Straight Up: Relaxed Hair Is a Chemical Reaction

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Ever wonder how chemical straightening (a.k.a. relaxing) gives tightly curled black hair that flatironed or blow-dried look? Here's a quick science lesson from Livestrong.com about how a relaxer gets your naturally curly hair straight and––for some––more manageable.

The main ingredient in chemical relaxers is sodium hydroxide (NaOH) or lye, which manufacturers use as a chemical base to make paper, textiles, soap, detergent and drain cleaner and in water treatment. But in salons, the chemical is a creamy compound applied to the roots of the hair by a professional cosmetologist.

Every strand of hair has three layers: a cuticle, a cortex and a medulla. Relaxers work by opening the hair's cuticle layer, going straight to the cortex, breaking down chemical bonds in the process and allowing the hair's structure to be reshaped into visibly straighter or "relaxed" hair.

Once the process is complete, the relaxer is washed out and the hair is cleansed with a neutralizing shampoo that stops the chemical process and seals the hair. Finally, your stylist applies a deep moisturizing conditioner that softens the hair.

A hair relaxing treatment is more effective and safe when done by a professional, and it usually costs anywhere between $60 and $100. Also, be sure to follow up with your stylist every six to eight weeks because "touch-ups" are required to relax new hair growing from the scalp.

If you don't properly care for your hair after chemical processing, the tresses can suffer breakage or shedding. To avoid these problems, it's essential to deep condition your chemically treated hair.

Read RH's "Mane Taming" for tips on keeping your hair healthy.

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