

Over or Under? A Balanced Look at Toilet Paper Orientation

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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 is 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 a brief decision heuristic 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 free sheet hangs in front of the roll (“over”) or behind the roll against the wall (“under”). Public polling suggests a nontrivial social norm: in a YouGov survey of 27,810 U.S. adults, 59% preferred “over,” 14% preferred “under,” and the remainder expressed no preference or uncertainty (YouGov, 2022). While preference data are descriptive rather than prescriptive, they show a stable norm favoring the “over” position.

Historical and design cues

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

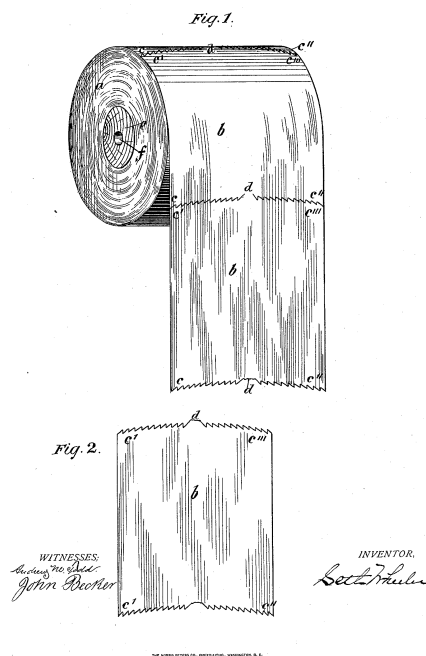


Figure 1

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

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—minimizing touch points on high-contact surfaces—is consistent with infection-control guidance. **As per a report** presented by Cottonelle, 70% of people prefer the "over" position, which may make it easier to grab a controlled number of sheets, reducing waste. 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

Because the most rigorous empirical hygiene studies address restroom aerosols rather than orientation per se, the choice should be contextual rather than absolute. In shared or public restrooms, “over” aligns with historical design cues and may modestly reduce wall contact during dispensing; in homes with pets or toddlers—or with hardware that dispenses more reliably “under”—the back-feeding orientation can be preferable.

Conclusion

No single orientation is optimal across all contexts. “Over” aligns with the earliest patent illustrations, the prevailing public preference and a plausible hygiene rationale in shared spaces. “Under” is a practical, behavior-informed alternative in homes with pets or toddlers or with hardware that dispenses more predictably from the back and in a mobile environment. Therefore, the orientation would be selected to fit the setting, hardware, and preference of users.

References

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