# The Menopausal Vagina

With Moira Bradfield, M.Acu, B.Nat, PhD Candidate

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# Moira Bradfield

Moira Bradfield, founder of Intimate Ecology clinical and education services, is a Naturopath, Acupuncturist and educator with over 18 years clinical experience.

Clinically she has a niche interest in recurrent vaginal infections, optimal vaginal and genitourinary health, hormones and the vaginal microbiome.

Moira holds a Bachelor of Naturopathy Southern Cross University, a Master's degree in Acupuncture from Southern Cross University and is a PhD Candidate at Griffith University, Australia researching the vaginal microbiome and recurrent vaginal infections.

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# Session summary

- Basic theory around vaginal imbalance in Menopause
- Recognising and questioning presentations relating to the common Vaginal Presentations of Menopause
- Standard pharmaceutical management strategies
- Effective herbal and nutritional approaches to menopausal vaginal issues
- Identifying resources and products for your menopausal client for easing discomfort and support

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# Markers of homeostasis


173 women studied, mean FSH level was 46.5 IU/L and mean vaginal pH was 5.3

(Panda et.al 2014)

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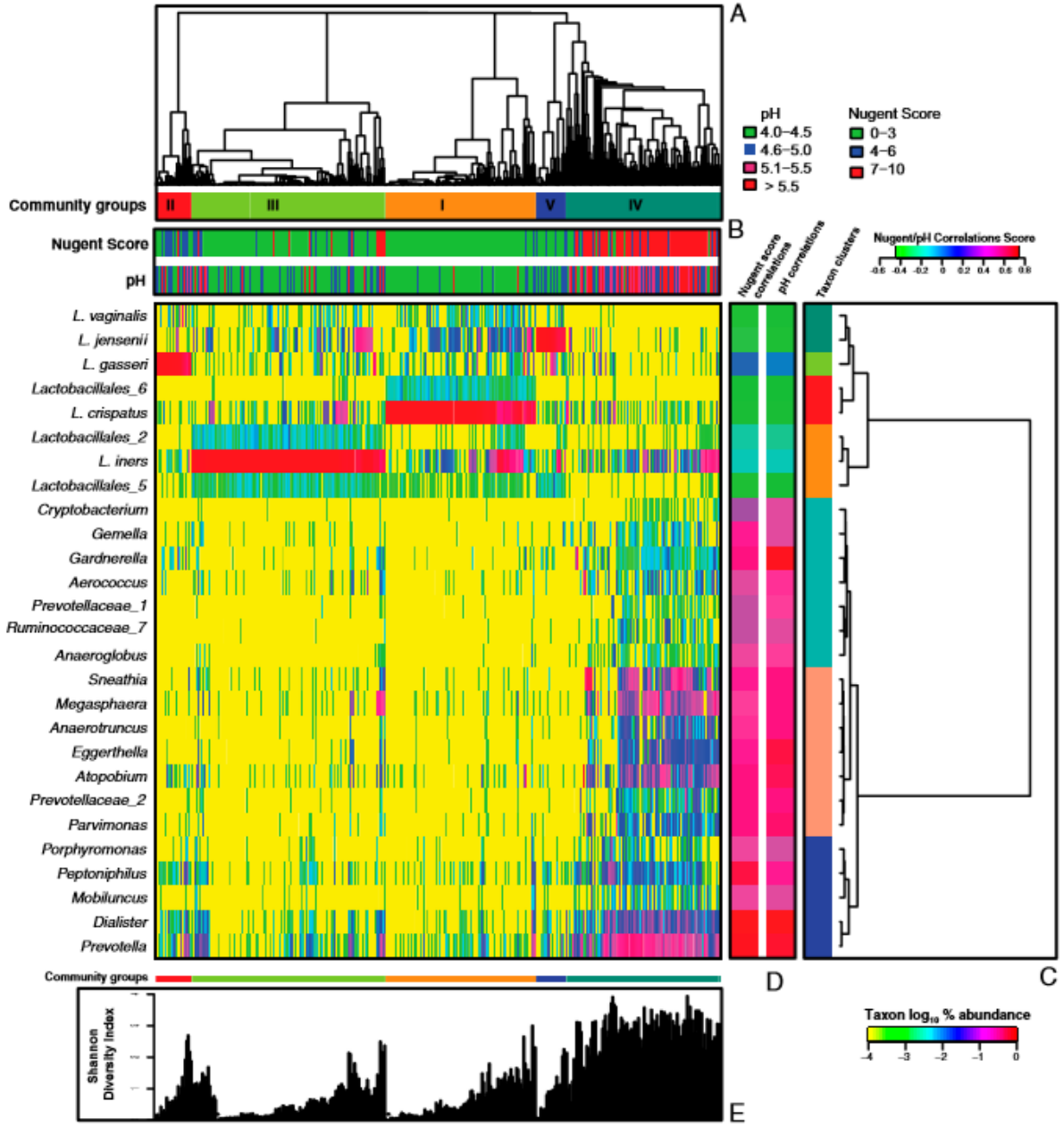
# Vaginal microbiome: microbial basics

- The vagina is a dynamic ecosystem that normally contains approximately 109 bacterial colony-forming units per gram of vaginal fluid.
- Discharge is normal and variable: clear to white, odorless, and of high viscosity.
- *Lactobacilli* dominance is considered a hallmark of health, but a variety of other organisms, including some potential pathogens, are also present at lower levels.
- *Staph, Strep, Enterococci, E. coli, Proteus, Klebsiella*, anaerobes, *Candida albicans* in 20-70% of healthy asymptomatic people




# Vaginal microbiome of asymptomatic women n=396

Composed of 5 Community State types

CSTI: L. crispatus dominated

CSTII: L. gasseri dominated

CSTIII: L. iners dominated

CST IV: **Lactobacilli not dominant**

CSTIVA: higher abundance of Peptoniphulus, Anaeococcus, Corynebacterium, Finegoldia, Gardnerella, Prevotella, Sneathia…

CSTIVB: Higher abundance of Atopobium

CSTV: L. jensenii dominated

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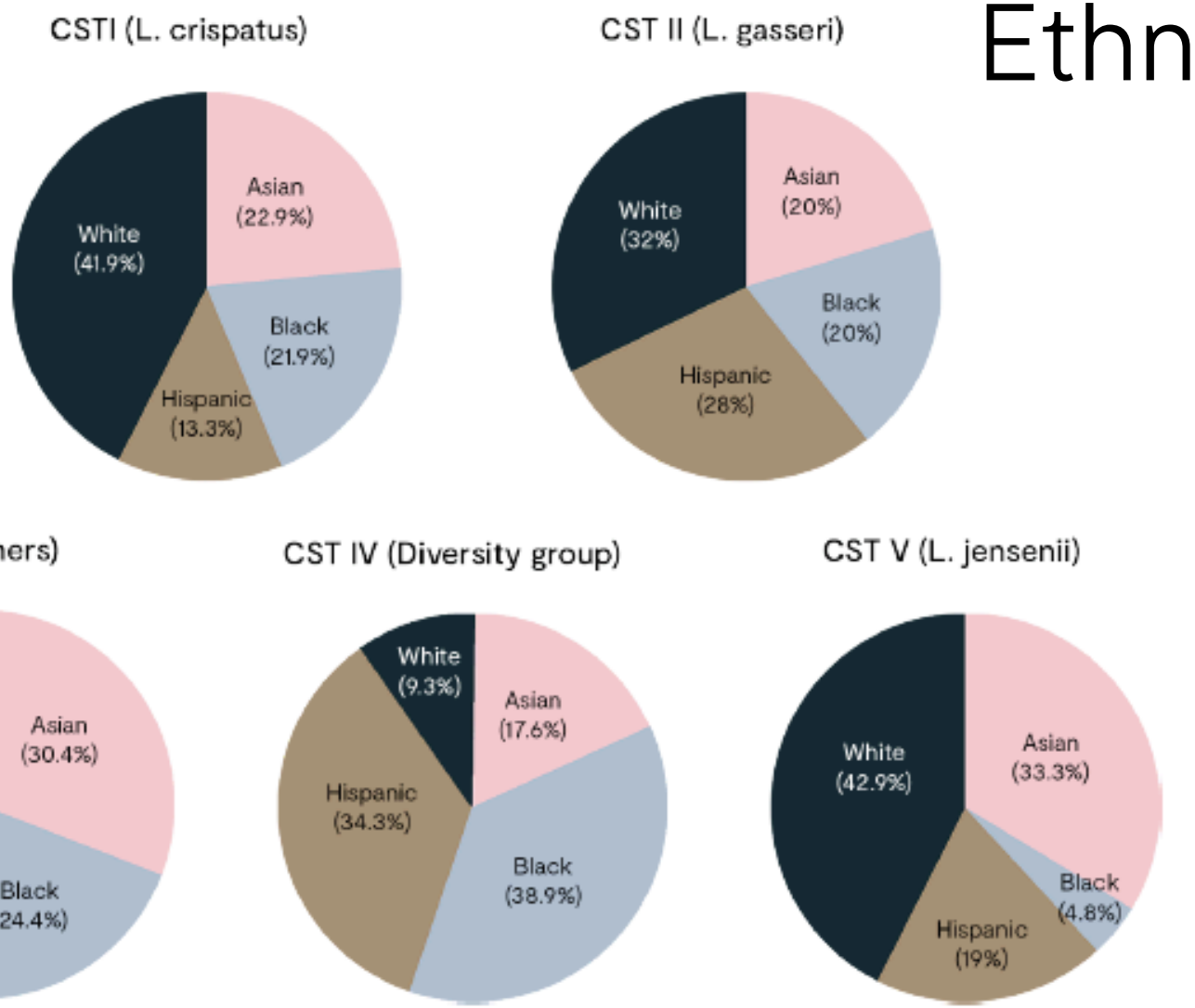
# Ethnicity and CST

Community State Type classification is influenced by ethnicity.
Modified from Ravel *et al.*, 2011 and Ravel and Forney, 2013.

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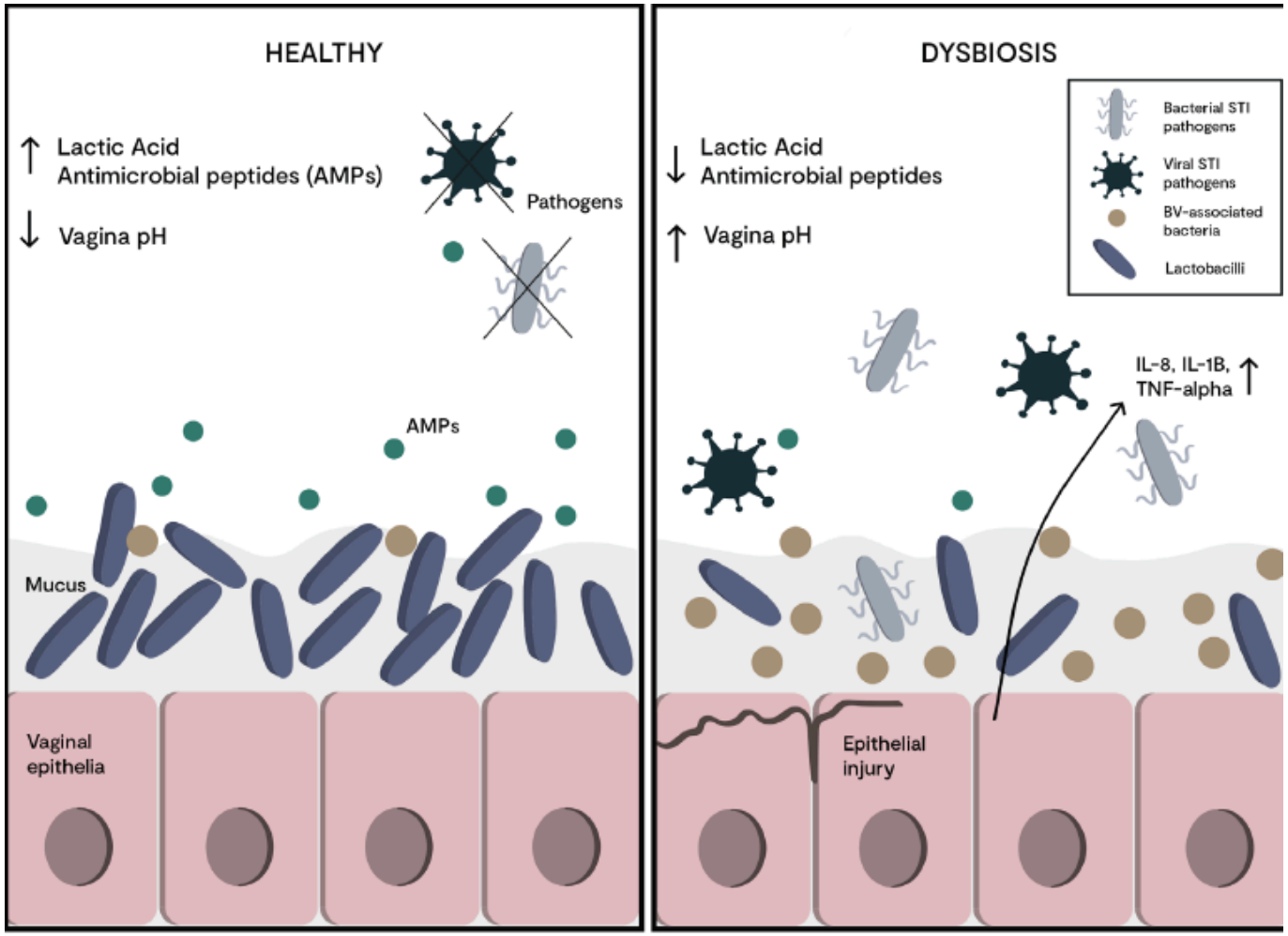
# Vaginal diversity: health and disease




- Health associated with low community diversity
- Remains fairly stable (with community composition changes in menstruation)
- More diversity associated with shift in pH and host immune response modifications

(Greenbaum et al, 2019)

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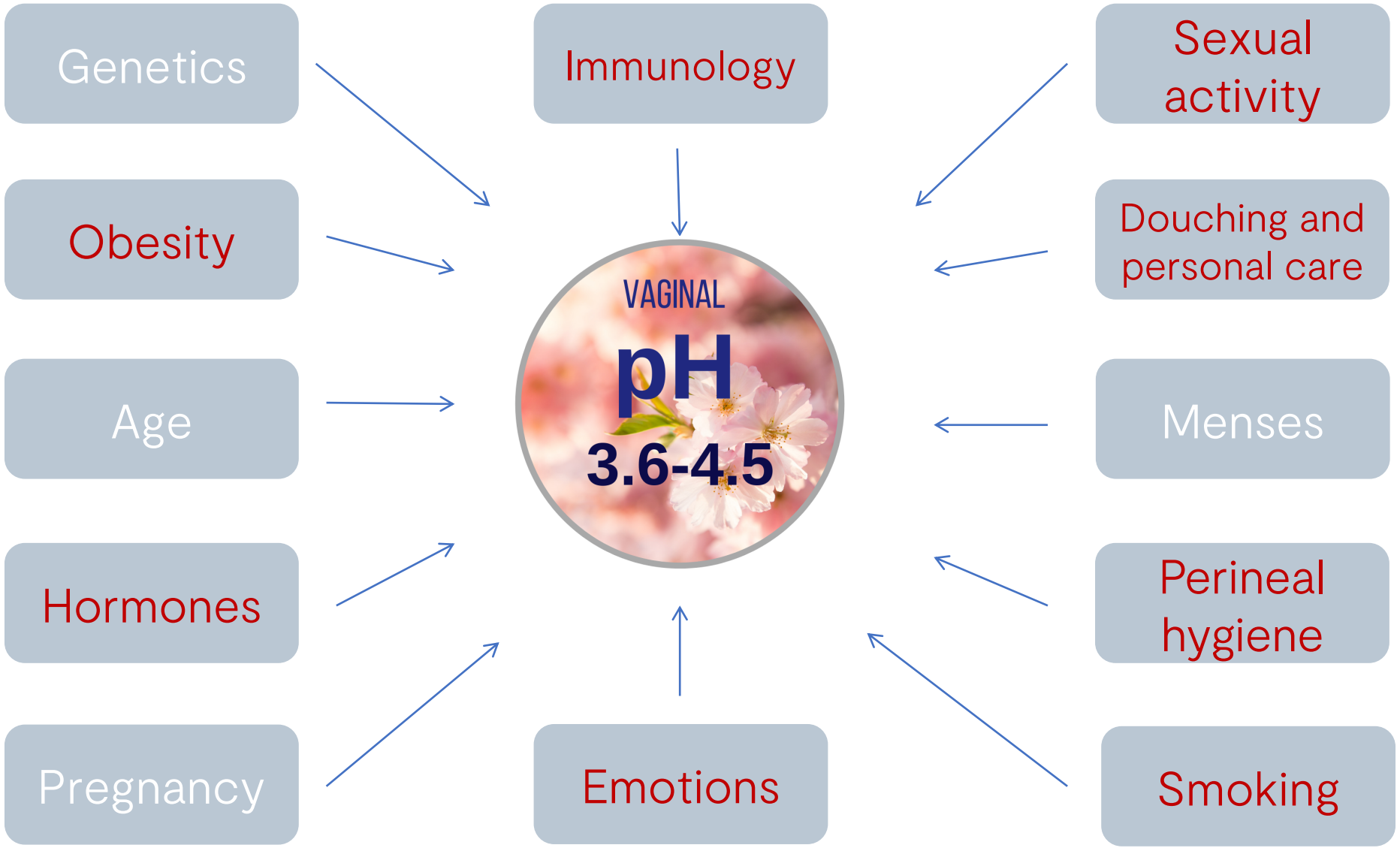


Brotman RM, et al. *BMC Infect Dis*. 2014;**14**:471; Holzman C, et al. *Am J Public Health*. 2001;**91**:1664–1670; Huang B, et al. *Clin Lab Med*. 2014;**34**:747–761; Jasarevic E, et al. *Endocrinology*. 2015;**156**:3265–3276; Liu CM, et al. *MBio*. 2015;6:e00589. Morris M, et al. *BJOG*. 2001;**108**:439–450; Newton ER, et al. *Am J Obstet Gynecol*. 2001;**184**:845–853; discussion 853–855; Oh HY, et al. *J Clin Microbiol*. 2015;**53**:3304–3309.

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# Menopause: are the changes predictable?

- ? With menopausal oestrogen level decline, glycogen content in the vaginal epithelium diminishes, as a result, *lactobacilli* decrease in prevalence

- ? With fewer *lactobacilli* present, less lactic acid is produced and the vaginal pH rises

# Menopause: Peri-menopause

- Estrogen secretion is elevated throughout some phases of the peri-menopause (some viable follicles, FSH increases)

Endogenous Ovarian Hyperstimulation

(Burger et.al 2017)

- With estrogen excesses Vulvovaginal Candidiasis may be more common

# Menopause

- Vaginal microbiota **may** have a profound effect on vulvovaginal atrophy, vaginal dryness, sexual health and overall quality of life post menopause.

- Functionally, the vagina produces fewer secretions, less lubrication and is more vulnerable to small tears during intercourse or masturbation which can contribute to dyspareunia (Hoffman et.al 2014).

# Menopausal transition

Postulate: The vaginal microbiome structure in postmenopausal women changes with decreasing levels of circulating estrogen

"Low estrogen=Low *Lactobacilli*"

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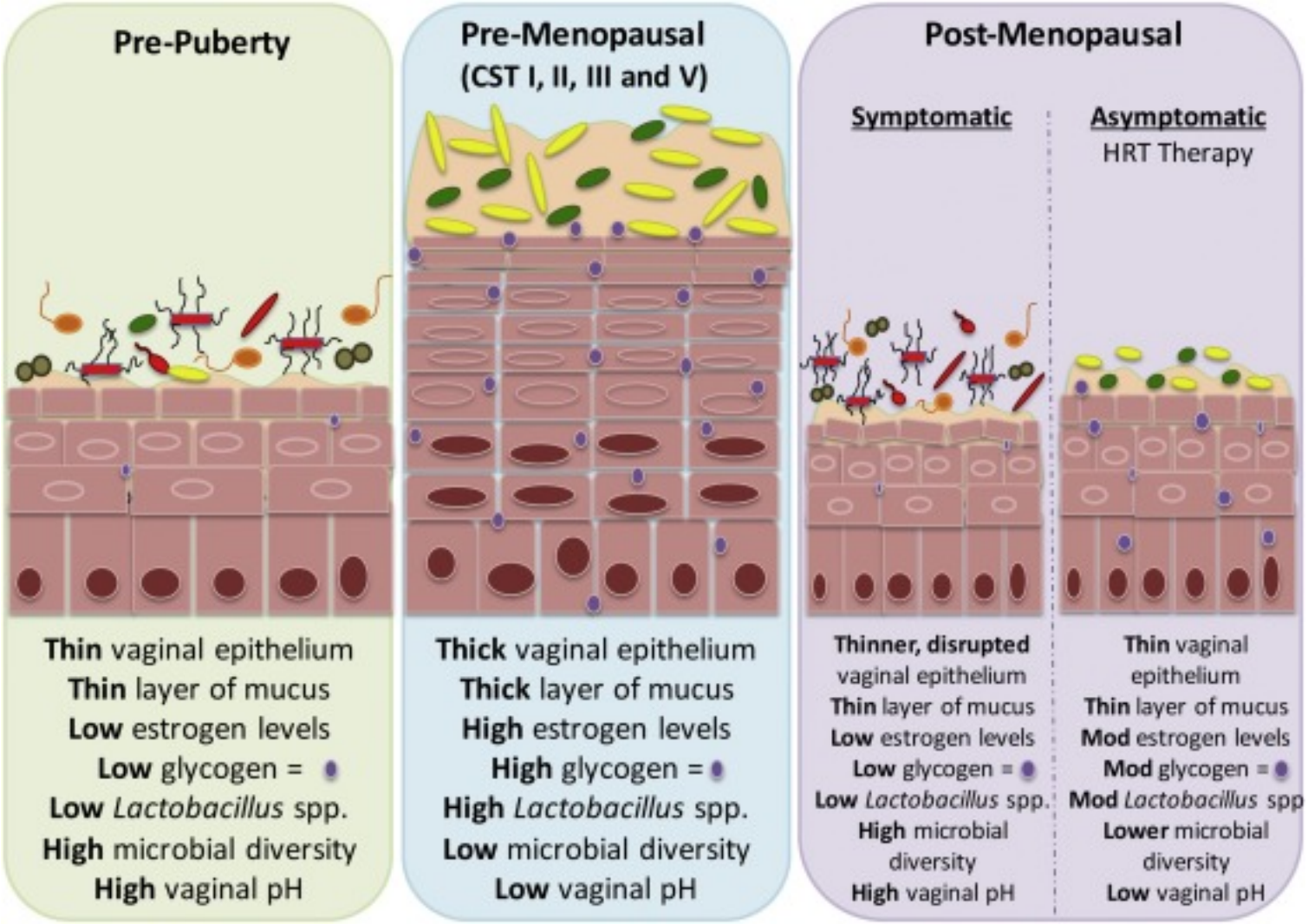
# Menopause: bacteria and cells

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# Menopause

What we know:

Age of transition: 45-55 (unless medically induced or premature)

Transformations in the micro-anatomical features of the vaginal epithelium that can lead to vaginal symptoms associated with menopause

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Depression

Age

Dyspareunia

Infection

Decreased oestrogens

Vaginal Dryness

Glycogen levels

Blood Flow

Epithelial thinning

Vasomotor instability

Libido changes

So much more

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# Anatomical and Functional changes in the genitourinary tissues

- Loss of labial and vulval fullness
- Contraction of labia majora and clitoral hood
- Narrowing and stenosis of the introitus
- Loss of hymenal remnants and reduced elasticity
- Vaginal shortening and narrowing
- Prolapse
- Pelvic floor weakening
- Vaginal epithelium dry and thin with petechiae
- Loss of superficial cells and increase in parabasal cells
- Loss of vaginal rugae
- Inflamed vaginal tissues
- Alkaline pH changes the vaginal microbiome with loss of *Lactobacilli* (vaginal pH>4.5)
- Persistent and recurrent discharge with odour (not Candida in post-menopause)
- Urethral meatal prominence and prolapse with thinning of the urethral epithelium
- Touch perception altered either hypersensitive or decreased feeling
- Loss of clitoral stimulation

(Farrell, 2017)

# Anatomical changes

- Estrogen receptors are present in the vagina, vestibule of the vulva, urethra and trigone of the bladder, and on autonomic and sensory neurons in the vagina and vulva.
    - The highest concentration of oestrogen receptors are in the vagina
    - Estrogen receptor alpha: solely active post-menopause
    - Testosterone receptors are concentrated mainly in the vulval tissues and less in the vagina

# Anatomical changes

- Progesterone receptors are found only in the vagina and at the vulvovaginal epithelial junction
- Symptom location may provide clues to hormones implicated in specific presentations
- Loss of estrogen causes anatomical and functional changes, leading to physical symptoms in all of the genitourinary tissues. Collagen and elastin reduced in tissues; alter smooth muscle

# Menopause: vaginal atrophy

- Vaginal atrophy affects up to 47% of postmenopausal women, but symptoms are often underreported by patients due to embarrassment discussing “personal” symptoms or a belief that it is normal part of aging

(Hoffman et.al 2014)

- Vaginal Atrophy vs. Atrophic vaginitis= same thing ☺ Now a new term…

# Genitourinary Syndrome of Menopause (GSM)

*“Genitourinary syndrome of menopause (GSM) is a more accurate and inclusive term that describes the multiple changes occurring in the external genitalia, pelvic floor tissues, bladder and urethra, and the sexual sequelae of loss of sexual function and libido, caused by hypoestrogenism during the menopause transition and post menopause. These genitourinary changes primarily occur in response to reduced oestrogen levels and ageing, and do not settle with time”.*

(Kim et.al, 2015)

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# Genitourinary Syndrome of Menopause

Under reported, bigger issue than you think:

- Affects more than 50% of menopausal women
  - having an adverse impact on quality of life
  - social activity
  - sexual relationships.
- A chronic and progressive syndrome that is under diagnosed and undertreated.
- Often features: pain, infection and decline in functionality

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# Genitourinary Syndrome of Menopause

- Reasons for not speaking to anyone about vaginal discomfort included:
  - “It makes me uncomfortable/embarrassed” (60% United States)
  - “I do not think other people want to hear about my vaginal problems” (52% United States)
  - “It is private and does not concern others” (52% United States)
  - “It’s just part of growing older” (49% United States) (Reiter, 2013)
- A substantial number of women with vaginal discomfort who did not discuss it with anyone also expressed a preference for someone else to initiate the conversation (20% in the United States)

(Nappi, Kokot-kierepa, 2010)

# Vaginal Atrophy/GSM a serious diagnosis


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# Screening questions: ASK about:

- PRIMARY: Have you noticed any changes with your genital health?...
  - Can you tell me about that?
- Noticed any changes to the external anatomy
- Pain on intercourse, difficulty with penetration
- Felt lumps in vaginal opening (prolapse)
- Incontinence, leakage, sneezing
- Vulva and vagina: easy to tear, bleed, small fissure, pain (pink discharge, pain)
- Pain in clitoris, vulva or vagina?

# Screening questions: ASK about:

- Decreased sensation with intimate interaction
- Discharges/infections (colour, quality, quantity, frequency, smell)
- Urinary frequency, irritation and infection (history of and present day)
- Burning, irritation, itch genital region and around anus (skin presentation and sensation)
- Sensitivity to wearing jeans/tight clothes (causes discomfort, symptoms, tearing)
- Vulval pain/burning that affects sitting down (or other activity)
- Surgical, menstrual, gynaecological and obstetric histories may be relevant to development of particular symptoms and subsequent management.
- Ask about vulval hygiene and the use of possible irritants such as soap, bath gels, powders, lubricants, condoms, panty liners or pads that could cause symptoms

# Menopause: clinical questions

- Vaginal Symptoms: severity scales (PROMS)MRS
- Frequency of sex and effect on Sx?
- How does physical activity affect Sx?
- Medical Interventions: tried, failed, reactions to
- HRT: any contraindications? Types? Vaginal vs. oral(prior or current use?)
- Prior Cervical, Vaginal Hx (infections, interventions, STI, papsmears)
- Cancer Rx? Ongoing or historical, family risk
- Associated disorders? (autoimmunity, atopy endocrine)

# GSM RISK FACTORS

- Menopause
- Bilateral oophorectomy
- Premature Ovarian Failure
- Smoking
- Alcohol abuse
- Decreased sexual frequency or abstinence
- Lack of vaginal birth
- Other causes of low estrogens (post partum, hypothalamic amenorrhoea)
- Cancer treatments, including pelvic irradiation, chemotherapy and endocrine therapy
- *past history of vaginal dysbiosis (infections, STI. UTI , antibiotic use etc.)

(Farrell , 2017). Table adapted and added to.

# Menopause: in-clinic assessment TOOLS

- pH testing (vaginal, client self swabs) >4.5 =dysbiosis
- Menopausal Symptom Rating scale (PROM)
  - http://www.menopause-rating-scale.info/documents/MRS_English.pdf
- Psychological assessment PROMS: PHQ-9
  - https://patient.info/doctor/patient-health-questionnaire-phq-9
- QoL dermatology:
  - http://www.bad.org.uk/shared/get-file.ashx?id=1653&itemtype=document (use for vulval irritation and symptoms: infections and general GSM)

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# GSM DIFFERENTIAL DIAGNOSIS

- Dermatological conditions of the Vulva (Lichen Sclerosis/planus, dermatitis, Chronic VVC)
- Desquamative inflammatory vaginitis
- Vulvodynia, vaginismus, clitorodynia
- Autoimmune disorders (associated and independent)
- Malignancy
- Chronic Pelvic Pain/other pelvic floor disorders
- Trauma, foreign bodies (Inc. Mesh)
- Diabetes
- Lupus
- Urinary issues/urge incontinence/UTI
- Interstitial cystitis

(Farrell , 2017). Table adapted and added to.

# Menopause: GSM and vagina microbiome

- 87 women (age 35–60) were classified as premenopausal (n=30), perimenopausal (n=29) or postmenopausal (n=28) Mid-vagina bacterial community composition was characterised by 16S rRNA gene analysis.
  - (CSTs), of which 4 were dominated by *Lactobacillus crispatus, L. gasseri, L. iners*, or *L. jensenii* and 2 (CST-IV-A and IV-B) had low relative abundance of *Lactobacillus*.
  - CST IV-A was characterised by *Streptococcus* and *Prevotella*, whereas CST IV-B by *Atopobium*.

(Brotman et.al, 2014)

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# Menopause: GSM and Vaginal microbiome

CSTs dominated by *L. crispatus* and *L. iners* were more prevalent in premenopausal women.

19 participants had signs of mild or moderate VVA.

Compared to women with no VVA, the vaginal microbiota of women with mild or moderate atrophy had 25-fold greater odds of being classified as CST IV-A vs. *L. crispatus* CST

(Brotman et.al, 2014)

# Menopause: GSM and Vaginal microbiome

- There was a significant association between menopause stage and CST (p-value=0.004) and VVA and CST (p-value=0.002).
- Peri-menopausal women were more likely to be classified as CST IV-A or the *L. gasseri* CST
- postmenopausal women were mostly CST IV-A

(Brotman et.al, 2014)

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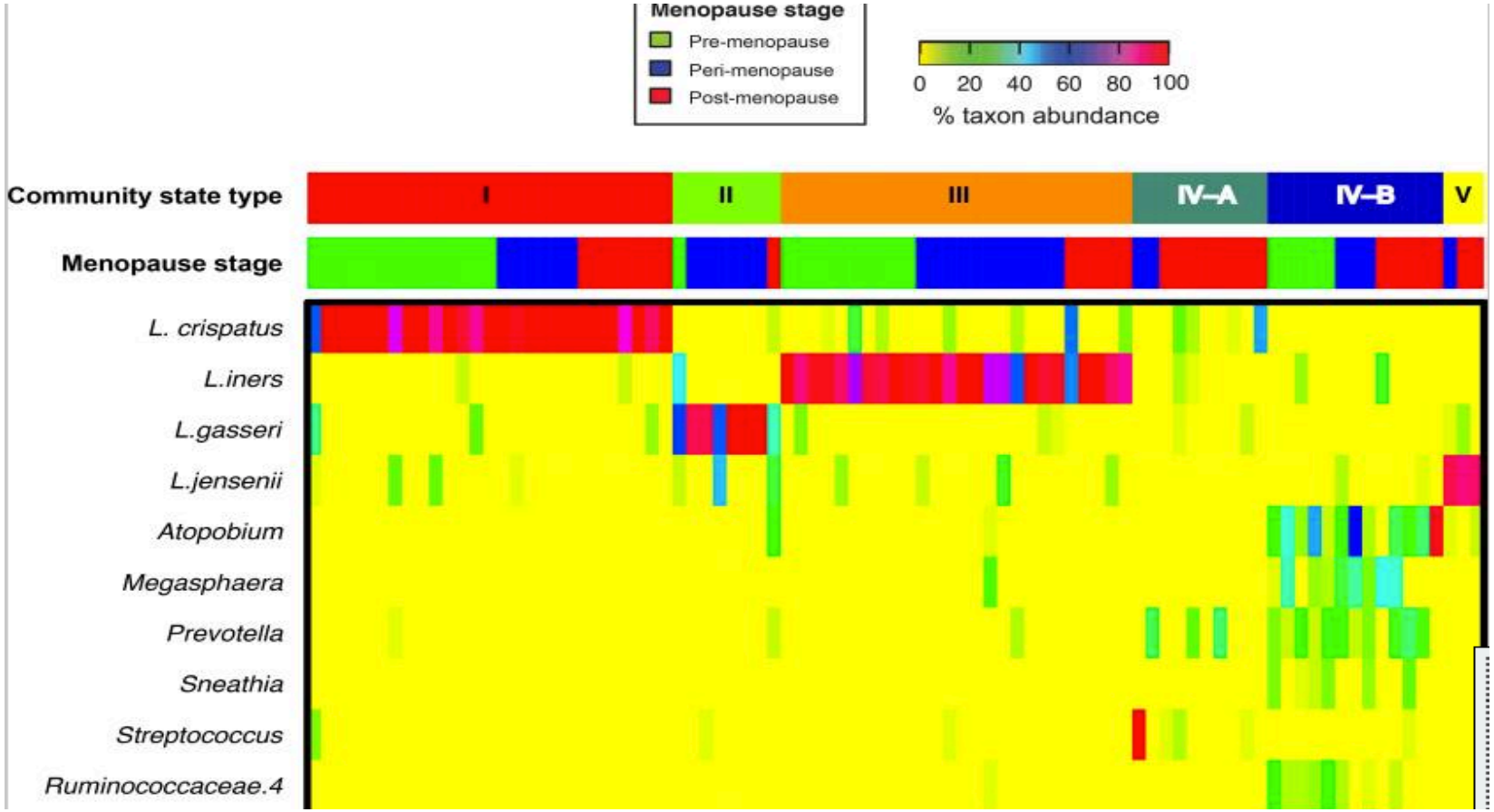
# Menopause: GSM and Vaginal microbiome




(Brotman et.al, 2014)

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# Menopause: GSM and infection risk

- This contrasts with the vaginal communities of healthy women wherein *lactobacilli* were significantly more abundant ($p < 0.0001$) and on average constituted 53.2% of vaginal communities.

- Conversely, *Gardnerella* was significantly more abundant than *Lactobacillus* in the vaginal communities of subjects with AV/GSM ($p < 0.0001$), while also richer in abundance as compared to those of healthy women (41.7% versus 16.7%, $p < 0.0001$).

(Shen et.al 2016)

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# Menopause: GSM risk of infection

- Decreased estrogen secretion in postmenopausal women depletes *lactobacilli* and increases intravaginal pH, resulting in increased vaginal colonization by harmful microorganisms (e.g., *Enterobacter*, *Escherichia coli*, and *Gardnerella*).

  (Kim et.al 2017)

- Overall: the prevalence of BV is higher and increases with age while the prevalence of *Candida* is low and declines with age (except with HRT)

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# Menopause: GSM risk of infection

| | | 0 - 4 / 5 - 8 / 9 - 12 / 13 - 16 / 17 - 20 | |
|---|---|---|---|
| *Atopobium vaginae* | 9.4 | | MODERATE |
| *BVAB2* | 7.4 | | LOW |
| *Gardnerella vaginalis* | 12.3 | | HIGH |
| *Megasphera 1* | ND | | NOT DETECTED |
| *Megasphera 2* | ND | | NOT DETECTED |
| *Mobiluncus curtisii* | ND | | NOT DETECTED |
| *Mobiluncus mulieris* | ND | | NOT DETECTED |
| *Prevotella bivia* | 12.8 | | HIGH |
| *Ureaplasma urealyticum* | ND | | NOT DETECTED |

| **Lactobacillus** | **RESULTS:** | 0 - 4 / 5 - 8 / 9 - 12 / 13 - 16 / 17 - 20 | **RATING:** |
|---|---|---|---|
| *Lactobacillus crispatus* | 16.5 | | VERY HIGH |
| *Lactobacillus gasseri* | 12 | | MODERATE |
| *Lactobacillus iners* | ND | | NOT DETECTED |
| *Lactobacillus jensenii* | ND | | NOT DETECTED |

| **Vaginal pH** | **PH RANGE:** | **RESULTS** |
|---|---|---|
| pH<br>HEALTHY RANGE: 3.8-4.5 | 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0<br>Healthy Range | pH 5.2 |

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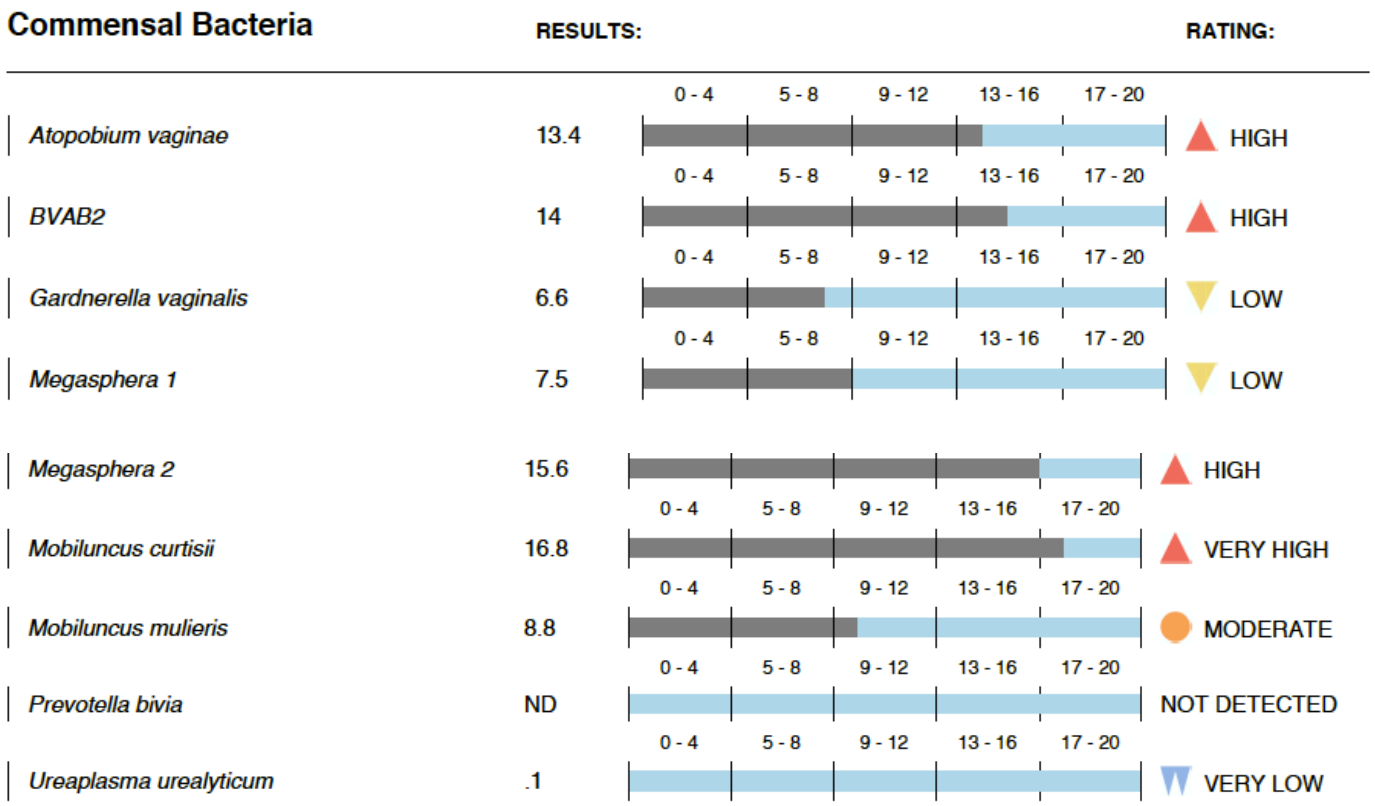
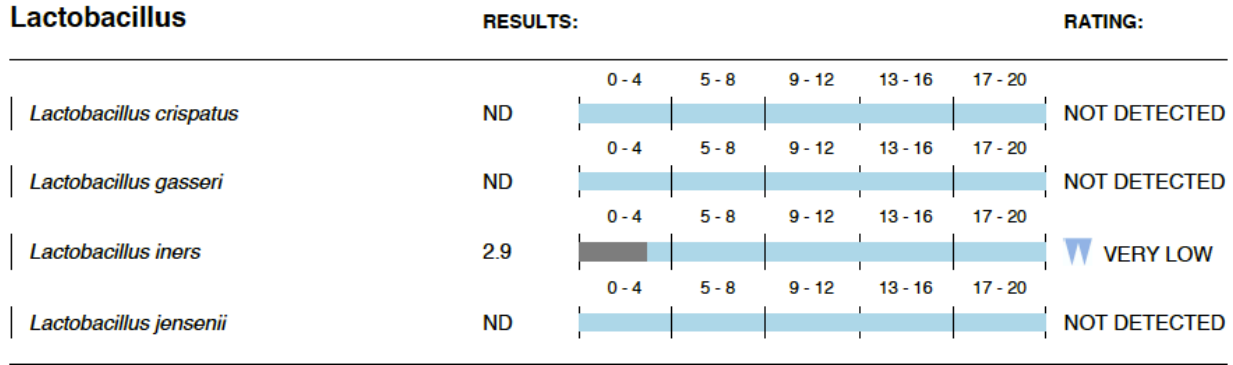
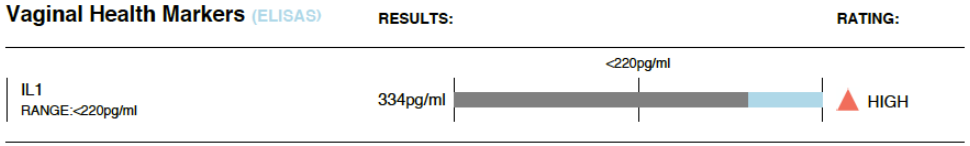
# Menopause: GSM risk of infection

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# Menopause: GSM risk of infection

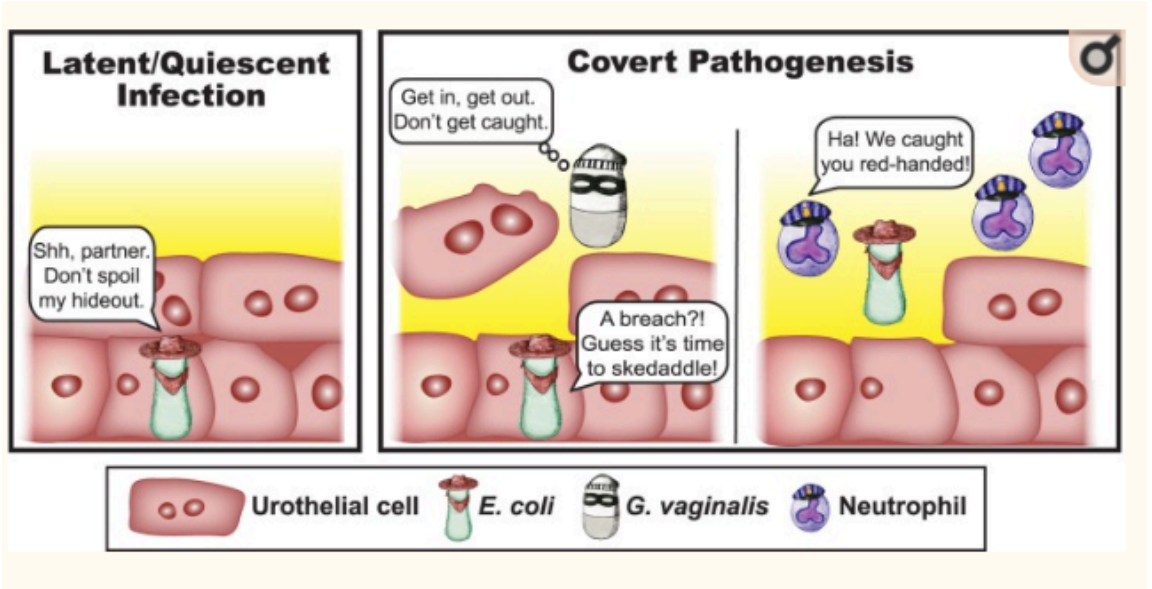
UTI: incidence increases in menopause

Associated with GSM

(tissues, pelvic floor, microbes and

increased aerobic and anaerobic

bacteria).




Implicated microbes: *G. vaginalis* and *E. coli*

Newer research suggests that covert pathogenesis theory of infection in recurrent UTI

Microbes act like covert operatives (Gilbert, Lewis, 2019)

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# Menopause: risk of infection/STI

- In older females there is an increasing trend of STI acquisition ***Chlamydia, Gonorrhoea.***

- *Chlamydia*, a common bacterial STI, is on the up among all age groups in Australia, and has more than doubled in those over 50 since 2005; going from 620 cases to 1446 in 2010.

- *Gonorrhoea*, another bacterial infection, has seen a slight increase in the over 50s, rising from 383 infections in 2005 to 562 in 2010.

(Bateson et.al 2011, Senanayake, 2000)

# Menopause: risk of infection/STI

A variety of factors:

- Unprotected sex (riskier sexual practices)
- Disturbed microbiome and atrophic changes increase acquisition risk
- New partner post relationship breakdown:
  - General risk of new partners
  - Some suggestion that lack of education for an individual surrounding the STI era (1980's HIV)
  - Perceptions that the only risks are related to fertility (therefore don't apply)
  - Internet dating and apps

(Bateson et.al 2011, Senanayake, 2000)

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# Clinical Treatment

- Allopathic

# Clinical Treatment: Allopathic

- HRT: Vaginal Pessaries/creams/inserts
- HRT: Systemic
- SERMS
- Testosterone
- DHEA
- MIRENA
- Antidepressants
- Counselling
- Physical therapy
- Lifestyle aids
- Moisturisers
- Lubricants
- Check ups

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# Menopause: GSM and local estrogen therapy?

- Estrogen vaginal preparations reduce symptoms and reverse the atrophic changes in pelvic tissues, and improve blood flow and the thickness of the epithelium in the vagina, bladder and urethra. There is minimal systemic absorption, with an initial peak, then almost no further absorption.
- Estriol is the weakest oestrogen and has one-tenth of the potency of estradiol.
- There is minimal absorption systemically and estriol cannot be metabolised to estradiol or estrone.
- Low-dose vaginal estradiol tablets are also very effective in relieving atrophic symptoms. The individual dose is 10 µg, and studies have found that the annual absorption of estradiol is only 1.14 mg. (Simon et al, 2010).

# Menopause: GSM and local estrogen therapy?

- Prior to low-dose estrogen therapy the vaginal communities of women with AV differed markedly from those of healthy women in terms of the relative abundances of bacterial taxa

- relative abundance of *Lactobacillus* and *Gardnerella*

- species of *Lactobacillus* were common in women with AV (80% of subjects), they were less abundant and on average constituted only 11.2% of these communities.

(Shen et.al 2016)

# Menopause: GSM and Local estrogen therapy?

Intervention Hormonal Therapy:

The changes in community composition in response to hormonal therapy were rapid and typified by significant increases in the relative abundance of Lactobacillus spp. that were mirrored by a decreased relative abundance of Gardnerella.
(Shen et.al 2016)/(Brotman et.al, 2014)

# Menopause: HRT/local

- Hormone replacement therapy directly influences the dominance of *Lactobacillus* in the microbiota and can resolve vaginal symptoms (acute or long term options)

- Can also increase risk of VVC:
  - Direct application of estrogens
  - Those with VVC are likely to have been susceptible to it before menopause

  (Fischer, Bradford, 2011)

- Non compounded (Ovestin/Vagifem) contain lactose and can irritate some individuals. Compounded may be better for some with a neutral lipid base.

# GSM: Co-management?

Often the best scenario: best of both worlds. Particularly as the GSM progresses. Can provide relief.

**Some observations:**

- Vaginal estrogens under prescribed.
- Fear around HRT (systemic and local are different)
- Use is not frequent enough, not sustained (any therapy)
- Not adjusted for the severity of the presentation
- Clients are not listened to by health provider (see previous stats).
- Underreported also means correct therapies are not applied (holistic and pharmaceutical)

# If pap screens or internal investigations are required

- Counsel client: It's ok to mention their genitourinary symptoms
  - Insist on smallest speculum
  - Insist on additional lubrication (take own if very reactive)
  - Look at mindfulness practices in lead up to exam
  - Utilise additional moisturisers in lead up to exam
  - Provide feedback to the clinician doing the test/exam on pain and sensation
  - ASK THEM TO STOP IF HURTING

# Clinical Treatment

- Holistic

# Treatment aims

- Support hormonal status
- Maintain *Lactobacilli* dominance for menopausal transition
- Improve natural vaginal lubrication and support epithelial integrity
- Provide support for lubrication exogenously
- Support tissue integrity
- Decrease urinary tract infections
- Optimise microbiome sites (GIT, bladder and vagina) to minimise instances of Vaginitis, infection
- Improve immunity and regulate the immune system
- Educate about infection transmission and safe sex

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Support Immune

Co-manage

Modify sexual activity risks.

Prebiotics: orally, vaginally

ECOSYSTEM

Educate about hygiene/washes

pH regulation


Regulate BGL

Acute symptoms relief: soothing, demulcent, Nerve pain

Lubrication/ moisturizing

Biofilm busters

Balance Hormonal influences

Support nervous system: Pain

Quit Smoking

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# Treatment considerations:

| | |
|---|---|
| Lubricants | Support vaginal lubrication: Choose pH correct and water based lubricants. YES brand<br>Probiotics vaginally, herbal interventions, support membrane integrity |
| Hormone support | Herbal interventions orally and vaginally. Linseeds, fennel, red clover, black cohosh, estrogen metabolite balancing, stress support, Liver detoxification, maintain body weight, GIT Microbiome (B Glucuronidase) |
| Microbiome sites: Probiotic, Prebiotics | Dietary ferments, oral and vaginal probiotics, prebiotics (vaginally and orally) e.g Lactulose 4ml syringed or worn on a tampon 1 week. |
| Infection treatments | Vitamin C vaginally, Calendula, Garlic, Probiotics/prebiotics, douching, D-Mannose prophylactically for UTI, acutely for UTI, correct identification of microbes. |

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# Treatment considerations

| | |
|---|---|
| Nervous system | St Johns Wort, Motherwort, Magnesium, Zinc, GABA, L-Theanine, Lemon Balm, Holy Basil, Methylcobalamin, EFA's, mindfulness, Vagus nerve exercises |
| Lifestyle adapt | Fabrics, Go commando, cushions, lubrications, dilators, OH nuts, sexual interactions (modify, attempt, intimacy definitions, safety), find exercise that doesn't cause friction in genital region, day to day management while therapies take effect/listen to body and connect |
| Transition Support | Dietary phytoestrogens, herbal supports (traditional menopausal address), teas, education around condition and support networks, pelvic physio referral, counselling, Mona Lisa Touch: Laser |

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# Dilators, OH nuts, cushions and cooling pads

Small set


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# Vaginal moisturisers/lubricants

- The guidelines of many countries state:

  vaginal moisturizers applied on a regular basis have an efficacy equivalent to that of topical vaginal estrogen for relieving vulvovaginal symptoms such as itching, irritation, and dyspareunia, and should be offered to women wishing to avoid the use of estrogen because of health concerns (Johnston et al, 2004)

# Vaginal moisturisers/lubricants


Recommend:

- YES brand vaginal moisturisers applied over a course to gauge response. Apply every 2-3 days
- Can be used in conjunction with lubricants, oils and topical relief (antimicrobial creams if indicated)
- Oil based lubricant from YES is also appropriate for many (stays put a little longer)
- Some clients mix the two products together (trial and error)
- REPLENS is another commonly recommended moisturiser (contains Palm oil).

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# Interventions

- Red Clover/ *Trifolium pratense*

- Oral: Established effects on hot flashes
- Effects on vaginal atrophy:
  - extract 80mg isoflavones for 90 days
  - Decreased vaginal dryness, dyspareunia and increased libido
  - Improved Basal cell index

  (Chedraui et al. 2006)

# Interventions

- Fennel/*Foeniculum vulgare*
- Vaginal: Effects on vaginal atrophy
- placebo (n=30) or fennel 5% vaginal cream

(n=30) administered as one application per day (5g/day) for 8 weeks.

- Results:

  -superficial cells increased significantly in the fennel group after 8 weeks compared to the control group

  -The vaginal pH decreased significantly at the 8-week follow-up in the fennel group compared to the control group

# Interventions

- Black Cohosh/Actaea/Cimicifuga racemosa
  - may improve vaginal dryness in postmenopausal women, as demonstrated in an improvement in the vaginal maturity index due to an increase vaginal superficial cells.  (Wuttke et al. 2006)

- Linseeds/Flaxseed
  - 25g (2 dessertspoons) daily of linseeds has been shown to improve vaginal atrophy in postmenopausal women (n=25).
  - Freshly ground linseeds daily are recommended (Wilcox et al. 1990)
  - Can also manufacture a cooling home lubricant (recipe in resources)

# Interventions

## Vitamin E Pessaries

- Vitamin E 100iu: capsules vaginally daily over 12 weeks minimum
- Vitamin E suppositories are suggested for relieving the symptoms of vaginal atrophy, especially in women who are unable to use hormone therapy or cope with the associated side effects.

*(Parman et.al, 2016) *clinically you may have to use 250IU/daily*

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# Interventions

Sea Buckthorn Oil:

- 3gm oral dosage: 3 month trial duration
  - Effects on pH of vagina (lowered)
  - Improved Integrity of the vaginal epithelium
  - Did not affect measures of burning, itch and irritation.
  - Benefits also to cardiovascular health?

  (Larmo et.al, 2014)

  Clinically use pulsed over a year. 3 month stints

# Interventions

Zinc:

- In humans zinc tissue levels in the uterus are the lowest during menopause and low zinc levels may play a role in the development of atrophic changes (Honore et.al, 1986).
- Clinically: Observed changes in vaginal dryness with oral zinc supplementation

# Interventions

- Vitamin C as a companion nutrient:
- Clinically effective and supportive for a wide range of applications in menopause.
- Used in BV  and non specific vaginitis for prophylaxsis and active treatment as a vaginal pessary (250-500mg)
- Will decrease infection incidence associated with anaerobic bacteria.

(Petersen et al, 2011)

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# Interventions: Probiotics?

Specific trials for menopausal issues ongoing.

- Many of the trials utilising *L. rhamnosus GR-1* (2.5 x 109 CFU) and *L. reuteri RC-14* (2.5 x 109 CFU) cover a menopausal age group

- 72 postmenopausal women (age 55–65 years) of Caucasian origin with baseline Nugent scores of 4–6 were randomized to oral *L. rhamnosus GR-1* (2.5 x 109 CFU) and *L. reuteri RC-14* (2.5 x 109 CFU) or placebo daily. After 14 days, 60% of the women in the probiotic arm showed reduction of the Nugent score by at least 2 grades compared with 16% of the women in the placebo arm ($p<0.001$)

(Petricevic et.al, 2008)

# Interventions: Probiotics?

- My approach:
- In mild cases application of Lactobacilli rich probiotics 5 days a month can improve lubrication and decreased sensations of atrophy.
- Can use strains associated with CST (featured in some research and will impact the environment)
- Oral treatment daily use esp. if a clinical infection history is present
- Research and clinical based evidence in reduction of UTI.

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# Take home messages

Important Messages

- You need to ask questions, GSM is under reported and accepted as “part of ageing”
- You need to check in frequently (symptoms change frequently).
- The presentations in a menopausal picture can be complex and often more than one issue is occurring concurrently.
- This may mean that your therapies could unveil other presentations or things may not resolve as quickly as you would like.
- Multiple microbes can be implicated and identification may aid directed treatment
- Pharmaceutical therapy can cause issues with Candida or irritation.

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# Take home messages

Treatment can also predispose to some issues

- Don’t be discouraged if things don’t improve straight away
- Discuss with client expectations and interventions
- Don’t be afraid to work in co-management with medical professionals
- GSM is a progressive disorder
- Early pH testing could help to identify early especially if symptoms are not severe

# Resources and support

Facebook pages:

- Lichen sclerosis
- **Vaginal Atrophy** (UK based): interesting to see the variety of approaches to vaginal estrogen, vaginal moisturisers and a client based perspective

Therapies:

- Mona Lisa Touch: Laser therapy for vaginal issues: https://takeoutthepause.co.uk/find-your-local-clinic
- Dilators www.stressnomore.co.ukrePmkiSP2n9L1XkxguYIEUiAZWl1B9zcv2NDiY
- Cushions: www.smithhillman.co.uk%2Fproducts%2Fmemory-foam-seat-cushion%2F&usg=AOvVaw1iNDbVF9C9pS8W2F93v5rc

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# Resources and support

- **Books for clients**
- My Menopausal Vagina: https://www.amazon.com/ME-MY-MENOPAUSAL-VAGINA-Vaginal-ebook/dp/B07HGH116T available on Kindle and softcopy

**Websites:**

- https://thebms.org.uk/publications/tools-for-clinicians/ resources and guidelines to understand the medical approach to menopause

- https://takeoutthepause.co.uk

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