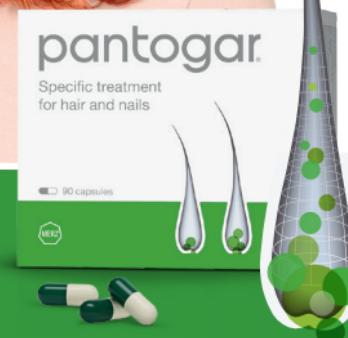




GROWS

AND
GROWS

AND
GROWS



pantogar®

Specific treatment
for hair and nails

90 capsules



Patient information

Effectively treating
hair loss

Activate the regrowth of your hair!

Dear reader,

Thank you for taking the time to read this brochure about the treatment and prevention of hair loss. If you are suffering from hair loss yourself or know someone who is, the following will provide you with information about the causes of hair loss and how it can be treated. **Because you don't have to simply accept it – there is actually something you can do about it.**

We lose around 80 hairs each day. This is completely normal and no reason for concern. If, however, the number of hairs being shed increases significantly over an extended period of time, this is considered abnormal hair loss that is in need of treatment.

Women as well as men frequently find hair loss stressful because thick, healthy hair is often considered a sign of attractiveness and vitality. If hair becomes thinner or falls out at a greater rate, those afflicted should not panic, but instead determine the causes of the hair loss in order that these may be consequently treated in a targeted manner.



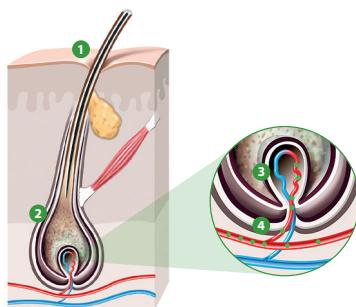
A closer look at hair

In order to better understand the causes of hair loss, one has to first take a look at hair itself.

Did you know that ...

- We have around 100,000 hairs on our heads.
- Hair grows by around 1 cm per month.
- A hair's life span is around 2–6 years.

Hair is a flexible strand of keratin around 0.1 mm thick with a relatively high tensile strength and elasticity. It consists of the interior medulla, the cortex and the cuticle. The cortex contains fibres that are important for the hair's strength and elasticity. The cuticle is composed of scales that overlap each other like roof tiles. In a healthy hair, these scales lie flat against the hair. In damaged hair, the scales are rough and the hair appears dull and lacklustre.



The hair is fed via the hair root. It is embedded in the skin and absorbs nutrients via tiny blood vessels. They are important for the development of new cells and thus for hair formation. Interrupting the supply of nutrients affects hair growth.

The life cycle of a hair

As previously mentioned, we lose around 80 hairs each day. What at first sounds like an alarmingly large number has to do with the life cycle of our hair. This is divided into 3 different phases: the growth phase, the transitional phase and the resting phase.

The growth phase (anagen phase)

The growth phase lasts for about 2–6 years and is thus much longer than the other two phases. The majority of all human hair is in this phase at any considered time. The hair cells are very active and the hair grows by around 1 cm per month. The hair is at its most vulnerable during the growth phase. Disruptions during this time can lead to hair damage or the growth phase being cut off.

The transitional phase (catagen phase)

The transitional phase follows the growth phase and lasts just a few weeks. Hair growth stops and the hair root recedes. Around 1 % of all hair is in the transitional phase.

The resting phase (telogen phase)

Before a hair falls out, it enters the resting phase. This lasts for about 3–4 months. The shed hair makes space for the growth of a new hair, which emerges after a few weeks. The life cycle reveals why hair loss must always be treated over a period of several months. The damaged or dead hair needs this time to be able to grow back strong and healthy.

Patterns and causes of hair loss

Hair loss and hair damage can have different causes and express themselves in a variety of ways. Patterns of hair loss are also gender-specific.

Diffuse hair loss and its treatment

In the case of diffuse hair loss, which occurs more frequently in women than in men, the entire head is affected. Although the hair root is intact, it receives an inadequate supply of the nutrients required for hair growth, such as amino acids and vitamins. These normally enter the hair via tiny blood vessels. In the absence of these nutrients, the hair root is unable to produce healthy hair and may cease activity altogether. The result: The growth phase is cut short and the hair is shed.

A useful approach in this case is to provide the hair root with an adequate supply of the nutrients it needs for growth. A reliable combination of active ingredients can be found, for example, in **Pantogar®** capsules for oral administration.

There are numerous things that trigger diffuse hair loss: medical conditions, such as infections or metabolic disorders, certain medicines, stress, psychological stress, poor nutrition or hormonal changes (e.g. stopping the pill or giving birth) can lead to hair being inadequately nourished. If the cause of the diffuse hair loss can be determined, it should be medically treated as soon as possible. Meanwhile, **Pantogar®** can help to prevent excessive hair loss and stimulate hair growth once again.

Hereditary hair loss and its treatment

Hereditary hair loss is also referred to as androgenetic alopecia. In this case, the hair thins out, especially at the temples and crown, and is significantly more pronounced in men than in women. Hereditary hair loss in women usually expresses itself in the form of a thinning crown and visible scalp. What causes this? The hair roots are hypersensitive to the hormone DHT (dihydrotestosterone), a metabolic by-product of the breakdown of the hormone testosterone.

Hereditary hair loss can be treated with special medications which are applied directly to the affected areas. Furthermore, Pantogar® is often recommended by physicians as a combination therapy for hereditary hair loss, as the highly concentrated active substance complex also supports the natural function of the hair root.



Diffuse hair loss



Hereditary hair loss

A combination of diffuse and hereditary hair loss

It is possible for both patterns of hair loss to occur together, however. This is often the case following hormonal changes or during menopause.

Effectively treating diffuse hair loss

Pantogar® is a treatment for diffuse hair loss that has proven highly effective in clinical trials. Pantogar® contains a potent combination of nutrients, including B vitamins, amino acids and medicinal yeast, which supply the hair with all the important nutrients it needs:

- **Cystine**, an amino acid, is one of the principle components of the hair protein keratin
- **B vitamins** promote the growth of new hair cells
- **Medicinal yeast** provides trace elements and vitamins needed for the hair's metabolism

One **Pantogar®** capsule is taken orally 3 times a day with some liquid. It is recommended to be taken with or after meals. Treatment with **Pantogar®** should be continued for a period of 3–6 months.

Pantogar® is effective at treating diffuse hair loss

- **Significantly reduces hair loss^{1,2}**
- **Stimulates healthy hair growth^{1,2}**
- **Improves the hair quality³**

¹ Finner AM. Significant improvement of diffuse telogen effluvium with an oral fixed combination therapy – a meta-analysis. Trichomed Hair Clinic Berlin, Germany, Poster, EHRS, 2011.

² Lengg N, Heidecker B, Seifert B, Trüeb RM. Dietary supplement increases anagen hair rate in women with telogen effluvium: results of a double-blind, placebo-controlled trial. Therapy, 2007. 4(1): p. 59-65.

³ Budde J, Tronnier H, Rahlf VW et al. Systemische Therapie von diffusem Effluvium und Haarstruktur schäden. Hautarzt, 1993. 44: p. 380-384.

**Of vital importance for treatment to be effective:
Your dedication and patience**

Pantogar® provides the hair roots with all the important nutrients it needs. Despite this, when treating **diffuse hair loss**, it takes some time before the first signs of success become apparent.

This is a consequence of the hair's life cycle. It takes a certain amount of time for the hair roots to recover sufficiently to be able to initiate a new growth phase and for new hair to grow back.

For this reason, it is important to follow the treatment with **dedication and patience**. Hair loss preparations can only achieve their full effect if administered on a regular basis. It takes a few months for the success of the treatment to become visible.



Tips for long-lasting, beautiful hair

Proper care

The use of shampoos and lotions that are too aggressive can, over time, cause damage to hair. A mild shampoo with a pH value of around 5.5 is gentle to both hair and scalp. Your hairdresser can advise you best on choosing the right hair care products.

Blow-drying and styling

Your hair needs to be treated gently after washing too. Excess moisture can be squeezed out with a towel and the wet hair carefully combed through using a wide-toothed comb. The effect of excessive heating on delicate hair, caused by blow-drying or styling at a too high temperature, can result in hair breakage. In order to dry hair gently, it is best to set the hairdryer to a medium heat setting and use a brush with natural bristles for styling.

Colouring hair

DIY bleaching or other colour treatments can severely impair the hair structure if used incorrectly. Your hairdresser knows your hair best and knows what colour treatment it can tolerate.

The right diet

Do you eat a healthy, balanced diet? Do you drink enough mineral water each day? Fresh fruit, vegetables and whole-grain products should be part of your daily diet too. Amino acids and B vitamins have an especially beneficial effect on hair growth.

Avoid stress

Adequate amounts of sleep, fresh air, regular exercise and a relaxed lifestyle have a beneficial effect on hair and body too. Always treat yourself to something pleasant between stressful phases – e.g. a head massage. This not only has a relaxing effect, but increases blood circulation, and thus the uptake of nutrients, in the scalp.

Environmental influences

As pleasant as sea and sun are for the spirit, they are harmful to hair. Protect your hair and scalp when exposed to strong sunlight by providing additional care and wearing a head covering.



Pantogar® is available
in your pharmacy.



For more information visit our
website www.pantogar.com

Pantogar®, capsules, hard

Indications: Diffuse hair loss of unknown origin. Degenerative changes in the hair structure (stressed, thin, inelastic, brittle, lifeless, dull, colourless hair), hair damaged by sunlight or UV radiation. Prevention of greying of the hair. Nail growth disorder (brittle, cracked and inelastic nails).

For risks and side effects please read package insert and ask your physician or pharmacist.

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