A Rainbow of Colours

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The rainbow of skin colours is what makes each of us unique and the world so beautiful. An individual's skin colour is based on genetics but were your ancestors the same colour as you? Research suggests that the populations over the past 50,000 years have changed skin colour as they migrated to different parts of the world. Skin pigmentation in humans has evolved by a process of natural selection. Depending on the geographic location, people's skin developed into different colours according to the need to protect themselves from UV radiation. People located closer to the equator developed into darker skinned populations. Those that were closer to the two poles had less UV radiation and the population developed to be fair skinned.

The actual colour of skin is affected by many things, but the most important substance is melanin. Melanin is produced in the skin by cells called melanocytes through a process called melanogenesis. In humans melanogenesis is over stimulated by UV rays. During this process, oxidation of the amino acid tyrosine takes place. This results in an immune reaction by the melanocytes to protect the skin and produces more pigment. We all roughly have the same

number of melanocytes. However, someone with a darker Fitzpatrick type has more active melanocytes than someone with a lighter Fitzpatrick and is prone to more hyperpigmentation.

There are three basic types of melanin, neuromelanin, pheomelanin, and eumelanin. Neuromelanin is a dark pigment found in the brain. Pheomelanin is a pink to red hued pigment that is found in large amounts in red hair, as well as in the lips, nipples, and reproductive glans. Eumelanin is the most common type of pigment. There two types of eumelanin – brown eumelanin and black eumelanin. It is found in hair, nipples, and skin. The different colours of hair that it produces are grey, black, blonde, and brown. Black and brown hair comes from a mix of brown and black eumelanin, while blonde hair has a very small amount of brown and no black eumelanin.

An increase or an overproduction of melanin is known as hyperpigmentation, which results in uneven pigmentation of some sort regardless of a person's genetic disposition. Sun exposure, hormones, and medications are often the cause of hyperpigmentation. Some common types are:

- Melasma, Chloasma, or Pregnancy Mask: Skin discoloration caused by hormones.
- Post Inflammatory Hyperpigmentation: Darkening of skin caused by trauma to the tissue.
- Freckles: Characterized by clusters of concentrated melanized cells.
- Age spots, solar lentigo, or Liver Spots: Darkening of spots caused the sun and aging.

Hypopigmentation is characterized by areas of skin becoming lighter or whiter than the normal skin colour. Some common types are:

- Vitiligo: Skin condition characterized by patches of skin losing their pigment.
- Genetic Defects
- Albinism: A rare inherited condition characterized by a lack of pigmentation in the hair, skin, or eyes resulting from a defective production of melanin from tyrosine.

Regardless the colour of your skin. Proper skincare – including SPF and active treatments, are the best methods of maintaining your PERFECT colour in the rainbow.

If you have any questions and would like to speak to one of our friendly Master Aestheticians in your area please email support@glymedplusaustralia.com.au

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