

# **A Retrospective Study to Investigate and Evaluate the Results of Hair Loss Cessation and Hair Regrowth in Adult Males and Females.**

*Authors: Michael Fuhrman, D.O. and William Blatter, MM - Physician / Researcher*

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## **Introduction:**

This study is a direct byproduct of the Thairapy Gold Protocol designed to improve cosmetic hair wellness and hair quality in individuals using nutritional supplements and topical products developed to inhibit DHT and promote healthy hair, and to improve scalp conditions. For the purpose of this study, hair wellness and hair quality are being defined by increased thickness, new growth and density. Patients were observed over a course of 1 year and changes were noted at 3-month intervals.

As the project continued the subjects enrolled began receiving the normal course of treatments administered for hair wellness. Technicians and clients alike observed the unanticipated effects of hair loss cessation and demonstrable hair regrowth.

All subjects received treatment in a single Hair Solutions center for 52 weeks, under the care of the clinic's medical staff. Subjects in this study presented themselves to the clinic hoping to improve their hair quality. Although there were more than 75 total subjects enrolled for the hair wellness therapy, only 55 had adequate documentation for performing accurate hair analysis with a capillscope with observation made looking for new hair growth, increase in number of hairs and total quality and thickness of hair. This was done with baseline capillscope photos and at the completion of 13 weeks.

## **Purpose:**

The purpose of the study was to evaluate the available data on the safety, efficacy of the use of Thairapy Gold Protocol in its possible application as a therapy for treating patients experiencing hair loss.

## **Materials & Methods:**

Complete and reliable data was collected from 55 adult, male and female subjects between the ages 23 and 75, having Hamilton-Norwood classifications between stages II and V and Fitzpatrick skin types 1 through 5 were treated.

A Registered Nurse, who had years of extensive experience and undergone training and certification, exclusively, performed recording and documentation of all hair counts. The technician was trained in the setup, and management of the camera and the recording of observations. This material was then reviewed by the Physician and the chief researcher for accuracy and consistency.

## **DHT Blockers**

It is now widely accepted that the main culprit in the hair loss of 95% of men and 70% women is DHT. Therefore, the principal aspect of the strategy to stop hair loss is to block DHT.

## **Blocking DHT can be accomplished by:**

- Keeping DHT from attaching to the receptors in the hair follicles.
- Reducing the production of DHT.
- Inhibiting the production of the enzyme 5 alpha reductase which converts testosterone into DHT.
- Reducing the substances that can produce the enzyme 5 alpha reductase like cholesterol.

In this section we designate as a “DHT Blocker” any product that achieves any of the objectives above. The importance of the DHT blockers in this section is to keep DHT from damaging the hair follicles. This is imperative to stopping long term hair loss. Damaged hair follicles will begin producing less hair, thinner hair until they stop producing hair completely.

### **Saw Palmetto - Herbal DHT Blocker**

This is probably the best known natural DHT blocker. Saw Palmetto has shown to effectively block DHT and is also believed to block the androgen receptors which are found within the hair follicles. Gamma Linolenic Acid (GLA), Alpha Linolenic Acid (ALA), Linoleic and Oleic Acid are essential fatty acids found in plant oils.. Like GLA and ALA, Saw Palmetto also blocks Type 1 and Type 2 forms of 5 alpha-reductase and has shown to be more potent than Finasteride.

Studies have been performed on the use of Saw Palmetto in the treatment of benign prostatic disease which similarly to Androgenetic alopecia also depends on the production of dihydrotestosterone. All studies performed to date show that Saw Palmetto is an effective antiandrogen and has shown conclusively to be effective in the treatment of benign prostatic disease.

Saw Palmetto has been extensively studied over the past several years for the treatment of enlarged prostate in men ( BPH ). Saw Palmetto extract which is a known anti-androgen is the liposterolic extract of the fruit of Saw Palmetto.

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One may assume from this that since Saw palmetto is an effective antiandrogen and is used in the treatment of prostatic disease then it may also be effective in the treatment of Androgenetic Alopecia. Saw Palmetto is a potent herbal DHT blocker.

The vast majority of people taking Saw Palmetto have no apparent adverse side effects. It is tolerated very well and has been confirmed during clinical investigations using Saw Palmetto to treat benign prostate hyperplasia. Minor side effects can include stomach irritation and feelings of indigestion. In part, these side effects can be avoided by not taking Saw Palmetto on an empty stomach.

#### **Saw Palmetto**

The best-documented herbal treatment for BPH is the oil of the berry of the saw palmetto tree. This herb is so well accepted in Europe that synthetic pharmaceuticals are considered alternative therapy for BPH. Saw palmetto offers two potential advantages over conventional drug treatment. The most obvious is that it usually causes no side effects. Another advantage is that saw palmetto does not change protein-specific antigen (PSA) levels. Lab tests that measure PSA are used to screen for prostate cancer. The widely used drug Proscar can artificially lower PSA levels, which may have the unintended effect of at least 10 :: [double-blind, placebo-controlled](#) studies involving a total of about 900 participants have compared the benefits of saw palmetto against placebo over a period of 1 to 12 months. [2,8,58,61-62](#) f masking prostate cancer.

#### **Pygeum Bark Extract**

The pygeum tree is a tall evergreen native to central and southern Africa. Its bark has been used since ancient times for urinary problems. At least 17 double-blind trials, ranging in length from 45 to 90 days, of pygeum for BPH have been performed, involving a total of almost 1,000 individuals. [18-22,5](#) The best of these trials was conducted at 8 sites in Europe and included 263 men between 50 to 85 years of age. [23](#) Participants received 50 mg of a pygeum extract or placebo twice daily. The results showed significant improvements in various measures of BPH severity.

We don't really know how pygeum works. Unlike the standard drug finasteride, it does not appear to work by affecting the conversion of testosterone to dihydrotestosterone. [24](#) Rather, it is thought to reduce inflammation in the prostate and to inhibit prostate growth factors, substances implicated in inappropriate prostate enlargement. [25,26,2](#)

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### **Nettles - Herbal DHT Blocker**

Clinical studies have confirmed stinging nettle's benefit to men in reducing symptoms of benign prostatic hyperplasia (a noncancerous enlargement of the prostate gland). A concentrated root extract of nettle is sometimes combined with saw palmetto (*Serenoa repens*) and the bark of the pygeum evergreen tree (*Pygeum africanum*) to treat the early stages of the disease. The herbal combination helps to increase the urinary volume and maximize the rate of urine flow. German research suggests that active ingredients in the nettle root may reduce prostate swelling. Again, since androgenetic alopecia is caused by the same factors (DHT) as prostatic hyperplasia. Therefore, this combination of ingredients is also extremely effective in warding off hair loss.

### **Pumpkin Seed Oil- DHT Natural Remedy**

Have been demonstrated to inhibit DHT formation through the inhibitory effect on 5-alpha-reductase activity. Inhibition of DHT formation is also known to be beneficial for hair growth if you are experiencing age-related hair loss. Pumpkin seed oil breaks down DHT via the liver.

### **Green Tea - Herbal DHT Blocker**

Green Tea is an extremely powerful antioxidant. It also reduces DHT and cholesterol. It is believed that drinking the tea or taking a pill extract can stop hair loss and facilitate re-growth. Green tea contains flavonols and catechins, substances that have been found to have significant antioxidant, antitumor, anti-inflammatory, and antimicrobial properties.

### **Linolenic Acid DHT Blocker**

Research has shown linolenic acid to be an efficient antiandrogen. Linolenic acid is a potent 5 alpha reductase inhibitor and may be useful in the treatment of disorders related to the hormone Dihydrotestosterone. Linolenic Acid has been suggested to be of use in the disorders such as benign prostatic hyperplasia, acne androgenetic alopecia and hirsutism.

### **Beta Sitosterols-Natural DHT Remedies**

Contains a mixture of phytosterols. Phytosterols (sterols) have anti-androgenic properties. This is the substance that can block DHT. Beta Sitosterols contains more sterols than saw palmetto. In addition, Beta Sitosterols also lower cholesterol levels which also inhibit the production of DHT. Therefore, it is a very powerful DHT blocker and since it is a completely natural product, it does not have any adverse side effects.

In several studies, Beta Sitosterols have been proven as effective as many drugs in treating prostate problems. Since these prostate problems are also caused by DHT, it is easy to see that Beta Sitosterols can be a powerful weapon in warding off hair loss.

### **MSM (methyl sulfonyl methane)**

is a sulfur-containing compound normally found in many of the foods we eat. It is chemically related to DMSO (dimethyl sulfoxide), a popular (although unproven) treatment for arthritis. When DMSO is applied on the skin or taken orally, about 15% of it breaks down in the body to form MSM.

Some researchers have suggested that the resulting MSM could be responsible for DMSO's supposed benefits, although this has not been proven. MSM may be preferable, as it does not cause some of the unpleasant side effects associated with DMSO treatment, such as body odor and bad breath. Because it is a natural ingredient found in food, MSM might be safer as well.

**Results:**

The table below summarizes the combined results for all subjects. Significant hair growth was observed in each area where noted. Of the 55 subjects in the group

82% demonstrated clinically significant increase hair growth and density by week 16.

75% presented a substantial increase in hair growth and density which was demonstrated clinically significant by week 16,

63.6% presented front hair growth that was clearly demonstrated clinically significant.

16.2% increased hair not deemed clinically significant or maintained hair total hair volume.

1.8 % of subjects had total hair volume go down. Interview further indicated that this was at approximately the same rate as prior to study.

**Adverse Reactions:**

All subjects were questioned about any side effects from this therapy. Specifically, each subject was questioned on the presence of headache, pruritus, erythema, burning and tingling sensations. There were no headaches, pruritus, erythema, burning or tingling sensations observed by the interviewer or reported by any subjects.

**Data Analysis:**

Growth rates reflect the average change of hair from baseline date for subjects as measured in 3 scalp locations.

t=top f=front gc=crown whirl c=crown

Initials	age	race	M/F	3 months	6 months	9 months	1yr	compliance
EA	44	c	m	gc,f,t	no chg	no chg	no chg	fair
PB	59	c	f	gc,t,f	gc,t	gc,t	gc	fair
LB	38	c	f	gt,f	gc,t,f	no chg	gc,t,f	good
GB	54	c	f	gc,t,f	gc,t	gc,t,f	c,t,f	good
MB	27	c	m	gc,t,f	gc,t	gc,t	gc	fair
SC	50	c	f	gc,t,f	gc,t,f	no chg	gc	good
SC	38	c	f	gc,t,f	no chg	gc,t,f	gt,f	fair
LD	51	c	f	gc,t,f	gc,t,f	no chg	gc,t,f	fair
SD	44	c	f	no chg	gc,t	gc,t	nav	fair
IG	75	c	f	no ch	gc,t,f	c,t	gt,f	good
JG	41	c	m	gc,t,f	gc,t	gt,f	no chg	good
AH	58	c	f	gc,t,f	no chg	gt,f	no chg	good
RH	48	c	f	gc,f,t	gc,f	gf	gc,t,f	fair
NH	24	c	f	gc,t,f	gc,t	gc,t,f	no chg	fair
MH	63	c	f	gc,t,f	gc,t,f	gc	gc	good
TH	56	c	m	gt,f	gt,f	gc,t,f	c,t,f	good
FI	48	c	m	gc,t,f	gc	gc	gc	good
BJ	28	c	m	no chg	gc,t,f	gc,f,t	gc,f,t	fair
KJ	57	c	f	gc,t,f	gc,t	gt	gc,t,f	fair
PK	57	c	m	gc,t,f	gc,t,f	gf	gc,t,f	good
JL	37	c	f	gt,f	gt,f	gc,t,f	gt,f	fair

EM	29	c	f	gc,t,f	no chg	gc,f,t	gf	poor
TM	40	c	f	gc,f	gc,f	gc,t	gc,f	good
MM	48	c	f	gf	gt,f	no chg	gc,t,f	good
KM	25	c	m	gc,t,f	no chg	gt	no chg	poor
JO	65	c	f	gt	gc	gt	gt,f	good
LR	46	c	f	gc,t,f	gt	gt,f	gt	good
DR	59	c	m	gc,t	gc,t	cgc,t	gt	good
GS	44	c	f	gt	no chg	gt,f	gc	good
PS	47	c	f					good
PW	54	c	m					fair
MP	23	c	m					good
JM	31	c	m					good
LL	43	c	f					good
LD	40	c	f					good
DR	71	c	f					good
LB	47	c	f					good
YL	54	b	f					good
MN	66	b	f					good
ER	64	c	f					good
SS	59	b	f					fair
DC	56	c	f					fair
SH	49	c	f					good
RP	41	c	m					good
DZ	63	c	m					good
RK	45	c	m					good
DN	24	c	m					good
TP	26	c	m					good
SH	51	c	m					good
AF	42	b	f					good

\*Substantial growth - defined as an increase in hair of over 25% increase in total hair volume.

### Conclusions:

The Thairapy Gold Hair All-Natural Protocol has demonstrated efficacy for the cessation of hair loss and stimulation of hair growth. The anecdotal data summarized herein indicates that with a multi-therapeutic approach, in this randomized, clinical study demonstrates that the All-Natural Program results vary however, there was consistent improvement seen in the majority of clients who maintained protocol compliance.

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