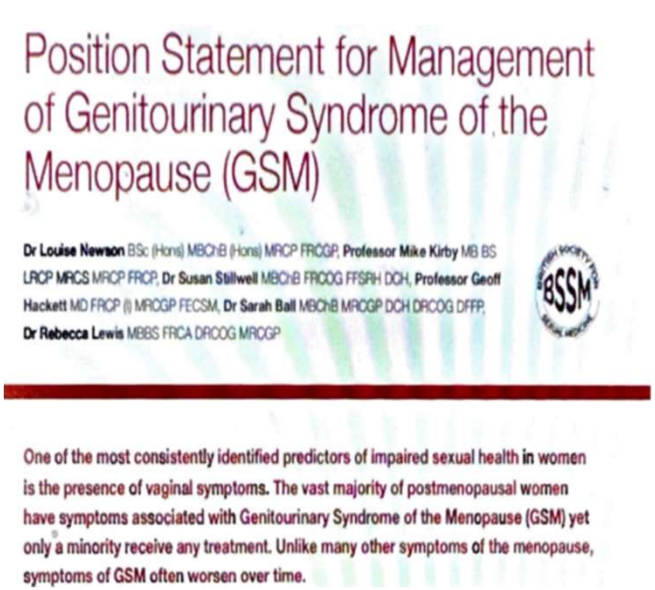
Genitourinary Syndrome of Menopause (GSM)

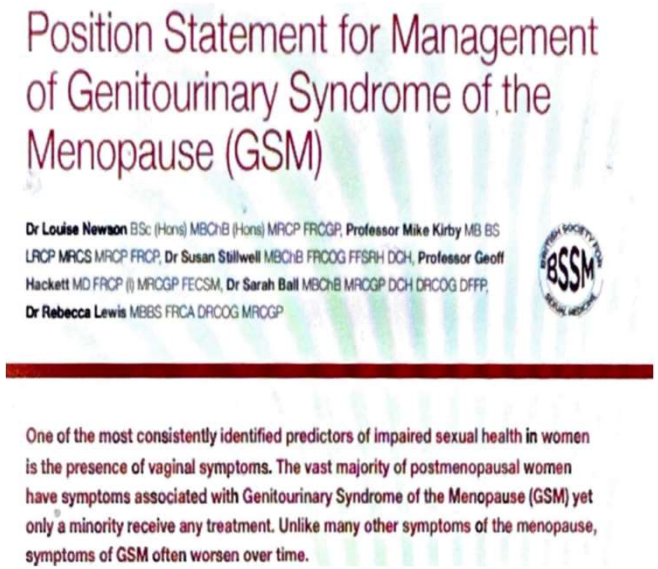

Position Statement for Management of Genitourinary Syndrome of the Menopause (GSM)

Dr Louise Newson BSc (Hons) MBChB (Hons) MRCP FRCGP, Professor Mike Kirby MB BS LRCP MRCS MRCP FRCP, Dr Susan Stillwell MBChB FRCOG FFSRH DCH, Professor Geoff Hackett MD FRCP (I) MRCGP FECSM, Dr Sarah Ball MBChB MRCGP DCH DRCOG DFFP, Dr Rebecca Lewis MBBS FRCA DRCOG MRCGP

One of the most consistently identified predictors of impaired sexual health in women is the presence of vaginal symptoms. The vast majority of postmenopausal women have symptoms associated with Genitourinary Syndrome of the Menopause (GSM) yet only a minority receive any treatment. Unlike many other symptoms of the menopause, symptoms of GSM often worsen over time.

Professor Mike Kirby FRCP
President BSSM

https://bssm.org.uk/wp-content/uploads/2024/03/BSSM-Position-statement-for-management-of-genitourinary-syndrome-of-the-menopause-GSM.pdf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Disclosures

- Professor Mike Kirby has received funding for research, conference attendance, lecturing and advice from the pharmaceutical industry including Astellas, Pfizer, Takeda, Bayer, Besins, MSD, BI, Lilly, GSK, AZ and Menarini.
- Past editor Trends in Urology & Men's Health.
- On several NHS advisory boards including the Prostate Cancer Risk Management Programme and the Prostate Cancer Advisory Group.
- Member of the National Prostate Cancer Audit Group

GSM

- Genitourinary syndrome of menopause is a collection of signs and symptoms associated with postmenopausal reduced oestrogen and other sex steroids that lead to changes in the labia, clitoris, vestibule/introitus, vagina, urethra, and bladder.

- Primary symptoms include, but are not limited to:
- Urinary: urgency, dysuria, frequency, and recurrent urinary tract infections
- Genital: dryness, burning, and irritation
- Sexual: lack of lubrication, impaired function, and dyspareunia
- Terms previously used to describe this condition include vulvovaginal atrophy, vaginal atrophy, and atrophic vaginitis

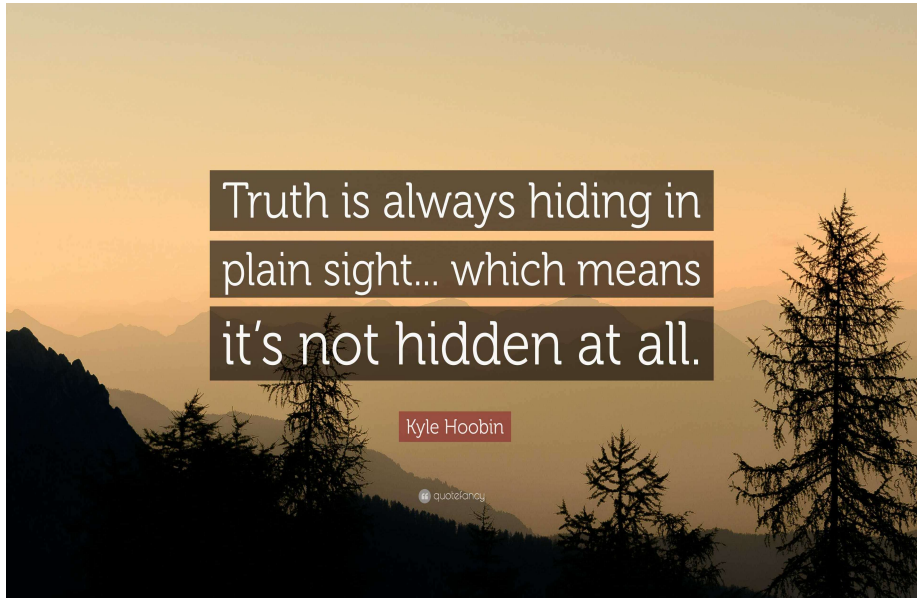
Depending on how you ask 13-87% post-menopausal women report some degree of GSM

ONLY a Minority of postmenopausal females initiate conversation about vaginal symptoms with their health care provider.

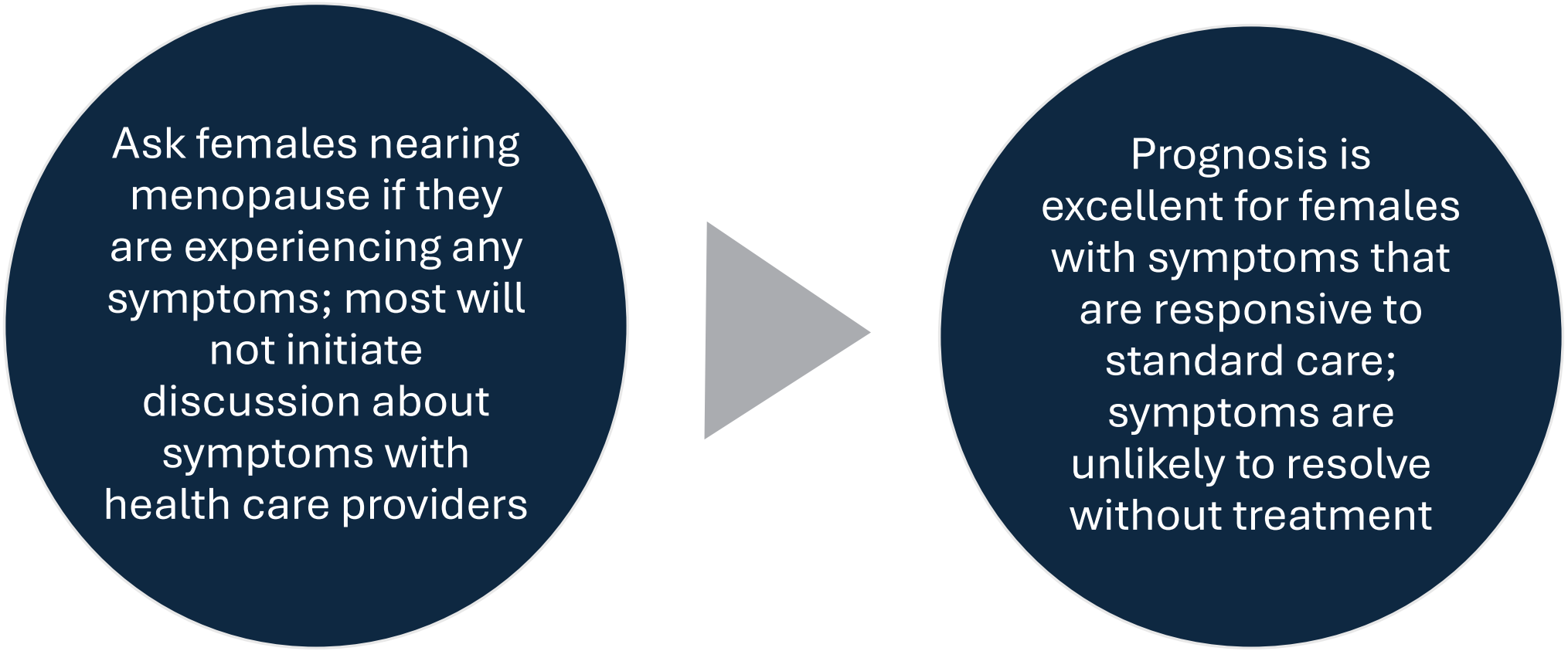
Approximately 25% of females with genitourinary syndrome of menopause actually seek treatment

Females may consider symptoms to be part of ageing and be unaware of possible treatments

Up to 50% of females with signs, lack, or do not complain of symptoms



Bachmann GA et al: Vulvovaginal complaints. In: Lobo RA, ed: Treatment of the Postmenopausal Woman: Basic and Clinical Aspects. 3rd ed. Academic Press; 2007:263-70
Palacios S: Managing urogenital atrophy. Maturitas. 63(4):315-8, 200919493638
Davila GW et al: Are women with urogenital atrophy symptomatic? Am J Obstet Gynecol. 188(2):382-8, 200312592244
Mitchell CM et al: Genitourinary changes with aging. Obstet Gynecol Clin North Am. 45(4):737-50, 201830401554


Ask females nearing menopause if they are experiencing any symptoms; most will not initiate discussion about symptoms with health care providers
Prognosis is excellent for females with symptoms that are responsive to standard care; symptoms are unlikely to resolve without treatment

- Symptom severity may be reported as minor, bothersome, or significant, affecting sexual health and/or quality of life

- Most common symptoms are vaginal dryness (up to 75%) and dyspareunia (up to 44%)

- Severe symptoms may cause discomfort with sitting and bathroom hygiene (wiping) and provoke avoidance of sexual activity

- Symptoms may develop or persist despite receiving systemic oestrogen replacement therapy prescribed for other menopausal symptoms

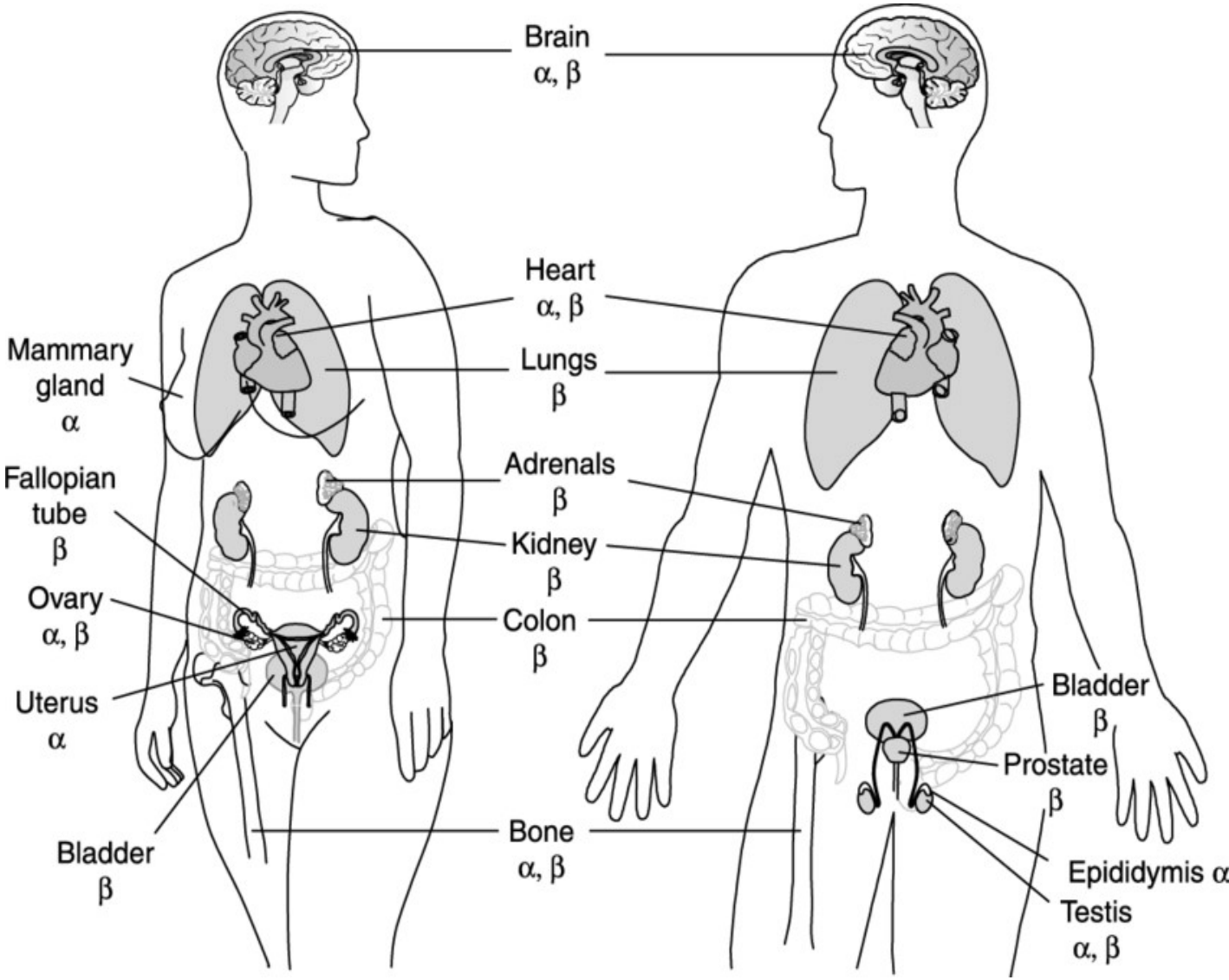
- **Urologic symptoms**
- Frequency, urgency, dysuria, and haematuria
- Nocturia
- Stress and/or urge incontinence
- Recurrent urinary tract infections

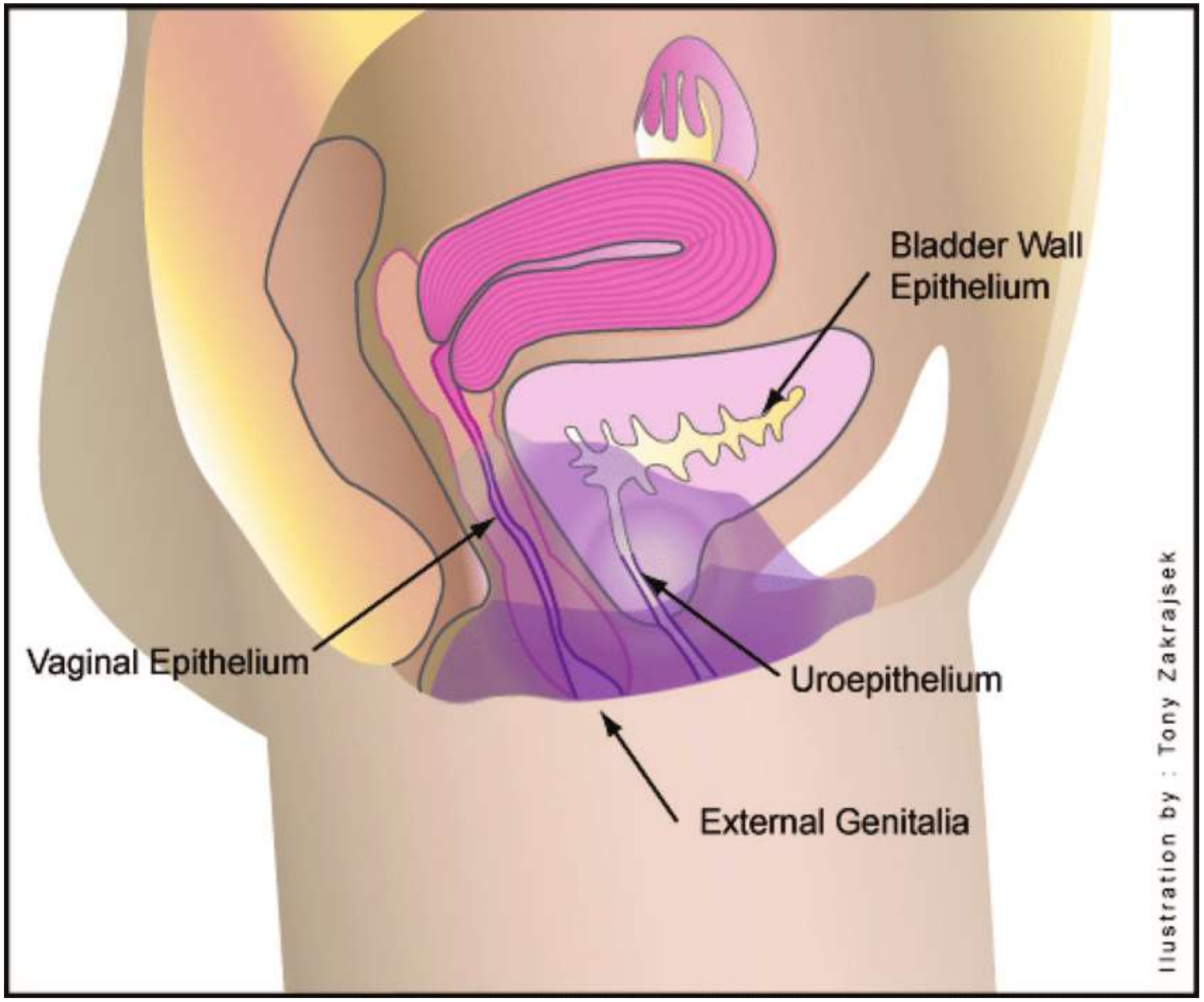
- **Genital symptoms**
- Vulvar irritation, itching, and burning
- Vulvodynia (pain involving vulva); vaginal, pelvic, and suprapubic pain or pressure
- Vaginal dryness, irritation, pruritus, and burning
- Vaginal discharge, which varies (eg, watery, yellow, brownish, blood-tinged, bloody)

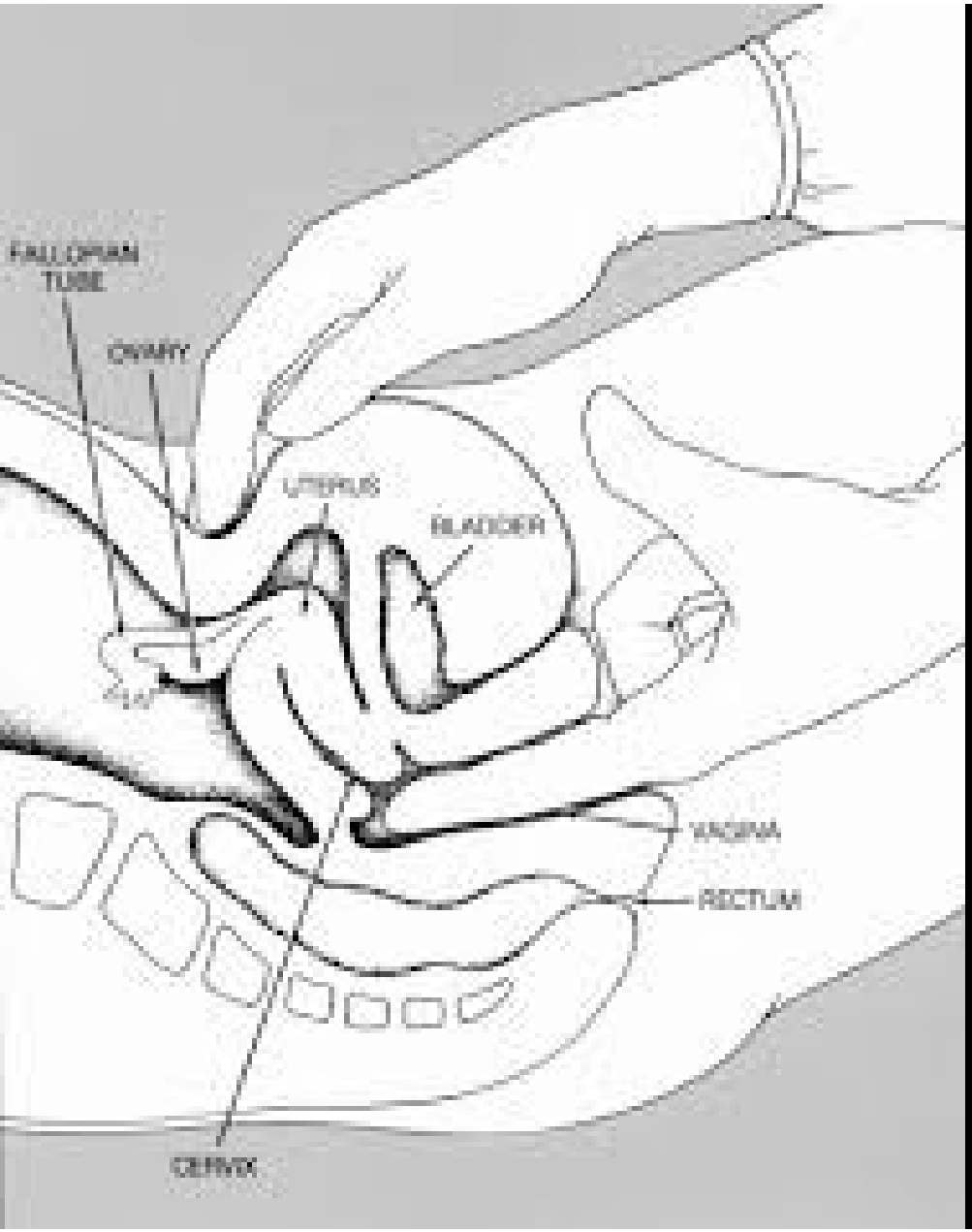
- **Sexual symptoms**
- Loss of libido and arousal
- Lack of lubrication
- Dyspareunia
- Dysorgasmia
- Pelvic pain
- Coital or postcoital bleeding or spotting

Oestrogen receptors (ERs; ERα and ERβ) are intracellular receptors that mediate oestrogen signalling and distinctly regulate transcription driving growth, proliferation, and differentiation, among many cellular processes.

Apart from normal physiologic function, ERs play an important role in development and progression of various oestrogen-dependent cancers (breast, endometrium, and possibly ovaries).
Various antioestrogen drugs, such as ER antagonists and aromatase inhibitors, are routinely being used for targeted therapy for these cancers with excellent results.




Bladder Wall
Epithelium
Vaginal Epithelium
Uroepithelium
External Genitalia
Illustration by : Tony Zakrajsek

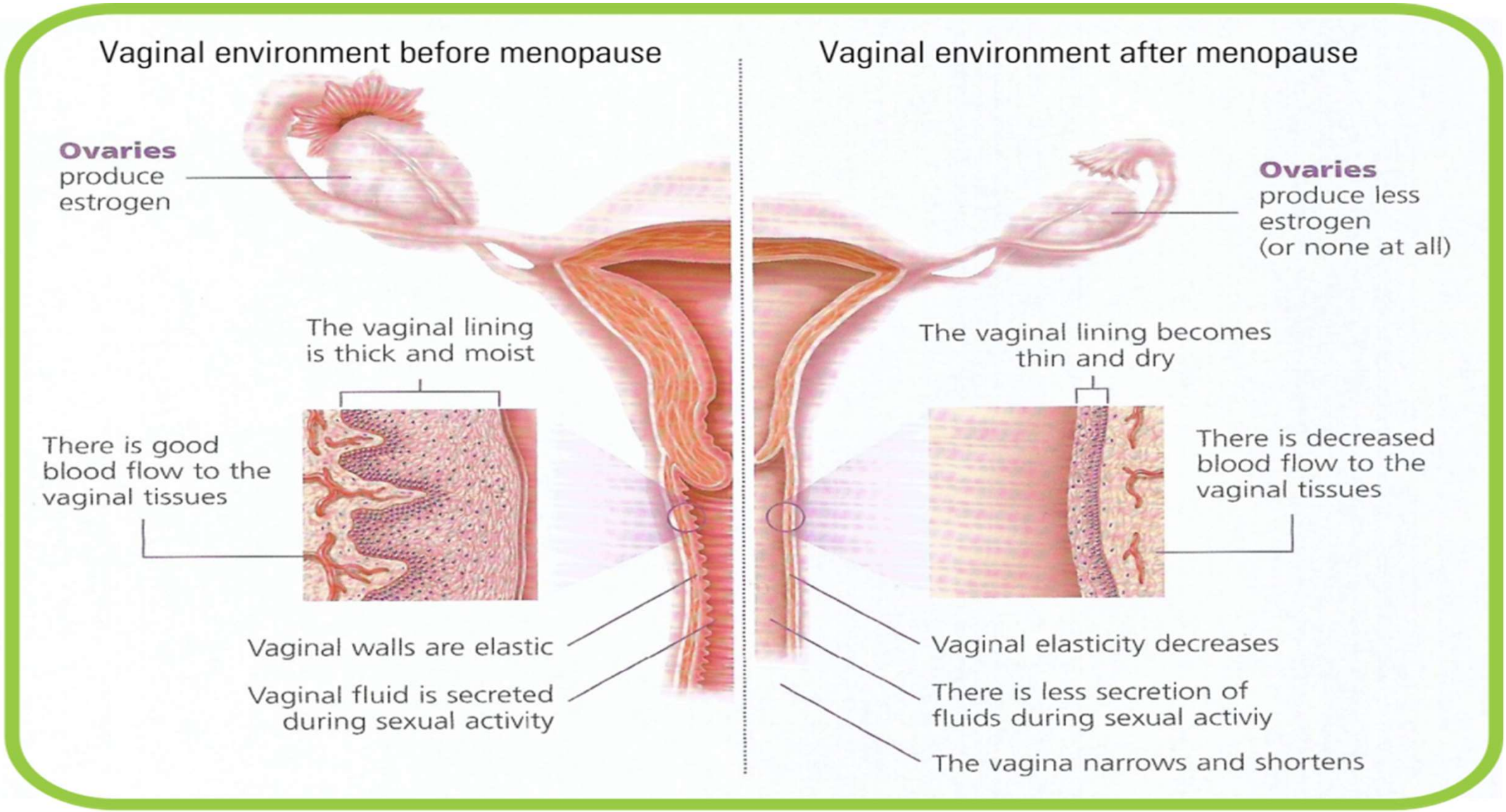


- **Physical examination**
- General issues regarding examination
- More than half of females will show signs of the condition on vaginal examination 4 years post-menopause.

- Assess for presence and degree of vaginal introital stenosis with digital examination before inserting speculum to avoid trauma; may need smaller (eg, pediatric) speculum.

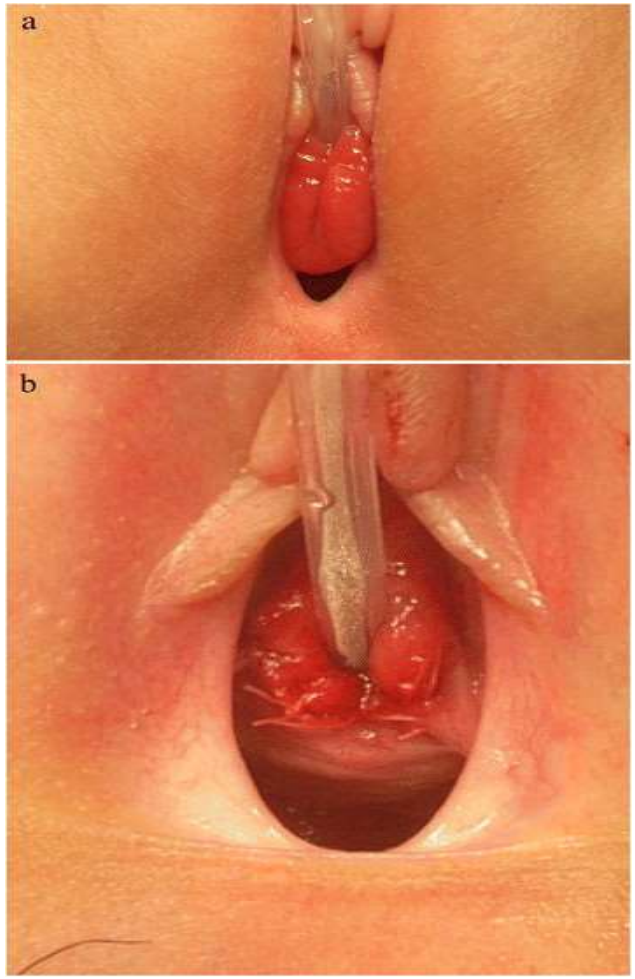
- May need to defer direct vaginal examination for patients with severe stenosis of vaginal introitus; instead, may need to use vaginoscopy to allow visualization

- Use adequate lubricant during examination, which may be performed with topical anesthesia, if necessary

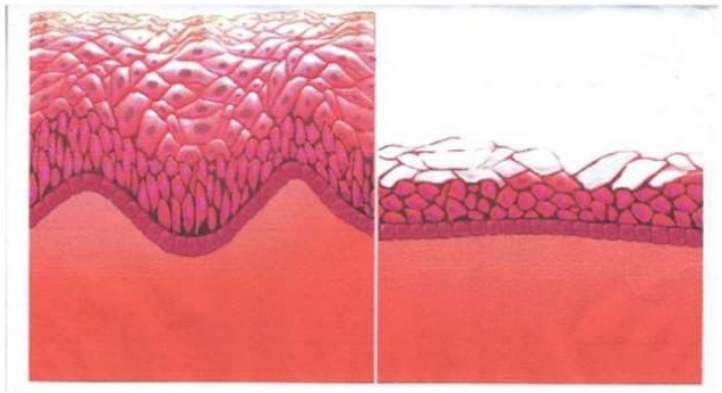


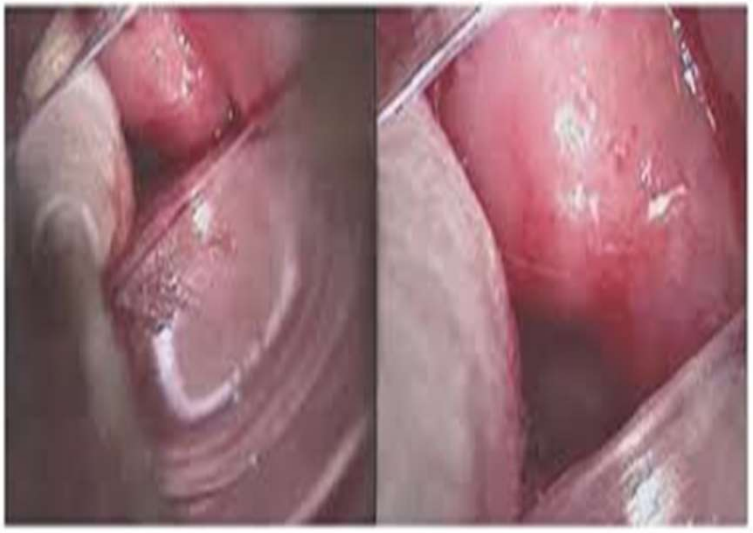
Reference :
Johnston L. The Recognition and Management of Atrophic Vaginitis. *Geriatrics & Aging* 2002; 5(7):9-15.

External genitalia findings
Thinning or greying pubic hair
Thinning and resorption of the labia minora; labia minora may fuse
Loss of labial fat pad
Renders appearance of labia majora as more pendulous and clitoris more prominent
Decreased width of introitus; introital stenosis (defined as width of fewer than 2 fingers) may develop
Loss of hymenal remnants
Prominent urethral meatus and/or urethral caruncle (erythematous polypoid tissue proliferation involving urethral meatus)



Atrophic Vaginitis





Decline in oestrogen is responsible for most symptoms; decrease in other sex steroids also may contribute (eg, low androgen levels)

Physiologic effects :

Loss of dermal collagen in vagina, bladder, and urethra

Overall decrease in compliance of urogenital tissue

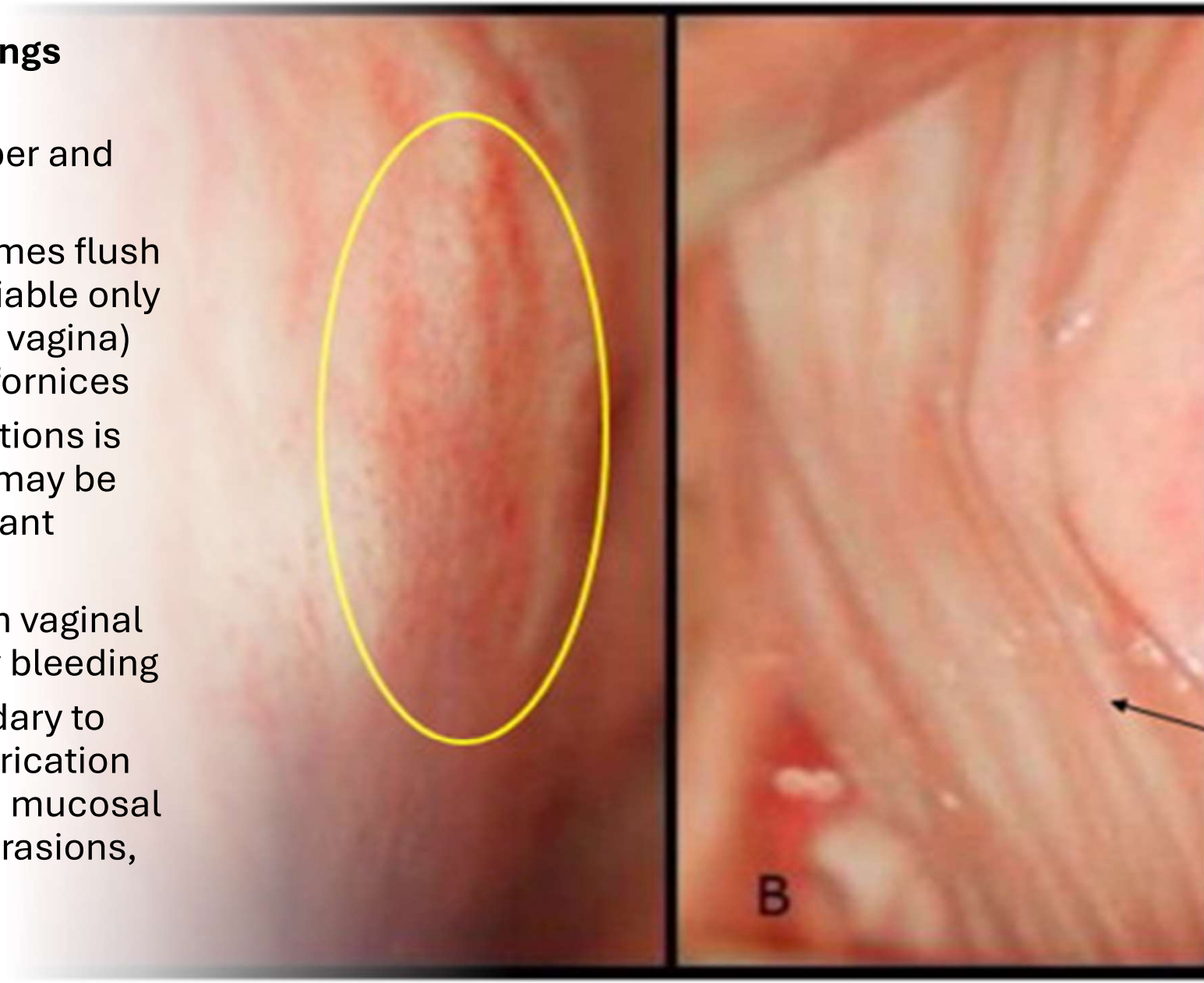
Decreased vaginal rugae and diminished vaginal elasticity

Decreased vaginal blood flow

Thinning and pallor of vaginal wall, bladder, and urethral epithelium

- **Internal examination findings**

  - Diminished vaginal caliber and depth
  - Cervical flush (cervix becomes flush with vaginal vault and identifiable only as small opening in apex of vagina) and obliteration of vaginal fornices
  - Decreased vaginal secretions is typical; vaginal discharge may be present with concomitant inflammation
  - Signs of inflammation with vaginal erythema, friability, and easy bleeding
  - Signs of trauma (secondary to intercourse with lack of lubrication and thinning of mucosa) with mucosal petechiae, ecchymoses, abrasions, and lacerations



Vaginal pH increased to 5 or higher

Decreased lactobacilli and diminished diversity of species in bacterial microbiome

Lactobacilli may help prevent urogenital conditions (eg, bacterial vaginosis, yeast infection, urinary tract infection)

Higher proportion of vaginal lactobacilli in postmenopausal females correlates inversely with vaginal dryness

Decreased vaginal lubrication, related to decreased blood flow, decreased rugae, and change in the microbiome

Decreased sensory threshold when bladder is distended and impaired urethral closure pressure or urethral sphincter dysfunction, leading to urinary urgency, frequency, and incontinence

Lobo RA: In: Gershenson DM et al, eds: Comprehensive Gynecology. 8th ed. Elsevier; 2022:255-88.e9

Ravel J et al: Proc Natl Acad Sci U S A. 108 Suppl 1:4680-7, 201120534435

Hummelen R et al: PLoS One. 6(11):e26602, 201122073175

Underlying causes:

Menopausal hypoestrogenism
Natural menopause

Other causes of hypoestrogenism

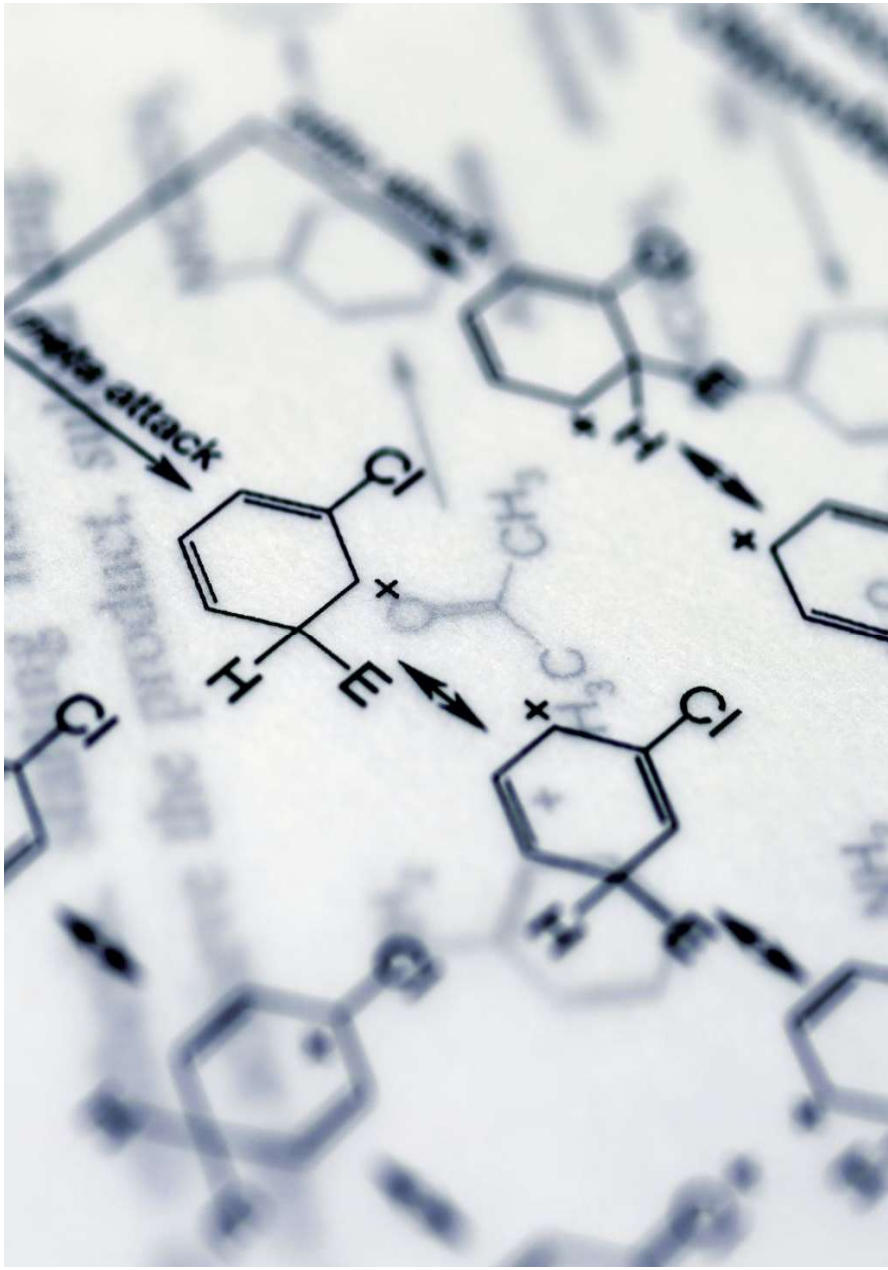
Surgical menopause (bilateral oophorectomy)
Premature ovarian failure
Genetic
Pelvic radiation
Autoimmune disease affecting ovaries
Hypothalamic or pituitary causes
Inadequate energy intake (eg, eating disorders, starvation)
Excessive energy expenditure (eg, extreme exercise)

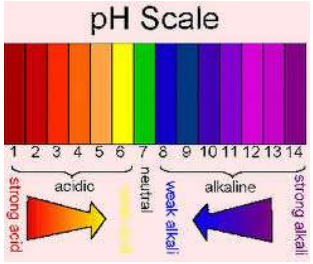
Postpartum state

Transient; duration depends on length of breastfeeding and may last 3 to 12 months
Hyperprolactinemia

- **Pharmacotherapy causes of GSM**

- Gonadotropin-releasing hormone agonist (eg, leuprolide) and some gonadotropin-releasing hormone antagonists (eg, Degarelix)
- Specific selective oestrogen receptor modulators (eg, tamoxifen)
- Aromatase inhibitors
- Danazol
- Depot medroxyprogesterone acetate
- Chemotherapeutic agents



Vaginal ancillary tests that may strengthen suspicion for diagnosis:	Saline wet mount	Findings consistent with diagnosis include:	More than 1 WBC per epithelial cell
Presence of parabasal cells (immature vaginal epithelial cells with relatively large nuclei)	Reduced or absent lactobacilli	Vaginal pH	Measure by placing litmus paper against lateral vaginal wall until moist
Healthy oestrogenised vagina (without infection or vaginitis) of an adult ranges from pH of 3.8 to 4.5	pH of 5 or above is consistent with low oestrogen state	In the absence of bacterial pathogens, a vaginal pH of 6.0 to 7.5 strongly suggests a hypoestrogenemic state	Certain infections (eg, bacterial vaginosis, trichomoniasis) may result in elevated vaginal pH
	Elevated pH is common in premenopausal patients with pathologic bacterial pathogens	Vaginal pH may be increased by presence of semen in the vagina, which also may confound pH testing results	

UTI

Presents similarly with frequency, urgency, dysuria, and hematuria

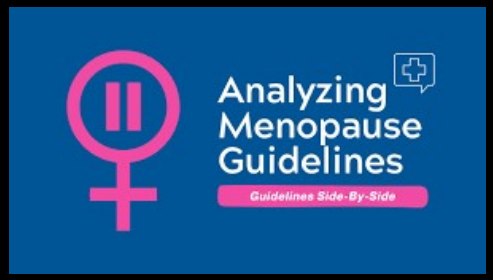
Urinalysis

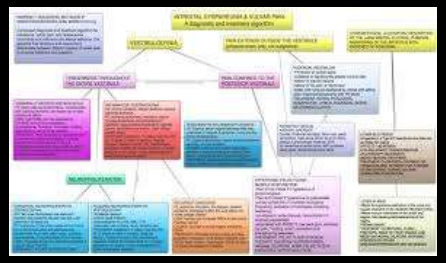
Useful to exclude alternative diagnosis when urinary symptoms predominate and to evaluate for urinary tract infection

Microscopic haematuria may be noted in patients with genitourinary syndrome of menopause

Pyuria and test results positive for nitrates may indicate urinary tract infection; confirm with culture

Differential diagnosis, Trichomonas, Candida, Lichen sclerosis, vulvar contact dermatitis, vulvar cancer.





- The NAMS/ISSWSH, ACOG and other guidelines and detailed literature review articles (LOPEZ, SHIM, SUSSMAN, KAGAN, ZUO, SASSARINI,MORENO, BIGLIA N,PINTO MENSION/ALONSO/ CASTELO-BRANCO) and NICE, discuss and advocate nonpharmacological interventions such as :

- Education, counselling/sex therapy, moisturisers/lubricants, self-stimulators/vibrators, dilators and physical therapy as key for front line interventions.

Professional Organizations Guidelines/Consensus or Reviews

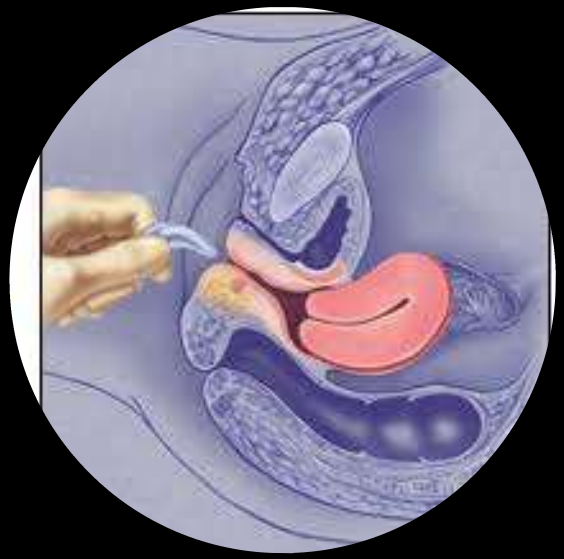
ICSM INTERNATIONAL CONSULTATION ON SEXUAL MEDICINE

5th International Consultation on Sexual Medicine
June 28 - 29, 2024 | Madrid, Spain

Professional Organization Consensus/guideline/review	Year	Key Recommendations	Off Label/ Unapproved
ACS/ ASCO	2016/2018	*HCP should offer non hormonal water-based lubricants and vaginal moisturizers *HCP should refer for psychoeducational support, group therapy, counseling, marital counseling or intensive psychotherapy when appropriate * Low dose local hormonal therapies maybe offered however safety is not well established at time of publication. * Vaginal dilators and pelvic floor relaxation techniques are advocated	
NAMS/ISSWSH	2018	*Individualized treatments taking into account risk of recurrence, severity of symptoms, effect on QOL & personal preference *Moisturizers/Lubricants/ pelvic floor physical therapy are first line *Ospemifene: has not been studied in BC patients	*Compounded Testosterone or Estriol is not recommended * Laser maybe considered; counsel on lack of long-term safety/ efficacy data
NAMS	2020	*Many women with BC will benefit from moisturizers and lubricants, and PFPT *For persistent symptoms other treatments such as low dose vagina estrogen therapy (off label), vaginal DHEA, ospemifene and vaginal based energy therapies maybe beneficial. * Shared decision making with the patient and her oncologist is advocated for treatment plans.	*Ospemifene is not recommended for the treatment of GSM in suspected or known individuals with BC – it is not adequately studied . *Clinical trials with laser therapy in BC patients provide limited evidence for safety/ efficacy. There are shortcomings in the studies. Routine use cannot be recommended

ACOG	**2021**	***Non hormonal methods should be considered frontline . *If non hormonal treatments have failed, after discussion of risk benefit ratio, low dose vaginal estrogen maybe used in individuals with a history of BC, including those on tamoxifen. If on an Aromatase inhibitor, shared decision making should occur with the oncologist and patient * If Vaginal Estrogen is not an option, Vaginal Dehydroepiandrosterone (DHEA) or testosterone may help. * Ospemifene maybe considered**	*** Laser therapy is neither FDA approved/ cleared for the treatment of symptoms. It is costly and not covered by insurance. Additional Research is warranted.**
ISSVD	2021	*Non-hormonal methods should be considered frontline *Caution must be taken with local low dose hormonal treatments since transient elevations in estradiol have been reported *Ospemifene maybe of less concern to oncologist but safety data is lacking *Shared decision making and consultation with oncology is recommended	*Some evidence suggests that women on an AI might benefit from low dose vaginal estriol. *long-term safety data for vaginal androgens and ospemifene are not available *ISSVD does not endorse the use of laser outside of clinical trials.

Systematic Review 2024



- **Benefit:**
- Vaginal oestrogen
- DHEA
- Ospemifene
- Vaginal moisturisers :
- All in line with BSSM consensus

- **No evidence of benefit:**
- Vaginal testosterone
- Oxytocin
- Oral DHEA
- Raloxifene
- Bazedoxifene

Ann Intern Med
10.7326/ANNALS-24-00610

Treatment Options

Mild to moderate symptoms

First line treatment for most patients includes **OTC lubricants and moisturizers**

Nonprescription lubricants and moisturizers alone may provide sufficient mild to moderate symptom relief

Lubricants are recommended for short-term relief of vaginal dryness and discomfort associated with sexual activity

Designed to reduce friction-related irritation to atrophic tissues during intercourse

Products may be water-, silicone-, and oil-based

Oil-based products may degrade latex condoms

Water-based, hyperosmolar products may result in mucosal irritation

YES VM (vaginal moisturiser) and YES WB (water based lubricant) and Sylk lubricant

Edwards D et al: Treating vulvovaginal atrophy/genitourinary syndrome of menopause: how important is vaginal lubricant and moisturizer composition? Climacteric. 19(2):151-61, 201626707589 Da Silva AS et al: Modern management of genitourinary syndrome of menopause. Fac Rev. 10:25, 202133718942

Recommend regularly using vaginal moisturizers in females with ongoing discomfort due to vaginal dryness

Moisturizers mimic vaginal secretions (eg, increase vaginal mucosal moisture, reduce pH)

Used independently of sexual activity

Recommended frequency of use is daily or every other day, depending on symptom severity

Long-acting products may decrease vaginal pH to premenopausal levels

(Replens)

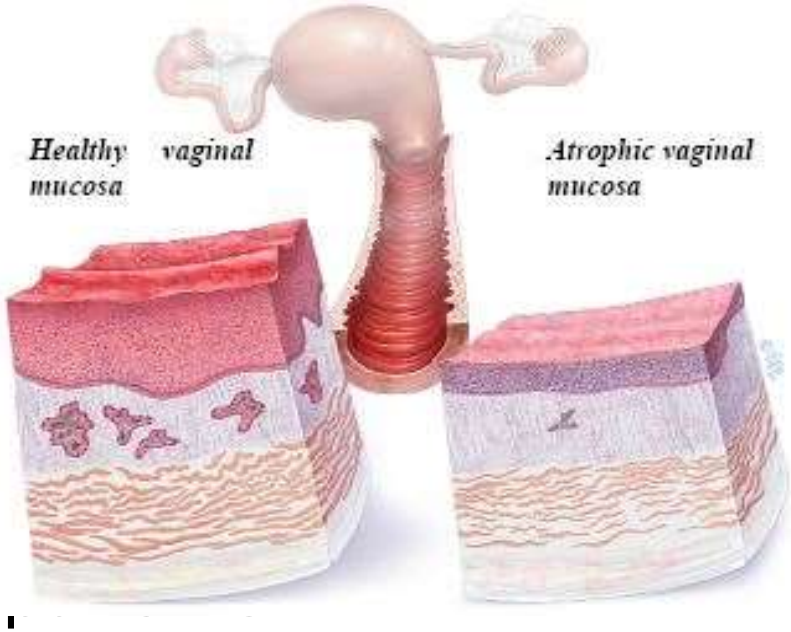
products most closely resembling healthy vaginal pH, osmolality, and composition of secretions are preferred

Ideal osmolality for water-based products is below 380 mOsm/kg; avoid hyperosmolar preparations. Very high osmolality (greater than 1200 mOsm/kg) may result in irritation, contact dermatitis, and cytotoxicity

Choose products with pH within reference range for healthy adult females (3.8-4.5 pH); pH levels of 3.0 or less are poorly tolerated

Farrell Am E: Genitourinary syndrome of menopause. Aust Fam Physician. 46(7):481-4, 201728697291

First line treatment is low-dose vaginal oestrogen when patient has no contraindications
Useful to treat symptoms unresponsive to nonprescription therapy



Vaginal oestrogen is contraindicated in undiagnosed vaginal bleeding, and its use is considered controversial in those with a history of a hormone-sensitive malignancy
Involve oncologists in decisions regarding use of vaginal oestrogen for females with oestrogen-sensitive cancers

Biehl C et al: A systematic review of the efficacy and safety of vaginal oestrogen products for the treatment of genitourinary syndrome of menopause. Menopause. 26(4):431-53, 201930363010

Listed contraindications include:

Undiagnosed vaginal bleeding
Known or suspected breast cancer
Oestrogen-dependent cancer
Endometrial hyperplasia or cancer
History of thromboembolism or known thrombophilia
Hypertension, Hyperlipidaemia
History of stroke, CHD or veno-thrombotic events
Liver disease
Pregnancy
Smoking in patients aged 35 years and older
Migraines with neurologic symptoms
Cholecystitis/cholangitis

10mcg oestradiol pessaries used twice weekly for one year, the total dose is roughly equivalent in dose to just one 1mg of oestradiol tablet assuming that 100% is absorbed (which is unlikely).

Vaginal oestrogen replenishes local oestrogen receptors and reverses physiologic vaginal mucosal changes, improves vaginal secretions, lowers vaginal pH to restore healthy vaginal flora, prevents frequent urinary tract infections, and alleviates overall vulvovaginal symptoms.

More effective than systemic oestrogen to treat vulvovaginal, urinary, and intercourse symptoms associated with genitourinary syndrome of menopause

Many females who require oestrogen replacement therapy for other menopausal symptoms also require supplemental topical oestrogen for persistent symptoms of genitourinary syndrome of menopause

Use of vaginal oestrogen diminishes urinary urgency and urinary incontinence, and reduces risk of urinary tract infections

Rahn DD et al: Vaginal oestrogen for genitourinary syndrome of menopause: a systematic review. Obstet Gynecol. 124(6):1147-56, 201425415166

Lethaby A et al: Local oestrogen for vaginal atrophy in postmenopausal women. Cochrane Database Syst Rev. 8:CD001500, 201627577677

Use lowest dose and frequency of vaginal oestrogen therapy to effectively manage symptoms

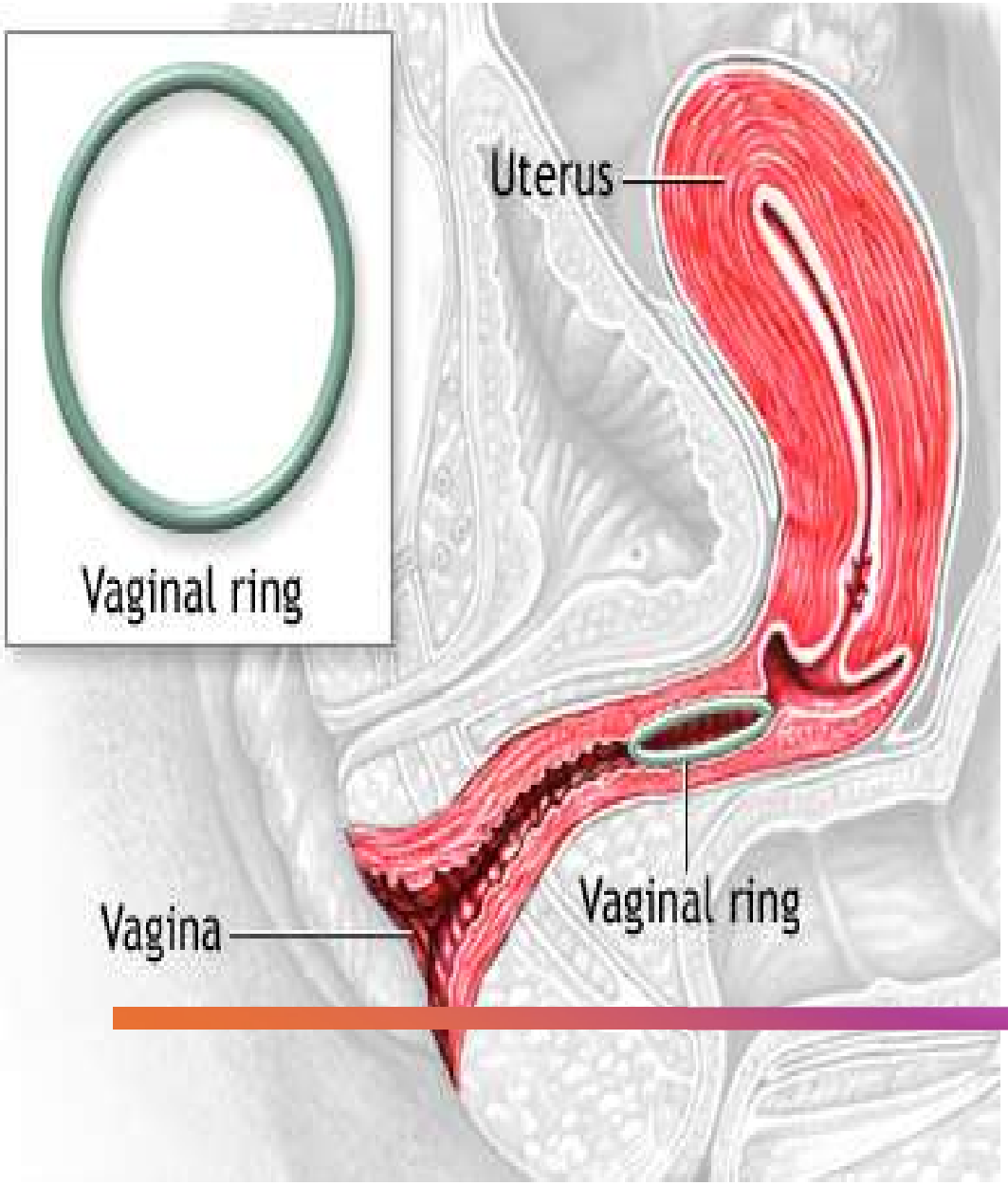
Vaginal oestrogen may be used intermittently for 1 to 3 months or may be used long term

Improvement may be noted within a few weeks of starting treatment; 8 to 12 weeks is required for most patients to experience maximum benefit of therapy

Up to 90% of females report symptom improvement with low-dose vaginal oestrogen therapy

Various low-dose vaginal oestrogen formulations (eg, cream, tablets, capsule, sustained-release estradiol-17β vaginal ring) with comparable efficacy and safety profiles are available

Since 2022, some postmenopausal women are now able to buy Gina vaginal oestrogen tablets over the counter for the first time in the UK. Only postmenopausal women aged 50 years and above and who have not had a period for at least a year are able to buy the medication. (NOT breast, endometrial or ovarian cancer, blood clots, heart disease, liver disease or stroke.)



- Vaginally inserted tablets or capsules instead of cream may be preferred in situations requiring controlled dosing
- With the exception of the vaginal ring, vaginal products should be inserted in the proximal lower third of vagina to improve efficacy and attenuate absorption
- Serum oestradiol remains in the healthy menopausal range for creams, Ovestin (500mcg) (oestriol) , tablet Imvaggis (30mcg) (oestriol), and oestradiol-17β vaginal ring Estring (7.5mcg/24hrs) (oestradiol),
- Minimal absorption may be a concern for females receiving aromatase inhibitors because even minimal absorption may affect efficacy of aromatase inhibitor therapy

- Weigh risks and benefits of treatment options (eg, vaginal hormonal treatments) in females with history of hormone-sensitive cancers (eg, breast cancer)

Hirschberg AL et al: Topical estrogens and non-hormonal preparations for postmenopausal vulvovaginal atrophy: an EMAS clinical guide. Maturitas. 148:55-61, 202133896654

Faubion SS et al: Genitourinary syndrome of menopause: management strategies for the clinician. Mayo Clin Proc. 92(12):1842-9, 201729202940

Women with a personal history of breast cancer who were using vaginal oestrogen for GSM. Vaginal Prasterone (DHEA) was studied in a small open prospective pilot study (VIBRA pilot) and (MENSION) demonstrated that serum oestradiol levels remained low after 6 months of follow up while sexuality and vaginal health improved significantly.

The authors concluded that Prasterone, seems a safe and effective treatment option for Breast Cancer Patients on Aromatase Inhibitors who have GSM.

Recent emerging controversies regarding the use of minimally absorbed local vaginal oestrogen (Cold) , neither vaginal or systemic vaginal hormone therapy was associated with an increase of recurrence or mortality.

While intravaginal DHEA and minimally absorbed local vaginal oestradiol remain unapproved in this patient population, it is critical to note that the majority of sexual medicine specialists unanimously believe that low dose vaginal oestrogen, and prasterone, appear perfectly appropriate, beneficial and safe in this setting.

Further, and despite some outlier papers, as mentioned above, suggesting that such treatment may not be safe, the majority of the breast literature is extremely reassuring on this point. The decision to use these medications should be based shared decision making between the patient, her oncological team and her GP.

Safety of prasterone in breast cancer survivors treated with aromatase inhibitors: the VIBRA pilot study 2022 Oct;25(5):476-482. doi: 10.1080/13697137.2022.2050208.

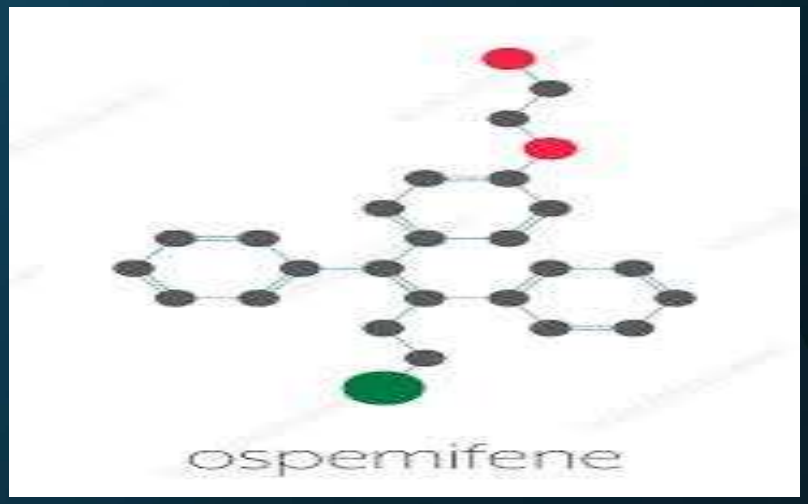
Vaginal oestrogen therapy is unlikely to pose risks for survivors of hormone-dependent cancers (eg, breast cancer, endometrial cancer) owing to minimal systemic absorption. Findings from clinical trials and observational studies are reassuring though not definitive; consider the following recommendations:

Strongly preferred first line treatments are nonhormonal Individualized management must take into account both patient needs and oncologist recommendations

Ultra-low-dose vaginal oestrogen therapy may be used in select females with refractory symptoms that significantly affect quality of life for short duration after thorough consideration of risk-benefit ratio

Data do not suggest increased risk for endometrial hyperplasia or cancer with unopposed low-dose vaginal oestrogen . Progestins are not indicated in most situations for endometrial protection in those using low-dose vaginal oestrogen

Consider yearly transvaginal ultrasonography for endometrial surveillance or prescribe yearly progesterone withdrawal for females at high risk for endometrial cancer (eg, obesity, use of higher doses than recommended)



- **Alternate management strategies**
- **Ospemifene**

- Only selective 0estrogen receptor modulator approved to treat genitourinary syndrome of menopause Other available selective oestrogen receptor modulators (eg, tamoxifen, raloxifene, bazedoxifene) are not approved to treat this syndrome; tamoxifen may cause vaginal dryness and dyspareunia

- Synthetic nonsteroidal agent that exerts mixed oestrogen agonist and antagonist effects on vulvovaginal tissue at recommended dose; does not appear to target or affect breast or endometrial tissue

- Improves vaginal pH, vaginal dryness, vaginal maturation index, and dyspareunia; findings consistent with improved mucosal oestrogen effects are noted on examination. Additionally, reduces bone turnover markers

- Approved to treat moderate to severe dyspareunia associated with genitourinary syndrome of menopause; option for some patients who cannot (eg, severe arthritis, obesity) or prefer not to use intravaginal treatment

- Cochrane review found uncertain effects of selective oestrogen receptor modulators on sexual function (very low–quality evidence)

Although package insert stresses monitoring females taking ospemifene to treat endometrial cancer, risk of endometrial hyperplasia appears to be very low (0%-1%). Most data suggest ospemifene has favourable endometrial safety profile; addition of progestin is not recommended

Current recommendations suggest avoiding use in patients both with and at high risk for breast cancer; data are limited but suggest drug may exert antiestrogenic effect in breast tissue.

Avoid in patients at high risk of venous thromboembolism

Package insert includes a warning risk of deep vein thrombosis and pulmonary embolism, though the black box warning notes a rate of deep vein thrombosis with ospemifene no higher than with placebo

A mandated 5 year post-authorization safety study found no increased risk of venous thromboembolism with ospemifene compared to no treatment

- Prasterone DHEA (Intrarosa) 6.5mg pessary at night
- Steroid prohormone that converts locally to testosterone and oestrogen when applied to mucosal tissue

- Formulated as a vaginal insert that is chemically identical to naturally-occurring dehydroepiandrosterone

- Improves vaginal pH and vaginal maturation index, and diminishes vaginal dryness and dyspareunia

- Approved for dyspareunia associated with genitourinary syndrome of menopause

- Not associated with proliferative endometrial effects, and minimal increases in systemic hormone levels are noted

- However, prasterone is not uniformly recommended for cancer survivors because studies assessing its safety in this population are limited

Topical lidocaine

Apply to introitus a few minutes before sexual activity to diminish pain with intercourse
May be used as an adjunct to lubricants and physical therapy in breast cancer survivors with dyspareunia
2% to 5% cream, ointment, gel, or jelly formulations may be used

Energy-based therapies

Laser therapy and radio-frequency devices are being studied as treatment but none have approval specifically to treat genitourinary syndrome of menopause
Based on preliminary limited data, laser therapy is promising; however, these are not recommended until longer, larger studies confirm safety and efficacy.
Not offered by UK's National Health Service

Used to stimulate remodeling of vaginal connective tissue and improve vaginal epithelium (eg, promote increased thickening, improve glycogen storage)

Fractional CO_2 and Erbium:YAG lasers have demonstrated improvements in vaginal dryness, discomfort, pruritus, and dyspareunia

Palacios S et al: Update on management of genitourinary syndrome of menopause: a practical guide. Maturitas. 82(3):308-13, 201526261035
Pitsouni E et al: Laser therapy for the genitourinary syndrome of menopause. A systematic review and meta-analysis. Maturitas. 103:78-88, 201728778337

Bottom line: Topical oestrogen

Replenishes local oestrogen receptors and reverses physiologic vaginal mucosal changes, improves vaginal secretions, lowers vaginal pH to restore healthy vaginal flora, prevents frequent urinary tract infections, and alleviates overall vulvovaginal symptoms

More effective than systemic oestrogen to treat vulvovaginal, urinary, and intercourse symptoms associated with genitourinary syndrome of menopause

Many females who require oestrogen replacement therapy for other menopausal symptoms also require supplemental topical oestrogen for persistent symptoms of genitourinary syndrome of menopause

Rahn DD et al: Vaginal estrogen for genitourinary syndrome of menopause: a systematic review. Obstet Gynecol. 124(6):1147-56, 201425415166
Lethaby A et al: Local oestrogen for vaginal atrophy in postmenopausal women. Cochrane Database Syst Rev. 8:CD001500, 201627577677
Ortmann O et al: Peri- and postmenopause-diagnosis and interventions interdisciplinary S3 guideline of the association of the scientific medical societies in Germany (AWMF 015/062): short version. Arch Gynecol Obstet. 302(3):763-77, 202032661753
Constantine GD et al: Endometrial safety of low-dose vaginal estrogens in menopausal women: a systematic evidence review. Menopause. 26(7):800-7, 201930889085

Bottom line

Use of vaginal oestrogen diminishes urinary urgency and urinary incontinence, and reduces risk of urinary tract infections

Use lowest dose and frequency of vaginal Rx.

May be used intermittently for 1 to 3 months or may be used long term.

Improvement may be noted within a few weeks of starting treatment;
8 to 12 weeks is required for most patients to experience maximum benefit of therapy

Up to 90% of females report symptom improvement with low-dose vaginal oestrogen therapy

Various low-dose vaginal oestrogen formulations (eg, cream, tablets, capsule, sustained-release estradiol- vaginal ring) with comparable efficacy and safety profiles are available

Rahn DD et al: Vaginal estrogen for genitourinary syndrome of menopause: a systematic review. Obstet Gynecol. 124(6):1147-56, 201425415166
Lethaby A et al: Local oestrogen for vaginal atrophy in postmenopausal women. Cochrane Database Syst Rev. 8:CD001500, 201627577677
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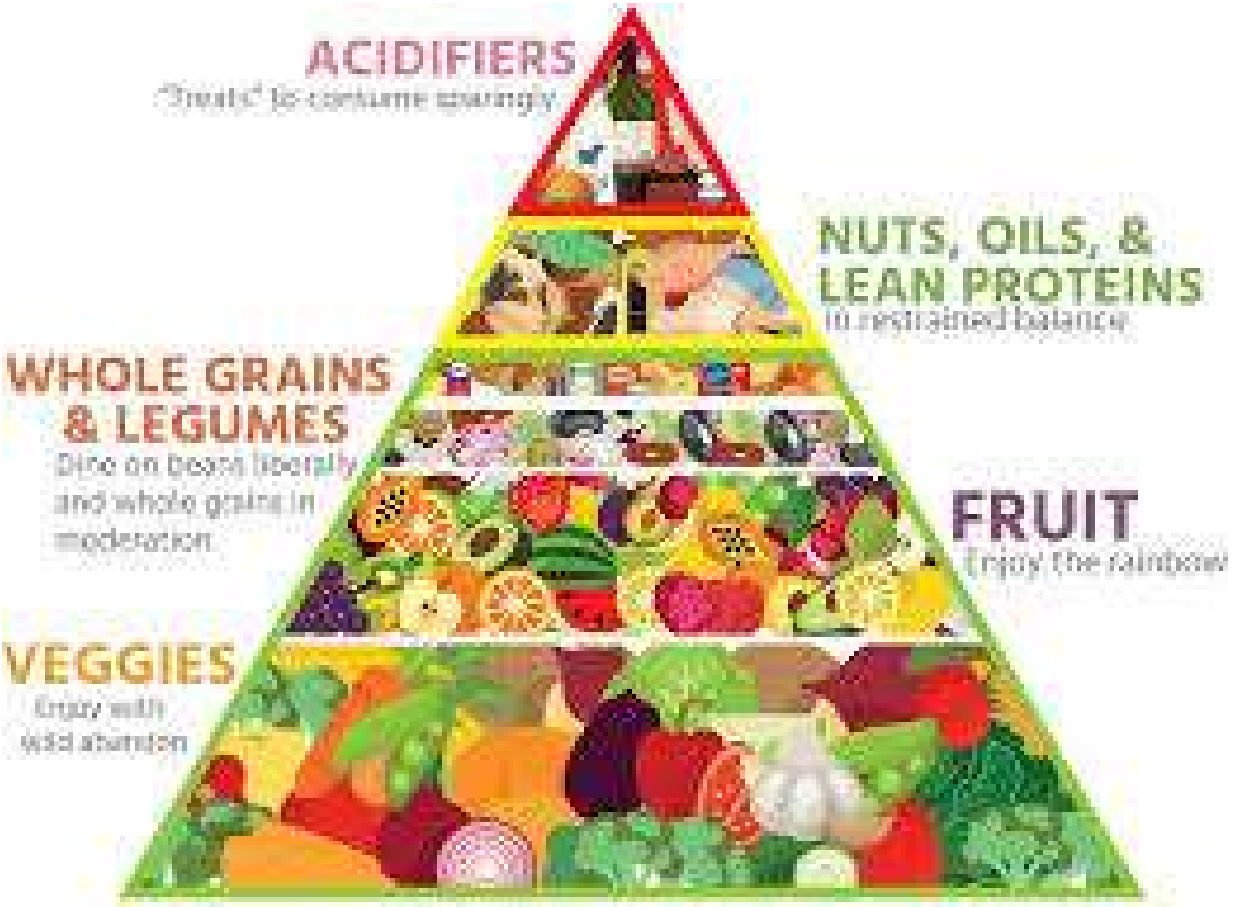
Systemic oestrogen therapy with or without progesterone
Appropriate when needed for other symptoms of menopause (eg, vasomotor symptoms, sleep and mood dysregulation) and protection from osteoporosis

Progesterone is recommended for females without history of hysterectomy (presence of intact uterus)

Systemic hormone therapy relieves vaginal symptoms for most patients; however, 10% to 15% may require addition of low-dose vaginal oestrogen

Systemic therapy is not expected to improve urinary incontinence and may increase risk for stress urinary incontinence

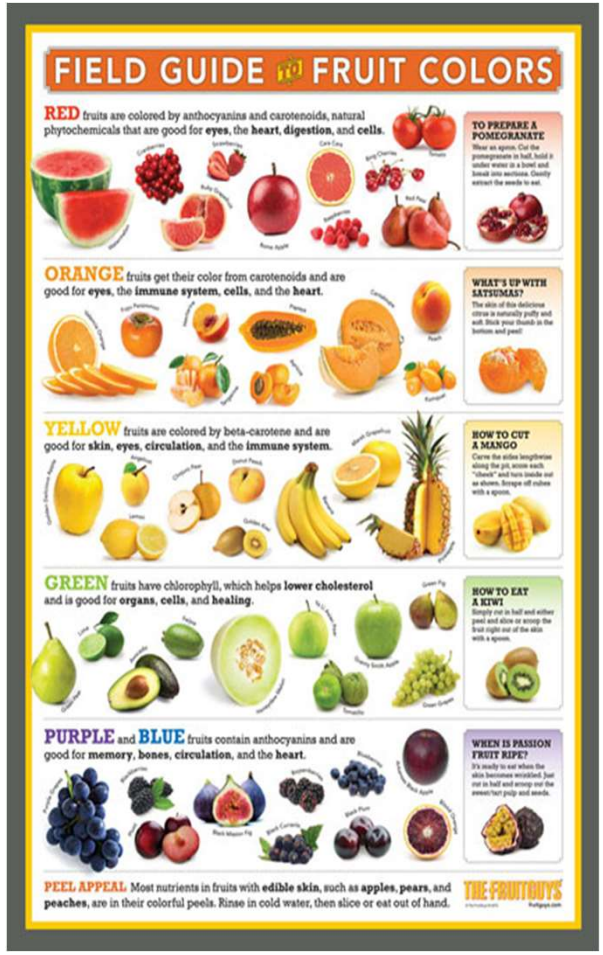
Contraindicated in patients with oestrogen-sensitive cancers and in those with high risk of thromboembolic disease


ACIDIFIERS
"Treats" to consume sparingly
NUTS, OILS, &
LEAN PROTEINS
In restrained balance
WHOLE GRAINS
& LEGUMES
Dine on beans liberally
and whole grains in
moderation
FRUIT
Enjoy the rainbow
VEGGIES
Enjoy with
wild abandon

Meal deals as unhealthy as big Mac & fries!!

A healthy diet can help with symptoms of genitourinary syndrome of menopause:

- Eat a variety of foods: Eat a balanced diet with lots of colourful fruits and vegetables, whole grains, nuts, seeds, beans, lentils, and chickpeas.
- Eat foods high in healthy unsaturated fats, avocados, rapeseed oil, and extra virgin olive oil.
- Eat calcium-rich foods: Eat dairy products, green leafy vegetables, nuts, seeds, dried fruit, and the soft bones in tinned fish.
- Reduce refined carbohydrates and sugar: Avoid sugary foods and drinks.
- Reduce salt: No more than 6 grams per day.



Diet Continued

- Fermented foods, Kimchi, sauerkraut, kefir & yoghurt (best added to berries), + kombucha etc.
- Reduce alcohol and caffeine: Limit alcohol to less than 14 units/week.
- Avoid spicy foods: which can also trigger hot flushes.
- Avoid artificial sweeteners: Artificial sweeteners like aspartame have no health benefits and may be harmful.
- Drink lots of water: Avoid fruit juices.
- Isoflavones, which are similar to oestrogen and may help with hot flushes and vaginal dryness.
- Found in soybeans, chickpeas, fava beans, pistachios, peanuts, pears and apples.

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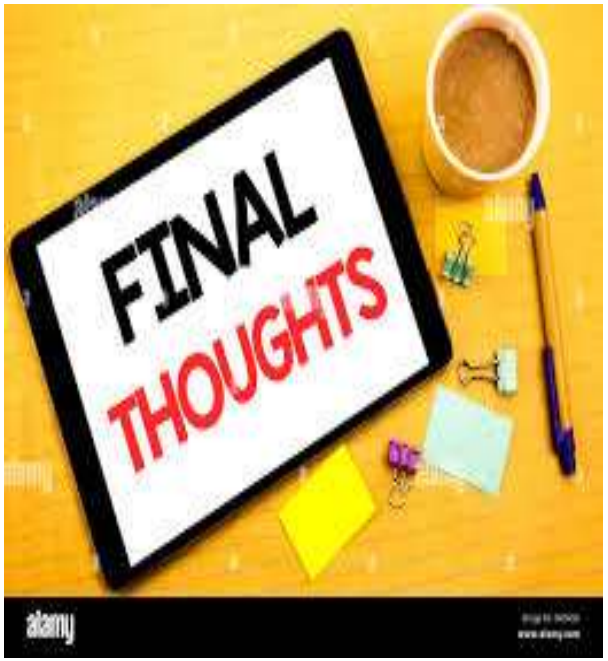
Genitourinary syndrome of menopause and intestinal microbiota

- The gut, vaginal, and urinary microbiomes are mutually influential, and dysbiosis of one of these microbiota results in several health problems.
- Menopause alters the gut, vaginal, and urinary microbiota due to drastic hormone changes.
- Not only deficiency of sex steroids, but also altered intestinal homeostasis combine to increase severity of GSM
- It is known that an indispensable condition for the normal functioning of the body is to maintain the physiological constancy and activity of the intestinal microbiota.
    - **Influencing the intestinal metabolism is becoming a new therapeutic strategy in the prevention and treatment of genitourinary syndrome in order to ensure a high quality of life for women at any age.**

- **Summary**

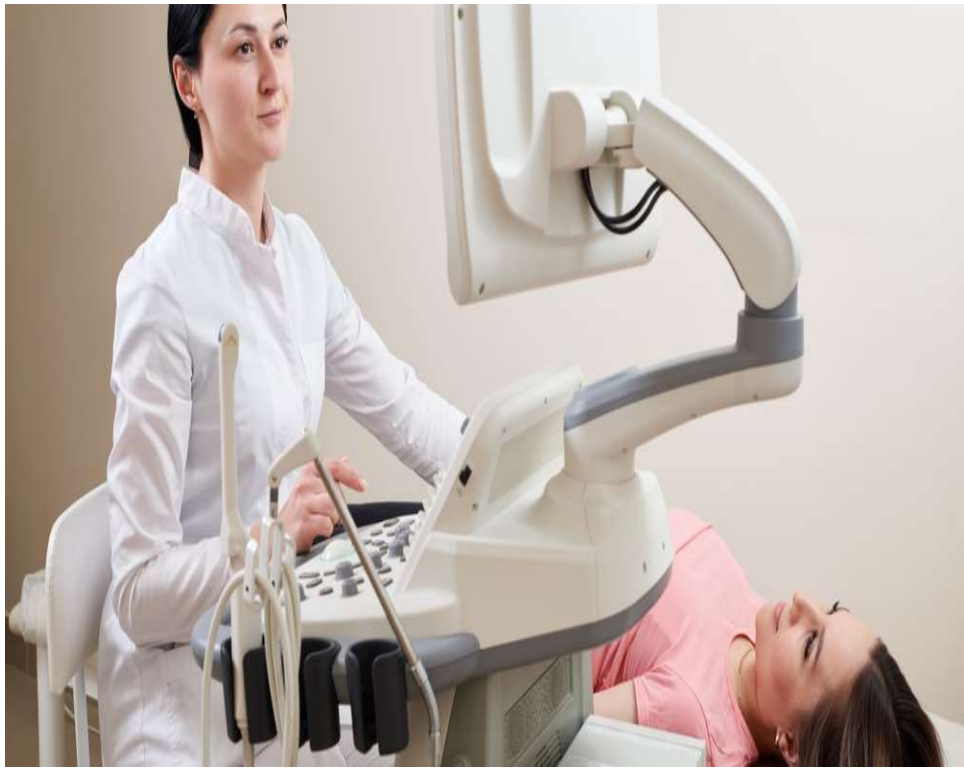
- Many females do not initiate discussion with health care providers despite significant symptoms (eg, urinary tract infection, genital irritation, sexual dysfunction); therefore, syndrome is underdiagnosed and undertreated
- Maintain awareness to ask about symptoms; effective treatment is available, and untreated symptoms can lead to worsening sexual dysfunction and vaginal stenosis
- Genitourinary syndrome of menopause poses some diagnostic challenges
- Many females with mild to moderate signs of syndrome on examination remain asymptomatic
- Symptoms often correlate poorly with physical examination findings
- Infectious or inflammatory vaginitis may coexist with syndrome
- Concern for presence of concomitant diagnosis requires separate evaluation and treatment when indicated



- In most females, diagnosis is established by clinical presentation; both history and examination are needed
- Treatment options include nonhormonal methods (moisturizers, lubricants, vaginal dilation) and hormones
- Mild to moderate symptoms: preferred initial treatment is nonprescription vaginal lubricants and moisturizers
- Moderate to severe symptoms and symptoms unresponsive to nonprescription therapy: first line treatment is low-dose vaginal oestrogen when patient has no contraindications.
- Vaginal oestrogen preparations may be used alone or in combination with vaginal lubricants and moisturizers
- Alternative approved treatment options include selective oestrogen receptor modulators and prasterone (vaginal dehydroepiandrosterone)

Who to refer

- **Urgent Action**
- Assess females who do not respond to standard treatment of other urogenital conditions and coexisting urogenital diagnoses
- Promptly evaluate any postmenopausal vaginal bleeding to exclude endometrial hyperplasia and/or adenocarcinoma.
- Full evaluation with imaging and possibly biopsy is indicated even if bleeding is suspected to be the result of genitourinary syndrome of menopause or secondary to hormonal treatment of genitourinary syndrome of menopause



PROGNOSIS

Syndrome is chronic and progressive; manifestations are unlikely to improve or resolve without treatment and often worsen with increasing duration of hypoestrogenism

Prognosis is excellent in females who have mild symptoms controllable by lubricants and/or moisturizers

Prognosis and symptom control is excellent in the vast majority of females with use of topical oestrogen therapy

Up to 90% of females report symptom improvement with low-dose vaginal oestrogen therapy

Expect most genital, urinary, and sexual symptoms to improve with low-dose vaginal oestrogen;

However, low-dose vaginal oestrogen alone does not effectively treat urinary incontinence, but pelvic floor exercises do!!

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Lethaby A et al: Local oestrogen for vaginal atrophy in postmenopausal women. Cochrane Database Syst Rev. 8:CD001500, 201627577677
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Useful resources for women

- Balance menopause library and free menopause support app at www.balance-menopause.com
- Patient (2023) Vaginal dryness www.patient.info/womens-health/menopause/vaginal-dryness-atrophic-vaginitis
- NHS.uk (2021) Vaginal dryness www.nhs.uk/conditions/vaginal-dryness

https://bssm.org.uk/wp-content/uploads/2024/03/BSSM-Position-statement-for-management-of-genitourinary-syndrome-of-the-menopause-GSM.pdf