



## Androgenetic Alopecia and Nutrition Genetic Test

Hair loss can be very devastating psychologically. Hair loss in men can begin as early as 20's, in women the changes are most noticeable between 40's -50's. The heritability of androgenetic alopecia can be as high as 50% - 70%. Both men and women produce "male" hormones. Balding scalps are characterized by high levels of the potent androgen dihydrotestosterone (DHT) and increased expression of the androgen receptor gene. Therefore high DHT and increased expression of the androgen receptor gene are proven to be the leading factors for androgenetic alopecia.

While there are different reasons behind hair loss, establishing the diagnosis is therefore critical in developing the treatment strategies. Sometimes the cause could be genetic or, secondary to medical conditions, eg. Nutrition deficiencies (Vitamin B,D, Iron etc), hormonal imbalance, autoimmune diseases etc.

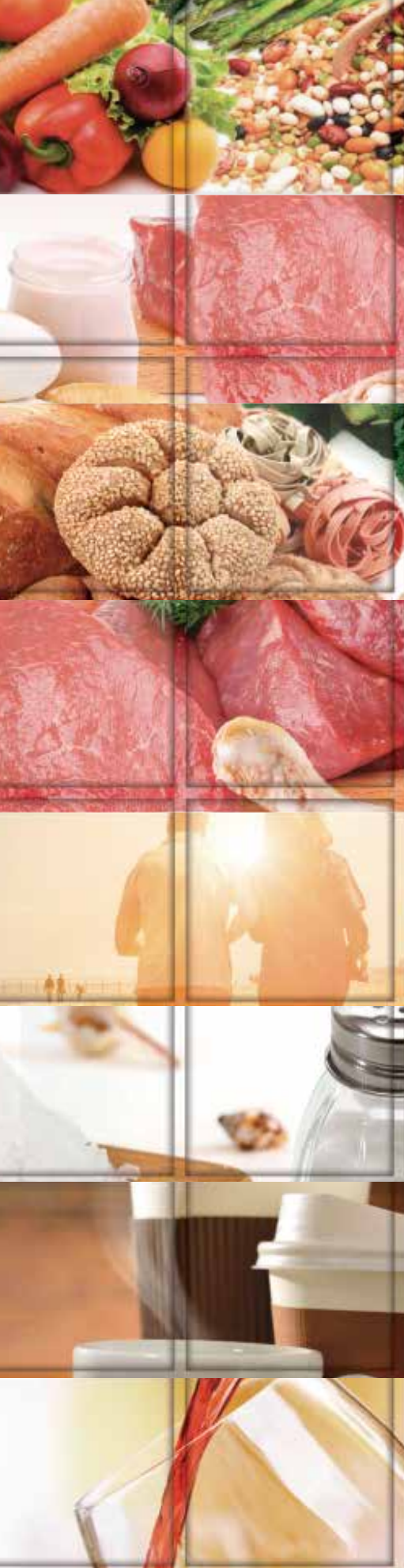


- As influence of hereditary is as much as 50% - 70%, (30% – 50% due to environment), a physician using the genetic screening test for hair loss, can reliably predict that a patient that tests positive has  $\geq 50\%$  - 70% chance of becoming bald; thus, the patient can benefit from early treatment.
- Similarly, a physician can reliably predict that a patient that tests negative has more than 50% - 70% chance of not becoming bald; thus, the patient can avoid costly treatment.
- The hair loss genetic test accompanied by other medical diagnostics, can accurately diagnose the root cause of hair loss and thus develop personalized treatment strategy.

### Nutrition and hair loss

Just like our body needs nourishment to stay healthy, our hair too needs certain nutrients to maintain a healthy growth cycle. These nutrients reach our scalp and hair follicles through a healthy diet and supplement in any forms. Due to different individual genetic makeup, some diets and nutritions can cause either more harm or more good to some people in maintaining healthy hair growth, eg. Vitamin B, D, gluten, caffeine etc. The report examines individual genetic makeup and helps to identify your natural tendency to have favourable or unfavourable responses to diets and nutrition. Knowing the deficiency tendency can help you to customize your diet and supplements cater to your hair health.





### **Vitamin B groups**

Considering the number of biochemical processes dependent on the B Vitamins, it is clear that Vitamin B can promote hair growth and stop hair loss. They especially nourish cells of the hair follicles.

### **Vitamin B6**

A Vitamin B6 deficiency will cause hair loss. This vitamin stimulates hair growth due to its effect on blood circulation and cell-building.

### **Vitamin B12**

A lack of Vitamin B12 is a common factor in women's hair loss. It is an important nutrient in the growth and strength of hair.

There does not have to be a noticeable deficiency for the hair to be affected. Often, women who diet neglect the foods that contain B12 and other B Vitamins will have an impact in hair loss.

### **Folic Acid (Vitamin B9)**

Folic acid is a part of the B vitamin family. Studies have proven that folic acid and hair growth are linked. If the scalp and follicles do not get enough nutrients and oxygen, they cannot produce a substance called ATP that is very important for the cell growth. This can cause the body to use testosterone instead and this male hormone is a well-known cause of hair loss or baldness. Other cell activity also slows down without sufficient folic acid. This makes the production of new hair strands slower, resulting in thinning hair.

### **Calcium And Vitamin D**

Everyone knows that calcium and Vitamin D are needed for strong bones.

Hair needs this combination in order to be healthy. There are not many studies supporting a direct correlation between hair loss, Vitamin D levels, and calcium, however optimal Vitamin D and calcium increase general health which is thought to help slow down hair loss.

### **Gluten Sensitivity**

Gluten sensitivity is found to be a cause of Autoimmune Hair Loss. This condition can effect men and women and typically manifests as circular balding patches over the head. Other forms of autoimmune hair loss can cause total baldness and in even more severe cases, can lead to universal body hair loss. Besides gluten can cause Nutritional Hair Loss as well. One of the primary side effects of gluten is damage to the intestinal lining. This damage can lead to malabsorption of vitamins and minerals. Therefore gluten intolerance and sensitivity can create nutritional deficiencies in protein, iron, Vitamin C, calcium, selenium, B-vitamins, and many others necessary to maintain proper and healthy hair growth.

### **Caffeine**

Caffeine has actually been proven to be good for hair growth. In fact, caffeine may actually help some men and women to regrow some of their hair. The Internal Journal of Dermatology even issued a statement saying that caffeine is a "stimulator of human hair growth."

Now does this mean that everyone should go out and drink a lot of coffee? The answer is no especially if you are genetically sensitive to caffeine. There are instead topical solutions that contain caffeine that can be utilized.

### **Salt Sensitivity**

When salt is consumed and accumulated in massive quantities especially if you have unfavourable response (sensitive) to salt, it can be toxic to your hair, since deposits will build-up around your hair follicles. This build-up can block important nutrients from entering your hair follicles and these nutrients are very important for your hair's health. When your hair follicles are deprived of nutrients, it can slowly cause hair loss to occur.

### **Alcohol Metabolism**

Excess alcohol can cause hair loss. It is mainly due to the fact that alcohol affects the levels of estrogen and zinc in the body, which subsequently affect hair growth. In addition, excess alcohol can also induce a lower level of Vitamins B and C in your body. Besides folic acid levels can also fall which is also vital in maintaining healthy and strong hair.

If you are a poor metabolizer of alcohol due to your genetic makeup, then you may need to pay extra caution in your consumption of alcohol.

本檢測在經GLP及ISO17025國際認證的英國基因實驗室進行，  
檢測標準符合國際水平或以上。



geneDecode™ Co., Ltd.  
Tel : (852) 2157 1252  
Email : info@gene-decode.com  
www.gene-decode.com