The Skin's Little Warriors

Consultant Dermatologist Dr Chang Choong Chor explains how the many microbes colonising the skin contribute to overall health.

words **Maithili Vasudevan**

Go on, take a close look at your skin. You can't see it, but you are covered in microbes – trillions of them, in fact. "It is estimated that just one square centimetre of skin hosts about a billion microbes, specifically viruses, bacteria, fungi and mites," says Consultant Dermatologist Dr Chang Choong Chor.

The skin's microflora

These microbes form the microflora of the skin, and are harmless under normal circumstances, explains Dr Chang. "The population of the residential microbes is relatively stable, and is quickly restored after the normal washing of skin."

Interestingly, the population of microbes varies across the body. "Sebaceous (oily) areas like the face, upper back and chest tend to have more *Propionibacterium* species, the bug associated with acne. Moist skin folds like the armpits and groin are rich with *Corynebacterium* and *Staphylococcus* species, while dry areas are usually dominated by *Proteobacteria*."

Skin microflora is more or less the same from person to person, although factors like genetics, age, skin diseases, hygiene, climate and use of medication may cause variations.

Helping the body

They may be small, but these helpful microbes play a big role in keeping us healthy. "The skin's flora protects us from harmful pathogens by providing ecological competition, taking up available space and leaving none for dangerous bugs," explains Dr Chang. They also produce various antimicrobial substances that protect the skin.

"The flora also interacts with the body's immunity, keeping it on its toes – developing, educating, activating and assisting the immune system in the defence against harmful pathogens and contributing to wound healing."

Maintaining a good balance

It's important to maintain healthy skin microflora for good skin, says Dr Chang. Here are five tips to remember:

- Keep skin clean with a gentle cleanser and moisturise often.
- Avoid routine use of antiseptic washes and harsh or alkaline soaps.
- Ensure proper aeration of skin folds.
- Avoid unnecessary and prolonged use of antibiotics, which can upset the microflora balance.
- Have a healthy, balanced diet. **HT**

Friend to foe?

It's crucial that you maintain your skin health because should the skin barrier be breached, some of these 'harmless' microbes may turn dangerous, causing infections like impetigo, folliculitis, cellulitis and boils, says Dr Chang.

"Surgical or traumatic wounds may become infected, while skin conditions like eczema and psoriasis can fall victim to secondary bacterial or fungal infections. In immune-compromised individuals, opportunistic infections are possible."