

A Logic Model Analysis for Maintaining a HEALTHY VAGINA

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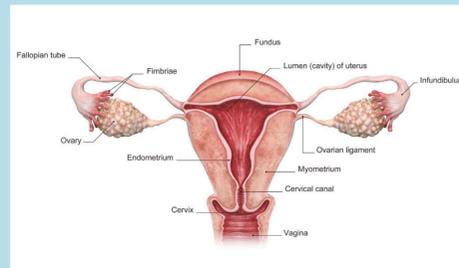
Background

The vagina is the portal to the internal reproductive tract, including the cervix, uterus, fallopian tubes, and the ovaries.

Vaginal health is a key to reproductive health, wellness, and reproductive success.



Lactobacillus predominance in the healthy vagina with an acidic pH of less than 5, healthy squamous cell



Vaginal pH strips can demonstrate vaginal pH of less than 5

Goals

1. Review authoritative advice focusing on vaginal health
2. Use a logic model analysis to survey and make recommendations for women

Methods

1. Conduct electronic media review using search terms “vagina,” “health,” “normal,” “self-sustaining,” and “microorganism”
2. Correlate findings using a logic model matrix



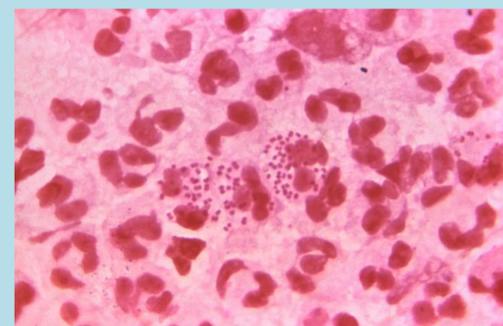
- ## Results
- We found no randomized controlled trial for promoting vaginal wellness, which did not include evaluation of products intended to mitigate or cure vaginal abnormalities.
 - Multiple authoritative advisories were received and organized with these suggestions.
 1. The function of the vagina requires considerable education and ongoing study.
 2. The vagina is “designed” to clean itself without special concern or hygienic products.
 3. Good vaginal health is promoted by good general health, diet, and exercise (walking, running).
 4. Other than the menses, clear or white secretions (@ 1 Tablespoon/day) are normal and linked to hormonal levels. At midcycle the secretions may become thicker and stretchy like “raw egg white.”
 5. Smelliness, fishy (amino) or “musty” suggests an abnormality.
 6. Itching is also abnormal and may require examination.
 7. The normal vaginal fluid pH is less than 5 (acidic), which is maintained by a healthy balance of vaginal microorganism (especially *Lactobacillus* species).
 8. Washing the vagina (douching) may be culturally-based and is unnecessary and can be associated with ascending infection (pelvic inflammatory disease “PID”) and increased risks of infection in pregnancy or sexually transmitted infection (STI) acquisition
 9. Increased sexual partners or anal/vaginal coitus is associated with abnormal vaginal bacteria.
 10. The FDA has advised trial procedures such as “vaginal remodeling” are unnecessary and may be associated with infection and dyspareunia. Cultural vaginal procedures (mutilation) are associated with some infection and dysfunction.
 11. We found no information regarding trials of probiotics or prebiotics and vaginal health.
 12. There are multiple studies demonstrating the effectiveness of HPV vaccination vs. vulvar and vaginal and oral cancer.



Candida, yeast species microscopic view



Bacterial vaginosis, characteristic clue cell



Gonorrhea, a common STI



“Strawberry cervix” due to *T. vaginalis*
Source: Claire E. Stevens/Seattle STD/HIV Prevention Training Center at the University of Washington

Conclusion

1. Vaginal health is self-sustaining and is not increased by douching or abnormal washing or other cultural practices.
2. Specific procedures such as douching, genital mutilation or excessive number of sex partners are associated with vaginal infection.
3. The possibility of beneficial effects of probiotic/prebiotic supplements remain to be established.
4. As with other aspects of female reproduction, vaginal health requires prioritized, fully-funded basic and clinical research. (Women’s Health Branch of NIH)
5. Every child should receive effective education regarding healthy reproduction and health practices.