

Organic Skincare Sample Course

Lesson One:

What is the Skin

The skin is the soft outer covering of vertebrates that guards the underlying muscles, bones, ligaments, and internal organs.

Identify the layers of the skin

1. The outer layer of skin, the **epidermis**, provides waterproofing and serves as a barrier to **infection**.
2. The middle layer of skin, **the dermis**, contains **blood** vessels, **nerves**, and glands that are important for our skin's function. The inner layer of the skin, the **subcutis**, contains fat that protects us from trauma.

Terms

- **Epidermis**: The outermost layer of the skin.
- **Subcutis**: The inner layer of skin that is also called the hypodermis or subcutaneous layer.
- **Dermis**: The middle layer of the skin.
- **Cutaneous membrane**: The formal name for the skin.

The **Cutaneous** Membrane

The **cutaneous membrane** is the technical term for our skin. The skin's primary role is to help protect the rest of the body's **tissues** and **organs** from physical damage such as abrasions, chemical damage such as detergents, and biological damage from microorganisms. For example, while the skin harbors many permanent and transient bacteria, these bacteria are unable to enter the body when healthy, intact skin is present.

Our skin is made of three general layers. In order from most superficial to deepest they are the epidermis, dermis, and subcutaneous tissue.

The Epidermis

The epidermis is a thin layer of skin. It is the most superficial layer of skin, the layer you see with your eyes when you look at the skin anywhere on your body. Functions of the epidermis include touch [sensation](#) and protection against microorganisms.

This skin is further divided into five, separate layers. In order from most superficial to deepest, they are the:

Stratum Corneum: This layer is composed of the many dead skin [cells](#) that you shed into the environment as a result, these cells are found in dust throughout your home. This layer helps to repel water.

Stratum Lucidum: This layer is found only on the palms of the hands, fingertips, and the soles of the feet.

Stratum Granulosum: This is the layer where part of [keratin](#) production occurs. Keratin is a [protein](#) that is the main component of skin.

Stratum Spinosum: This layer gives the skin strength as well as flexibility.

Stratum Basale: This is where the skin's most important cells, called [keratinocytes](#), are formed before moving up to the surface of the epidermis and being shed into the environment as dead skin cells. This layer also contains [melanocytes](#), the cells that are largely responsible for determining the color of our skin and protecting our skin from the harmful effects of UV radiation. These harmful effects include [burns](#) in the short term and [cancer](#) in the long run.

The Dermis: Underneath the epidermis lies the dermis. The dermis contains:

- Blood vessels that nourish the skin with oxygen and nutrients. The blood vessels also allow immune system cells to come to the skin to fight an infection. These vessels also help carry away waste products.
- Nerves that help us relay signals coming from the skin. These signals include touch, temperature, [pressure](#), [pain](#), and itching.
- Various glands.
- Hair [follicles](#).
- [Collagen](#), a protein that is responsible for giving skin strength and a bit of elasticity.

The Subcutaneous Tissue (Hypodermis)

The deepest layer of the skin is called the subcutaneous layer, the subcutis, or the hypodermis. Like the dermis, the layer contains blood vessels and nerves for much the same reasons. Importantly, the subcutis contains a layer of fat. This layer of fat works

alongside the blood vessels to maintain an appropriate body temperature. The layer of fat here acts as a cushion against physical trauma to internal organs, muscles, and bones.

Additionally, the body will turn to this fat in times of starvation to provide **power** to its various **processes**, especially **brain** function.

Lesson Two:

How our Skin Reacts to Toxic Products

There IS an epidemic of skin allergies from toxic chemicals in cosmetics and household products. Chemicals found in everyday cosmetics and household cleaning products may be responsible for an “epidemic” of painful skin allergies, doctors have warned.

We were warned of pollution in the air, the dangers of smoking cigarettes, but why are we not warned of the most basic toxic chemicals that are put into our everyday products? Products that we use on our children, showering, brushing our teeth, the make-up and facial cleaners, our baby products.

MI, which is short for **methylisothiazolinone**, is a preservative and it is added to products to prevent unwanted growth of bacteria and yeasts in almost all our body products. MI, is also a preservative which is found in household paints. The preservative known as MI is used in a wide range of shampoos, moisturizers and shower gels as well as make-up and baby wipes.

Dermatologists have been warning people for years about the exposure to toxic chemical products that we buy every day and give no thought to. We are being exposed to much higher doses than ever before, leading to a steep rise in allergies known as contact dermatitis where the skin becomes red and itchy and can sting and blister.

More and more patients are suffering from acute dermatitis with redness and swelling of the face. So, what do these companies do? They create a toxic chemical to cure the itching, redness and the swelling of the face.

The chemical was previously mixed with another preservative, Methylchloroisothiazolinone (MCI) in a three-to-one ratio. But concerns about MCI causing allergies meant some

manufacturers started using MI as a single agent. Used alone, it has been included at a much higher concentration. When the two compounds were used, MI was found in concentrations of around four parts per million (ppm). But on its own a level of up to 100ppm, a 25-fold increase, is allowed under FDA regulations introduced in 2005. Experts say that since its concentration in products increased there has been a serious rise in cases of contact dermatitis, particularly in the last two years.

This new epidemic of allergic contact dermatitis from Methylchloroisothiazolinone is causing harm to American people. Incidents of allergies are occurring faster than they have ever before. Now, we have another nasty toxic chemical known as **Glutaronitrile**, another preservative that was banned from use in cosmetics in 2005, in other countries after it was linked to an increase in eczema cases.

Lesson Three:

Learn the 10 Toxins to Avoid in Personal Care Products and why!



Lesson Four:

The Classifications of Skin Care Products

Commercial Synthetic Products

You will learn to identify the various labels under which skin care products are placed. Many people think that there are only "natural and chemical" products. In fact, there are many variations in between. Learning to decode the various labels and their claims will allow you to make more informed choices.

The clear majority of personal care items on the market are largely formulated with synthetic products. These are chemical combinations that are made in a lab and thought to have some benefit to the skin. However, these ingredients are not tested for safety by the food and drug administration and there is no way to prove that their effectiveness outweighs the potential harms. According to the FDA's Office of Cosmetics and Colors, "...a cosmetic manufacturer may use almost any raw material as a cosmetic ingredient and market the product without an approval from the FDA". Many of us never think twice when purchasing skin care products. In fact, the average U.S. consumer uses about 10 cosmetic products every day and with it allows their body to absorb an average of 126 unique chemical ingredients on a daily basis! Nearly all of these ingredients easily penetrate the skin, and some we consume directly by accident from our lips or hands. Some of the common ingredients used in the many popular brands include lead, industrial strength cleansers and solvents, and chemicals that are known to disrupt hormone function. You will learn what these ingredients are and their effect on your body, as well as the environment, in a later lesson.

Natural Product Ingredients

Natural ingredients such as Shea butter, Argan oil, and aloe Vera have become trendy in recent years. Not only have people begun to understand the wonderful beneficial properties of these ingredients, but they are attracted to the exotic scents, textures, and healing properties of natural ingredients. This has created an increased demand for these products.

Because of the increased demand, many traditional companies have jumped on the bandwagon and added some number of natural products to their formulations. However, because chemical ingredients are often less expensive than natural ones, there is usually only a minuscule amount added. This allows the company to claim that the product contains "natural ingredients," without really investing in large scale sourcing of natural

products. Some ways that products falsely capitalize on using a small number of natural products are statements like:

Infused with

Made with

Contains natural

Nourishes with natural

This makes the buyer feel as if the product is largely natural and nourishing, when the opposite is often the case. To really evaluate the product, look at the list of ingredients below as we go through them one at a time.

Lesson Eleven:

Preparing Your Ingredients

Preparing to Create

We're going to learn the key components of creating our own natural skin care products. We will explore techniques for managing your ingredients, the easiest recipes to mix up initially, as well as tips for quick cleanup and using your creations. Once you have selected a recipe that you would like to make, it's important to prep your workspace and all the ingredients to ensure that things go smoothly. There's nothing worse than being in the mixing or pouring stage and you realize that you are missing a key tool or ingredient.

Below are some tips for prepping to make your product:

- *Set up your tools and ingredients on a wide, flat workspace, covered with newspaper or a plastic cloth that can be easily wiped.
- *Mentally go through the steps of creating your product from start to finish and ensure that you have everything you need for each phase.
- *Ensure that your bowls, utensils and other tools are clean and dry to avoid bacterial contamination and separation from water
- *Arrange your workspace with the items that you will be using first in the front.
- *Check any appliances or tools that you will be using to ensure that they are functional
- *Tie up your hair and don an apron and gloves if needed
- *If you like, pre-measure your ingredients so that you do not have excess ingredients in the way once you begin

Working with ingredients

Now that you have prepped your workspace, it's time to get to work! Depending on what you are making, there are specific techniques for melting and blending your ingredients. Below are helpful tips for working with ingredients in the most commonly made products?

Lesson Thirteen: Marketing Tactics of the Skin Care Industry

Is There Deception in Advertising?

There is not much oversight and regulation of the skincare industry. While chemicals and additives used in cosmetics do require the initial approval of the FDA, individual formulations made by companies do not require approval or proof of effectiveness or safety. This means that a company can formulate a product containing any number of chemicals and often make claims that the product is healing, with no worry of any repercussions.

This has led to rogue marketing in which companies make what are often exaggerated claims about their products' effectiveness and safety. Products that contain minimal amounts of natural ingredients are touted as "natural" or "nourishing." Unfortunately, the general public is uneducated about what often goes into these popular brands, so they trust the advertising and purchase the product. This leads to a continuation of the vicious cycle of absorbing chemicals into our largest organ and compromising long term health. It is important to become an informed consumer and read the labels when shopping for beauty products.

Unrealistic Expectations of Beauty

Another means of deceptive advertising that is very effective in selling mainstream chemical beauty products are the commercial and print advertisements that showcase flawless models representing the latest miracle product. However, what the advertisers fail to state is that the models are heavily airbrushed and touched up in order to achieve the look they are advertising.

Beeswax- This is what provides thickness to your product, similar to the way flour thickens gravy. Beeswax comes in hard blocks or pellets and has to be melted down in order to be used. This is done either in a double boiler, or in Pyrex cup or bowl immersed in boiling water. It is called the **Brain-Marie method or Water Bath**, for anyone who is a baker at heart.

To melt the wax, make sure the bottom of the boiler or pot has an adequate amount of boiling water. Place your wax in the top section or the glass cup. If you have purchased a large block of beeswax, cut it into small squares before trying to melt it.

Lesson Fourteen:

Toxic Chemicals List in Our Skin Care Products

This lesson will summarize the known health complications of using toxic, chemically laden skin care products, including the ramifications for children.

Health Concerns Linked to Toxic Skin Care Products

Your skin is your largest organ and harmful chemicals that are absorbed through the skin have the ability to affect every organ and system in the body. Many people take for granted that the items they use on a daily basis are safe. On the contrary, toxic chemicals found in many commercial products have been linked to the following:

- *Breast cancer
- *Hormonal imbalances

These are just a few inserts from our Organic Skincare Course, and we hope you have enjoyed reading through it!

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