Shots

SHOTS - HEALTH NEWS

The NFL is making it harder for players to get smelling salts. Here's why

UPDATED AUGUST 7, 2025 · 9:50 PM ET

Michal Ruprecht

Rams defensive end Kobie Turner takes a sniff of smelling salts during a game against the Packers at SoFi Stadium in Inglewood on Sunday.

Wally Skalij/Los Angeles Times via Getty Images

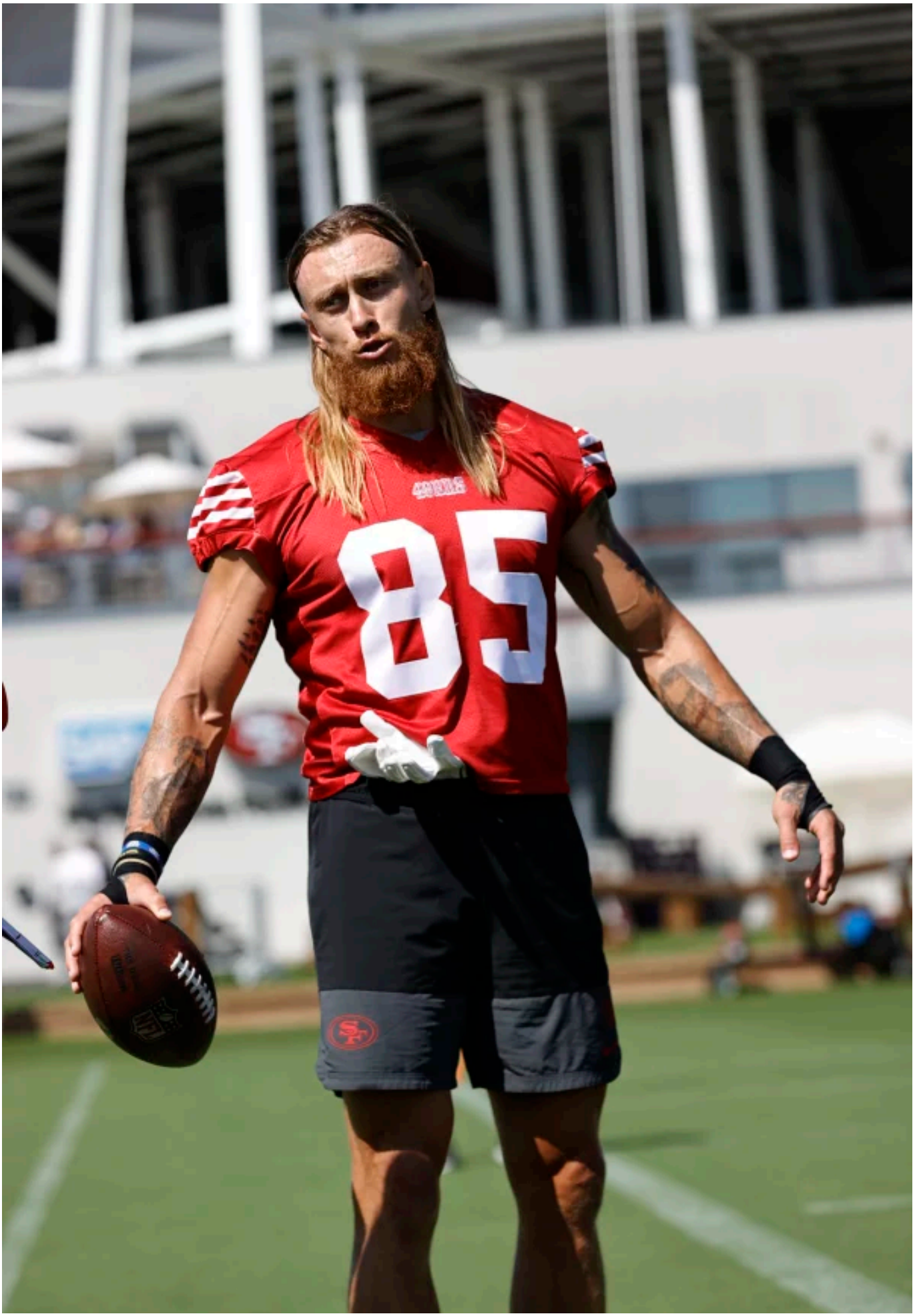
NFL players may soon have a harder time getting a quick jolt of alertness on the field. On Tuesday, the NFL sent a memo to clubs saying they are no longer allowed to provide the substance to players, citing safety concerns.

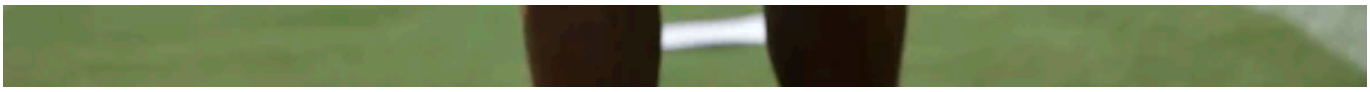
In the memo, which NPR has reviewed, the league pointed to a warning from the FDA released last year informing consumers that smelling salts — often marketed to increase alertness and energy — have not been proven to be safe or effective for that purpose.

In addition to general safety concerns, the NFL noted in the memo the substance can mask symptoms of a concussion. Recent estimates suggest one concussion occurs every two NFL games.

After the memo was circulated, San Francisco 49ers tight end George Kittle said in an interview with the NFL Network that smelling salts had been "made illegal in the NFL," noting that he was "distraught" because he uses them multiple times a game. And later, some media outlets, including NPR, published articles reporting that the league had banned use of the substance, based on a story on NFL.com that also mentioned Kittle's interview.

However, on Wednesday night, the NFL Players Association wrote in a message to players, obtained by NPR, that it wasn't notified in advance of the policy change and that it had clarified with the NFL that the use of the substance had not been banned — only that teams were no longer allowed to distribute it. In a statement to NPR, the NFL confirmed that the memo says teams are no longer allowed to supply smelling salts.


85



George Kittle of the San Francisco 49ers said he regularly uses smelling salts during football games.
Michael Zagaris/Getty Images

What are smelling salts?

Smelling salts are made of ammonium carbonate. When dried, the substance looks like table salt and was initially called the salt of hartshorn — named for the horns of male deer from which it was commonly derived in the 17th century. A liquid form of the substance was first used as a leavening agent before baking soda and powder became widely available.

Today, smelling salts and other ammonia inhalants are used to prevent and treat fainting. The Federal Aviation Administration even requires U.S. airlines to carry them onboard.

Once the ammonia is produced, it's packaged with water and other liquids into small, single-use capsules containing a few drops of the mixture. When the contents are crushed together, a chemical reaction releases ammonia gas and carbon dioxide.

"It's really gross. I mean, it smells really, really bad," Laura Boxley, a neuropsychologist at The Ohio State University Wexner Medical Center, said. "I think some people describe it as being like you're really close up to cat urine."

SPORTS

A third of former NFL players surveyed believe they have CTE, researchers find

When inhaled, the ammonia gas activates receptors in the nose, which leads to a cascade of reactions that cause an increase in respiratory rate, cerebral blood flow and heart rate.

From the medicine cabinet to the field

But this physiological reaction has also been sought after by some athletes because it leads to a "subjective increase in perceived alertness and 'psyched-up energy,'" according to a recent paper about smelling salts.

"The use of smelling salts in sports is definitely not their intended use," Boxley said. "What's happening with some athletes is they're using them with much higher frequency than its intended use."

Smelling salts are widely available and can be purchased over the counter. Athletes like Tom Brady have used them in the past.

It's unclear when athletes first started using smelling salts, but Boxley compares their use to superstitious practices some athletes adopt.

"There's lots of things that athletes do, from a psychological perspective, that they feel gives them an edge," she said. "They are very famous for doing rituals like wearing a lucky shirt or wearing a certain hairdo."

Despite the perceived effects of smelling salts, there is no strong evidence to support the theory that smelling salts enhance athletic performance. Boxley added that some athletes who use smelling salts may link success on the field with their use of the substance.

"There is no performance benefit to ammonia inhalants in a short burst of maximal effort despite elevated arousal and an associated perception of performance enhancement," the authors of the same paper wrote.

Why sniffing for a boost could backfire

Though smelling salts are medically indicated at times, inappropriate and frequent use of the substance can lead to adverse events like shortness of breath, seizures and migraines. Even when these don't occur, the substance can still pose risks — especially in professional athletes.

When a football player has a concussion, symptoms usually include confusion, headache and dizziness. Using smelling salts can artificially elevate arousal levels, potentially masking these telltale signs.

If a player continues to use smelling salts after a concussion, it can worsen the injury. That's because the potent ammonia gas can trigger a sudden, automatic jolt of the head and neck.

"That certainly could complicate injury before it's been formally evaluated," Boxley explained.

Though smelling salts release a small amount of ammonia vapor, the long-term effects of repeated exposure are not well understood.

"Whenever you're using a tool outside of its recommended use, you're in kind of uncharted territory," Boxley said, suggesting that in these situations it's important to weigh the potential rewards against the possible risks.

"In the absence of evidence that it actually improves anything, I think it's reasonable to prioritize somebody's health over an unproven substance," she said.

Correction and clarification

Aug. 7, 2025

A previous version of this story incorrectly reported that the NFL had banned the use of smelling salts by players in games. In fact, while the NFL has not banned the use of smelling salts, the league is no longer allowing teams to provide the substance to players. In addition, this article has been updated to more clearly contextualize comments by Laura Boxley that describe weighing the risks and rewards of using substances like ammonia inhalants.

football concussion