Learning objectives

At the completion of this presentation, participants should be able to:

- Describe the action of lubricants and moisturizers.
- List 3 specific moisturizers and indications for their use.
- Identify patients who would be candidates for vulvar soothing cream, a female arouser device or a sexual wedge.

Lubricants and Moisturizers

- **Lubricants** are considered temporary measures to relieve vaginal dryness during intercourse
  - Short duration of action
  - Must be applied frequently
  - Sexual aid
- **Vaginal Moisturizers** are promoted as providing long-term relief of vaginal dryness
  - Continuous use- several times a week
  - Everyday aid

Sources:
Lubricants and Vaginal Moisturizers

- OTC products
- FDA approved as “Cosmetics”
  - Approval process less rigorous
  - Data often limited
  - Lack of scientific trials determining efficacy and side effects

Lubricants

- Minimize friction and irritation
  - Around the clitoris, labia and vaginal entrance
- Gel or liquid
- Water-based, oil-based, silicone-based

Durex Global Sex Survey: 41 countries/N=317,000 / 138 x/yr

Enhancement Statistics

- 43%-52% use vibrators
- 59%-62% lubricants / moisturizers
- 53% pornography
- 13% penis rings
- 5% penis sleeves
- 6% loveballs
- 35% pleasure enhancing condoms
- 43% massage oils
- 26 % erotic literature

Lubricant use, pleasure, comfort and orgasm

- Jozkowski K et al
- N= 245
- Ages 18-68
- 75% purchased lubricant in past 4 wks
- 96% “greater sexual comfort”
- 94% “greater sexual pleasure”
- “Increased ease of orgasm”
**Lubricant Analysis**

| Ingredient   | Spermicide | Bactericides | Alcohols | Glycerin | Benzyl Alcohol | Hypophosphates | Benzocaine | Parabens | Glycol | Water | 
|--------------|------------|--------------|----------|----------|----------------|----------------|------------|----------|-------|------|------|
| Pre-Seed     | X          | X            | X        | X        | X              |                |            |          |       |      |      |
| Fem-Glide    | X          | X            | X        | X        |                |                |            |          |       |      |      |
| Pre-Sex      | X          | X            | X        | X        |                |                |            |          |       |      |      |
| Pre-Wet      | X          | X            | X        | X        |                |                |            |          |       |      |      |
| Replens      | X          | X            | X        | X        |                |                |            |          |       |      |      |
| Preseed      | X          | X            | X        | X        |                |                |            |          |       |      |      |
| Hypermix     | X          | X            | X        | X        |                |                |            |          |       |      |      |
| Microsponge  | X          | X            | X        | X        |                |                |            |          |       |      |      |
| Mucolast     | X          | X            | X        | X        |                |                |            |          |       |      |      |
| Vag-Mix      | X          | X            | X        | X        |                |                |            |          |       |      |      |
| Vag-Wet      | X          | X            | X        | X        |                |                |            |          |       |      |      |
| Vag-Gel      | X          | X            | X        | X        |                |                |            |          |       |      |      |
| Vag-Lube     | X          | X            | X        | X        |                |                |            |          |       |      |      |

**Water Based Lubricant Osmolality Determines Mucosal Irritation**

<table>
<thead>
<tr>
<th>Osmolality</th>
<th>Mucosal Influence</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iso-osmotic (314 mOsm/kg)</td>
<td>No irritation</td>
<td>Pre-seed</td>
</tr>
<tr>
<td>Hypo-osmotic (32 mOsm/kg)</td>
<td>Negative mucus production</td>
<td>FemGlide Slippy Stuff</td>
</tr>
<tr>
<td>Hyper-osmotic (5648 mOsm/kg)</td>
<td>Mild irritation Moderate irritation Severe irritation</td>
<td>Replens KY jelly Astroglide</td>
</tr>
</tbody>
</table>

**Vulvar Contact Dermatitis**

- **History:**
  - Sudden onset
  - Intense pruritus
  - Vesiculation
  - Weeping lesions

- **Common vulvar irritants**
  - Spermicide, Bactericides, Glycerin, Benzyl Alcohol
  - Benzocaine
  - Chlorhexidine (KY jelly)
  - Parabens and propylene glycol
  - Latex
  - Lanolin

- **Treatment**
  - D/c product
  - Avoid overzealous hygiene
  - Low potency steroids
  - Bland emollients
  - Sleep aid/antihistamine for sedation
  - Antibiotics pm infections

**Vaginal Moisturizers- Mode of Action**

- Bioadhesive-based polymers
- Attach to mucin and epithelial cells on the vaginal wall
- Carries up to 60 times its weight in water
- Holds water in place on vaginal epithelial surface until it is sloughed off
- Requires two to three applications a week
- Does not require reapplication before sexual intercourse.
Available Moisturizers

<table>
<thead>
<tr>
<th>Product</th>
<th>Ingredients</th>
<th>Use</th>
<th>Price/Unit</th>
<th>Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replens</td>
<td>Poly carboxylic acid, glycerin, mineral oil</td>
<td>Every 3 days</td>
<td>$17.5/14 app</td>
<td>Yes</td>
</tr>
<tr>
<td>LUVENA</td>
<td>Lactoperoxidase, Lactoferrin</td>
<td>2x/wk</td>
<td>$20/5 app</td>
<td>Yes</td>
</tr>
<tr>
<td>KY Liquidbeads (ovules)</td>
<td>Dimethicone, water, Glycerin, Benzalkonium</td>
<td>1-7d/wk</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>KY long lasting</td>
<td>Various polymers</td>
<td>2-3x/wk</td>
<td>$16/6 app</td>
<td>No</td>
</tr>
<tr>
<td>Emerita personal moisturizer</td>
<td>Aloe Vera Gel, Calendula, Vitamin E, Glycerin, Chamomile, Allantoin</td>
<td>As needed</td>
<td>$16/4 oz</td>
<td>No</td>
</tr>
<tr>
<td>Moist again</td>
<td>Carbowax, aloe vera, pectinamins</td>
<td>As needed</td>
<td>$7/4 oz</td>
<td>No</td>
</tr>
<tr>
<td>Hyalogyn / Juvagyn</td>
<td>Hyaluronic acid</td>
<td>7 days &gt; 2/wk</td>
<td>$30-50/30gram</td>
<td>HA-yes</td>
</tr>
<tr>
<td>Pre-seed</td>
<td>Hydroxyethylcellulose</td>
<td>As needed</td>
<td>$20/9 app</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Specific Moisturizer/Lubricants

Pre-biotic formulation containing lactoperoxidase and lactoferrin-
Hybrid moisturizer/lubricant


Replens has beneficial clinical effects:
- Symptomatic improvement
- Clinical improvement:
  - dryness, pallor, mucosal thinning, petechiae and labial atrophy

Vaginal Cytology
- Treatment with Replens increased mean cellular area, no change in maturation index

Replens lowers vaginal pH due to acidity and buffering capacity
- 5.8-5.2 to 4.8-4.7 (12 weeks of therapy).


The fungicidal effect of human lactoferrin on Candida albicans and Candida krusei.
Nikawa H1, Samaranayake LP, Tenovuo J, Pyorla M, Hamada T.

Candida albicans susceptibility to lactoperoxidase-generated hypoiodite.
Mohamed Ahariz; Courtois Philippe Laboratory of Experimental Hormonology, Universite Libre de Bruxelles 08/2010; 2:66-78.

EVALUATION OF THE EFFICACY AND SAFETY OF HYALURONIC ACID VAGINAL GEL TO EASE VAGINAL DRYNESS: A MULTICENTER, RANDOMIZED, CONTROLLED, OPEN-LABEL, PARALLEL-GROUP, CLINICAL TRIAL.
CHEN J1, GENG L, SONG X, LI H, GIORDAN N, LIAO Q.
Hybrid applied fingertip QD

*90% women in 2015 consumer study noted increased comfort decreased dryness after initial application (Siegel 2015)

ALOE GLIDE

Desert Harvest Aloe Glide™ is 100% Natural and contains Organic aloe vera

Natural, chemical-free skin care product that can be used for physical therapy, ultrasound, vulvodynia, vulvar atrophy and postmenopausal dryness (based on consumer feedback).

INGREDIENTS:
Organic Aloe Barbadensis Leaf Juice, Xanthan Gum (Natural Polysaccharide), Glycyrrhiza Glabra (Licorice) Root Extract, Althea Officinalis (Marshmallow) Root Extract, Citric Acid (Natural pH Controller), Vegetable Glycerin, Leuconostoc/Radish Root Ferment Filtrate (Natural Antimicrobial), Lonicera Japonica (Honeysuckle) Flower Extract, Lonicera Caprifolium (Honeysuckle) Extract, Populus Tremuloides (Aspen) Bark Extract, Gluconolactone (Natural Skin Conditioner)

CUTANEOUS VULVAR SOOTHING CREAM

CLINICAL STUDIES: Significant improvement (vs placebo) in symptoms of vulvar pain, dyspareunia in PREM with Vulvodynia and postmenopausal women with GSM.

Donders, G. Journal of Lower Genital Tract Disease in the October 2012 (Volume 16)

VULVAR OPTIONS:

OIL, HONEY and BEESWAX BASED OINTMENT

No published clinical studies

“Lab tested and endorsed by MED. specialists”

PFM Sexual Rehab

- Hypertonus/foreshortening
- PFMPT +
- Dilators +
- Titerawand
- 2-7 times/wk x 5-10”
- Slow progressive size changes q 2-3 weeks

- Silicone
- Plastic
- Cool water

FISHER, K. MANAGEMENT OF DYSPAREUNIA
Physical Therapy Jul 2007 vol. 87 no. 7 935-941
Conclusions.

Vibrator use among women is common, (52%) associated with health-promoting behaviors and positive sexual function, and rarely associated with side effects. Clinicians may find these data useful in responding to patients’ sexual issues and recommending vibrator use to improve sexual function. Further research on the link between vibrator use and sexual health is warranted.


INTENSITY...a silicon/rubber hybrid PFM exerciser/vibrator powered by four AAA batteries. Strengthens pelvic floor muscles and “brings orgasms to the orgasmsless, taking existing orgasms to more intense levels. Kinsey Institute, in clinical trials

A first-of-its-kind product, Fiesta is a small, hands-free, wearable product that is designed to be used for a few minutes in advance of sexual intimacy to help women get in the mood and have a more satisfying experience. Co-created with women and sexual health professionals, it utilizes a unique combination of technology proven to encourage blood flow and lubrication, giving desire and physical arousal. Consumer tested on pre-per- part MW.

ARGINMAX

The enhancement of female sexual function with ArginMax, a nutritional supplement, among women differing in menopausal status. Ito TY, Polan ML, Whipple B, Trant AS.

...After 4 weeks, PRE women on ArginMax primarily reported significant improvement in level of sexual desire (72%; p = 0.03) and satisfaction with overall sex life (68%; p = 0.007), compared with placebo group, according to the Female Sexual Function Index (FSFI). Kaplan et al. (1999) states, Frequency of sexual desire (60%; p = 0.03) and frequency of intercourse (52%; p = 0.03). In contrast, among PERI women, primary improvements were noted in frequency of intercourse (60%; p = 0.03) satisfaction with sexual relationship (72%; p = 0.03), and vaginal dryness (64%; p = 0.03) compared with placebo group. HOST women primarily showed an increase in level of sexual desire, with 91% showing improvement, compared with only 8% in the placebo group (p = 0.006).

Journal of Sexual Medicine 2015. Stronvivo supports endothelium function, boosts nitric oxide production. Female studies: after 90 use = significant improvements in all areas of sexual functioning including desire, arousal, orgasm and lubrication while also experiencing significant improvements in mood.

L Arginine, L Citruline, Magnesium, Zinc
ZESTRA

A blend of borage seed oil, evening primrose oil, angelica root extract, and coleus forskohlii extract designed to enhance arousal and orgasm after application to clitoris and labia. A published study showed women with both female sexual arousal disorder (FSAD) and women with normal sexual functioning experienced improved desire, arousal, and orgasm.

Randomized, Placebo-Controlled, Double-Blind, Parallel Design Trial of the Efficacy and Safety of Zestra® in Women With Mixed Desire/Interest/Arousal/Orgasm Disorders

David M. Ferguson, Balakrishna Hosmane, Julia R. Heiman

In California and Colorado..FORIA

Each bottle contains liquid coconut oil and 360 mg of THC and other cannabinoids. Women apply 4-8 sprays directly onto the clitoris, inner and outer labia, and inside the vagina. Each spray contains approximately 2 mg of THC. Consumer studies “limited” but claim increased arousal and ease of orgasm.

Liberator Collection

The Greatest Invention for Sex Since the Bed.

With Liberator intimacy positioning. Shapes, you and your partner can discover new positions and possibilities. The angles are pitch perfect for deeper sensations and longer sessions. Discover a new realm of pleasure and intimacy your lovemaking.

Thank you for your kind attention!