

Viewing Time

The program will take up to one hour to complete.

Target Audience

This program is designed for primary care physicians.

Other health care professionals working with patients and their families may also find this program of interest.

Faculty Disclosure

It is the policy of Children's Hospitals and Clinics of Minnesota to ensure balance, independence, objectivity, and scientific rigor in all its educational programs. Our faculty have been asked to disclose to our program audience any real or apparent conflicts of interest related to the content of their presentation. They have also been requested to let you know when any product mentioned in their presentation is not labeled for the use under discussion or is still under investigation.

Faculty Disclosure

Rachel Miller, MD has disclosed no actual or potential conflict of interest in relation to this educational activity.

During this educational activity **Dr. Miller** will be discussing off label uses of some prescriptions and products.

The Red, Itchy, Burning, Painful Pediatric Vulva

Rachel Miller , MD

Medical Director, Pediatric & Adolescent
Gynecology, Children's Hospitals and Clinics of
Minnesota

The Red, Itchy, Burning, Painful Pediatric Vulva

*A lecture about common vulvovaginal
complaints in children and adolescents.*

Program Objectives

Upon completion of this program, participants should be able to:

- Accurately describe vulvar anatomy
- Illustrate a pediatric vulvar examination and vaginal culture technique
- Establish a differential diagnosis for the pruritic prepubertal vulva
- Describe management of vulvovaginitis and common dermatitides of the vulva

Disclaimer

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Accreditation

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Receiving CME Credit

To receive CME credit you must view the entire program and complete the evaluation form at the end.

**The Red, Itchy, Burning,
Painful Pediatric Vulva**


Pediatric Grand Rounds
January 15, 2009

Rachel J. Miller, M.D.
Pediatric & Adolescent Gynecology



Delivering Next Generation Care

No Disclosures



Disclaimers

- Limited research regarding vulvar vaginal disorders in children
- Little if anything FDA approved for treatment of specific disorders
 - Off label use

Objectives

1. Accurately describe vulvar anatomy
2. Illustrate a pediatric vulvar examination and vaginal culture technique
3. Establish a differential diagnosis for the pruritic prepubertal vulva
4. Describe management of vulvovaginitis and common dermatitides of the vulva

Why?

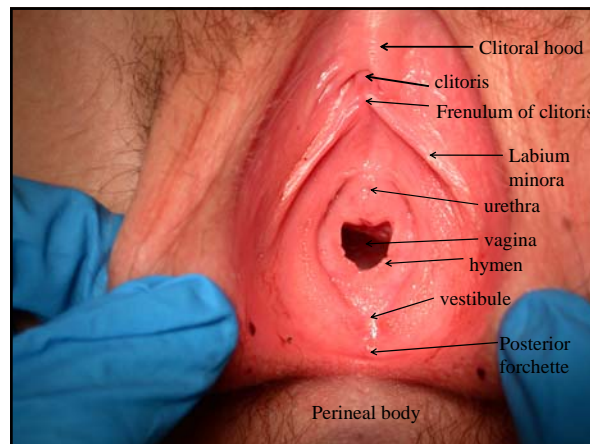
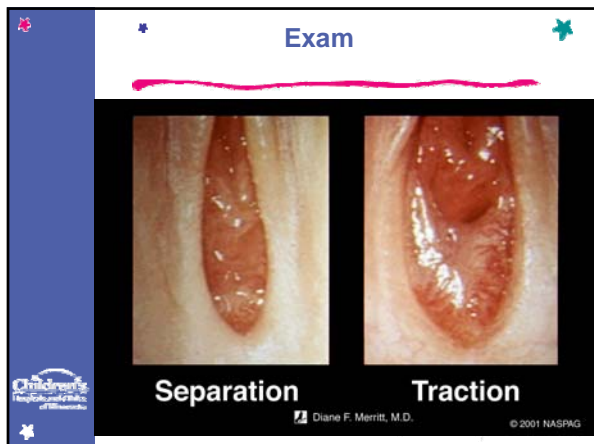
- “Vulvar skin disorders in girls are:
 - Common
 - Often very uncomfortable
 - Of utmost concern to girls (and parents)
 - Often neglected because of fear or embarrassment
 - Not emphasized enough in training”

Jonathan D.K. Trager, M.D.
Assistant Clinical Professor of Pediatrics, Adolescent Medicine and Dermatology
The Mount Sinai Medical Center

Patient positioning

Anatomy

- **Prepubertal**
 - Small, flat, unopposed labia
 - Pale, translucent exquisitely sensitive hymen
 - erythematous appearing perihymenal tissue
 - Vaginal mucosa thin, red
- **Pubertal**
 - Elongated labia minora
 - Vaginal mucosa pale, moist



Vulvovaginal complaints

- Infection
- Hygiene
- Dermatitis
- Inflammatory disease
- Congenital abnormalities
- Tumors
- Normal findings
- Trauma

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Pinworms (Enterobius vermicularis)

- Pruritis ani
- Vulvovaginitis
- Scotch tape test
- Mebendazole 100mg once, repeat in 2 weeks
- Treat entire household


<http://www1.indstate.edu>

Candida



- Uncommon in prepubertal girls
- Exceptions:
 - Wear diapers
 - Recent antibiotic therapy
 - Immunosuppressed

Vulvar abscess



- Culture pus
- I&D abscess
- Treat systemically and topically
- Warm soaks



Labial abscess




Clitoral abscess



Bacterial vulvovaginitis


- Erythema
- Discharge
 - Sometimes bloody
- Malodor
- Pruritis
- Irritation



Infectious vulvovaginitis


- Respiratory pathogens:
 - Group A strep
 - S. aureus
 - H. influenzae
 - S. pneumoniae
 - N. Meningitidis
 - B. catarrhalis
- Enteric pathogens:
 - e.coli
 - Shigella
 - Yersinia

Stricker et al. Arch Dis Child 2003; 88:324.



Vulvovaginal complaints

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Nonspecific vulvovaginitis

- Poor hygiene**
 - Exam findings
 - Chronic irritation
 - Odor
 - Smegma
 - Toilet paper, lint
 - Fecal material
 - Contributing factors
 - Obesity
 - Constipation



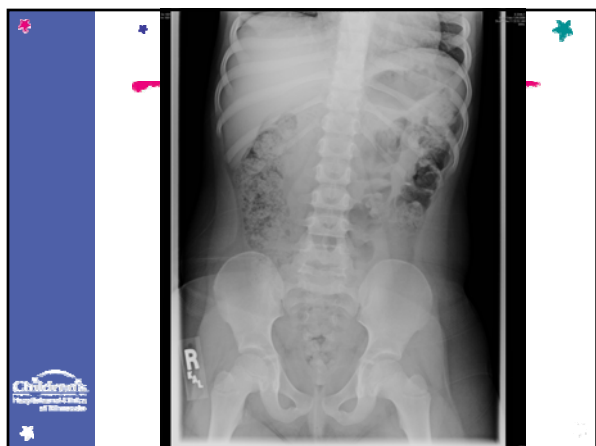
Culture technique

- Good lighting**
- 2 people**
- Patient positioning**
- Distraction**

Bristol Stool Chart

| | |
|--------|---|
| Type 1 | Separate hard lumps, like nuts (hard to pass) |
| Type 2 | Sausage-shaped but lumpy |
| Type 3 | Like a sausage but with cracks on its surface |
| Type 4 | Like a sausage or snake, smooth and soft |
| Type 5 | Soft blobs with clean-cut edges (passed easily) |
| Type 6 | Fluffy pieces with ragged edges, a mushy stool |
| Type 7 | Watery, no solid pieces. Entirely Liquid |

University of Bristol, UK



Treatment


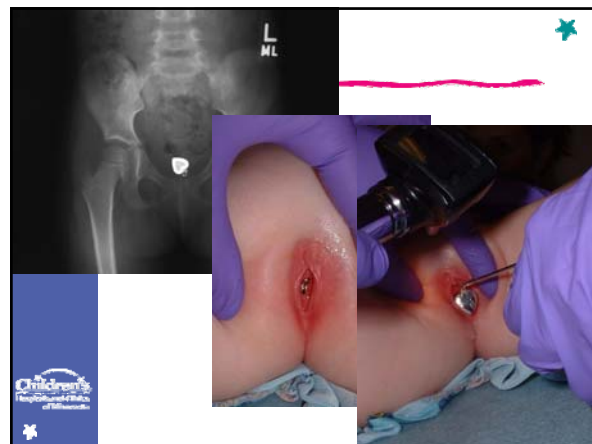
- Avoid constipation**
- Acute: PO antibiotics & hygiene**
- Chronic: Hygiene**
 - Wash hands
 - Wiping
 - Knees apart during voiding
 - Daily bath
 - pHisohex®, Hibiclens®
 - 1 tsp in bath 1-2 times/week
 - No underwear at night
 - Avoid tight clothing

Vulvovaginitis in Young Girls

Pediatric and Adolescent Gynecology Program
 (551) 225-5999
www.chi/bio/raa.org

Foreign Body

- Symptoms**
 - Discharge
 - Severe malodor
 - Bleeding
 - Pruritis
 - Irritation
- Management**
 - Vaginal irrigation
 - EUA
- Most common culprit**
 - Toilet paper

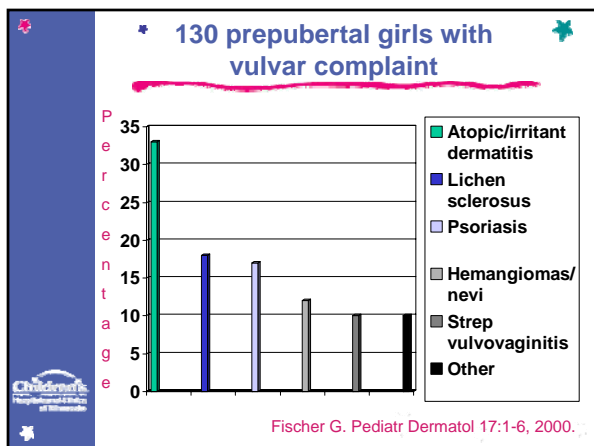



Foreign body



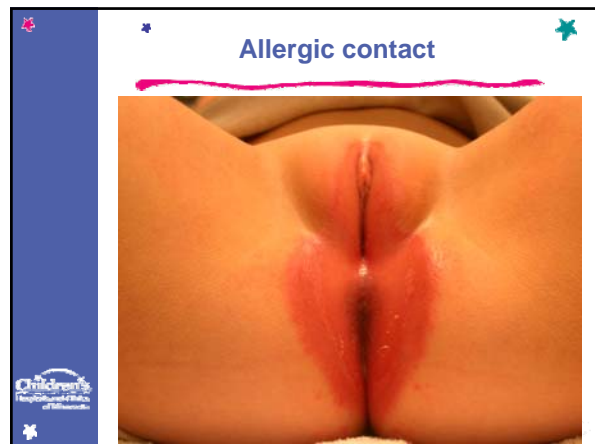
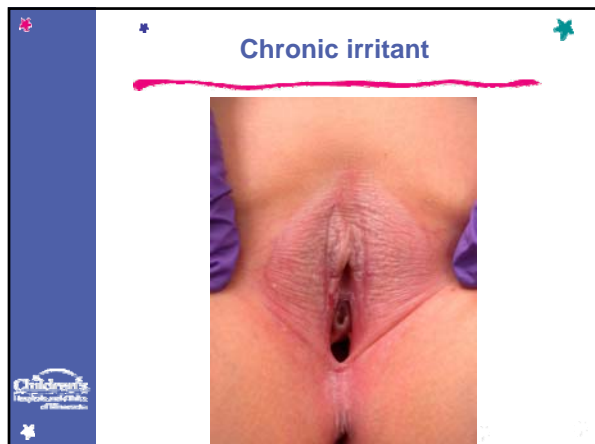
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Dermatitis

- **Irritant contact**
 - Pruritis
 - Erythema
 - Lichenification
- **Allergic contact**
 - Erythema
 - Burning
 - Desquamation
- **Atopic**
 - Chronic pruritis
 - Rubbing
 - History of eczema, asthma, allergic rhinitis

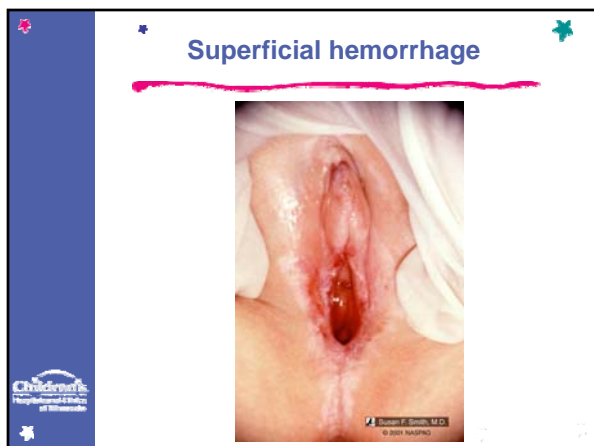
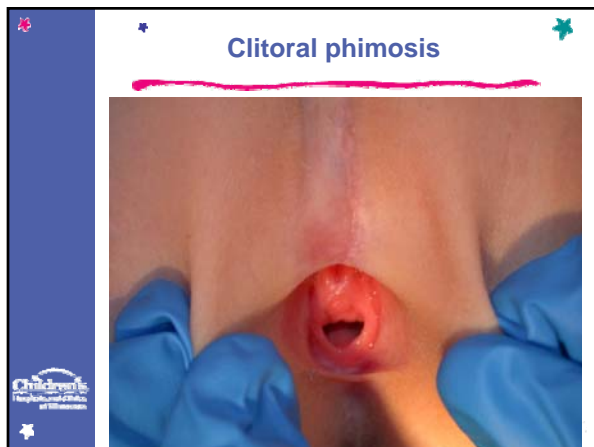
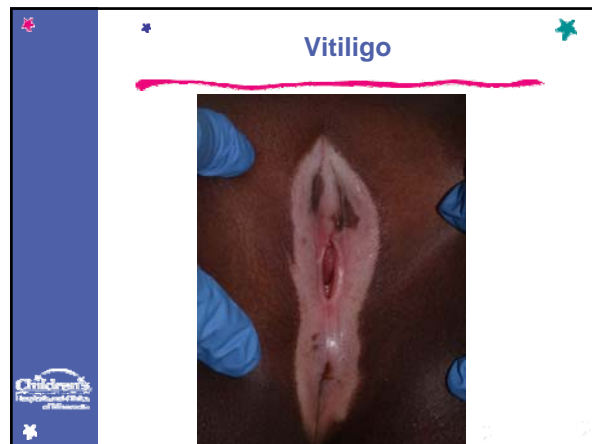
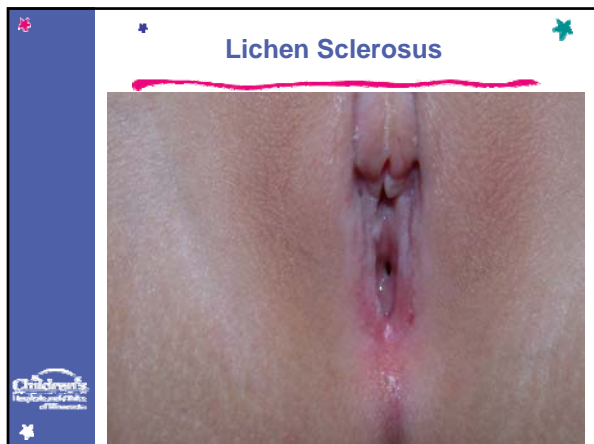


- ### Offending agents
- **Vulvar irritants**
 - Alcohol
 - Bubble baths
 - Detergents
 - Urine, feces
 - Powders
 - Soap
 - Sweat
 - Propylene glycol
 - **Vulvar allergens**
 - Aloe
 - Lanolin
 - Glycerin
 - Parabens
 - Camphor
 - Vitamin E
 - Benzocaine
 - Neomycin
 - Latex
 - Fragrance
 - Nickel

- ### Treatment
- **Steroid ointment**
 - **Sitz bath q4 hrs**
 - **Systemic steroid taper**
 - **Cool compress**
 - **Antihistamine**
 - **Avoid irritants/allergens**
 - White cotton underwear
 - Mild detergents
 - No fabric softeners or dryer sheets
 - Mild, unscented, hypoallergenic soap
 - Rinse well
 - Avoid wet clothing

- ### Vulvovaginal complaints
- Infection
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- ### Lichen sclerosus
- Itching
 - Irritation
 - Bleeding from excoriations or fissuring
 - Pain
 - "hour glass" appearance if perianal area involved
 - White, atrophic parchment-like skin
 - Punctate hemorrhages
 - **Loss of normal vulvar architecture**
 - Loss of demarcation of labia
 - Scarring of clitoral hood
 - Thickening of posterior forchette



Treatment

- Ultra-potent steroid ointment bolus
 - Clobetasol 0.05%
- Maintain with lowest effective potency steroid
- May symptomatically improve at puberty but may persist
- Need to be followed for life
- Long-term risk of vulvar malignancy is unknown
 - HPV vaccine


Lichen Sclerosus

Pediatric and Adolescent Gynecology Program
(412) 220-5999
www.chpittsburgh.org

Children's Hospital of Pittsburgh

Labial adhesions/agglutination

- Up to 25% of girls in first 5 years of life
- Chronic irritation and dermatoses
- Most require no treatment





Labial adhesions



Susan F. Smith, M.D.
© 2011 HALOAG



Labial Adhesions





Treatment

- If symptomatic (UTI, post-void dribbling)
 - Estrogen cream, emollient maintenance
 - Hygiene & avoid irritation
 - Rare indication for surgical management

Labial Adhesions


Pediatric and Adolescent Gynecology Program
(412) 226-5999
www.childrensp.org

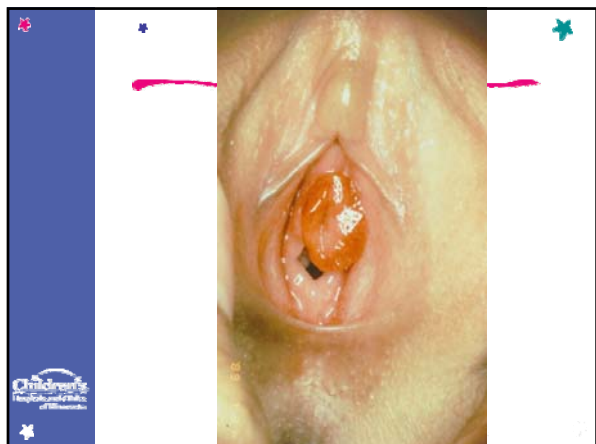




Urethral prolapse

- Ages 5-9 years
- African-Americans
- Painless bleeding
- Dysuria
- Vulvar pain
- Crying, cough, constipation
- Inflamed, edematous, donut-like






Urethral prolapse

- Assure urination
- Topical estrogen
- Reduction with catheter placement
- Sitz baths & compresses
- Rarely require excision


Painful vulvar ulcers

- HSV 1 & 2
- Aphthous/Lipschütz ulcers
 - >1cm on medial aspect of labia minora
 - Thick eschar
 - Kissing lesions Huppert J et al. J Ped Adol Gyn 2006
- Crohn's disease
- Behçet's syndrome


HSV



HSV



HSV



Primary herpes, female


HSV: Diagnosis or Exclusion

- CDC recommends laboratory testing of herpetic lesions to identify the infecting strain
- HSV culture preferred
 - But less reliable if lesions have begun to heal or for recurrent episodes
- PCR more sensitive in these cases
 - Not currently FDA approved for diagnosis of genital HSV
- Tzanck preparation not recommended
- Type-specific HSV serology useful for HSV recurrences or clinical diagnosis of HSV but culture negative

Aphthous ulcer



Aphthous ulcer



Treatment aphthous ulcers

- **Symptomatic**
 - Void in bath or use peri-bottle
 - Sitz baths
 - Ibuprofen
 - Lidocaine jelly
 - Aphasol paste
- **Prednisone taper**

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Condyloma acuminata?


Vulvar Papillomatosis




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Labial hypertrophy


- **No definition**
- **Symptoms**
 - Irritation
 - Chronic infection
 - Pain
 - Interference with activities
 - Psychosocial distress
- **Reassurance**
- **Hygiene counseling**
- **Avoid tight clothing**
- **Labioplasty**




Labial asymmetry




Marta C. Mendez, M.D.
© 2001 NASIPG



Labial hypertrophy




Emans SJ et al. *Pediatric and Adolescent Gynecology* 4th ed.






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Straddle injuries

- **History**
 - Consistency of history
 - ? Able to void since injury
 - Time since injury


Hematoma

- **Observe size and expansion over time**
 - Consider duration to resolution
- **Expectant vs evacuation and ligation of bleeding vessel(s)**
- **Ice packs, compression**
- **Analgesia**
- **Urethral catheter**

Lacerations

- **Vulvar Injury**
 - Assess extent of laceration
 - Assure urethral/urinary tract intact
- **Vaginal Injury**
 - Assess extent of laceration
 - Consider possible injury to urethra, bladder, anal, peritoneal penetration

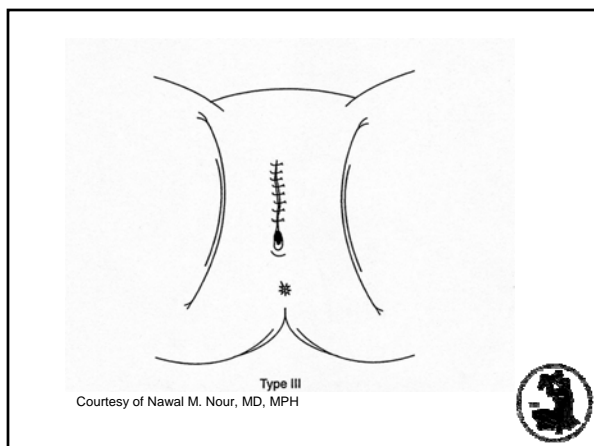
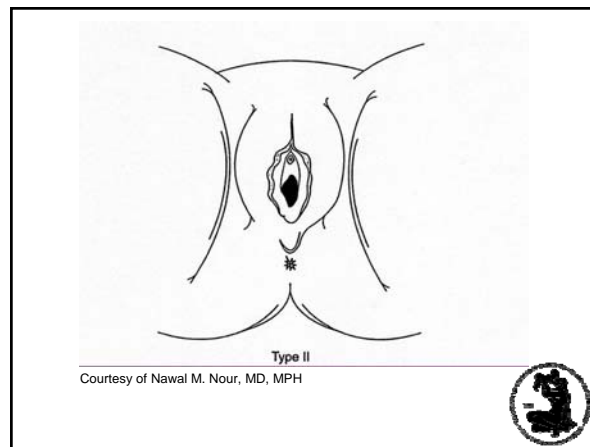
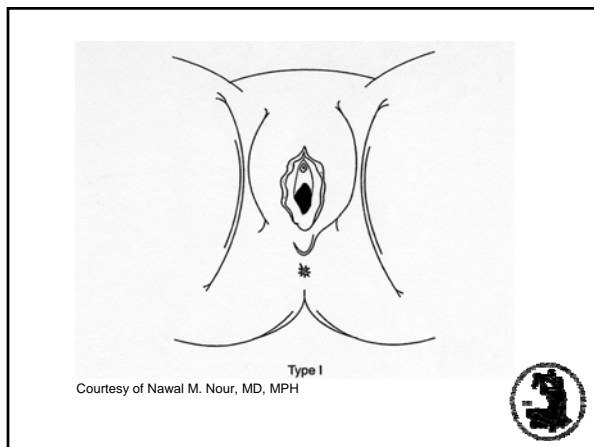


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Female genital cutting

- **Pediatric issues**
 - Sensitivity
 - Examination
 - Referral
- **Adolescent issues**
 - Normalcy
 - Acculturation
 - Confidential defibulation?

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Long-Term Complications

| COMMON | RARE |
|------------------|-----------------------|
| ▪ Dysmenorrhea | ▪ Hematocolpos |
| ▪ Dyspareunia | ▪ Keloids |
| ▪ Urinary issues | ▪ Fistula |
| ▪ Infections | ▪ Psychosocial issues |
| ▪ Infertility | |


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Questions?



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