

THEART OF RESEARCH



Condoms help in more ways than we thought

Inflammation after semen exposure increases the number of HIV target cells to the vagina and increases the risk of a potential infection.

Lyle Curry is a PhD student in mucosal immunity at the University of Cape Town.

ORCID ID:

<https://orcid.org/0000-0003-0963-0677>

Further information:

<https://www.frontiersin.org/articles/10.3389/fimmu.2018.02721/full> (Rametse, et al., 2018) Rametse, C.L., Adefuye, A.O., Olivier, A.J., Curry, L., Gamielien, H., Burgers, W.A., Lewis, D.A., Williamson, A.L., Katz, A.A., Passmore, J.A.S., 2018. Inflammatory Cytokine Profiles of Semen Influence Cytokine Responses of Cervicovaginal Epithelial Cells. *Front. Immunol.* 9, 2721. doi:10.3389/fimmu.2018.0272.

HIV is highly prevalent in South Africa, yet men remain hesitant to use condoms. Condoms are the best preventative measure for HIV and sexually transmitted infections (STIs), and by reducing semen exposure, they further reduce HIV risk in women.

Researchers at the University of Cape Town are interested in how semen affects the vaginal environment in the context of HIV risk. Semen exposure increases immune molecules, called cytokines and chemokines, in the vagina. In turn, these cause HIV target cells to accumulate. This leads to inflammation in the vagina.

Having more HIV target cells in the vagina means a greater chance of HIV infection. Once we understand all the factors that influence HIV acquisition risk, we will be able to design interventions to use in addition to condoms.

“For now, men need to understand that semen itself can cause women to have a heightened state of inflammation, which impacts their risk of HIV infection,” says Lyle Curry.

Better sexual health practices – including the use of condoms – will prevent more sexually transmitted infections.

Using condoms can prevent inflammation that increases the risk of HIV infection.



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