

**ALUMNI COLUMN**

# Don't take dandruff lightly!

By: Nurul Nadiah binti Saripshah

Many people wish for beautiful hair and a healthy scalp. However, one of the main factors that hinders this goal from being achieved is dandruff. Dandruff may affect someone's appearance and also lower their self-confidence.

Dandruff is usually white in colour and occurs due to the excessive shedding of dead skin cells on the scalp. This may lead to dryness of the scalp and cause discomfort as well as itching. Besides the common dandruff that affects most people, there are also some who suffer from chronic skin conditions, such as the excessive formation of scaly patches on the scalp, including seborrhoea and psoriasis.

Seborrhoea is a scalp inflammation condition that leads to the accumulation of thicker, yellowish and oilier flakes. On the other hand, psoriasis is a condition that causes excessive growth of skin cells on the scalp, causing thickened skin, redness, scales and the formation of silver-coloured flakes.

## The Causes of Dandruff

The main cause of dandruff is not yet fully understood, but studies have suggested that dandruff may occur due to the *Malassezia* fungus. This fungus lives on the scalps of most adults without causing any problems. However, research shows that an overgrowth of *Malassezia* is commonly found in individuals who suffer from dandruff. These findings imply that this fungus could be a potential cause of dandruff.

Dandruff is more likely to occur in individuals who do not maintain personal hygiene, especially in hair care. An oily scalp leads to the production of more dead skin cells. Besides that, factors such as an individual's sensitivity to hair care products, hormonal changes, stress, and an unbalanced diet may also contribute to the risk of dandruff development. Diseases that affect the nervous system, such as Parkinson's disease, as well as conditions that weaken the immune system, also contribute to the development of dandruff.

**Ways to prevent the formation of dandruff**

One of the practices that may prevent dandruff is to wash hair regularly to keep the scalp clean and free from excess oil and dead skin cells. A recommended type of shampoo is an anti-dandruff shampoo containing menthol, as this active ingredient is effective in reducing the itchiness on the scalp.

In addition, individuals with dandruff should also manage stress effectively, maintain a healthy and balanced diet, and limit the use of hair dryers. It is important to consume foods rich in vitamin B, such as fish, whole grains, nuts, egg yolks, bananas and leafy vegetables, which can promote a healthy scalp.

**Treatment for Dandruff**

Dandruff problems can be treated by using anti-dandruff shampoos. The formulations for treating dandruff help minimise itching and flaking, slow down the production of skin cells, and reduce fungal growth on the scalp.

One of the treatments that can be used for dandruff is selenium sulfide, which is available in the market in shampoo form. Selenium sulfide reduces the rate of skin cell growth on the scalp and also has antifungal properties. During the initial stage of treatment, selenium sulfide shampoo may be used 1-2 times a week and then only as needed or as directed by the doctor. When using this product, it is advised to avoid contact with the eyes, nose, mouth or broken skin.

Another commonly used treatment for dandruff is coal tar shampoo. The active ingredient helps by slowing down the production of skin cells on the scalp. Individuals using this shampoo should make sure it is thoroughly rinsed out after each use, as it may cause hair discolouration, leave stains, and potentially lead to scalp irritation. The frequency of use should be in accordance with a doctor's instructions.

In addition to treatments that target skin cell production, antifungal treatments are also commonly used to treat dandruff. Antifungal shampoos, such as ketoconazole shampoo, help prevent the growth of fungi, which is a common cause of scalp inflammation and dandruff. Individuals that use this shampoo should apply it evenly to the hair and leave it for 3-5 minutes before rinsing thoroughly. It can be used twice a week for a period of 2-4 weeks, depending on the doctor's instructions, with at least a 3-day gap between each use.

There are also formulations that combine salicylic acid, which helps remove dandruff from the scalp. However, salicylic acid can also cause the scalp to become dry. These products should be used according to the instructions of a doctor or pharmacist to minimise potential side effects.

### **Alternative formulations available in the market**

Apart from the treatments commonly prescribed by doctors, people with dandruff can also try other products available in the market. Shampoos containing tea tree oil have been found to help reduce dandruff and alleviate itching on the scalp. Other ingredients such as bergamot oil, thyme, garlic, and peppermint are also said to promote a healthier scalp with regular use. When using these alternative products, one should follow the usage instructions provided on the product label.

### **Advice for patients and the general public**

Dandruff, a common problem for many people, can usually be treated with over-the-counter anti-dandruff products. However, individuals with persistent or worsening dandruff are advised to seek further evaluation if the problem does not improve. A thorough assessment by a doctor is essential to identify the underlying cause of the dandruff. This is important to ensure that the treatment provided is appropriate to the root cause of the issue.

In addition to a doctor's examination, patients are also encouraged to seek guidance from a pharmacist on the correct use of anti-dandruff treatments. Proper usage not only improves the effectiveness of the treatment but also helps avoid any unwanted side effects.

In addition to using anti-dandruff products, preventive measures should be practiced consistently to effectively prevent dandruff. Addressing dandruff effectively is important, as it helps improve aesthetic appearance as well as boosts an individual's self-confidence.

For further inquiries regarding medications, patients or the public can contact the National Pharmacy Call Centre (NPCC) at 1-800-88-6722 (Monday to Friday, from 8 AM to 5 PM, excluding public holidays).

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## About the Author

**Nurul Nadiah binti Saripshah** is an UiTM alumni, from the batch of RX11, Bachelor of Pharmacy (Hons.). After graduating in 2016, she did her Provisionally Registered Pharmacist training at Hospital Permaisuri Bainun, Ipoh. Currently, she is a Fully Registered Pharmacist at Hospital Sultan Ismail Petra, Kuala Krai, Kelantan.

