



*A Study by the New England Journal of Medicine*

## **Kidney Injury and Hair-Straightening Products Containing Glyoxylic Acid**

**M**edical professionals are warning about the potential side effects of certain hair treatments after a young woman sustained kidney injuries after a session at a salon.

A 26-year-old Tunisian woman suffered from three acute kidney injuries between June 2020 and July 2022, according to a piece that was published in the New England Journal of Medicine this month. The letter to the editor, which was written by French doctors, linked certain smoothing and straightening hair products to kidney damage.

The woman in the case study had no previous health issues when she sought medical help. She suffered from vomiting, fever, diarrhea and back pain when she approached the doctor.

"Each episode of acute kidney injury had coincided with a hair treatment at the same salon on the day the symptoms began," the journal letter explained.

"The patient reported a burning sensation during each procedure, followed by scalp ulcers."

Upon examination, medical staff found that her blood tested positive for increased plasma creatinine levels. Plasma creatinine is a waste product that comes from muscles – when it enters the blood, it is filtered out by kidneys.

When the woman went to the salon, the hairstylist would apply a cream on her hair that contained 10% glyoxylic acid. That chemical is what researchers believe caused the kidney damage.

"These results provide evidence that hair-straightening cream containing glyoxylic acid is responsible for calcium oxalate–induced nephropathy after hair-straightening procedures of the type described here," the letter argues. "Glyoxylic acid was patented and introduced recently in hair-straightening products as a seemingly safer alternative to formulations containing formaldehyde."

"In consideration of the potential nephrotoxicity of topical glyoxylic acid, products containing this compound should be avoided and, we would proffer, discontinued from the market."

The article also noted that 26 patients in Israel suffered acute kidney injuries after "Brazilian-style" hair-straightening procedures.

In 2022, a National Institutes of Health (NIH) study suggested that chemical [hair-straightening products](#) may increase women's risk of uterine cancer. Researchers pointed to endocrine-disrupting chemicals in the products.

**Published March 20, 2024**  
**N Engl J Med 2024;390:1147-1149**  
**DOI: 10.1056/NEJMc2400528**  
**VOL. 390 NO. 12**

**This demonstrates the importance of knowledgeable professionals in the salons who are educated and tested to ensure they are competent to practice safely on the public. Take a moment to thank your beauty professional for their dedication to ensure you not only look great, but are also in safe hands.**

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