidants are 20 times stronger than vitamin E. Consequently, green tea extract is considered to play a vital role in protecting the cell from free radical damage initiated by environmental factors such as exposure to UV light. Prevents moisture loss from the skin surface and is rich in essential fatty acids. Green tea was brought from China to Japan over 800 years ago and has become an essential part of Japanese everyday diet. Beneficial effects of green tea were well-known from the early times. Nowadays, with reasons of those benefits proven by scientific research, green tea has been given credit for being more than just a "healthy drink". Green tea contains nutritious skin ingredients including vitamin E, vitamin C and vitamin B. It is antibacterial and anti-oxidant.

**GREEN TEA EXTRACT**: a natural antioxidant, green tea extract is a natural astringent and is effective in treating troubled skin and breakouts.

**HAWTHORN BERRY EXTRACT**: Believed to be an anti-hypertonic, hawthorn berry is used in sedating formulas to control hypertension.

**HAZELNUT OIL**: From the hazelnut. This oil is slightly astringent and toning. Good for all skin types.

**HERBS**: Derived from plants, herbs are vegetable matter used in the form of the leaves, flowers or roots. Their use throughout history is well-documented as both effective and safe in the treatment of the ails of human and animal-kind.
HONEY: A humectant which attracts moisture to the skin surface. Used for centuries as a natural healing salve to calm inflammation and soothe the skin. Honey adds softness to the skin & is an excellent natural moisturizer.

HOPS BUDS: Tonic, stimulant, healant, circulation promoter.

HORSE CHESTNUT: Astringent, anti-inflammatory benefits for products treating reddened, irritated or sensitive skin. Used as a protectant for face and hand/nail products.

HORSE CHESTNUT: Astringent, calmative, cleansing, acne and skin disorders, pain relief from skin abrasions, anti inflammatory, high in silica and saponins.

HORSETAIL GRASS: Astringent, calmative, cleansing, acne and skin disorders, pain relief from skin abrasions, anti inflammatory, high in silica and saponins.

HORSETAIL EXTRACT: Used medicinally to reduce body water and as an astringent. Helps minor wounds and speeds healing of the skin. Has a firming and tightening action on the skin.

HORSETAIL LEAVES: From the nonflowering horsetail plant. Rich in silica and other minerals. Rehydrating and soothing properties, as well as toning and astringent qualities. Important to tired and neglected skin types.

HUMECTANT: A skin conditioning ingredient in creams and lotions whose function is to prevent water loss and drying of the skin. Humectants are hygroscopic, that is they attract and hold moisture.

HYALURONIC ACID: Extremely moisturizing to the skin. Holds up to 370% more moisture than even the collagen protein molecule. Binds and retains essential moisture in the skin layers and reduces fine lines caused by dehydration. Skin care products containing this substance are often used in conjunction with vitamin C products to assist in effective penetration. Hyaluronic acid (also known as a glycosaminoglycan) is often touted for its ability to "reverse" or stop aging. In news reports, you might have heard of hyaluronic acid as the "key to the fountain of youth." This is because the substance occurs naturally (and quite abundantly) in humans and animals, and is found in young skin, other tissues. and joint fluid.

HYBRID SUNFLOWER OIL: Sunflowers were cultivated by the American Indians over 3,000 years ago. The pressed oil contains vitamin E and other substances that are beneficial to the skin.
**HYDRATING/HYDRATION:** The ability to restore or maintain the normal fluid proportion in the skin or body. Hydrating agents are used in cosmetics to keep the skin natural, moist, firm and young-looking.

**HYDROCOTYL EXTRACT:** Originally found in India, hydrocotyl extract (Centella asiatica) is listed in Indian Ayurvedic medicine to combat excessively dry skin. More recently, studies at the Department of Dermatology in Strasbourg indicate its use as a strong anti-inflammatory agent, effective in the treatment of wounds, ulcers and lymphatic edema. Particularly suited to the fragile skin around the eyes, hydrocotyl extract assists in reducing inflammation and sensitivity of the skin.

**HYDROLYZED WHOLE WHEAT PROTEIN:** A non-animal, water-soluble protein derived from whole wheat. Moisturizes and smooths the skin surface, helping to bind moisture to the stratum corneum.

**HYDROQUINONE:** Skin care products containing hydroquinone are popularly referred to as bleaching creams or lightening agents. These skin care products are used to lighten hyper-pigmentation, such as age spots and dark spots related to pregnancy or hormone therapy (melasma or chloasma). If you are allergic to hydroquinones, you can use products containing kojic acid instead.

**HYPERICUM PERFORATUM (St. John's Wort):** Has a wide range of medicinal uses; it is an antibacterial used to heal deep cuts and wounds, soothes and eases the pain of burns by lowering skin temperature, and is a diuretic, helping to eliminate waste materials from the body.

**INFUSION:** A mixture of herbs in liquid that is soaked or steeped for a period of time and then used internally or externally as a cosmetic or medicine. An infusion is made chiefly from the softer parts (the flower or leaves).

**IRON OXIDE:** A natural mineral pigment which varies in colour from red to brown, black to orange or yellow, depending on the degree of water added. Commonly added to sunscreen - not recommended.

**ISOPROPYL ALCOHOL:** A very drying and irritating solvent and dehydrator that strips your skin's natural acid mantle, making it more vulnerable to bacteria, molds and viruses. It is made from propylene, a petroleum derivative. It may promote brown spots and premature aging of skin.
**ISOPROPYL PALMITATE**: A fatty acid from palm oil combined with synthetic alcohol. Industry tests on rabbits indicate the chemical can cause skin irritation and dermatitis. Also shown to be acne promoting.

**IVY EXTRACT**: A natural diuretic and cleansing extract, well known for its skin refining actions. Firming and tightening to the tissues.

**JASMINE OIL**: A warming and smoothing oil, used to revitalize and stimulate the skin. Used in skin and hair care products, it helps to soothe and moisturize. Jasmine is believed to be soothing, anti-depressant, antiseptic, emotionally balancing and an aphrodisiac. Has a rich, calming, sensual floral fragrance.

**JEWEL WEED**: The juice of the plant has been used for centuries to relieve the irritation and itch of poison ivy, oak or sumac.

**JOJOBA OIL**: A natural extracted liquid wax from the jojoba plant. This natural oil is excellent for the skin and hair. It is superior to other skin and hair oils. This mild oil is a natural moisturizer that absorbs quickly into the skin.

**JUNIPER BERRY OIL**: Thin, clear liquid derived from the berries of the juniper bush. Antiseptic, detoxifying, toning and astringent. Chosen for oily or sluggish skin and is a good cleansing agent. Draws out fluids and is useful in cellulite formulations. Slightly reminiscent of pine needles.

**KAVA KAVA**: Kava Kava has been used for centuries as a central nervous system depressant and relaxant of the skeletal muscle. It is used by many cultures around the world for its ability to induce a state of physical relaxation and a carefree, positive sense of well being. Relaxation, naturally, helps the skin to smooth out and look less tense.

**KAOLIN CLAY**: A white powder clay, obtained from kaolin in southeast China. Used for its oil absorbing properties, kaolin clay refines the skin and helps clear breakouts. Finely textured, light colored clay. Pink, green and white clays are all members of kaolin family. Its excellent absorbent, tightening and toning properties make it valuable for face masks.

**KELP EXTRACT**: Extracted from a north American species of brown seaweed, *macrocystis pyriferae*. High in silicon, which is believed to keep the skin from wrinkling and sagging, kelp is considered an important nutrient source for cells. It has been used to treat anemia and in cases of obesity because of its high
iodine content, which has a normalizing effect on the thyroid. High in silicon.

**KINETIN**: Is a naturally occurring plant growth hormone proven to slow the aging process in plant cells. When used in skincare products, kinetin helps improve skin texture, lighten hyper-pigmentation and even out blotchy skin. Kinetin is considered a gentler alternative to prescription retinoids.

**KOJIC ACID**: Kojic acid is a recent discovery for the treatment of pigment problems and age spots. Discovered in 1989, kojic acid has a similar effect as hydroquinone. Kojic acid is derived from a fungus, and studies have shown that it is effective as a lightening agent, inhibiting production of melanin (brown pigment).

**KOLA NUT**: Kola nut is known as a "stimulating tonic" and is used to counter fatigue.

**LANOLIN**: Obtained from the wax found on sheep wool after shearing, refined and purified to cosmetic specifications. Rich in cholesterol, lanolin is well suited for the treatment of brittle hair and fingernails, and dry and raw elbows, knees and feet. An excellent emollient, skin lubricant and protectant especially helpful in winter when extremes of temperature and wind can damage skin. Lanolin is also useful in natural cosmetic formulations as it adds thickness and body to a cream or salve without the use of chemical thickeners. Any chemicals used on sheep will contaminate the lanolin obtained from the wool. The majority of lanolin used in cosmetics is highly contaminated with organo-phosphate pesticides and insecticides.

**LAPPA EXTRACT**: Lappa extract is used to soothe the skin and contains vital mineral salts.

**LAVENDER OIL**: Lavender is an excellent all-purpose skin care oil in that it relieves pain, promotes healing, and prevents scarring by stimulating the cells to regenerate more quickly. Used on itchy skin, bruises, burns and blemishes. Stimulates circulation to the skin. Effective in treating acne, dermatitis and oily skin problems. Antiseptic and anti-inflammatory.

**LEMON EXTRACT**: An extract expressed from the fresh rind and peel of lemons. Very cleansing and decongestant. Lemon extract is refreshing and purifying to the skin, and is extremely active on an oily skin condition.
**LEMON OIL**: Used for its antiseptic and astringent properties as well as its detoxifying effects. Obtained from the fresh peel of the Citrus lemon tree. Known for its astringent and anti-irritant qualities, lemon oil also imparts shine to the hair when added to hair products. Also valued for its characteristic sweet, fruity refreshingly clean, lemony fragrance. Lemon oil is fairly inexpensive because it is produced quite simply and cheaply; about 1,000 lemons will yield a pound of lemon oil. Balances overactive sebaceous glands that lead to oily, blemished skin. Clears, and enlivens the complexion. Also effective in treating brittle fingernails and in general hand care.

**LEMONGRASS OIL**: Cleansing and purifying to the skin, the oil is used for its excellent antiseptic properties on the skin. Helps normalize oil production and reduce breakouts. Used in insect repellents and in fruit flavorings for foods and beverages.

**LEMON VERBENA LEAF**: These leaves have a clean, sharp, lemony fragrance. Is antiseptic and stimulating. As an infusion, can be used to reduce puffiness around eyes.

**LICORICE EXTRACT**: Inhibits melanin biosynthesis while scavenging free radicals (antioxidant) and helping to calm the skin.

**LIME OIL**: Astringent, antiseptic and non-irritating. Useful in the treatment of acne.

**LIPIDS**: Lipids are fats that can't be dissolved in water. There are many types of lipids in the human body. Skin lipids constitute 10 to 30% of the top layer (stratum corneum) and form the "skin's barrier", preventing the infiltration of some substances such as drugs, germs and chemicals through the skin. It also reduces the loss of water in the skin, protecting our bodies from dehydration.

**MAGNESIUM ASCORBYL PHOSPHATE**: A more stable form of vitamin C that does not oxidize upon exposure to air. An antioxidant that is linked to collagen synthesis.

**MAGNESIUM SULFATE** *(Epsom Salts)*: Small, white crystal resembling salt. It is used in soaks and baths to draw toxic substances from the body through the skin. Very effective for sore, tired muscles.

**MALLOW EXTRACT**: A mucilaginous gel which is soothing, healing, softening
and pain easing to the skin. Excellent in reducing inflammation and softening the skin.

**MARINE SILTS**: Mineral rich ocean sediment full of luscious vitamins. Silts are heavier than water, and therefore sink to form a muddy, murky layer. Marine silts draw out toxins and are used to re-mineralize the surface of the skin.

**MARJORAM OIL**: Warming and stimulating, the oil increases blood flow and aids in cell reproduction of the skin.

**MARSHMALLOW LEAF**: An emollient that softens and soothes. Good for inflamed, puffy skin.

**MASK**: A cosmetic absorbent which, when mixed with water, draws impurities from the skin's pores.

**MATE EXTRACT**: Has been shown to reduce irritation often associated with the use of alpha and beta hydroxy acids in cosmetic formulations. It is also an astringent, a stimulant and a vasodilator.

**MENTHOLS (Oil of Peppermint)**: A natural cooling agent, derived from mint oils. Anti-inflammatory and anti-itching to the skin. Imparts a cool, fresh and clean feeling to the skin. This natural crystal imparts cooling and antimicrobial properties to preparations.

**MINERAL OIL**: Petroleum by-product that coats the skin like plastic, clogging the pores. Interferes with skin's ability to eliminate toxins, promoting acne and other disorders. Slows down skin function and cell development, resulting in premature aging. Used in many products (baby oil is 100% mineral oil!) Any mineral oil derivative can be contaminated with cancer-causing PAH's (Polycyclic Aromatic Hydrocarbons). Manufacturers use petrolatum because it is unbelievably cheap. Also referred to as liquidum paraffinum, paraffin oil, paraffin wax or petrolatum.

**MOISTURIZER**: Something which helps the skin retain, or adds to, its natural moisture. Usually a liquid, lotion, cream, or oil.

**MUGWORT HERB EXTRACT**: Mugwort herb has been used in sedating formulas to offset the usual stress related digestive complaints. An aromatic bitter that stimulates gastric secretion for the treatment of "weak digestion" and
should accompany the use of sedating herbs.

**MYRRH**: Valued for its fragrant and soothing properties. Used by the ancients as an ingredient of incense and perfumes and as a remedy for localized skin problems. Can work to heal skin rashes and irritations. Has a revitalizing effect on aging and wrinkled skin. It has preserving and antiseptic properties.

**NATURAL**: Any substance that is harvested from nature and then isolated and purified by a variety of environmentally sound techniques including: filtration, fermentation, distillation, expressing and other like processes. Unfortunately, there are no laws or standards for the claim of "natural' and it is much abused.

**NATURAL FLAVOR(S)**: Flavors derived from nature. The source may be fruit, vegetable or any other natural source that provides a pleasing taste.

**NEEM**: Rejuvenating effects on the skin as well as its detoxifying and purifying attributes. Researchers have found that continued use of these extracts helps stop dental plaque build-up and infection, and reduces redness, inflammation and pain.

**NETTLES**: Rich in minerals and plant hormones. Known for its tonic, astringent and revitalizing properties. Stimulates hair growth and adds shine and softness to hair.

**NEROLI OIL**: Extracted from orange flowers and helps improve circulation. A warming and relaxing oil which has a gently stimulating effect.

**NONFAT MILK**: Solid residue which remains when water is removed from defatted cow's milk. Milk has been used for centuries as a natural, soothing skin cleanser and softener.

**NUTMEG**: Used in perfumery, especially in combination with such other scents as sandalwood, lavender, patchouli, and vetiver, and in spicy aftershave lotions and other types of men's cosmetics. Used as a massage oil to stimulate circulation and to relieve rheumatic pains and achy joints. It is used externally as a gentle stimulant.

**OATS/OATMEAL**: Kind and soothing to the skin, oats can relieve the irritation of dry, itchy skin. Helps absorb oils, leaving a silky smooth feel to the skin. Acts as a gentle exfoliant.
**OAT PROTEIN**: A very special, natural emulsifier which blends vegetable oils and vegetable glycerins together.

**OLIVE OIL**: A carrier oil best used with the stronger smelling essential oils such as rosemary or tea tree to mask its inherent. It has been used by Mediterranean people for centuries both as a food and as a treatment for damaged, dry hair. Soothes, heals and lubricates the skin. Used in many face creams as an emollient with superior penetrating power.

**ORANGE OIL**: Valued for its zesty and refreshing, sweet yet tart aroma. In skin care preparations, orange oil reduces puffiness and discourages dry wrinkled skin. Both the oil and the peel are used to stimulate circulation, clear blemishes, and increase perspiration, thus assisting the release of toxins from dull or blemished skin. The peel is used as a natural exfoliator.

**ORANGE WAX**: Derived from orange rinds, this wax is a multifunctional ingredient that possesses antimicrobial, emulsifying, stabilizing and emollient properties.

**PACIFIC SEA KELP**: Soothing, healant, less and colorless, which is of great advantage in personal care products. Wide uses in anti-cellulite products for added firming.

**PANTHENOL**: Vitamin B5 which conditions the hair when absorbed.

**PAPAIN**: A digestive enzyme, collected from papaya fruit. Papain has the ability to digest dead tissue without affecting the surrounding live tissue, and has gained itself the reputation as a "biological scalpel." It is used in digestive aids and as the active ingredient in enzyme cleaners for soft contact lenses. Papain contains 212 amino acids and is also rich in malic acid, an alpha hydroxy acid.

**PARSLEY EXTRACT**: Parsley is a source of remarkable nutrition. Rich in Vitamin C, pro vitamin V and chlorophyll, parsley increases circulation to the skin and helps purify the skin.

**PARSLEY LEAF**: Soothing and antiseptic. Has healing effects on acne, psoriasis and excema. Excellent for use in facial steams.

**PARSOL 1789**: The trade name for Avobenzone.
PASSIONFLOWER: Used primarily for its soothing and sedating effect in cosmetic preparations. Compatible with aroma therapy or other therapeutic products. Passionflower extract has been reported to be an effective treatment for stress and nervousness.

PATCHOULI OIL: Stimulating when used in small quantities, sedating when used in larger doses. Best used for bath or massage. Said to have aphrodisiac qualities. Scent makes a pleasant cologne.

PECAN SHELL POWDER: From the ground shell of the pecan, pecan shell powder makes an excellent, gentle, natural exfolliant.

PENNY ROYAL: The Latin name derives from pulex (flea) because of pennyroyal's power to deter fleas and other insects.

PEPPERMINT OIL: Refreshing, reviving, fragrant oil or extract from the Mediterranean peppermint plant. Peppermint herb is valued for its cooling, pain relieving and antiseptic effect in bath and facial herbs. When prepared in a carrier lotion it is useful for minor skin irritation and inflammation. Peppermint oil contains menthol, known for its ability to open breathing passages and settle upset stomachs. Peppermint oil is used extensively to flavor candy, chewing gum and toothpaste and, in cosmetics, is used to cleanse and tone. Purifies sluggish skin and pores, and is suitable for use on oily skin, acne, and blackheads.

PEPTIDES: Peptides are organic compounds of great importance. Peptides are small chains of amino acids (the building blocks of proteins) which are joined together by peptide bonds. They can be dipeptides, tripeptides or polypeptides. Cosmetics companies are using peptides as skin care ingredients, to help diminish fine lines and wrinkles. Peptides stimulate skin regeneration, but in order to be effective, it has to have a high concentration of peptides, without causing any irritation to the skin.

PETITGRAIN OIL: Extracted from the bitter orange plant. Used for its skin soothing and calming properties.

pH: The power of the hydrogen molecule. The amount of hydrogen present in a substance determines the acid or alkaline level of a product. In the skin it is the pH of the acid mantle (the protective fluid made up of perspiration, oils and
other debris lying over the live part of the Dermis) that is considered important to the health of the skin.

**PINECONE EXTRACT**: Helps to alleviate pain and discomfort and overcomes fatigue. Considered to be stimulating to the skin, by increasing blood flow and oxygenation.

**PINE NEEDLE EXTRACT**: Used for its antiseptic properties.

**PINE OIL**: Thin clear oil derived through steam distillation of the needles of the pine tree. Strong antiseptic qualities. Quite useful in the sauna, and in a bath, pine eases stress and mental exhaustion. Often used in household cleaning products and in men's toiletries.

**PINE TAR**: Produced by distillation, and applied externally, pine tar is used extensively in the treatment of skin afflictions. Pine tar is soothing to the skin and antiseptic.

**POLYPHENOLS**: Plant derived antioxidants that combat free radicals + are anti-inflammatory. Examples of skin inflammation include acne, flushing, hives, and the symptoms associated with disorders like rosacea and psoriasis. Inflammation is a sign that the body is attempting to protect itself from trauma. Over time, this protection backfires, creating an excessive amount of free radicals and leading to water loss in the skin cells.

**PRICKLY ASH BARK**: A circulatory stimulant, prickly ash helps drive other botanicals to their targets. It is used to stimulate the nerve centers and functional activity of the body's organs.

**PUMICE**: Light weight porous rock of volcanic origin that acts as an exfoliator when rubbed on skin.

**PYRETHRUM**: A natural pest deterrent.

**RANCID EMOLLIENTS**: Natural oils used in cosmetics should be cold pressed. The refined vegetable oils found on supermarket shelves and many health food stores which lack color, odor and taste are devoid of nutrients, essential fatty acids, vitamins and unsaponifiables: all valuable skin conditioning agents! They also contain poisonous "trans" fatty acids as a result of the refining process. Another important factor to consider with creams made from
Plant oil is the use-by date. The most beneficial plant oils (like rosehip, borage and evening primrose oils) are polyunsaturated, which means they oxidize and go rancid fairly quickly (about 6 months). Most off-the-shelf cosmetics have a shelf life of three years. Rancid oils are harmful, they form free-radicals, which damage and age your skin. Just another reason to make fresh skin care products for yourself!

**RED RASPBERRY EXTRACT:** A soothing and non-stimulating extract. Noted to be a natural antibiotic, Red raspberry extract is also very soothing and relaxing to an inflamed skin. Excellent for a sensitive skin and any irritation from acne, shaving or windburn.

**RETINOL:** This is a derivative of vitamin A, and you will see that a lot of skin care products contain retinol. Retinol’s stronger counterpart is tretinoin, which is the active ingredient in Retin-A and Renova.

**RETINYL PALMITATE (Vitamin A):** A stable form of vitamin A that acts as a skin normalizer. Helps remind the cells of what they did when they were young. Nourishes the skin when applied topically.

**RICE FLOUR:** Highly absorbent product derived from ground rice. Absorbs both moisture and oils.

**ROSE HIP EXTRACT:** Very rich in natural vitamin C. Moisturizing and hydrating to the skin. Helps protect the skin from capillary damage and firms and tones the tissues. Helps moisture bind in the connective tissue proteins of the skin. High in polyunsaturated fats and vitamin C. Soothing, softening and regenerating to the skin. Successfully used to treat scar tissue.

**ROSE OIL:** Has soothing, gentle cleansing properties that have a softening and refining effect on the skin. It is antiseptic and mildly astringent for dry or chapped skin, helping to restore pH. Excellent for use on all skin types.

**ROSEMARY:** Used for centuries, rosemary is a physical and mental stimulant, and an astringent healer used to treat muscle soreness. Stimulates cell renewal, and in beauty products it is used to clear acne and blemishes, improve circulation and can reduce the appearance of broken capillaries and varicose veins. Has a long history as a ingredient in hair care, as it normalizes excessive oil secretions and improves most scalp problems, notably dandruff. Conditions the scalp and stimulates hair growth.
**ROSEMARY EXTRACT**: From the aromatic rosemary shrub with scaly bark and leathery needle-like leaves, yields a pungent pine-like aroma with a woody, camphor note. Used for centuries, rosemary is a physical and mental stimulant. Stimulates cell renewal, and in beauty products, it is used to clear acne and blemishes, improve circulation and can reduce the appearance of broken capillaries and varicose veins. Used for its tonic properties and as a stimulant to the tissues. A natural diuretic, rosemary extract helps to release fluids from the tissues and gives a firming and decongestant action.

**ROSEMARY LEAVES**: Tonic, astringent, stimulant, cleansing, soothing, fragrance component. A widely used botanical in all types of personal care products.

**ROSEMARY OIL**: Used for its purifying, cleansing and antiseptic properties.

**ROYAL JELLY**: Very nourishing, royal jelly is made of nectar, pollen, flower parts, vitamins, minerals, bee hormones and other natural ingredients. Very precious, mysterious substance that honeybees produce and feed to only select young bees.

**RUE**: A volatile oil which contains limonene. Completely safe way to deter insects. For centuries, the herb rue has been used in households to deter flies and ants in such things as arrangements, wreathes and potpourri.

**SAFFLOWER OIL**: One of the most useful oils in cosmetics. The flowers are used in decoctions for skin eruptions, acne and skin blemishes.

**SAGE EXTRACT**: Has strong astringent and healing properties. A tonic and curative herb.

**SAGE LEAVES**: All parts of the plant have a strong, almost pungent, distinctive ; and a warm, bitter, astringent taste. Calmative, cleanser, moisturizer, skin purifier, fragrant, anti-microbial, non-sensitizing, non-irritant. A natural antioxidant. An astringent, antiseptic oil used for its sedating and calming effects on the skin. The leaves of the small evergreen perennial are used for their tonic, astringent, and soothing properties. Sage oils, obtained by steam distillation of the leaves, are used as a fragrant component in lotions. Arabs believe sage prevents dying, while the Chinese used to brew sage leaves instead of tea to obtain a soothing, relaxing beverage.
**SALICYLIC ACID**: Occurs naturally in wintergreen leaves, sweet birch and selected plants. This beta hydroxy acid (BHA) improves the appearance and condition of the skin. Its micro-exfoliating action causes a slow movement of the superficial cells that are already old, forcing the deep layers to replace them with younger cells. In addition to its exfoliating action, salicylic acid is also used an anti-microbial in medicine.

**SAMBUCUS (ELDER FLOWERS)**: Used for its mildly tonic properties and its natural diuretic qualities.

**SANDALWOOD OIL**: This rich, luxurious, fragrant oil is one of the oldest known perfume materials, with at least 4,000 years of uninterrupted use. Sandalwood helps reduce tension and anxiety, and is moisturizing to dry skin and hair. It is believed to be puffiness. Soothing and healing.

**SAPONARIA/SOAPWORT**: It is used as a foaming, natural cleanser for the skin.

**SEA CLAY**: Tiny particles of minerals (rocks) which were carried along by rivers in previous geological years and then deposited in the sea, now excavated. Used for health and beauty treatments throughout the ages, in both mud packs and face masks. Sea clay's natural drawing action removes impurities from deep within the pores, leaving the skin clean, clear, detoxified and stimulated.

**SEA SALT**: Concentrated mineral salt from the sea. Softens skin and acts as a detoxifying cleanser that draws impurities out of the body through the skin.

**SEAWEED**: Detoxifying marine plant. Good for the treatment of oily skin.

**SESAME SEED OIL**: Aids in the treatment of psoriasis and eczema. Excellent for all skin types.

**SIBERIAN GINSENG**: The use of Siberian Ginseng by Chinese herbalists dates back to 2000 BC. In modern times, Ginseng has been designated as an "adaptogen," or herb that has a non-specific activity yet promotes an overall improvement in one's health.

**SILICONE**: Silicone emollients coat the skin, trapping anything beneath it, and do not allow the skin to breathe. Some synthetic emollients are known tumor promoters and accumulate in the liver and lymph nodes. They are also non-
biodegradable, causing negative environmental impact. Also known as Dimethicone, Dimethicone Copolyol & Cyclomethicone

**SLIPPERY ELM BARK**: Used for its soothing and softening properties. Colonists used slippery elm bark poultices for a variety of skin ailments.

**SODIUM BICARBONATE** (*Baking Soda*). A natural, alkaline salt crystal. Very effective cleansing agent, yet mild to the hair and skin.

**SODIUM BORATE**: Natural borax. Used as a pH adjuster and a gentle antiseptic.

**SODIUM CITRATE**: Is a natural alpha hydroxy acid salt that naturally adjusts pH.

**SODIUM CHLORIDE**: Concentrated mineral salt from the sea. Softens skin and acts as a detoxifying cleanser that draws impurities out of the body through the skin.

**SORBITOL**: Found in ripe berries, seaweed and algae. A humectant which gives a velvety feel to the skin. Attracts water to itself and helps bind moisture to the skin surface.

**SOUTHERNWOOD**: An herb which has essential oils that pass to the roots and act as a conditioner. Great for dull, lifeless hair, also used to encourage hair growth. Also used to deter flies.

**SOY**: A newer trend in skin care is the use of soy in products. After discovering the benefits of soy to the body's overall health, researchers began investigating other uses. Used to improve the skin's tone, texture and reduce the appearance of fine lines.

**SPIRAEA EXTRACT/MEADOWSWEET**: Contains 2% essential oils and salicylate derivatives, one of which is salicylic acid. In homeopathic medicine, spiraea extract is used to help combat inflamed joints and to have a diuretic effect on the tissues. The leaves of the plant, fresh or dried, are used in the treatment of rheumatism and cellulitis. When used directly on the skin, spiraea extract is prized for its anti-inflammatory abilities to reduce puffiness and fluid retention.
**SPEARMINT OIL**: Natural mint flavor imparts taste and antimicrobial properties to oral products.

**SPRUCE OIL**: Pleasant in the bath and is used commercially in soap making, room deodorants, bath preparations and many other types of household products.

**SQUALANE**: A natural component of human sebum at around 25%. Obtained from olive oil, used for its rich and emollient skin moisturizing properties.

**STEARIC ACID** (Vegetable Fat): When a vegetable oil molecule is split in half, glycerin and fatty acids are the result. These fatty acids are reacted with borax, a natural salt, a natural emulsifier. Emulsifiers enable oils to be dispersed throughout a water base to form a cream or lotion that does not separate.

**STEARALKONIUM CHLORIDE**: A chemical used in hair conditioners and creams. Causes allergic reactions. Stearalkonium chloride was developed by the fabric industry as a fabric softener, and is a lot cheaper and easier to use in hair conditioning formulas than proteins or herbals, which do help hair health. Toxic.

**SUCROSE STEARATE**: derived from sugar and vegetable oil, works as an emulsifier.

**SUGAR CANE EXTRACT**: the juicy pulp of the sugar cane plant works as a natural alpha hydroxy acid.

**SUGAR MAPLE EXTRACT**: derived from the sugar maple tree, this extract works as a natural alpha hydroxy acid.

**SULFUR**: Sulfur accelerates peeling of the skin and has a topically antiseptic action on the skin surface. Traditionally used for problem skins, sulfur works synergistically with other micro-exfoliant ingredients and is particularly suitable for skins prone to breakout and congestion.

**SUNFLOWER SEED**: Makes an excellent nutritious food for the body and skin. Sunflower oil is especially useful for oily skin. The petals are used as an ingredient in herbal hair rinses, especially for blond or light-colored hair.

**SURFACTANT**: Reduces the surface tension of oils, greases and other substances, allowing them to be broken into smaller particles or globules to
facilitate cleansing.

**SWEET ALMOND OIL**: All-purpose oil that is absorbed quickly. Excellent for the skin and nails.

**SWEET ORANGE OIL**: In skin care preparations, orange oil reduces puffiness and discourages dry wrinkled skin. Both the oil and the peel are used to stimulate circulation, clear blemishes, and increase perspiration, thus assisting the release of toxins from dull or blemished skin. The peel is used as a natural exfoliant.

**TAGETES EXTRACT (Aztec Marigold)**: Anti-fungal and antibacterial. A wonderful emollient oil which has a soothing effect on the skin.

**TANSY**: Used as an insect deterrent. Externally tansy can be used as a wash to treat scabies. Tansy was one of the herbs strewn on the floor in the Middle Ages to deter fleas and other insects.

**TEA TREE OIL**: Used for its antiseptic, analgesic and anti-bacterial properties; also aids in healing and soothing skin. It is antiviral, antibacterial and antifungal.

**THALASSO THERAPY**: The art of using sea water, sea minerals, and sea plants for therapeutic results, from the Greek "thalassa" meaning "sea." Sea products are used in spas around the world for skin care, cellulite control and aches and pains such as arthritis. The balance of elements in sea water and sea plants is very similar to the chemical make-up of human plasma, and many of the nutrients found concentrated in sea plants are nutrients needed by the skin and hair.

**THYME OIL**: Used for its antiseptic properties.

**THYME LEAVES**: Thyme is an antiseptic rich in thymol. Besides extensive use as a kitchen herb and fragrance component, thyme is used in ointments and other OTCs to treat infections. It refreshes the skin and has excellent use in toners. It is also included in the formulations of toothpastes, soaps, creams and lotions.

**TITANIUM DIOXIDE**: Used chiefly as a white pigment and in sunscreens. Reflects light, so (when stated as such) can be considered a sun block. Its safety is highly debated.
**TOCOPHEROL** (D-Alpha Vitamin E): Found in vegetable oils, especially soybean and wheat germ. A natural anti-oxidant, guarding against rancidity in oils. Valued for its soothing, regenerating properties. D-alpha tocopherol is natural Vitamin E. DL-alpha tocopherol is synthetic.

**TOCOPHERYL ACETATE:** The ester of Tocopherol and Acetic Acid, a man-made form of Vitamin E that helps protect the skin (a stabilized version of Tocopherol). Don't use synthetic forms! Our skins cannot use them successfully.

**TOMATO EXTRACT:** Purifying to the skin, naturally acidic tomato extract also helps balance the pH of the skin.

**TOXIC:** Toxic describes a substance or condition which presents unusually high stresses upon the normal elimination systems of the body. A chronically toxic environment or repeated exposure to a toxic substance results in the degeneration of the body's functioning. Most modern urban environments present challenging conditions for the human body and its ability to cleanse and purify.

**TRICLOSAN:** An antibacteriacidal agent that kills bacteria on the skin's surface. Shown to kill propionibacterium acnes, the bacteria associated with acne. Kills bacteria by interfering with cell membrane function which can NOT be good.

**VANILLA BEAN/VANILLA EXTRACT:** Principally used in commercial flavorings and cosmetics.

**VEGETABLE GLYCERIN:** A sweet tasting, colorless, sticky fluid, usually a by-product of soap-making, that draws moisture to the skin.

**VEGETABLE OIL:** Used to dilute essential oils which are very concentrated and can not be used directly on the skin. Extracted from nuts, kernels and seeds, vegetable oils are also used extensively as emollients.

**VEGETABLE SOAP:** Made from earth alkalines and vegetable oil, and used by humankind for thousands of years, natural vegetable soaps are the oldest most trusted cleansers.

**VERTIVERT OIL:** Aids in cleansing and soothing dry skin.

**VINEGAR:** A sour, sharp-tasting liquid containing natural, acetic acid. Produced
from the fermentation of the juice of various fruits or berries, or from honey, molasses, or even cereal grains as in malt vinegars. Cosmetic vinegars, also called toilet vinegars, have been used as a complexion aid for centuries. Vinegar closes pores and preserves or restores the skin's natural acidity (pH balance). Vinegar keeps both oily and dry complexions soft and fresh and can combat the ravages of alkaline soaps and make up.

**VITAMIN A**: Improves skin elasticity, moisture content and suppleness while reversing the signs of photo-aging. Skin deficient in this nutrient appears rough, unevenly-thickened and dry.

**VITAMIN A PALMITATE**: Also known as "retinyl" palmitate. Reduces skin dryness and flaking, and aids healthy cell reproduction. Applied topically, it activates the epidermis and helps the skin cells of the stratum corneum bind together.

**VITAMIN B5 (Panthenol)**: Often called the "beautifying" vitamin, Panthenol stimulates skin healing while providing deep moisturization.

**VITAMIN C**: The most popular antioxidant, vitamin C, is a required component in the production of collagen, the tissue responsible for skin suppleness. Moreover, vitamin C has been shown to help slow the production of hyper-pigmentation ("age spots") while providing some UV protection.

**VITAMIN E**: Vitamin E plays a crucial role in protecting skin cells and membranes from environmental damage. It also provides deep moisturization and calms inflammation. Penetrates the stratum corneum and maintains moisture levels of the skin for long periods of time (16 to 24 hours). Accumulates in the epidermis and forms a barrier against moisture evaporation from the skin. An anti-oxidant, vitamin E helps prevent free radical damage in the skin tissues.

**VITAMIN F**: An essential fatty acid, this vitamin helps form the membranes that protect the skin cells, preventing the formation of dry, scaly skin.

**WATERCRESS EXTRACT**: Used for its antiseptic and decongestant qualities. Helps to eliminate impurities and eliminate congestion.

**WHEAT GERM OIL**: This oil is very high in vitamins, particularly vitamin E, carotene, and lecithin. Its high vitamin E content acts as an anti-oxidant and
preservative. Wheat germ oil is added to some cosmetics to keep the product from turning rancid. Rich in vitamin E, it is used for its antioxidant effects on free radicals in the skin. Nourishes and helps heal the skin.

**WHEAT GRASS SEEDS:** The sprouted seed of the wheat plant.

**WHITE FRENCH CLAY:** Finely textured, light colored, kaolin clay. Its excellent absorbent, tightening and toning properties make it valuable for face masks.

**WHOLE BUTTERMILK:** A specialty milk richer in fats and emollients than whole cow's milk. For centuries milk has been used as a natural, soothing skin cleaner and skin softener.

**WILD LETTUCE POWDER:** Succulent wild lettuce is fresh dried and gently ground to a powdered form. Wild lettuce is nutritionally rich yet mild to the skin, and has soothing, cooling and purifying skin properties.

**WILD OAT:** Oat seed is used to treat exhaustion and to stabilize the nervous system. It is described as a stimulating nerve tonic especially good for lethargic individuals.

**WILLOWBARK EXTRACT:** Contains natural beta hydroxy acids which work as a natural skin exfoliant to help unplug follicles and pores. One of the original sources of salicin, the chemical that led to the introduction of aspirin. An anti-inflammatory agent delivered to the skin cells in liposomes that enhance penetration through the epidermis.

**WINTERGREEN OIL:** Intensely aromatic when used in bath herb or facial herb formulas. Methyl salicylate is used as an astringent aromatic in lotions, creams, salves, and as a rub for sore muscles, arthritis, rheumatism, or sciatica.

**WITCH HAZEL:** Has a natural alcohol content of 70% and is astringent, cooling and antiseptic.

**WORMWOOD:** Also known as green ginger. Completely safe herb used to deter insects. For centuries, wormwood has been burned on a fire with low embers to destroy fleas and lice.

**XANTHAN GUM:** A natural thickener, this food grade material is edible and often used to thicken ice cream and salad dressing as well as natural cosmetics.
**Yarrow Extract**: A strongly scented, spicy, wild herb used in astringents and shampoos. Infused with almond and olive oils, Yarrow is valued for its cleansing, toning, anti-inflammatory and healing properties. Yarrow encourages blood flow to the skin.

**Yarrow Flowers**: Is so astringent it is known to cause nose bleeds, thus the name "nosebleed". Cleansing, anti-inflammatory, and soothing properties lend easily to various facial treatment products.

**Yeast Extract**: Acts as an excellent humectant and may be instrumental in enhancing the rate of cell turnover in the skin. Because its properties are analogous to collagen, it is often referred to as "pseudocollagen".

**Ylang-Ylang Oil**: Helps clear congestion and smooths the skin.

**Yucca Schidigera Extract**: A natural foaming extract. Rich in triglycerides deep cleansing, moisturizing soothing and healing effects, anti-inflammatory, shampoo foaming and penetrating agent.

**Zinc Oxide**: Provides a natural block or barrier to wetness and moisture, as well as to the sun's rays. Its safety is controversial and uncertain.