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ONION JUICE: AN EFFECTIVE HOME REMEDY FOR COMBATING ALOPECIA

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ABSTRACT

*Alopecia is the loss of hair and can be caused by different reasons, including damage to the hair shaft or follicles. Fungal infections can also cause hair loss. There are two main types of alopecia. Alopecia areata occurs when the body's immune system attacks hair follicles and causes hair to fall out. Androgenetic alopecia, on the other hand, is an inherited form of hair loss. Onion (*Allium cepa*) recognised with healing qualities include their antibacterial, cleansing, stimulating, and nourishing powers. Onions contain a number of important minerals and vitamins, such as vitamins C and B6, calcium, magnesium, potassium, and germanium. Onion also has high sulphur content. Sulphur is a mineral present in every cell in our body, with its greatest concentration in hair, skin and nails. It has often been called the "beauty mineral" and the "healing mineral" because of its ability to promote circulation and decrease inflammation. These qualities also lend to the theory that adequate amounts of sulphur can jump-start hair growth in people with deficiencies. High amounts of sulphur in onions make them particularly effective in regenerating hair follicles and stimulating hair regrowth. In addition, naturally-concentrated sulphur compounds have been proven to show additional hair-restoring.*

KEYWORDS : Alopecia; *Allium cepa* (Onion); Hair; Sulphur

INTRODUCTION

Baldness is the state of having no hair or lacking hair where it often grows, especially on the head. The most common form of baldness is a progressive hair thinning condition called androgenic alopecia or "male pattern baldness" that occurs in adult male humans and other species. The amount and patterns of baldness can vary greatly; it ranges from male and female

pattern alopecia. A natural hair loss remedy can be done with herbs, massage or natural diet methods. People doing these remedies with hopes that no side effect would appear. Onion can be used as alternatives of herbal hair loss remedy (1). *Allium cepa* is usually thought of as a vegetable, It is also has a long history of medicinal use. Mainly the fleshy bulb that grows below the ground is used medicinally as well as for food but other parts of

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the plant also has a place in the traditional medicines. *Allium cepa* is the common onion. Although it is usually thought of as a vegetable, *A. cepa* also has a long history of medicinal use. Onions are perennials that are cultivated for food worldwide. There are many varieties. Most onion bulbs are white, yellow, or red. The green stems and leaves are hollow and can reach 3 ft (1 m) in height. The plants bear small flowers that are usually white or purple. The fleshy bulb that grows below the ground is used medicinally as well as for food. Onion is believed to have a positive effect on the circulatory system (2). Onion is a popular folk remedy for hair loss. It is a tried and tested product, having been used for centuries not only for its potent hair strengthening properties, but also for other medicinal purposes. In fact, physicians in the middle ages prescribed onions to counteract snake bites, earaches, headaches, and hair loss. Onion (*Allium cepa*) recognised with healing qualities include their antibacterial, cleansing, stimulating, and nourishing powers. Onions contain a number of important minerals and vitamins, such as vitamins C and B6, calcium, magnesium, potassium, and germanium. Onion also has high sulphur content. Sulphur is a mineral present in every cell in our body, with its greatest concentration in hair, skin and nails. It has often been called the “beauty mineral” and the “healing mineral” because of its ability to promote circulation and decrease inflammation. These qualities also lend to the theory that adequate amounts of sulphur can jump-start hair growth in people with deficiencies. High amounts of sulphur in onions make them particularly effective in regenerating hair follicles and stimulating hair regrowth. In addition, naturally-concentrated sulphur compounds have been proven to show additional hair-restoring. To spot sulphur deficiency, watch out for dry skin, weak nails, and brittle hair. Other signs may include allergies, unusual fatigue, headaches, diabetes, and sore muscles and joints. If we do not maintain a proper diet, then chances are our body is not getting enough sulphur that it needs. As a matter of fact, scientists believe that chemical pesticides and

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fertilizers exhaust the soil of sulphur and this affects the sulphur content of plants being grown in that soil. Moreover, processed foods have been found to contain smaller amounts of sulphur because the mineral has been destroyed in the process. Sulphur cannot be manufactured by the human body, so it must be gotten through other ways, such as eating sulphur-rich foods and taking supplements(3).

Medical Terms: (4)

- Alopecia is a medical term, and can be used to refer to baldness and or hair loss.
- Baldness is defined as an area of the scalp that is no longer covered by hair.
- Hair loss is defined as a more generalized loss of hair over the entire scalp, or over part of the scalp, but hair is still retained in the area.
- Premature is defined as baldness or hair loss occurring early in the life cycle - essentially before age 30 years.

Types Of Alopecia :(5)

1. Anagen effluvium, or permanent hair loss, is caused by the loss of the follicles.
2. One of the causes of baldness is the condition called as telogen effluvium, or a non-permanent loss of hair, is caused by the transitory damage of the hair follicles.
3. Alopecia areata is a baldness symptomised by the sudden loss of hair and normally leaves patchy areas of hair loss or baldness on the scalp.
4. Alopecia totalis is a baldness characterised by hair loss over the whole scalp.
5. Alopecia universalis is hair loss and baldness affecting all hair producing areas of the body, including the scalp, underarms, eyebrows and pubic hairs.
6. Androgenetic alopecia refers to baldness caused by normal genetic influences. For men, it's mainly caused by DHT, while in women other genes and their genetic expression are responsible.
7. Traction alopecia is baldness and hair loss caused by pulling on the hair - such as when braiding, pony tailing, styling and so on, as can be seen in the photo on the right.

8. Male-pattern Alopecia is well known, it just refers to the normal ordinary baldness of men.

Causes of Alopecia:

Baldness, which is medically known as alopecia, affects both sexes, male and female, and can be caused by any of the following(6):

1. Age can cause baldness and hair loss, by its effects on hormones and the weakening immune system. This type of baldness and hair loss is often reversible, using hair loss treatments targeting the hormone problem. However, age also affects our hair loss in a more permanent way some of our hair follicles die, and this hair loss cannot be reversed.
2. Illness can cause baldness. In terms of illnesses that cause baldness and or hair loss, infections of the scalp, scarlet fever, and typhoid fever are three prominent ones. This type of baldness is also often reversed when the illness is recovered from most can expect all their hair to regrow back.
3. Genetics can certainly be a cause of baldness in a small number of individuals. Baldness that is genetically determined is rare, and often irreversible.
4. Lifestyle can cause baldness in some individuals - such as tight braiding, poor diet, and so on. Often the baldness and or hair loss is reversible, but it does depend on what actually caused it. For example, tight braiding can sometimes scar the scalp, destroy the hair follicles, making normal hair regrowth essentially impossible.
5. Environmental factors can cause baldness, such as exposure to caustic gases, x-rays and pollutants. Whether the baldness is reversible, again depends on what causes it. As a general rule of thumb, if the hair follicles are not destroyed, hair regrowth is possible.
6. Some medications can also cause hair loss and premature baldness. Chemotherapy is well renowned for causing hair loss and baldness. Mostly a reversible form of hair loss and baldness.
7. Hair products can also sometimes cause hair loss and baldness the more chemicalized, the more the potential for trouble. As long as the

hair follicles are left alive and well, hair regrowth is possible and likely.

8. Fungal infections or tumours of the scalp that cause baldness are easy to cure via medicine, although it may take an extremely long time - weeks to months to years - for the drugs to take full effect and for hair to regrow fully.
9. And hormonal changes can definitely cause baldness.

One of the major hormonal causes of baldness or permanent hair loss is dihydrotestosterone - **DHA** - a form of testosterone converted to its state by an enzyme created in the prostate, scalp and adrenal glands called 5-alpha reductase(7). This testosterone causes hair follicles to die and shortens the hair follicles growing cycles, causing the hair grown to be weaker. Dihydrotestosterone occurs naturally, and is hard to stop from being created, but it can be controlled with some antibalding medications

Onion:

Botanical Source:

The onion is any of a variety of plants in the genus *Allium*, specifically *Allium cepa*. *Allium cepa* is also known as the "garden onion" or "bulb" onion. Above ground, the onion shows only a single vertical shoot; the bulb grows underground, and is used for energy storage, leading to the possibility of confusion with a tuber, which it is not. It is a close relative to garlic (8).

Scientific Classification:

Kingdom: Plantae
 Division: Angiosperms
 Class: Monocots
 Order: Asparagales
 Family: Alliaceae
 Genus: *Allium*
 Species: *A. cepa*
 Botanical name: *Allium cepa*

Food Value of Onion

Onion which derived its name from the Latin *Onio* and French *Oignon*, has been described by someone as the dynamite of all natural foods. Compared with other fresh vegetables, it is relatively high in food value, moderate in protein content and is rich in calcium and riboflavin. There

is considerable variation in composition between different varieties and it also varies with the stage of maturity and the length of storage. The odour in onion is due to organic sulphur compounds, and is produced only when they are cut or injured, by enzyme action on a water soluble amino acid. Heating, freezing and drying prevent the enzyme action. That is why cooking produces a different odour, flavour and pungency. The pungent flavour is appreciated by many people in many countries. The strong odour lingers for a considerable amount of time after consumption. It is said to be due to small particles retained in the mouth which cannot always be removed by brushing. Onion is one of the vegetables which have the best keeping quality. The dried cured bulbs may be kept for several months without deterioration and can stand rough handling.

Food value of onion

Values per 100 gms edible portion (9)

| | |
|----------------|---------------------|
| Moisture 86.6% | Calcium 47 mg |
| Protein 1.2% | Phosphorus 50 mg |
| Fat 0.1% | Iron 0.7 mg |
| Minerals 0.6% | Vitamin C 11 mg |
| Fibre 0.4% | Carbohydrates 11.1% |

Mode of Action:

Onions are also antibacterial, can be used for cleansing, improving circulation, and have the power of nourishment, all of which can be good for helping to heal baldness and hair loss - Characteristics similar to garlic's, which are beneficial in correcting hair loss and baldness. More specifically: Onions contain a quantity of important nutrients, like vitamins C and vitamin B6. Onions also contain calcium and magnesium, along with potassium and germanium. The onion is also high in sulphur, which is a mineral contained in every single cell in the human body.

High Sulphur Content of Onion (Beauty Mineral):

Sulphur has its highest levels in the hair, the skin and in the nails, which is why it is known as the "beauty mineral"(10). Big levels of sulphur in our onions will make them really useful in regenerating the hair follicles on our scalps and promoting the regrowth of hair and hence reduction in baldness and hair thinning as it is providing the hair with an

extra amount of sulphur, that can be absorbed into the scalp and hence help the hair follicles in growing hair. As well, natural sulphur, as found in onions, has been proven to have greater hair-restoring properties than mined sulphur. Don't know why, it's one of those odd findings one comes across from time to time. These qualities of onions also back up the theory that onions can boost hair growth in some of us with nutrient deficiencies. Obviously, if we provide nourishment to the scalp directly, as by applying onions, we help to stop and reverse hair loss and balding caused by DHT or bad diet, and maybe improve the strength of the hair growth as well. Onion is also known for its healing powers because it promotes the circulation, thereby getting more nourishment to the hair growing areas of the scalp via the blood stream, thus helping to prevent hair loss and baldness by providing the hair follicles with more nutrients to grow the hair with. Onions can also decrease inflammation - decrease redness and swelling - which is an extra bonus if you suffer from that on your scalp.

Other Actions: (11)

- One way in which the onion hair loss remedies may work, is by providing nourishment topically to the hair follicles, especially if the nourishment of the hair follicles is being blocked by DHT or by bad diet.
- Another way, in which the onion topical remedies may act to cure hair loss and baldness, is by killing some germs that may be infecting the scalp area.
- Yet another mode of action of onion on hair loss and baldness, is by killing parasites that may be infecting the scalp.
- Also, some fungi infections may respond to onions being applied directly to them, and that may help remedy some types of hair loss and baldness.

CONCLUSION:

Onion is useful against hair loss because of its high sulphur content. Sulphur is known as the "healing mineral" since it has the ability to stimulate blood circulation and reduce skin inflammation. It is also

called the “beauty mineral” because it is vital in the development of collagen, which is the major protein in our skin that gives it durability and smoothness. It also keeps our hair and nails in top condition. These properties of sulphur thus mean that the right amount of sulphur levels in our body can aid in reducing hair loss and encouraging hair regrowth.

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