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Skin & Hair Quality

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Medical Disclaimer & Important Note

This guide is a general health-related information product, intended for healthy adults over the age of 18.

This guide is for educational purposes only. It is not medical advice. Please consult a medical or health professional before you begin any exercise, nutrition, or supplementation program, or if you have questions about your health.

Participating in exercise activities or using products mentioned in this guide may pose risks for people in poor health or with pre-existing physical or mental health conditions.

Do not use any products or participate in any activities if you are in poor health or have a pre-existing mental or physical health condition. If you choose to participate, you do so of your own free will, and you knowingly and voluntarily accept the risks.

While we will mention major known drug interactions, it may be possible for any supplement to interact with medications or other drugs. If you are currently taking medication, consult a health professional prior to using any supplement in this guide.

Specific study results described in this guide should not be considered representative of typical results. Not all supplements provide the exact amount of compounds as listed on the label. Always investigate supplement companies, as well as the supplement itself, before purchasing anything. Herbs, rather than isolated compounds, may also have some variability from one batch to the next that can alter the efficacy.

To read the evidence supporting claims mentioned in this guide, please visit [Examine.com](https://www.examine.com).

Table of Contents

04	How to use this Guide
05	Base Supplements
06	Proven Options
09	Unproven Options
12	Cautionary & Overhyped Options
13	Assembling Your Supplement Stack
15	Stack Modification FAQ
16	Precautions & Troubleshooting

How to use this Guide

The team at Examine.com has been publishing research on nutrition and supplementation since March 2011. In that time, we've learned a great deal about supplements, especially how they can work together to help you with health goals.

This stack guide help you figure out which supplements can help you and which will hinder and/or be a waste of your money for your desired goals.

The following four sections present information on supplements that are relevant to *Skin & Hair Quality*:

1. Base Supplements
2. Proven Options
3. Unproven Options
4. Cautionary and Overhyped Options

Base Supplements are recommended for the majority of people with this goal. They are either effective on their own or are required to boost the effects of another supplement. These are the first supplements to consider for your stack. Base Supplements are more researched and have less adverse drug interactions than options.

Proven Options are supplements that will provide a lot of benefits, but only in the right context. They cannot be recommended for everyone, but if you read the entry and find that you meet the criteria, feel free to add the supplement to your stack.

Unproven Options are another group of potentially beneficial supplements, but they lack evidence for their effects. They cannot be recommended with the same confidence as proven options. They could work or be a waste of your money - there is not enough evidence to know for sure. Keep unproven options in mind, but approach them cautiously when incorporating them into your stack.

Cautionary and Overhyped Options are supplements that are claimed to provide benefits but have been shown to be ineffective. If a supplement is deemed too risky to be used, it will also be found in this section. **Do not** add these compounds to your stack; they tend to be a waste of money or potentially harmful to your health.

Once we have explained the various supplements that you need to be aware of, the **Assembling your Supplement Stack** section will outline how different supplements can be combined, based on your objectives.

After that, we follow up with the **Stack Modification FAQ**, in which we cover common questions that may arise when assembling your stack.

Lastly, we include information on **Precautions and Troubleshooting**.

With all this combined, you should be able to identify and assemble a supplement stack best suited for your goals and objectives.

Base Supplements

This stack does not currently have any base supplements.

Polypodium leucotomos

Why you should take it

Polypodium leucotomos, also known as calaguala, is an herb often supplemented for skin health.

Polypodium leucotomos supplementation was originally used to treat psoriasis, a skin disease characterized by red marks and rashes on the body.

Polypodium leucotomos has been called herbal sunblock because the bioactive compounds in the plant accumulate in the skin after supplementation and increase the time it takes for UV radiation to redden and damage the skin.

Supplementing *Polypodium leucotomos* also increases antioxidant enzyme levels in skin cells, which can delay DNA damage and inflammatory responses from stressors.

How to take it

To supplement *Polypodium leucotomos*, take 7.5 mg per kilogram of bodyweight. This results in the approximate dosages of:

- 500 mg for a 150 lb person
- 700 mg for a 200 lb person
- 850 mg for a 250 lb person

Polypodium leucotomos can also be supplemented by applying a topical skin cream containing 0.1% *Polypodium leucotomos*.

Vitamin A

Why you should take it

Vitamin A increases collagen levels in the body. Collagen is the main structural protein in connective tissue. Applying vitamin A to the skin can increase collagen synthesis while preventing collagen degradation.

Vitamin A supplementation can also reduce skin lipid content, which is why a synthetic compound similar to vitamin A, called Accutane, is used to treat acne. Accutane's major side effect is skin dryness and peeling.

Applying vitamin A nightly can reduce the appearance of age-related wrinkles by increasing the skin thickness. Continued usage of vitamin A can also lighten abnormal skin pigmentation, like sun spots. When applied to the face, vitamin A can make the skin smoother.

Vitamin A may not provide benefits for wrinkles caused by sun exposure.

People that get prolonged daily sun exposure should not apply vitamin A topically. High doses of oral vitamin A have been linked to birth defects. Though topical vitamin A application has not been linked to birth defects, pregnant women and women planning families should be careful with excessive topical application of vitamin A.

How to take it

To supplement vitamin A, apply all-trans retinoic acid, also known as tretinoin, to the skin through a cream containing between 0.025 – 0.1% of the molecule. Higher doses are more effective, but also more likely to cause dryness and mild skin peeling.

Coconut Oil

Why you should take it

Coconut oil is a popular home remedy for skin and hair health. Though further research is needed to determine if coconut oil can improve skin health, there is evidence to suggest it can improve hair quality.

Coconut oil has been shown to strengthen hair, resulting in less breakage. It is also claimed to improve the 'silkeness' of hair, but this has not been investigated in a study.

How to take it

Apply coconut oil to the hair in a thin layer after washing and drying. If your hair feels greasy, you've applied too much coconut oil. The best way to apply coconut oil is by putting it on your fingers and running your fingers through your hair.

Creatine

Why it is a proven option

Creatine is a source of energy for cells. When a cell has a high level of creatine, it becomes more responsive to growth due to having a large supply of energy available.

Applying creatine to skin may increase collagen synthesis. Collagen is an important structural protein in connective tissue.

Creatine is an unproven option because there have been no human studies to test whether topical creatine supplementation can really influence collagen synthesis and skin health.

How to take it

To apply creatine topically, use a 0.02% concentration in a cream or lotion. This equates to approximately 100 mg of creatine per 500 g of lotion. Since there is no human evidence behind topical application of creatine, it is recommended not to exceed a 0.5% (2.5 grams per 500 grams of lotion) concentration.

Vitamin K

Why it is a proven option

Vitamin K is an essential vitamin that plays a minor role in skin health. Fat soluble vitamins, like vitamin K, tend to accumulate in skin.

Some studies have noted vitamin K supplementation to reduce skin redness caused by erythema or purpura, which are characterized by dark or red blotches on skin. More research is needed to determine the mechanism through which vitamin K exerts this effect.

There have not been any studies done on vitamin K in the context of skin quality or collagen synthesis. Furthermore, vitamin K may interact with warfarin and the topical drug methyl salicylate. Talk to your doctor before supplementing vitamin K if you are taking these pharmaceuticals.

Some evidence suggests vitamin K supplementation may increase vitamin A's ability to improve skin vascularity.

How to take it

To apply vitamin K topically, use a cream containing 2% phylloquinone, also known as vitamin K1. Apply this cream nightly and redness should fade within 10 days.

Vitamin K2 may be absorbed through the skin like vitamin K1, but there have been no studies on applying it topically.

Zinc

Why it is a proven option

Zinc is sometimes recommended as an oral supplement to alleviate skin conditions like acne. Though it has a lot of evidence for its effects, it cannot be recommended for everyone.

Zinc supplementation has been shown to treat acne, viral warts (HPV), and psoriasis. Zinc must be supplemented in large doses to achieve this effect: 100 – 200 mg of elemental zinc. This is not a safe dose for daily usage. Prolonged supplementation of high doses of zinc can cause a copper deficiency.

A lower dose, 30 mg, can treat acne, which is the main reason zinc is recommended in this stack.

Zinc supplementation may reduce the absorption of quinoline and tetracycline antibiotics when taken together.

How to take it

To supplement zinc, take 30 mg a day of zinc gluconate.

Zinc can be taken with a meal or on an empty stomach.

Unproven Options (cont.)

This dose is commonly recommended for athletic people who have high zinc losses in sweat. If you are either sedentary, don't produce a large amount of sweat, or have a diet moderate to high in meat products this dose could be dangerous for long-term daily usage. If that is the case, then reduce the daily dose to the range of 10-20 mg once daily.

Vitamin E

Vitamin E has frequently been recommended as a topical cream alongside vitamin C to protect the skin from oxidative damage.

Though vitamin E does play an important role in skin health, topical application of vitamin E does not improve skin health or look, and does not protect against oxidative damage. Furthermore, applying vitamin E to skin may cause redness, and applying it to broken skin will hamper the healing process.

Oral supplementation of vitamin E can increase vitamin E levels in skin cells, but further research is needed before oral vitamin E supplementation can be recommended for skin health.

Biotin

Biotin is a popular supplement because it is claimed to protect skin and hair. There is no evidence to suggest biotin can improve skin or hair quality.

A biotin deficiency can result in worse hair and skin, and supplementing to restore this deficiency will restore skin and hair quality, but whether supplementing above and beyond the normal level of biotin has any effect has not the topic of a human study.

Biotin deficiencies are very rare. It should not be included in the Skin & Hair Quality stack.

Assembling Your Supplement Stack

The following outlines how to incorporate this supplement stack into your daily nutrition habits.

Incorporating Base Supplements

The Skin & Hair Quality stack does not have any base supplements because each supplement should be taken based on the benefits you want to see in your skin and hair. All Skin & Hair Quality stacks are different based on individual needs.

Incorporating Supplement Options

For people shielding themselves from the sun

Supplement *Polypodium leucotomos* (7.5 mg/kg), once a day.

For people that want thicker, smoother, tighter skin

Apply a **vitamin A** (0.05% tretinoin) cream to your skin nightly. Adding a topical application of **creatine** (0.5% or less) is optional.

For anyone suffering from acne

Supplement **zinc** (30 mg) in the form of zinc gluconate, alongside a healthy diet, exercise plan and good hygiene habits.

For people with skin redness

Use a cream containing **vitamin K** (5% phylloquinone) and a low dose of **vitamin A** (0.05% tretinoin) cream, applied nightly.

For people supplementing for hair quality

Wash and dry your hair. Then, lightly coat your fingers in **coconut oil** and run them through your hair repeatedly. Hair should not feel greasy after coconut oil application. If it does, use less coconut oil. Coconut oil can be applied nightly.

How do I add supplements to my stack that are not covered in this guide?

Before adding a new supplement to your stack, supplement your current stack for a few weeks to determine if you need to make a new addition. If you want to make multiple changes to your stack, pick one supplement to add at a time. Identify the stack change that you think will be the most effective, and do your research:

1. Use [Examine.com](https://www.examine.com) to determine if that supplement would have a negative interaction with your current stack. Talk to your doctor about including a new supplement in your stack.
2. Introduce the new supplement at half of the regular dose.
3. After a week with the new supplement, slowly increase the dose to the recommended dose if you are not experiencing the effects you want.

Stacks are intended to be synergistic, which means taking two supplements together may provide more effects than the supplements by themselves. New supplements should be added carefully, since even low doses can be powerful if other supplements in your stack improve their effects.

Can I modify the recommended doses?

If a supplement has an established advised dosage range, stay within that range. If a supplement has a recommended dose, and not a range, stay within 10% of that dose. Halving or doubling an advised dose could be ineffective or even dangerous.

The safest way to add dietary supplements to your life is one at a time. If you are considering purchasing several supplements, purchase only one and add the others after a week or two of supplementation. This will limit the risk of new supplements, and it will also make it easier to figure out what supplements are providing you with your newfound benefits.

Precautions & Troubleshooting

The safest way to add dietary supplements to your life is one at a time. If you are considering purchasing several supplements, purchase only one and add the others after a week or two of supplementation. This will limit the risk of new supplements, and it will also make it easier to figure out what supplements are providing you with your newfound benefits.