

Facets of intimate care - less is more

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Intimate care always has been and will continue to be a domain of women. Obviously there is a solution for any kind of problem. However not all the products offered on the cosmetic market will automatically contribute to the individual wellbeing.

Both societal and social environment of women have fundamentally changed due to professional life and emancipation. Today's different understanding of the role of women takes its toll with appropriate clothing, physical appearance and daily care regardless of gender-related sensitivities. Intimate care with emphasis on hygiene is an essential element in this context.

Natural flora

The warm and humid milieu of vagina and vulva is an ideal field of activity for bacteria and fungi. That is the bad news. The good news is that the genital area is very well protected by its own natural flora and secretions - unless it is disturbed.

- The thick mucus of the cervical glands in the uterus neck prevents germs from penetrating into the uterus. The mucus has a slightly alkaline pH value and contains, besides water, mucigenous polysaccharides, salts, enzymes and residues of cells among others.
- The vaginal secretion with its pH value of about 4 also reacts acidic. Responsible for this reaction are lactic acid bacteria which break down the polysaccharides such as glycogen into maltose and dextrose and then form lactic acid out of it. Acetic acid also is formed. Such acidic environment in which also bactericidal nitrogen oxide (NO) is released in its turn reduces foreign germs and is an important safety factor against facultative pathogenic fungi such as *Candida albicans*.
- The sebum glands of the vulva with their abundant and sometimes whitish sebum and the associated skin-typical flora also provide for an acidic milieu which is not very accommodating for external germs that do not belong to the skin flora.
- Further secretions from the Bartholin's gland, the skene and sweat glands of the vulva additionally generate complex local conditions with a specific

composition that changes depending on the female menstrual cycle and the sexual activity.

- The volatile substances from the secretions in total finally define the individual and typical body odour which primarily is not perceived as unpleasant.

Excess hygiene

Nevertheless, the secretions frequently are perceived as being unhygienic and embarrassing. As a consequence, women try to keep their genital area "clean" in a variety of ways. The resulting treatments up to vaginal douching have not been planned for by nature though and affect the natural balance of the extremely sensitive area:

- The natural bacterial flora is disturbed.
- Facultative pathogenic germs can proliferate, spread and penetrate into the urogenital tract. Itching, burning pain and inflammations are potential consequences.
- Inappropriate cosmetic cleansing products respectively their components can trigger irritations and sensitivities.
- Embarrassing and, among others, pungent fishy odours originating from amines such as trimethylamine indicate a disturbed microcosm or even infections.

Hence the subjective feeling of neglected hygiene sets in. The consequence is that cleansings are intensified and perfumes and sprays for the genital area are applied in order to cover the own body odour. Bactericidal cleansing products, hygienic tissues, creams and pads are further resources to tackle the problem. Frequently, just the opposite is achieved:

- Bactericidal agents from deodorants and Co. unselectively kill all the germs and hence also the microorganisms required for a healthy flora and the respective pH level. Bactericidal substances such as the chloroaromatic tri-

cloasan should not be used in the genital area.

- Allergenic bactericides and perfume components easily penetrate into the unprotected skin and the mucous membranes. Individuals with a disposition to allergic reactions will soon be afflicted with the respective symptoms.
- Unwanted infections such as for instance fungi-induced *Candida albicans* with their risk of relapses are on the rise. About three out of four women are affected at least once in their life.

Too tight, too synthetic

A further unfavourable factor is skin-tight clothing. In comparison to other habitats we can observe that men completely diverge from the mode of life that nature provided for: even at night we do not refrain from wearing clothes. Hence the genital area is completely sealed off most of the day, which results in an increased temperature and in about 100 % atmospheric humidity. An excellent matrix for germs which perfectly settle down in skin and mucous membrane since fabrics, pads etc. absorb the various secretions of vulva and vagina.

The constantly humid milieu causes a swelling of the skin surface and the fabric to skin friction additionally supports the spreading of germs; shaving or epilation of the pubic hair still intensifies the problem.^{1,2)} Occlusive conditions are perfectly complied with when the underwear is made of synthetic material.

To treat the disturbed germ flora and bacterial infections the gynaecologist administers local antibiotics³⁾ depending on the type of pathogen as for instance

- metronidazole in the case of colpitis,
- tetracyclines against *Chlamydia* infections,
- azoles such as the antimycotic clotrimazole in the case of fungi infections.

The active agents are administered in the form of creams, suppositories or pills. There is also a risk of sensitive reactions.⁴⁾ Lactic acid or lactic acid bacteria releasing preparations often are prescribed as an adjuvant therapy in order to restore the natural milieu of the vagina.

Adequate care

More important is avoiding the problems caused by wrong hygiene perceptions in the first place.

Clothing

- Prefer breathable, loose cotton underwear to synthetic materials. With regard to its specific functions the genital area of women but also men basically is not designed for high temperatures and humid conditions!
- Avoid tight nightwear; preferably sleep without clothes. Those who are sensitive to cold may use an additional blanket and socks. Socks specifically are beneficial against back aches caused by neural stimuli of the cold toes.
- Avoid panty liners with impermeable plastic sheets (underwear protection). Panty liners should be breathable and prevent heat accumulation. Preferably avoid them at all.
- An important issue also is that the underwear is free of residues of laundry detergents or fabric conditioners.

Body cleansing

- Cleanse the genital area only topically with water. In cases where this is not sufficient, a sugar tenside based cleansing gel without preservatives and without lipid-replenishing substances is recommended. Only sparingly use shower gels and bathing preparations. It is even better to stay away from the products.
- Non-irritant cleansing gels and pH adjusted soap bars also are the means of choice for the anal area which is more difficult to clean. In this respect, bidets are beneficial as they allow a selective cleansing after bowel movements and hence prevent a contamination of the genital area via underwear.
- By the way, the baby care⁵⁾ can be taken as an example: In the case of irritations after repeated cleanings and subsequent diaper rash, pure vegetable oils such as avocado oil have proved successful. Avocado oil has excellent cleansing characteristics; the phytosterols contained in the oil stabilize the skin barrier and hence are a perfect skin care component.
- As the water quality is concerned, try to avoid hard water. It will further destabilize an already disturbed skin barrier.⁶⁾
- Avoid rough washcloths, preferably use your hands.
- After bathing or taking showers allow some time to get rid of the surplus hu-

midity of the body. Above all avoid extensive rubbing in order to dry the body.

Hygiene products

- Sprays or deodorants for the genital area are taboo.
- Avoid perfumes or other fragrances. By the way, perfumes only are accepted by around 50 % of our fellow human beings. It is also recommended to ban perfumed and coloured toilet paper from our household utensils.
- In case of doubt, prefer sanitary pads to tampons in order to protect the vaginal flora and exclude local irritations when inserting or extracting the tampons.
- As far as possible, also avoid wet tissues. Not everything that seems to be convenient also is adequate for the intimate care. Instead pack smooth disposable washcloths into the handbag which then can be moistened with tap water before using public toilets. Further important issue: After bowel movements clean the anal area from the front backwards.

Skin care

- Usually there is no need for skin care creams for the genital area. Nonetheless, whoever uses them externally should make sure that they are free of perfumes, preservatives, emulsifiers, softeners or denaturing agents such as for instance phthalic acid esters in Alcohol denat. (INCI). Convenient are easily spreadable aqueous lotions based on biodegradable nanodispersions that can be applied on the whole body after showering.
- In the case of a perianal barrier disorder⁷⁾ caused by excessive cleansing or other conditions as for instance long sitting, the affected area can be treated with non-aqueous, easily penetrating oleogels.⁸⁾ These preparations too should be free of needless additives and particularly paraffin oils or long-chained silicones that cause counterproductive skin swellings because the transepidermal water loss (TEWL) would be lowered more than necessary.
- If there is need for a lubricating agent, small amounts of oleogel or avocado oil also are an adequate choice due to their indifference.⁹⁾ Should water-

based agents be preferred, xanthan (food additive E 415) is an alternative in this case. The polysaccharide powder (about 2 to 3%) freshly dissolved in water forms a non-irritant, tasteless and scentless gel, which is absolutely free of additives. It is 100 % condom-compatible.

It should be added, that pharmaceutical drugs, inclusive oral antibiotics against infections in general, can affect the intestinal flora but also the vaginal micro flora. Spermicidal contraceptives such as gels, foams and suppositories also disturb the natural balance of the body. Variations in the estrogen level as well are significant in this context. The hormone controls the metabolism in the genital tract and depends on factors like puberty, oral contraceptives, pregnancy, menopause and nutrition. In the case of a low estrogen level and vaginal disorders the hormone is supplemented. On skin care in puberty, pregnancy and menopause has been reported recently.^{10,11,12)}

Conclusion: It is advisable to scrutinize the various products for the female genital area offered by the cosmetic industry. Most of the alleged problem solvers certainly are unnecessary.

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