

# BEAUTY IS HOW DEEP?

You may have noticed that there is no lack of information on how to achieve great looking skin. What most advice lacks, though, is an understanding of the crucial role that our overall health plays in our skin's health and to reveal your own true beauty you need to dive deeper than what your mirror is showing you.

Healthy skin is complex of billions of cells that communicates and protects you from the outside world. Skin is your largest organ and it acts as a selective barrier, modulates your temperature, maintains your moisture levels, and is a tool of detoxification.

Your skin is also home to billions of healthy microorganisms; this skin flora (similar to gut flora or probiotics) provides protection against unhealthy bacteria and is of vital importance to the health of your skin.<sup>1</sup> Your skin also produces a vitamin; when sunlight hits your skin it creates the active form of vitamin D, which is essential for bone health, immune system, and may even be helpful for conditions such as depression.

Your skin reflects your inner world and is one of the best tools you have to monitor your overall health. Diseases such as acne, rashes, eczema, psoriasis, and even weak hair and nails are all a reflection of your nutritional status.

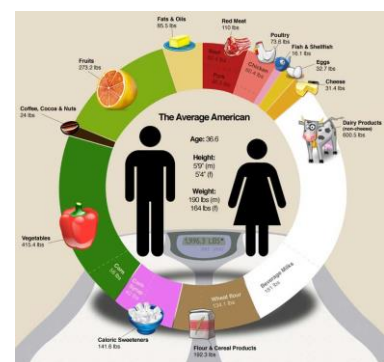
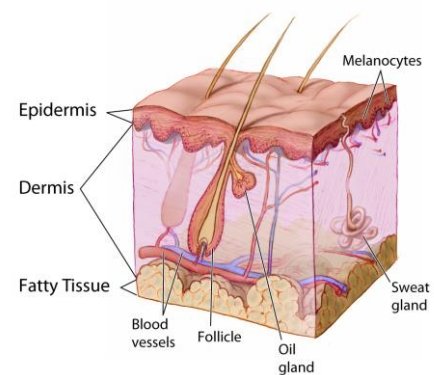
If you want skin that glows and is free from blemishes you have to improve your health, and that means ensuring you are getting the right nutrients, exercising, and eating a great diet. Ultimately, you don't have to spend a lot of money to have great looking skin, but you do have to invest your time and make good lifestyle choices.

## DIET IS THE KEY TO GOOD SKIN

According to the Food and Drug Administration, the average American eats around 23 pounds of pizza, 30 pounds of French fries, 3 pounds of salt, 24 pounds of ice cream, almost 25 pounds of artificial sweeteners, and drinks an astonishing 53 gallons of soda every year.

You cannot possibly hope to have healthy skin if you are eating that much junk. You are what you eat and your skin reflects your current state of your nutrition. The inside-out approach to healthy skin is much better; improving your food choices restores the health of your skin and your whole body.

The common approach to eating better is to list the foods that have skin benefits such as blueberries, carrots, salmon, and other foods containing antioxidants, vitamin C, A, and Omega-3 oils. There are also lists of foods that are bad for your skin, such as chocolate, dairy foods, sugar, or others. Both these lists miss the point and just scratch the surface of the relationship between the foods you consume and the health of your skin.



That healthy glow some people have cannot be faked; it comes from eating the right foods in the right amounts. Your skin can also glow if you take the time to eat the foods that humans should be eating and provide your body with the nutrients it needs.

## BEAUTIFUL FOOD MAKES BEAUTIFUL BABIES

Dr. Catherine Shanahan, MD the author of a book called *Deep Nutrition* suggests something a bit radical: that beauty is shorthand for health. According to Dr. Shanahan, when you are searching for a mate you probably want to find the healthiest specimen you can (in order to ensure your future children's health). Beauty is your clue that the specimen you are checking out across the crowded bar has been well fed and comes from good genetic stock.

Beauty is universally perceived throughout the world as people who have broad faces, high cheekbones, wide jaws, full lips, and symmetrical facial features – no matter which culture or race.

Shanahan suggests that the health of the mother during pregnancy is paramount to creating beautiful children. When a mother is well fed, she produces children with good facial features. She notes that second and later children - especially those who are born quickly after the first – are often not as beautiful as the first child is because each child depletes vital nutrients from the mother.



Her suggestions for growing beautiful babies are a departure from the average diet and include a meat-based diet (including meat on the bone and organ meats), along with fermented and raw foods, low sugar foods, sprouted grains, and no vegetable oils.

Most people weren't lucky enough to have a mother who ate a great diet, but there is still much we can do to optimize our health and the beauty of our skin. Before we look into the perfect diet for your skin, let's look at a few concepts that can help us determine which diet is the best for your skin.

## DETOX

As your largest organ, the skin moves toxins from inside out through sweat and sebum (oils).

It takes about twenty-one days for new skin cells to move from the deep dermis to the surface, so the skin you see is about three weeks old. That means the breakouts you see today may be the result of what you put in your body over a week ago. Your skin can respond immediately to a toxin (such as when you see a rash from a drug reaction or a food allergy) but it can also respond more slowly.

The important point here to understand is that your skin is telegraphing you messages from deep within your body. Who hasn't spent a wild weekend, or eaten poorly over the holidays, only to see their skin erupt the following week?

## DIGESTION

It may seem a long way from your digestion to your skin, but these two organ systems are closely interrelated. When you eat food that is not good for you, your digestive system will respond and this is often reflected in your skin.

- **Leaky Gut:** Poor food choices can lead to a condition called “leaky gut” which destroys the usually selective barrier between the digestive tract and the blood. The body senses this breakdown as an attack and the immune system goes on red alert by increasing inflammation throughout the body.
- **Allergic Reaction:** Proteins (especially glutens and lectins found in grains) have a high potential to cause an allergic reaction in the digestive tract. It is currently estimated that around 6 percent of the population is gluten sensitive, but that number is probably much higher.<sup>2</sup> Any allergic reaction in the digestive tract can lead to local and systemic inflammation – which is another method that a leaky gut becomes leaky (leading, again, to more inflammation).
- **Good Bacteria:** Many foods we eat have the potential to destroy or disrupt the digestive flora (good bacteria). Scientists used to consider these microorganisms unimportant, but they have since learned that these bacteria play vital roles, helping us to digest foods, providing us with nutrients, and even acting as part of our immune system.

The number of ways bad food can influence the digestive system is complex and we are just beginning to understand many of them. It is safe to declare that the closer we get to eating foods that human should to eat the healthier our digestive systems will be.

## INFLAMMATION

Here is something that may not surprise you: modern diets increase inflammation. What you may not know is inflammation is one of the worst things for your skin.

The reason modern foods create inflammation is that we consume foods that our bodies are not adapted to digest. Humans made a bargain with the devil when they decided to stop their roaming ways and started farming. Farming allowed humans to come together and build towns (and eventually cities), but it also exposed them to all sorts of foods that their digestive systems simply cannot handle.

Everything we know (from alphabets to cell phones) is the result of that monumental change from hunter gathering to farming. Eating grains, though, was a huge departure from what humans were eating before agriculture and our ancestor’s new diet led to a variety of diseases that still plague us today.

We know our diets are harmful because modern hunter-gatherers simply don’t have the same diseases we have. Hunter-gathering societies have almost no high blood pressure, high cholesterol, cancer, heart disease, Alzheimer’s, or diabetes (not to mention acne, psoriasis, or other skin conditions)

Adapting a pre-agriculture or hunter-gatherer diet (sometimes called a Paleo diet) can be very helpful for your overall health and your skin.

## SUGAR

Sugar has a special relationship with our skin and most of it is not good.

Dr. Nicholas Perricone MD, the author of *The Wrinkle Cure* and *The Perricone Prescription* suggests that eating sugar is like releasing a burst of inflammation throughout the body, but the damage that sugar can do to our skin goes far beyond inflammation.

- **Sugar Increases Inflammation:** Perricone is right: when your blood sugar increases, there is an inflammatory response throughout your body.<sup>3</sup> Many common skin conditions are inflammatory including acne, rosacea, psoriasis, and eczema.
- **Advanced Glycation End Products:** Sugar is a very reactive molecule and it has the tendency to react with and bind to proteins. This is great when you are baking a cake because that crispy outer layer that most people love is really a protein/sugar combination called a Maillard reaction. In the body when sugar binds to proteins, it produces complexes called Advanced Glycation End-products (or AGEs), which are very harmful for the skin. When AGEs form in collagen, it produces collagen malformation (we call wrinkles) and it attracts inflammation that further destroys collagen. Too many AGEs and you have skin that is rough, inflexible, and eventually thinning.



Keeping sugar out of your body is great for your skin but make sure you remove all “natural” sugars including honey, syrup, and agave. It is important to know that many foods increase your blood sugar more than eating straight sugar; these foods (mostly grains and starchy vegetables) need to be avoided as well.

## COLLAGEN

Collagen makes up 75 percent of our skin, so it pays to keep it healthy. As we age, the amount of collagen in our skin reduces (this is another reason for wrinkles and thin skin in the elderly). This loss of collagen may be a normal part of aging or it may have something to do with our diets.

Our ancestors were not as concerned with the way they looked as we are (the mirror wasn’t invented until around 200 years ago), but they did know the importance of collagen in their diet. The bones of animals were a prized possession and they boiled them to release stored collagen. This bone broth and was one of the key ingredients of many of the foods they ate.

The problem with modern diets is that we not only don’t eat collagen but we also don’t eat enough of the basic building blocks of collagen. Your body can produce collagen from the amino acids proline, glycine, and vitamin C, but most of us don’t get enough of these nutrients. A good solution is to use a bone broth or supplement with gelatin.

## HORMONES

Hormones do affect our skin health.

Acne is higher in adolescents who are undergoing hormonal changes. Scientists who study skin notice that the hormones testosterone, progesterone, insulin, and insulin-like growth factors are increased and serum estrogen levels are low in patients with acne.<sup>4</sup> Women’s skin does change

along with their monthly cycle and decreasing hormones as we age also seems to be responsible for some changes to our skin.<sup>5</sup> Modern food (especially meats and dairy) is also a source of additional hormones that may have an influence on skin health.

The key point when talking about hormones is that our liver plays a vital role in hormone metabolism. If we want to lessen the role that hormones play in our skin's health, then the liver is the place we need to look. The liver's many detoxification engines only work if they are well fed and a well-fed liver means hormones are properly detoxified (and have less of an impact on our skin).

Liver health is achieved by lessening the burden of toxins it must deal with (such as food additives, preservatives, and other chemicals). Key nutrients for liver health include B vitamins, vitamin C, magnesium, and amino acids such as glycine, cysteine, methionine, threonine and others.

## NUTRIENTS

Your skin, just like any other part of your body, needs the right nutrients in the right amounts. While an argument could be made for almost any nutrient and its benefit for skin, here are the ones that have the most impact:

- **Vitamin A:** The most common vitamin for skin is vitamin A. Medical professionals prescribe a high-dose topical or supplemental form of vitamin A for people with acne. Vitamin A reduces inflammation and decreases outbreaks of acne.<sup>6</sup> It also reduces fine wrinkling, hyperpigmentation, and improves smoothness of the skin.<sup>7</sup> Vitamin A also helps psoriasis.<sup>8</sup> It is important to remember that a high dose of vitamin A is not recommended for anyone thinking of or who might have a chance of [getting pregnant](#).
- **Vitamin C:** As a necessary component of collagen synthesis, vitamin C is essential to good skin health, the prevention of wrinkles, and good wound healing.<sup>9</sup> Vitamin C's antioxidant ability helps protect against free-radical damage by sun.
- **Vitamin E:** This vitamin acts as an antioxidant and helps to protect the skin. It has been shown to aid in reduction of wrinkles and keeping skin smooth.<sup>10</sup>
- **Zinc:** Six percent of total body zinc is located in the skin. Zinc nourishes the skin and aids in wound healing, nail growth, and can be used topically to provide a physical barrier to keep out damaging UV radiation in makeup and sunscreen.<sup>11</sup>
- **Selenium:** This mineral is also an antioxidant and an important part of the skin's protection against harmful free radicals; it also helps to treat psoriasis.<sup>12</sup>
- **EPA/DHA:** The most common nutrient deficiency for most people is the lack of essential fatty acids (EPA/DHA). These necessary nutrients are absent in most people's diets and this is reflected in their skin.<sup>13</sup> Essential fatty acids are necessary for the normal growth and development of the skin; they help to protect against sun damage, reduce inflammation throughout the body, promote good wound healing, and actually reduce the risk of skin cancers.<sup>14</sup> Research has shown supplementing with EPA/DHA improves both acne<sup>15</sup> and psoriasis.<sup>16</sup>
- **Flavonoids:** The flavonoids play many roles in antioxidant protection for the skin. The green tea polyphenols (a type of flavonoid) reduce inflammation and provide protection against sun damage.<sup>17</sup>

- **Probiotics:** The gut/skin connection is important and ensuring a healthy digestive system means supplementing with probiotics. Small studies have shown that using probiotics can reduce leaky gut syndrome, systemic inflammation, and improve acne.<sup>18</sup>

## THE PERFECT DIET FOR YOUR SKIN

As you can see, your skin needs the best nutrition in order to thrive.

The best way to ensure you are getting the right nutrients is to eat a diet that matches your genetic heritage. The perfect diet for skin is a Paleolithic or pre-agriculture diet, where you eat foods humans ate before they turned to agriculture.

When we eat grains, our bodies (and skin) pay a heavy price for to increased inflammation, digestive disturbances, and allergic reactions.

Eating a pre-agriculture diet means your focus on foods such as fish, shellfish, meat, eggs, tree nuts, vegetables, roots, low-sugar fruits, mushrooms, while avoiding modern foods such as grains, beans, legumes, starchy vegetables, vegetable oils, sugar, dairy, or anything processed. This diet is really the only way to provide your body and skin with the vitamins, minerals, essential fatty acids, proteins (amino acids), and collagen it desperately needs.

You might be thinking that eating what amounts to a low-carb diet that is full of fat cannot be good for your skin, but science has shown the opposite to be true:

- Studies have shown that a low carb (low sugar) diet is better for skin tone and reduces signs of aging.<sup>19</sup>
- Another study has shown that a high-protein, low glycemic (low sugar) diet improves both skin and hormones in people with acne.<sup>20</sup>
- The Intake of saturated fats in the diet is associated with reduced wrinkling as we age.<sup>21</sup>
- Gluten free diets are useful in both acne and psoriasis.<sup>22</sup>

The goal of a Paleo diet is to remove foods that increase your blood sugar (sugar, grains, starchy vegetables) and consume foods that are high in nutritional value (meats, low-sugar vegetables, nuts). It is important to note that a Paleolithic diet doesn't mean you avoid all vegetables, because vegetables are a great source of nutrition and a higher intake of green and yellow vegetables are significantly associated with a decreased wrinkling.<sup>23</sup>

Before you embark on your healthy eating diet, remember that your skin is a few weeks behind and as you start to become healthier, you may experience a few weeks of worsening skin. This doesn't mean you are on the wrong track, it is your skin pushing some of those toxins out of your body, and it will clear up soon.

## WHAT TO PUT ON YOUR SKIN

The short answer to what you should put on your skin is: as little as possible. If you are buying the cheapest skin care you can find, you might want to reconsider because you are releasing a chemical stew into your bloodstream that you really should avoid.

Many facial care products contain harsh chemicals and alcohol that tend to dry out your skin. While drying your skin may seem like the right approach (you may have oily skin), it is not. When your skin is

dry, your body will increase its own oil production, which increases the risk for acne. A good solution is to rub a small amount of oil into your face after you clean your face at night. Many facial serums available contain good oils, but remember that you don't want to use any oil on your face that you wouldn't put in your body – so most vegetable oils are out. Try using straight olive, avocado, or coconut oil.

Remember that almost anything you put on your skin will end up in your blood stream. Years ago we used to think that the skin was a barrier that keep everything out, we now know that almost anything that touches the skin will move inward (this is partly why so many drugs now come in patches). Chemically based products are effective (they do work) the problem is that they often cause long-term damage to the skin and their effects on the rest of our body are unknown. The list of chemicals that potentially can cause harm in most skin care is alarming.

Here is a short list of the worst offenders: avoid anything with sodium lauryl, sodium laureth sulfate, petroleum, paraffin, mineral oil, parabens, propylene glycol, phthalate, toluene, dioxane, ammonia, acetate, or formaldehyde.

The best skin care is as natural as possible and you now have many options. Simplify your skin care routine by using only a good cleanser and moisturizer. Choose products that are low in fragrance, low in preservatives, and low in chemical names you cannot pronounce. Health food and online stores carry a good variety of natural products. Dr. Hauschka is the father of natural skin care and has a great reputation, newer product lines such as DeVita, Alba Botanicals, Jason's, Burt's Bees all do a good job. You can also make a lot of your own skin care product at home with wonderful results.

## EXERCISE AND SUN

Let's not leave the topic of healthy skin care without touching on exercise and sun exposure.

It is probably not news to you that exercise is good for your health, but did you also know it is good for your skin? When you exercise, you increase blood flow and that means you are bringing in oxygen and nutrients to the skin while at the same time you are flushing out all the old cellular debris. Exercise is one of the keys to giving your skin that healthy glow; you should exercise as often as possible.

Most of us avoid sun exposure as if it were a poison. It is true that ultraviolet radiation is one of the major sources of damage to the skin, but that damage occurs because most people's skin is not well protected. Studies have shown that both essential fatty acids<sup>24</sup> and antioxidants<sup>25</sup> can be protective to skin when exposed to ultraviolet radiation. Sun is essential to good skin and sun exposure is used as a treatment in both psoriasis<sup>26</sup> and acne.<sup>27</sup>

The key to sun exposure is in the amount: too little and your body won't function well, too much and you risk skin damage. Use sunscreens if you are going to be out in the sun long enough to risk getting sunburn (this is different for everyone), but don't use them every time you are out in the sun. Avoid sunscreens that use chemicals, instead choose physical blocks such as zinc or titanium dioxide.

## YOUR SKIN IS YOUR HEALTH

Everyone wants skin that looks great and finding the combination of nutrients and lifestyle choices that makes your skin glow is not all that hard, it just takes dedication on your part to see that your skin's health is a reflection of your overall health. If your skin is looking bad, take the time to see what you have

been eating lately and if you have been exercising and taking care of yourself. If your skin looks great, know that you have been making the right choices for your skin and overall health.

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