

# How You Smell May Dictate Whether You Will Have Sex

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Apr 18, 2025

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*A new person's scent may determine if you will be future friends. (Photo by Pheelings media on Shutterstock)*

## In a nutshell

- **Your smell matters more than you think:** A person's natural scent, combined with products like deodorant or perfume, can strongly influence who we feel drawn to as friends, even more than appearance in some cases.
- **Our noses learn from experience:** After talking with someone, people's perceptions of that person's scent changed based on how much they enjoyed the interaction, suggesting our brains form emotional associations with smell during social bonding.
- **Friendship is deeply personal—and deeply sensory:** Nearly half of friendship judgments came down to unique, individual preferences, showing that chemistry between friends is more about personal sensory reactions than universally likable traits.

**ITHACA, N.Y.** — That inexplicable “click” you feel with some people might be your nose making decisions your brain hasn't caught up to yet. New international research reveals our sense of smell silently guides who we befriend, with someone's natural scent mixed with their perfume or deodorant predicting friendship chemistry better than their appearance – and our noses actually update these preferences after we've chatted.

The research, published in [Scientific Reports](#), explains that friendship decisions stem from personal preferences about others, including various sensory cues.

“People take a lot in when they're meeting face to face. But [scent](#) — which people are registering at some level, though probably not

consciously — forecasts whether you end up liking this person,” says study author Vivian Zayas from Cornell University, in a statement.



For the study, forty female participants between 18-30 years old (average age 21) took part in an ingenious “speed-friending”

experiment. Each participant had their photograph taken and received a plain cotton t-shirt to wear for about 12 hours during normal daily activities. They were instructed not to modify their typical hygiene routines – continuing to use their regular deodorant, perfume or other products – essentially capturing their natural “diplomatic odor.”

Before meeting in person, participants viewed 100-millisecond flashes of other participants’ photographs and rated their “friendship potential” on several criteria. On the day of the speed-friending event, participants first smelled and rated the t-shirts worn by people they would later meet. Then came the main event: a series of four-minute face-to-face conversations with approximately ten different partners, followed by friendship ratings after each interaction.

Next, participants smelled and rated the same t-shirts again. Their evaluations changed significantly based on how much they enjoyed talking with each person during the brief interaction.

This challenges conventional wisdom about first impressions, which typically emphasizes visual cues like facial features and expressions. While we consciously focus on what we see, our noses appear to be quietly influencing who we befriend.



Breaking down the statistics, researchers found that both visual cues (from photographs) and olfactory cues (from t-shirts)



independently predicted how much participants would like each other after meeting in person. However, the [olfactory cues](#) appeared to have an even stronger influence than the visual ones.

People's reactions were all over the map. Almost half of what made someone seem like a good friend came down to personal taste, not how generally nice they looked or smelled. In other words, a scent one person loves might turn someone else off, showing just how personal and unique [friendship chemistry](#) really is

The researchers found that [everyday smells](#) play an active role in how we decide who we like. Our brains actually start linking certain scents to how we feel about someone, even in the early stages of a friendship.

Throughout human history, odors have served as “heuristics,” allowing quick assessments of whether someone might be friend or foe. While much research has focused on how [body odor influences mate selection](#), this study breaks new ground by examining its role in everyday, platonic relationship formation.

Unlike some previous research that removed all fragrances to study natural body odor alone, this study intentionally included participants' daily personal care products, making it more relevant to real-world social settings where we rarely encounter someone's unmasked [natural scent](#).

As relationships develop, this odor-association process likely continues, potentially reinforcing emotional connections. Anyone



who has found comfort in smelling a loved one's clothing during separation is experiencing this phenomenon firsthand.

While we focus on what we see and hear, our noses appear to be silently steering us toward certain friendships through a biological evaluation system millions of years in the making. Perhaps trusting our gut feelings about new acquaintances really means trusting our noses.

## Paper Summary

### Methodology

The researchers conducted a “speed-friending” study with 40 female participants aged 18-30 to examine how olfactory cues influence friendship formation. The multi-stage experiment began with participants having photos taken and receiving t-shirts to wear for approximately 12 hours during normal daily activities while using their regular personal care products. Before the speed-friending event, participants completed an online task rating potential friendship based on brief 100-millisecond exposures to others' photos. At the event, participants first smelled and rated t-shirts worn by people they would later meet, then engaged in four-minute conversations with approximately ten different partners, rating each interaction afterward. Following all interactions, participants smelled and rated the same t-shirts again. At each stage, participants rated “friendship potential” using four consistent questions across all modalities (visual, olfactory pre-interaction, live interaction, and olfactory post-interaction).

# Results

The study found that both initial diplomatic odor judgments and brief visual exposure independently predicted friendship potential ratings following live interactions. More notably, the quality of the live interaction predicted changes in how participants rated the same person's diplomatic odor afterward, suggesting olfactory associations update based on social experiences. Statistical analysis showed these effects were driven primarily by idiosyncratic preferences (approximately 45-47% of variance) rather than by universal perceiver or target effects. This indicates that personal, unique preferences drive friendship formation more than generally agreed-upon characteristics. The researchers found that diplomatic odor cues may be even more influential than visual cues in predicting live interaction judgments, though they caution against over-interpreting this comparison due to methodological differences between the visual and olfactory judgment conditions.

# Limitations

The study examined only heterosexual females at an American university within a narrow age range (18-30, average 21.1 years), so findings may not generalize to older women, women in mixed age groups, or men. The researchers note that use of deodorant and fragranced products is common among American women but might differ in other cultures. Additionally, the experimental design had some methodological differences between the visual and olfactory judgments: visual judgments were assessed online days before the event with 100ms photograph exposures, while

olfactory judgments occurred in-person immediately before live interactions with more time to smell the t-shirts. The study also standardized but did not document specifics about focal length and distance of the camera from subjects when taking photographs, which could have influenced perceived attractiveness.

## **Funding and Disclosures**

The research was funded by a grant to Zayas and Gaby from the Cornell Center for Social Sciences (formerly known as the Institute for the Social Sciences). The authors declared no competing interests, and the experiment received ethics approval from the Cornell IRB under Protocol 1203002865, performed in accordance with the Declaration of Helsinki. Though the study was conducted in 2014 before preregistration became common, the researchers report all conditions, measures, and data exclusions.

## **Publication Information**

The study “The interactive role of odor associations in friendship preferences” was authored by J.M. Gaby from Middle Tennessee State University, G. Gunaydin from Sabanci University in Turkey, and V. Zayas from Cornell University. It was published in Scientific Reports (2025, volume 15, article 11228) and is available under open access licensing at <https://doi.org/10.1038/s41598-025-94350-1>.