

Mukti Lloyd talks about chemicals and skincare

Mukti Lloyd, founder of Mukti Botanicals is constantly asked about the harm that chemicals and preservatives can do to the skin. A Natural Healer, Mukti is concerned about the use of chemicals in the beauty products we use. She has a passion for producing quality. Truly natural products that do not cause harm to people and she is firmly committed to educating the consumer about the realities of the beauty industry and the misuse of terms like natural and pure for marketing ends.

She is currently studying a Bachelor of Science and has Diplomas in the following fields: Applied Science in remedial therapies; Beauty Therapy, Cosmetology and Make-up as well as Aromatherapy. Mukti's passion for educating the consumer so that they can make fully informed choices about what they use on their bodies. Following is a list of questions commonly asked of Mukti with answers.

What do you consider to be the most dangerous chemical ingredients in skincare and what are the most widely used?

What can it do to the body?

It is difficult to define one particular ingredient as being the most dangerous. However, one of the most contentious and widely used synthetic chemicals is para-hydroxybenzoic acid alkyl ester, commonly referred to as propyl-, methyl-, ethyl- and butyl-paraben. They are derived from a crude oil or petroleum base and are utilised as broad-spectrum preservatives and antibacterial agents. The paraben family is found in almost all personal care products, cosmetics and pharmaceutical preparations, most of which usually contain two or more as part of a preservative system. The European Union (EU), (the regulatory body that governs labelling requirements in Europe) enforces that products must list all ingredients in descending order. Elsewhere in the world ingredients that are less than 1% are often omitted or listed under other names such as Methyl Hydroxybenzoate or trade guises such as LiquaPar Optima.

Research to date has uncovered the following information:

The U.S. Environmental Protection Agency has stated that parabens have proven endocrine-disrupting and mutagenic effects (alters and/or weakens genetic building blocks at cellular level).

Professor John Sumpter (acknowledged expert on oestrogenic chemicals, mutagenic chemicals and bio-accumulation at Brunel University, Middlesex UK) and his endocrinology research group confirmed increased and residual amounts of parabens accumulating in cancer autopsies performed on vital organs. A paper published late in 1998 identified parabens as oestrogen mimics (Routledge et al., 1998). The authors' state: "Given their use in a wide range of commercially available topical preparations, it is suggested that the safety in the use of these chemicals be reassessed. What we really want to know is what effects may come from low exposures over a long period of time."

A series of tests on parabens were performed by Dr Fiona Weir at the independent government laboratory at Hort Research Centre in the UK. A method that tests live cells for oxidative stress, toxicity, DNA damage and inflammatory response, known as flow cytometry was used and revealed the following:

1. Does not cause inflammation
2. Creates intense oxidative stress
3. Is not toxic, which means it doesn't cause the cell membrane to break.
4. Severe DNA damage.

The test results interpret that parabens can cause unsuspected long-term damage, as they don't irritate the skin or create a toxic effect; hence the damaged DNA is still able to replicate. This outcome combined with oxidative stress (which creates intense damage in the cell) could cause abnormalities in cell reproduction resulting in the increased formation of cancerous cells.

Dr John Ashby toxicologist with AstraZeneca (multi-national biotech researcher headquartered in

London), who is engaged in science and policy debates worldwide on endocrine disruption, stated at a conference in March 1999, that he had decided not to use products containing parabens on his young daughter.

In 2001 the EU heads of state and governments requested that the European Commission were to have their proposed new chemicals legislation (REACH) in place by 2004. The adoption of this watchdog system has been severely hindered and delayed by the European chemicals industry. With the current level of debate on parabens and other synthetic chemicals worldwide, it is paramount that research and regulations continue unimpeded, enabling everyone to develop awareness and make informed choices for themselves, their families and their future.

What can people do to avoid putting too many chemicals on their skin?

The body usually absorbs chemicals in one of two ways - via the skin or inhalation via the lungs. The skin; the body's largest living and breathing organ, not only acts as a barrier, it assists with elimination, and *absorbs substances* into the systemic circulation and blood stream via the hair follicles, skin lipids, the sweat and sebaceous glands and pores. Nicotine patches and cortisone creams clearly illustrate this point. Absorption is greater depending on the number and the size of the hair follicles (e.g.; the scalp), where the skin layer is thinner, and where mucous membranes are present. Also if there is damage or disturbance to the acid mantle, skin proteins or sebum.

We as consumers have a personal choice to make healthier and more informed decisions. Until there is collective awareness and market pressure, the cosmetic and skin care industry will not change. The most prudent choice as a consumer is to become a label reader. Learn to discriminate and avoid the arsenal of ingredients that are potentially toxic or known irritants (of which there are at least 8-10,000 in the marketplace). When you examine the labels of the products that you currently use on a daily basis ask the following questions.

- Are the labels on the products accurate and do they list all of the ingredients?
- Can I trust the company that is manufacturing the product?
- Is the company more concerned about my health or about making money?
- Can I trust in the safety of the products that I am using on a daily basis?
- Is my overall health and well being affected by the products that I am using?
- Are there stringent government regulations and standards in place that protect me from chemicals that may have an adverse affect on my health?

What are some examples of possible reactions to chemical additives and preservatives found in skin and body care.

Dermatitis, eczema, psoriasis, hives, itching, increased sensitivities, redness, swelling, dandruff, acne, inflammation, impaired breathing, skin cancer, cancer.

Why did you develop Mukti Botanicals?

The development of the range came about as a response to what was currently available in the market place.

The further Mukti researched "pure and natural" products, the more disillusioned she became, and very quickly realised that as a consumer she needed to be armed with a chemical dictionary to decipher exactly what the products contained. She went on to discover that most products stating they were pure/natural were in fact not. The percentage of the ingredients being emphasised as a selling point were usually less than 1% or non-existent, and that the remaining raw ingredients were obliterated by chemical processing; the majority of which were from non-renewable resources.

Says Mukti "Working as a natural therapist for a number of years led me to develop my own range of products. I was extremely disappointed with what was available on the market place. I asked lots of questions, studied cosmetic chemistry and carried out a great deal of research (which I still continue to do). Initially it began with a bit of herbal alchemy, lotions and potions.

The lies and misconceptions regarding what a product actually contained incorporated with the misuse of the words “pure and natural” drove me on a relentless pursuit. I wanted to be able to pick up a product and decipher the label without the complexities, to revert back to basics and incorporate ingredients similar to those that our forebears used on their skin. Additionally, I was concerned by the deceptiveness of technologically enhanced beauty, combined with false advertising and marketing hype. In most cases an uninformed consumer is taken for a ride, and they have usually outlaid a significant amount of money for this too”.

Useful resources for further information

Consumers Dictionary of Cosmetic Ingredients - Ruth Winter

The Chemical Maze - Bill Stratham

Natural & Organic Skincare - Aubrey Hampton

Milady's Skincare & Cosmetic Ingredients Dictionary - Natalia Michalun

Skin Deep - Kevin Farrow