

THE DYE INDUSTRY AND ENVIRONMENTAL IMPACT: PART II

THE TOXIC TRUTH



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The Harsh Effects of Dyes Used for Dress Material on Skin and Environment

When it comes to choosing the right clothing, most of us focus on the style, fit and comfort. But have you ever stopped to think about the dyes used to color your clothes? Most of the clothes we wear are dyed using synthetic dyes, which can have harmful effects on both our health and the environment. The fashion industry has been thriving on the use of vibrant and eye-catching colours in clothing.

With the constant demand for new and trendy clothes, manufacturers are always on the lookout for ways to produce garments at a faster pace and at a lower cost. One of the methods used to achieve this is by using synthetic dyes to color fabrics. However, these dyes have harsh effects on both humans and the environment. Dyeing clothes harms workers and the environment. It may not seem that way, but it is. That's why it's important to consider clothes made with natural dyes.



The Banned Dyes Used for Colouring Clothes

The chemicals used in synthetic dyes have been linked to various health issues such as skin irritation, allergies, respiratory problems, and even cancer. In fact, some dyes have been banned due to their toxic nature. These harmful chemicals can easily be absorbed through our skin when we wear dyed clothes or come in contact with them. In addition, workers in dye factories are exposed to these chemicals daily, putting them at a higher risk of developing health problems.

Benzidine-based dyes: These dyes are known to cause bladder cancer and have been banned in many countries.

Azo dyes: Azo dyes are commonly used in clothing and can release toxic substances when exposed to sunlight or sweat, causing skin irritation and allergies.

Aromatic amines: These are a group of chemicals found in many synthetic dyes that can cause serious health issues such as liver damage and respiratory problems.

The Impact on Our Skin

Our skin is the largest organ of our body, and it is highly sensitive to any foreign substances that come into contact with it. The harsh chemicals present in clothing dyes can easily penetrate our skin, causing various skin problems such as rashes, itching, and even chemical burns.

Moreover, repeated exposure to these chemicals can also lead to long-term health effects. Research has shown that some dyes can disrupt our hormonal balance and increase the risk of developing certain types of cancer.



The Environmental Consequences

The dyeing process also has a significant impact on the environment. The wastewater produced during the dyeing process contains high levels of toxic chemicals that can pollute our water bodies and harm aquatic life. In addition, the use of synthetic dyes contributes to air pollution and greenhouse gas emissions. Furthermore, the disposal of leftover dyes and dyeing chemicals is also a major concern. These substances can contaminate soil and groundwater, affecting plant growth and posing a threat to human health if consumed through contaminated food or water.



Choosing Sustainable Alternatives

To protect both our skin and the environment, it is crucial to choose sustainable alternatives for colouring clothes. Natural dyes made from plant extracts are a safer option as they do not contain harmful chemicals. They are also biodegradable, making them environmentally friendly.

In addition, opting for organic clothing made from natural fibres such as cotton or bamboo can reduce our exposure to toxic dyes and minimize their impact on the environment.

What are Natural Dyes?

The use of natural dyes can be traced back to 2600 BC in China, where silk was dyed using plants and insects. In ancient Egypt, madder root was used to create a vibrant red dye for clothing and textiles. And in India, turmeric was used to create a bright yellow dye. These dyes are extracted from natural sources and do not contain any harmful chemicals or toxins.

Natural dyes are not only safe for our health but also for the environment.

Some common sources of natural dyes include indigo plant, turmeric, onion skins, beetroot, henna, and many more. These sources not only provide a wide range of colours but also offer additional benefits such as antibacterial properties or UV protection.



The Science Behind Natural Dyes

The process of dyeing with natural dyes involves extracting colour pigments from the source material and binding them to fabric fibres. This is achieved through a chemical reaction between the dye molecules and fibres. The key component in this reaction is tannin, a naturally occurring compound found in plants that helps the dye molecules bond with the fabric.

Another important factor in the science of natural dyes is mordants. These are substances that help fix the dye to the fabric and improve colour fastness. Commonly used mordants include alum, iron, and copper.

The Benefits of Choosing Natural Dyes

Aside from being safe for our health and the environment, natural dyes offer a range of benefits that make them a superior choice over synthetic dyes:

- Natural dyes do not contain any harmful chemicals or toxins, making them hypoallergenic and safe for people with sensitive skin.
- They are biodegradable and do not pollute water or soil during production or disposal.
- Natural dyes have a unique depth and richness of colour that cannot be replicated by synthetic dyes.
- They have natural antibacterial properties, making clothes dyed with natural dyes more hygienic.
- Using natural dyes supports traditional dyeing techniques and helps preserve cultural heritage.



What Can We Do?

As consumers, we have the power to make a difference by choosing to support sustainable and ethical fashion brands that use natural dyes. We can also opt for organic cotton or other sustainable fabrics that are dyed using natural methods. By making conscious choices, we can reduce the demand for synthetic dyes and encourage the use of more environmentally friendly alternatives.

In Conclusion

In conclusion, the use of synthetic dyes in the clothing industry has severe consequences on both human health and the environment. It is essential to raise awareness about this issue and make conscious choices when it comes to buying clothes. By opting for sustainable alternatives, we can protect both ourselves and our planet from the harsh effects of clothing dyes.

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