

Biotin and Beta-Sitosterol for hair loss

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Editorials

Exactly what to expect from these natural supplements as part of your regimen...Several of our male and female users are putting their hopes in natural treatments like Beta-Sitosterol and Biotin. We asked Dr. Marty Sawaya to give her input on exactly what to expect from these natural supplements as part of your regimen...

Introduction

I know the internet discussion forums on the various hair loss sites have so much information from people who have taken things like: MSM, beta-sitosterol, and of course my long time favorite is biotin, not to mention a half-dozen others or more. I will try to review some of the frequently used herbal/nutritional supplements such as: MSM (Methyl-sulfonyl-methane), beta-sitosterol, pygeum, nettles, green tea, biotin and fish oil (Omega-3) in a series of 5 or 6 articles for HairlossTalk.com. This article will address Beta-Sitosterol and Biotin.

Overall, some of these things “may work for some people” and this just happens to be so, where about 10-15% of folks will swear it really helped their loss, and shedding, or helped to stabilize the hair loss. We don't know why it works for some, and not others. In the human scalp hair cycle we know that when men start to lose hair, there is a subsequent regrowth of that same hair, where it grows back thinner, shorter and less pigmented. The hair cycle becomes shorter and shorter with each successive cycle.

The hair cycle is a very complex thing to understand, and there is variation to some extent in everyone, but once you understand the hair cycle, it is easier to understand hair loss and why the regrowth that we see, and which many people attribute to treatments and herbal supplements, is really just a part of the ongoing ebb and flow of loss and regrowth. As for some of these herbal agents, let's review Beta-Sisterol and Biotin with regard to hair growth.

Beta-Sitosterol for hair loss

betashot.jpg

There are hundreds of compounds that are thought to “block DHT”. This is the oldest story in the book, and I've tested hundreds of these in the laboratory where we look for their effects in the steroid hormone pathway. Many of these products also make claims to help benign prostate hypertrophy (BPH) and lower cholesterol because DHT goes “hand in hand” with hair and prostate and has even been associated with heart disease. We do know that the same androgens affect the prostate (enlarging it) and scalp hair (miniaturizing it). These compounds usually have the steroid backbone chemical structure, but the side groups are changed, trying to mimic certain hormones in the pathway, therefore, being “so-called inhibitors”. It's so easy to make these claims, and when you read the company literature, you realize they haven't really been tested and they don't really know an enzyme from a receptor.

The website, www.wholehealthmd.com, describes studies done with beta-sitosterol for 200 men with BPH, and states, “significant improvements in urinary difficulties”. These men took 20 mg of the compound, three times a day for 6-months. From there, the Hair Genesis Company makes

claims for the product to be a DHT “blocker” and grow hair. There should be concern over these claims, like so many other products that have made these same claims. If you want something to block DHT, or inhibit DHT production, then you should use finasteride/Propecia, since it inhibits the 5a-reductase enzyme type II.

(Continued on next page...)

- Legitimate Proven Hair Loss Treatments for Men

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Many compounds make claims to “block” DHT by inhibiting DHT from blocking to its receptor, or by inhibiting enzymes in the pathway, but very few grow hair.

The most effective way to use any “androgen blocking or inhibiting agent” is in the earliest stages of hair loss. Once the hair is gone, or hair loss has stabilized, these compounds offer little benefit to regrowing the hair that was lost. Even finasteride/Propecia is limited in its regrowth of hair, depending on the duration and extent of hair loss in men. That’s why the search for better agents continues.

Biotin for hair loss

biotin.jpg

Biotin

This is a nutritional supplement that has been around for years and years. The whole concept of biotin was found years ago in the fur industry. Animals, such as minks and chinchilla’s were raised for their pelts in making mink coats. When these animals were fed raw eggs, the protein in eggs called, avidin, inhibited biotin in the vitamin pathway, hence the animals started to shed their fur and have very scanty pelts. Feeding raw egg whites was then omitted from the diets, and the animals recovered. **So, unless you have a diet high in raw eggs/egg white, and have developed a consequential biotin deficiency from it, it is best to forget about biotin.** The avidin protein is found in raw egg whites, and once it is cooked, the protein is denatured and not active.

Conclusion

The overall problem I have with herbal, nutritional products is that companies can make these products in any way they want, without any federal regulation governing them. So, “anything goes”. They are not regulated by the FDA or any government agency. As long as they watch their claims (even so, they still cross the line making outrageous claims at times), the FDA won’t come after them. I have found many of these products to vary in potency, purity, and consistency from batch to batch so that you don’t know what you are getting. This many times leads to real safety hazards, because they are considered as nutritional/herbal supplements and not thought to be harmful.

There have been cases where people get sick, and have bad side effects from taking these supplements bought at their local vitamin store or any other retailer. People also need to be aware of the drug interactions these products may have with any prescription drugs they are taking. Many herbal/nutritional agents are taken at high doses with multiple frequency thru the day, and they really haven’t been tested to their claims, not to mention, purity, concentration, consistency,

any other additives from batch to batch.

For now, CAUTION is advised for any nutritional/herbal supplement you decide to take to treat your hair loss. For many, like biotin, they may not hurt you, but I doubt it will really help you.

Next issue will continue on herbal remedies and will discuss: Pygeum, Nettles, Green Tea, and Omega-3 Fish Oils.

Marty Sawaya MD, PhD

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