# Article information:

The association between human papillomavirus and bladder cancer: Evidence from meta‐analysis and two‐sample mendelian randomization - Sun - 2023 - Journal of Medical Virology - Wiley Online Library  
<https://onlinelibrary.wiley.com/doi/10.1002/jmv.28208>

# Article summary:

1. This systematic review and meta-analysis found that the prevalence of HPV was 16% among bladder cancer patients, with most cases being HPV-16 and HPV-18 subtypes.

2. The study also found that the risk of bladder cancer was significantly increased for those who tested positive for overall HPV infection.

3. Two-sample Mendelian randomization studies showed that exposure to both HPV 16 and 18 E7 proteins increased the risk of bladder cancer.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable in its reporting, as it follows a systematic review process to identify relevant studies, uses Random Effects models and Fixed Effects models to estimate the overall and type-specific HPV prevalence, and calculates pooled odds ratio and pooled risk ratio with 95% CI to assess the effect of HPV infection on the risk and prognosis of bladder cancer. Furthermore, two-sample Mendelian randomization (MR) studies using genetic variants associated with HPV E7 protein as instrumental variables were also conducted to further support the findings.

However, there are some potential biases in this article that should be noted. Firstly, there is a lack of exploration into counterarguments or alternative explanations for the findings presented in this article; while it is clear that there is an association between HPV infection and bladder cancer risk, other factors such as smoking or occupational exposure may also play a role in increasing this risk which are not discussed in detail here. Secondly, there is a lack of discussion regarding possible risks associated with vaccination against HPV; while it is recommended that people get vaccinated against HPV to prevent bladder cancer, potential side effects or risks associated with such vaccinations are not discussed here. Finally, there is a lack of discussion regarding how different populations may be affected differently by these findings; while it is clear that men are more likely to develop bladder cancer due to their higher rate of sexual activity compared to women, other factors such as age or ethnicity may also play a role in determining one's susceptibility to developing bladder cancer which are not discussed here.

# Topics for further research:

* Risks associated with HPV vaccination
* Smoking and bladder cancer risk
* Occupational exposure and bladder cancer risk
* Age and bladder cancer risk
* Ethnicity and bladder cancer risk
* Gender differences in bladder cancer risk

# Report location:

<https://www.fullpicture.app/item/f648b439f7ab55ceb4d2ba6a36672db7>