THE EFFECTS OF FEMININE HYGIENE AND BEAUTY PRODUCTS ON VAGINAL HEALTH
The human vagina is a very sensitive region of the body.

The vagina is inhabited by a diverse ecosystem of microorganisms.

pH plays a large role in maintaining the environment.
LACTOBACILLUS ACIDOPHILUS

Courtesy MicrobeWiki
If pH rises above 4.5, problems like infection can arise.

The lactobacilli inhabiting the environment can be overgrown by more pathogenic microbes.

There are several common vaginal infections that result from condition changes:

- Bacterial Vaginosis (BV)
- Vulvovaginal Candidiasis (VVC) – Yeast Infection
- Urinary Tract Infection (UTI)
- Etc.
Antibiotic treatment of Bacteria Vaginosis also kills beneficial vaginal bacteria.

Without the good bacteria, odor causing bacteria grows unchecked.

VAGINAL THRUSH
Vaginal yeast infection

candida albicans

total perimetrium

myometrium

endometrium

fallopian tube

ovary

uterine fundus

uterus

ovarian ligament

cervical canal

cervix

vagina

broad ligament
There is a significant correlation between the use of these products and the presence of infection.

Some products contain pharmacological or surfactant ingredients that can be harmful:
  - Vagisil®
  - Summer’s Eve®
Problems associated with menstrual pads

Many negatives associated with tampon use
- Synthetic vs. All-Cotton
- Toxic Shock Syndrome (TSS)
- Microtears on vaginal wall
When brought into contact with the sensitive female reproductive system, these products can have very negative effects.

- **1,4-dioxane** – a carcinogen

- Intervention by the Food and Drug Administration (FDA)
These products are normally used to relieve inflammation or as contraceptives, but can often cause more harm than good.
Lack of personal hygiene and poor practices seem to be some of the most significant factors in vaginal infection
  - Improper wiping technique, not urinating frequently or after sex, insufficient water intake, self-diagnosis, and more

Increased levels of sexual activity are associated with higher infection frequency

Negative effects of some personal lubricants
  - Avoid glycerin- or glycerol-containing lubricants
  - Silicone-based products shown to be the least harmful
One of the largest predispositions to future vaginal infections is having had similar infections in the past.

Socioeconomic factors impacting the frequency of vaginal infections:
- Race
- Income, education level, profession
- Region
- Cultural practices
Frequent vaginal infection can lead to more serious medical conditions and complications.

Antimicrobial resistance
Many products have the potential to decrease the occurrence of common infections

- Products with antiseptic properties are shown to kill harmful bacteria and fungi

However,

- These potential benefits are still often outweighed by the dangers of many products
  - Products that kill pathogenic microbes also kill the beneficial organisms
HEALTHY ALTERNATIVES AND PREVENTION

- Alternatives to harsh, chemical-based washes and douches
  - Vinegar or saline washes instead

- Changes in manufacturing processes

- Changes in personal and sexual care
  - Better wiping technique, proper fluid intake, etc.
  - Looser-fitting, more breathable clothing
  - Use of barrier contraceptives to help prevent spread of infection
Education seems to be one of the most important ways of decreasing vaginal infections.

- Cultural, societal, and behavioral changes

- More resources and education on the sensitivity of the female reproductive system, as well as information on product ingredients and their potential risks
CONCLUSIONS

- Many factors play a role in female reproductive health

- Most products used in, on, or near the vagina have the potential to cause minor or serious harm

- There are safer alternatives to harmful products, and education is extremely important in preventing infection
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