

Over or Under? A Balanced Look at Toilet Paper Orientation

Jasraj Johal

INNOVATE 1X03: The World of Entrepreneurship

Habiba Noor

October 19, 2025

Abstract

Debate over whether toilet paper should hang “over” (from the front) or “under” (from the back) persists in domestic and public settings. This paper reviews historical, hygienic, accessibility, and practical considerations on both sides. The “over” orientation is consistent with the earliest patent drawings for perforated rolls and minimizes wall contact, which some hygiene experts argue may reduce surface touch points in shared restrooms. Conversely, the “under” orientation can reduce unspooling by pets and young children and may be preferable in certain household or mobile environments. Design criteria are set for the dispenser placement by the Regulatory standards such as the 2010 ADA but do not prescribe its orientation. Synthesizing evidence, the paper argues there is no universal rule; instead, orientation should be context sensitive. A summary table and an illustration are provided to help select an orientation that balances hygiene, user behavior, and setting-specific constraints.

Keywords: restroom hygiene, human factors, accessibility, toilet plume, household practices

Background and public preference

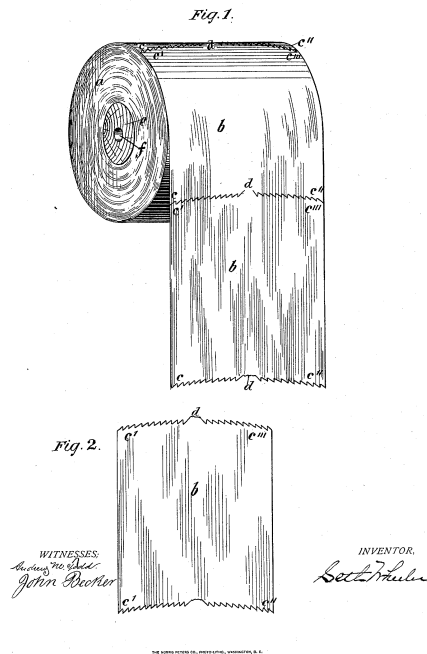
“Toilet paper orientation” refers to whether the sheet hangs in front (“over”) or behind (“under”) the roll. A YouGov survey of 27,810 U.S. adults found 59% preferred “over,” 14% “under,” and the rest had no preference (YouGov, 2022). Though descriptive rather than prescriptive, these results indicate a consistent social norm favoring the “over” position.

Historical and design cues

Figure 1

Historical Toilet Paper Roll Design from 1891 Patent

(No Model.)
S. WHEELER.
TOILET PAPER ROLL.
No. 465,588. Patented Dec. 22, 1891



Note. Reproduced from *Toilet-paper roll* (U.S. Patent No. US 465,588 A), by S. Wheeler, 1891, United States Patent and Trademark Office (<https://patents.google.com/patent/US465588A>).

Historically, patents for perforated rolls depicted the paper drawn over the top of the roll. In his 1891 U.S. patent, Seth Wheeler illustrated sheets dispensing forward from the front of the roll (Wheeler, 1891). Although a drawing does not constitute a binding standard, it is an informative design cue about intended use and has been widely cited in popular discourse.

Hygiene and shared-space considerations (case for “over”)

Hygiene arguments typically focus on reducing contact with potentially contaminated surfaces. In a media interview, a health sciences academic noted that “over” often keeps the sheet away from the wall, lowering the chance that users graze the wall while “fishing” for paper (Jennings-Edquist, 2023). While this is an expert opinion rather than a controlled trial, the general hygiene principle of minimizing touch points on high-contact surfaces is consistent with infection-control guidance. As per a report by Cottonelle, 70 percent of people prefer the “over” position, which may make it easier to grab a controlled number of sheets, reducing waste (Cottonelle, 2024). Also, the “over” orientation may be slightly easier to grab for people with limited hand mobility or dexterity.

Accessibility and codes (neutral on orientation)

Regulatory standards do not settle the question. The 2010 ADA Standards specify where dispensers must be installed (e.g., 7–9 inches in front of the water closet centerline and 15–48 inches above the floor) and require “continuous paper flow,” but they do not prescribe orientation (U.S. Department of Justice, 2010). Conversely, the “under” orientation can limit unrolling, which may be preferable in certain household or mobile environments. In RVs, airplanes, or small bathrooms, the “under” orientation may prevent paper from falling or unrolling accidentally.

Household, safety, and practical considerations (case for “under”)

The strongest practical case for “under” arises in households with pets and toddlers, where forward-hanging sheets can be easily pawed or tugged, leading to waste and mess. Companion-animal behavior guidance specifically recommends turning the roll so it unrolls from the back to reduce free-spinning and discourage play (Johnson-Bennett, 2025). The “under” position may hide the hanging sheet, which some find cleaner-looking in bathrooms; however, this orientation may be harder to see in dim lighting.

Synthesis

As empirical hygiene studies address restroom aerosols rather than orientation per se, the choice should be contextual, not absolute. In shared or public restrooms, “over” aligns with historical design cues and may reduce wall contact; in homes with pets or toddlers or with hardware that dispenses more reliably from the back, “under” can be more practical.

Table 1

Key Considerations in Toilet Paper Orientation

Criterion	Evidence/Guidance	Implication
Historical design	Patent drawings depict over-the-top dispensing (Wheeler, 1891).	Favors “over” as intended depiction.
Public preference	Majority prefer “over” in a large U.S. poll (YouGov, 2022).	Social norm favors “over.”
Hygiene	“Over” reduces wall contact; aerosols are not orientation-dependent (Jennings-Edquist, 2023; Li et al., 2020).	“Over” may be more hygienic.

Accessibility/code	ADA sets placement, not orientation (U.S. Department of Justice, 2010).	Choose what works best with hardware.
Pets/toddlers	“Under” limits unrolling (Johnson-Bennett, 2025).	“Under” reduces mess.

Note. Data in the table is illustrative, and actual results may vary depending on hardware and specific conditions.

Conclusion

No single orientation is optimal across all contexts. “Over” aligns with the earliest patent designs, public preference and a plausible hygiene rationale in shared spaces, while “under” is a practical, behavior-informed alternative for domestic or mobile environments. Therefore, the orientation would be selected to fit the setting, hardware, and preference of users.

References

- Cottonelle. (2024). Over or under: Both sides of the toilet paper debate.
<https://www.cottonelle.com/en-ca/tips-and-advice/toilet-paper-101/over-or-under>
- Jennings-Edquist, G. (2023, May 16). Yes, there's a "right way" to hang the toilet paper, and it's about hygiene. ABC News. <https://www.abc.net.au/news/2023-05-16/right-way-to-hang-toilet-paper-for-hygiene-say-experts/102346616>
- Johnson, D. L., Mead, K. R., Lynch, R. A., & Hirst, D. D. V. L. (2013). Lifting the lid on toilet plume aerosol: A literature review with suggestions for future research. *American Journal of Infection Control*, 41(3), 254–258. <https://doi.org/10.1016/j.ajic.2012.04.330>
- Johnson-Bennett, P. (2025). Prevent your cat from unrolling the toilet paper. Cat Behavior Associates. <https://catbehaviorassociates.com/prevent-your-cat-from-unrolling-the-toilet-paper/>
- Li, Y.-Y., Wang, J.-X., & Chen, X. (2020). Can a toilet promote virus transmission? From a fluid dynamics perspective. *Physics of Fluids*, 32(6), 065107.
<https://doi.org/10.1063/5.0013318>
- U.S. Department of Justice. (2010). 2010 ADA standards for accessible design.
<https://www.ada.gov/law-and-regs/design-standards/2010-stds/>
- Wheeler, S. (1891). Toilet-paper roll (U.S. Patent No. 465,588). United States Patent and Trademark Office. <https://patents.google.com/patent/US465588A>
- YouGov. (2022, February 22). Do you prefer for toilet paper to be hung so that the next sheet comes from over or under the roll? <https://today.yougov.com/topics/politics/survey-results/daily/2022/02/22/25850/2>