## the dye is cast

You make dietary choices on behalf of your health every day—fresh fruit over processed snacks, grilled veggies instead of eggplant parm. But how seriously do you size up your hair dye? Ladies, it's up to you to distinguish between the latest innovations and outdated formulas to ensure you get exactly what you're paying for. While beautiful color is the end goal, it need not come at the price of your hair's health. BY ELENA SCHMIDT

## **PERMANENT VACATION**

Up to 75 percent of adult women dye their hair—and they all have a choice to weigh. All-natural formulas are not known to produce long-lasting results, and an overwhelming majority of women select permanent (or oxidative) dyes—those that produce vibrant hues that remain in tact until hair grows out from its roots.

The price? Permanent dyes employ serious chemicals—some containing up to 20 percent ammonia. With that, possible damage can occur. "The presence of ammonia, high pH, and hydrogen peroxide are indicative of oxidative dyes," says Alex Vainshelboim, PhD, founder of all-natural hair dye company Palette By Nature.

Vainshelboim notes that the aforementioned combination of ingredients is necessary to force open the hair cuticle, form a pigment, and allow color to invade the shaft. But with every process, ammonia causes damage to the cuticle. Over time, it destroys the protein your hair needs to hold color intact—natural or otherwise. The more you dye, the more chemicals are needed to produce the desired result.

Popular liquid formulas prior to the 1970s often contained 20 percent ammonia, according to Kyle White, stylist at New York's Oscar Blandi salon. "When you use those 20 percent ammonia dyes, the hair is brittle and coarse, and you can feel it. The texture of the hair has been compromised," he says. Such dyes are still available today at a very low price, but can cause harm to the hair. "There are high-end salons that are getting 600 dollars a highlight that are using these liquid dyes," he notes.

Meanwhile, international brands such as L'Oreal, Wella, and Organic Hair Color are always updating their formulas, and top salons constantly seek the latest innovations. Most formulas today have evolved to produce high-quality color with much



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less ammonia—approximately 2 percent. "Clairol, Wella, L'Oreal... They all discovered that they didn't need all that ammonia to open the cuticle," says White.

Today, the industry uses more natural ingredients and chemical substitutes than ever before. "When we are talking about gray coverage and keeping hair healthy which is the number one consideration— I use L'Oreal's INOA," says White, who explains that this formula's oil conditions while propelling color molecules deeper into the hair shaft. This innovative formula changes the game. "After seven applications the hair has the same integrity as if it were virgin," enthuses White. (Do note that INOA, like all oxidative dyes, cannot be 100 percent natural, as it employs an ammonia substitute in its formula. As White explains it, "If ammonia were sugar, this substitute would be NutraSweet.")

It's OK-smart, in fact-to ask your stylist what dye he or she is using. "I don't mind questions," White says. "As a stylist, you want to have a dialogue with your client. You can't just be a beauty bully and slap color on their heads without telling them."

## WHEN NATURAL IS NEEDED

Few of us have the luxury of time to read up on a dye's chemical composition. "In the US, most people start paying attention to ingredients in hair coloring products after they have suffered a severe allergic skin reaction," says Dr. Vainshelboim. Pregnancy, baldness, hair damage, and a change in hair type following chemotherapy are all contributing factors as to why customers turn to options such as Palette By Nature.

The term "permanent," in the world of all-natural solutions, means one's color will last more than two-and-a-half weeks before disappearing. All-natural dyes do not penetrate the shaft or damage the cuticles, and thus are limited in their scope of colors. "When you don't have peroxide and you don't have any type of an ammonia, then you cannot lighten the hair," says White. (If you're looking to dye your hair "European blonde" or "Asian brown with highlights," you simply cannot do it in an all-natural way, adds Dr. Vainshelboim.)

Palette by Nature and similar products offer a solution, but never pretend to be something they are not. They are not permanent, in the traditional sense, and don't



offer the multitude of color options. They will cover grays, and are free of allergens and harsh, damage-inducing chemicals. "Our product is not a replacement of an entire industry, but serves as an alternative," says Dr. Vainshelboim.

"If you have under 30 percent gray, then you could probably use an organic dye," notes White. "But if you have 100 percent, and you want to go dark brown, you're not going to get that without permanent color." If you can't live without your color of choice, you'll have to accept the use of chemicals.

"There is no holy grail in this field," adds Dr. Vainshelboim. "I don't think there will be one for many, many years to come."

## **TURN BACK TIME**

In 2009, researchers discovered that gray hair is potentially linked to a decline in the body's natural production of the enzyme catalase. Following this research, Robin Duner-Fenter—entrepreneur and founder of GetAwayGrey-set out to formulate a remedy whose premiere ingredient, catalase, promises to renew hair's pigment.

Companies such as GetAwayGrey and Go Away Gray now represent an entirely new approach to the traditional hair-dye industry. Duner-Fenter cites an 80 to 90 percent reversal of gray hair, with an 80 percent overall success rate. "We are a cottage industry," says Duner-Fenter. "Probably I percent of people, or less, knows that there are alternatives to getting your natural hair color back." Although the silver fox masses have yet to catch on to this potentially major development, it sounds promising-downright game-changing-indeed.