

Dandruff - (*Pityriasis Capitis*)

Dandruff

Dandruff is also called *Pityriasis capitis*, and is due to excessive shedding of dead skin cells from the scalp. It is normal for skin cells to die and flake off. A small amount is normal and in fact quite common. Some people however, either chronically, or as a result of certain triggers, experience an unusually large amount of flaking, which can also be accompanied by redness and irritation. Those affected by dandruff find that it can cause social or self-esteem problems. Treatment may be important for both physiological and psychological reasons.

Pathogenesis

As the epidermis replaces itself, cells push outward where they eventually die and flake off. In some conditions cell turnover is unusually rapid, especially in the scalp. For people with dandruff, skin cells may mature and be shed in 2 - 7 days in comparison to a month in people without dandruff.

Causes

Dandruff can have several causes including:

- dry skin
- irritated, oily skin
- not shampooing often enough
- psoriasis
- eczema
- sensitivity to hair care products
- a yeast-like fungus

Required Factors

It has been shown that dandruff is the result of 3 required factors:

- skin oil also called sebum or sebaceous secretions
- the by-products of skin micro-organisms
- individual susceptibility

Risk Factors

Almost anyone can have dandruff but certain factors can make you more susceptible:

- age (non-specific)
- being male
- oily hair and scalp
- poor diet
- certain illnesses eg. Parkinson's disease
- immunocompromised patients
- stress
- frequent exposure to extreme heat and cold

Illustrations



Mild Dandruff

Signs/Symptoms

- white/grayish patches on scalp
- very itchy/irritated scalp
- dry scalp
- clumpy in appearance

Compounded Treatments

Zinc Pyrithione/Pyridoxine Topical cream

- zinc pyrithione: this helps reduce the fungus on the scalp that can cause dandruff.

Coal Tar 5%/Salicylic acid 10% Topical solution

- tar based shampoo: helps by slowing down how quickly the skin cells die and flake off.

Salicylic acid 1.8% Scalp Lotion

- shampoo containing salicylic acid: these “scalp scrubs” help eliminate scaling which leads to flaking.

Selenium sulfide 2.5%/Zinc pyrithione 1%/Urea 2.25% Shampoo

- selenium sulfide: these slow your skin cells from dying. Only use as directed and to rinse well after shampooing.

Ketoconazole 1%/Zinc prithione 1% Shampoo

-ketoconazole shampoo: is a broad spectrum anti-fungal agent.

Alternative options:

Tea Tree oil shampoo: must be used in daily shampooing to reduce dandruff

References

www.lexicomp.com

www.wikipedia.com (Encyclopedia)

“Dandruff and Treatment Options,” Koda-Kimble, *Applied Therapeutics*, 5th Edition, Mayo Clinic, Sept 2007.