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# Winning the War on Women's Cancer

## *Sexual Health & Survivorship*

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# 6 Week Course Agenda

- I. Introduction to Women's Cancers
- II. Genetics of Gynecologic Cancers
- III. Gynecologic Cancer Surgery
- IV. Gynecologic Cancer Prevention
- V. Gynecologic Cancer Treatment
- VI. Sexual Health & Survivorship

# Today's Agenda

- Surveillance
- Sequelae of treatment
- Sexual Health
- Course Wrap-up

# Follow-up Care Plan

Contact info of treating institution/provider

Diagnosis, including histology

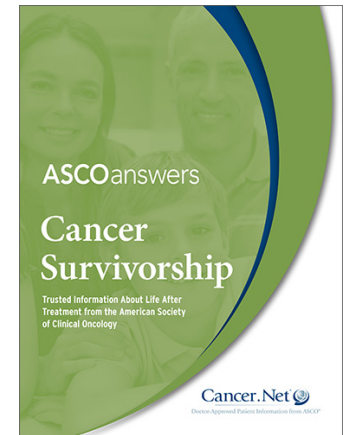
Surgery, including procedure, date

Chemotherapy: drug names, dates

Radiation: area treated, dates

Ongoing toxicity, side effects

Genetic evaluation: testing results



# Surveillance

## I. Cervical Cancer

	Months		Years		
<b>Variable</b>	0-12	12-24	2-5	>5	>5
<b>Low risk</b>	Every 6 months	Every 6-12 months	Yearly <sup>a</sup>	Yearly <sup>a</sup>	Yearly <sup>a</sup>
<b>High risk (advanced stage/ adjuvant treatment)</b>	Every 3 months	Every 3 months	Every 6 months	Yearly <sup>a</sup>	
<b>Pap test/cytology</b>	Yearly <sup>b</sup>				
<b>Radiographic imaging*</b>	Insufficient data to support routine use				
<b>Recurrence suspected</b>	CT scans or PET/CT scans				

Salani et al, Gynecol Oncol, in press

# Surveillance

## II. Ovarian Cancer

	Months			Years	
Variable	0-12	12-24	24-36	3-5	>5
Symptom review and examination	Every 3 months	Every 3 months	Every 4-6 months	Every 6 months	Yearly <sup>a</sup>
Pap test/cytology	Not indicated				
CA 125	Optional				
Radiographic imaging*	Insufficient data to support routine use				
Recurrence suspected	CT scans or PET/CT scans				
	CA 125				

Salani et al, Gynecol Oncol, in press

# Surveillance

## III. Uterine cancer

	Months		Years	
Variable	0-12	12-24	2-5	>5
Symptom review and examination				
Low risk	Every 6 months	Every 6-12 months	Yearly <sup>a</sup>	Yearly <sup>a</sup>
High risk <sup>x</sup>	Every 3 months	Every 3 months	Every 6 months	Yearly <sup>a</sup>
Pap test/cytology	Not indicated			
CA 125	Insufficient data to support routine use			
Radiographic imaging*	Insufficient data to support routine use			
Recurrence suspected**	CT scans or PET/CT scans +/- CA 125			

Salani et al, Gynecol Oncol, in press

# Symptom Management

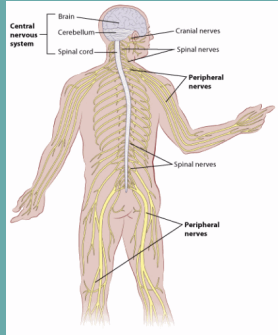
## Fatigue

Causes: anemia, pain, emotional distress, sleep problems, medications

Management: save energy, exercise, eat well, relax, sleep well







# Symptom Management

## Neuropathy

Causes: damage to the peripheral nerves carrying sensation to the brain. Can affect movement of arms and legs.

Management: Treatment to address pain

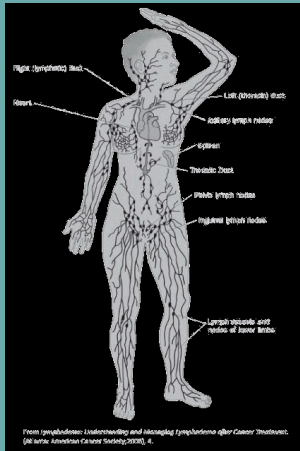
Prevention: Vit E, Ca, Mg, , glutathione

# Symptom Management

## Lymphedema

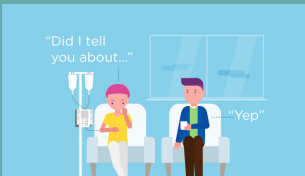
Causes: surgery, radiation, cancer, infection

Management: complex decongestive therapy, manual lymphatic drainage, compression garments



# Symptom Management

## Chemo Brain



Causes: medications, surgery, low blood counts, infection, fatigue, hormone changes, nutrition deficiency, age, depression, stress

Management: use a planner, brain exercise, rest, movement, eat veggies, follow routines, focus, ask for help, track



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# Sexual Health and Cancer

# Overview

- **Overview of Sex Health**
- **Treatment and Side Effects**
- **Tools**
- **Discussion**

# Who Cares About Women's Sexual Health?

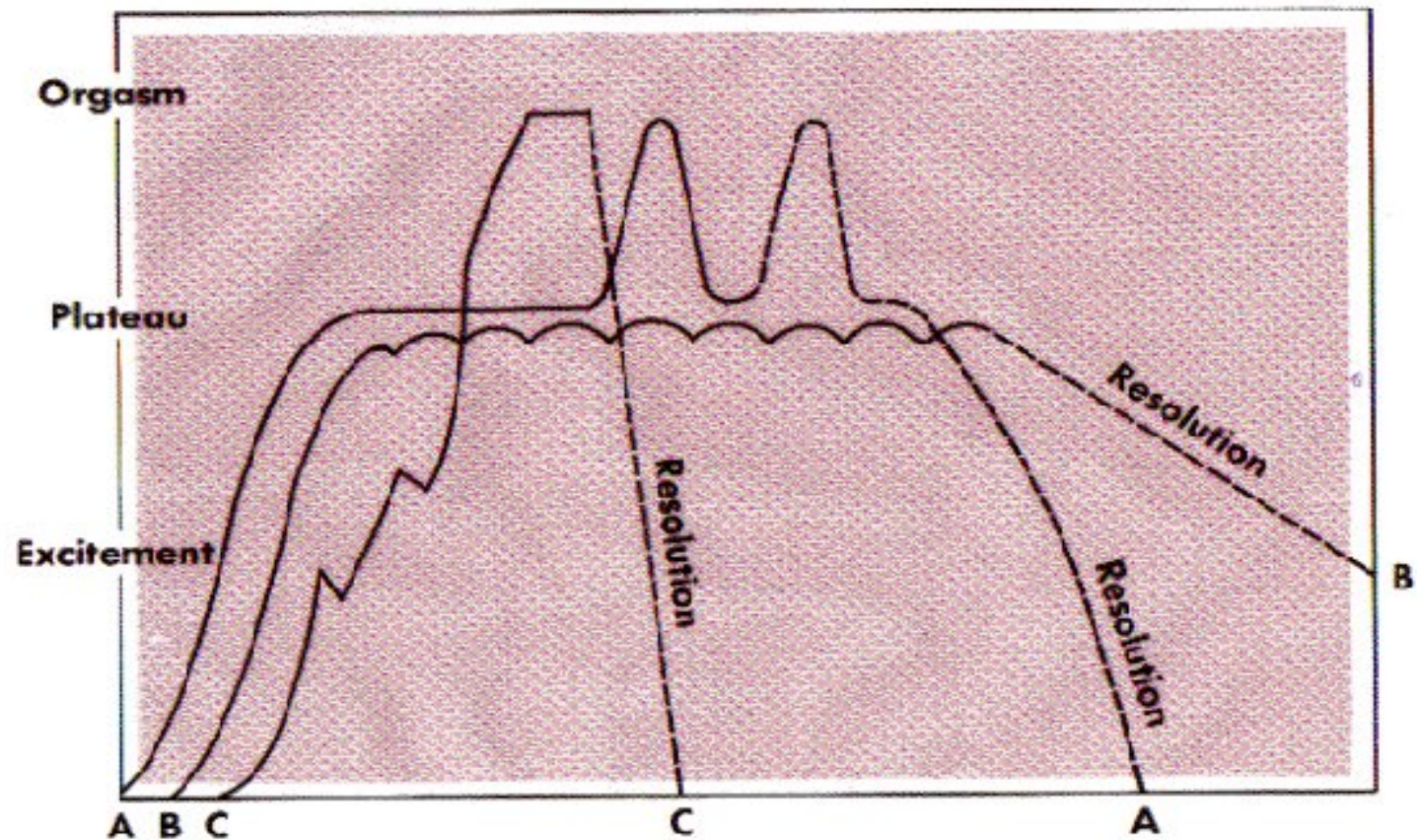
- **Healthcare Institutions**
  - Institute of Medicine
  - National Cancer Institute
  - World Health Organization
  - People—individuals and couples/  
all ages

# You are not alone

- **40-100% of cancer patients experience some form of sexual dysfunction**
- **Issues do not always resolve after therapy**
- **Almost all cancer treatments have the potential to alter sexual function (surgery, chemotherapy, radiation, hormones)**
- **Represents major quality of life (QOL) issue**
- **With intervention, many patients can have improved functioning**

# Background on Sexual Function

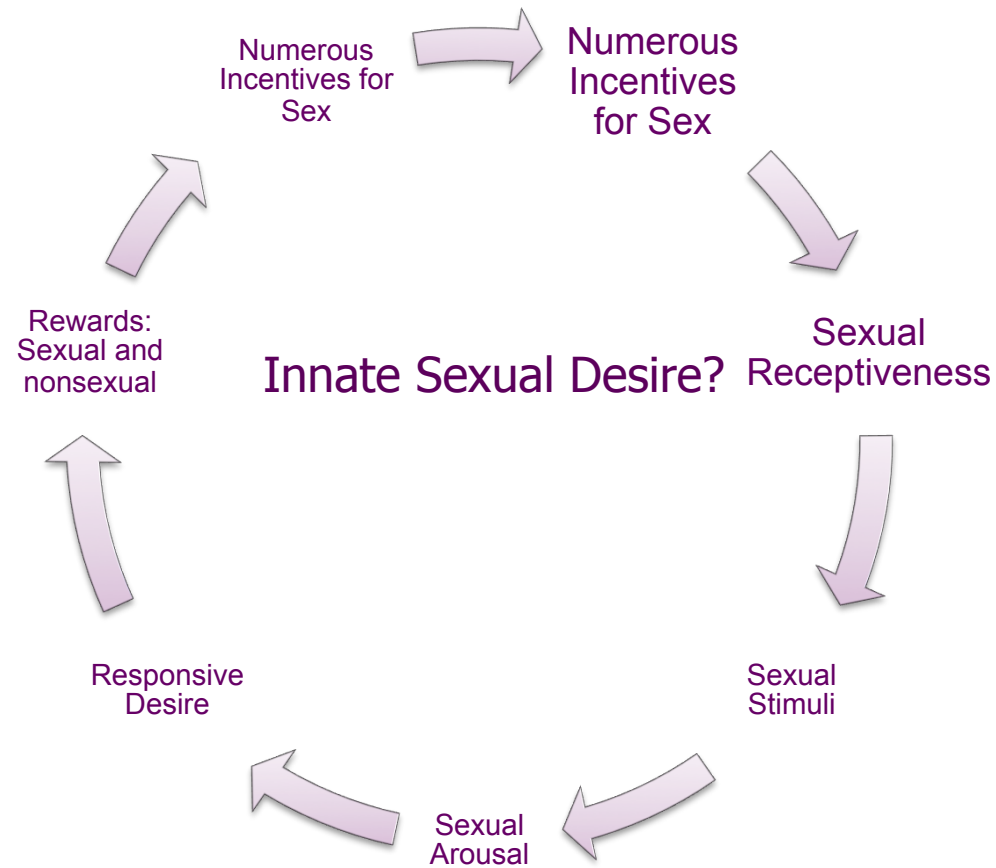
- Masters and Johnson





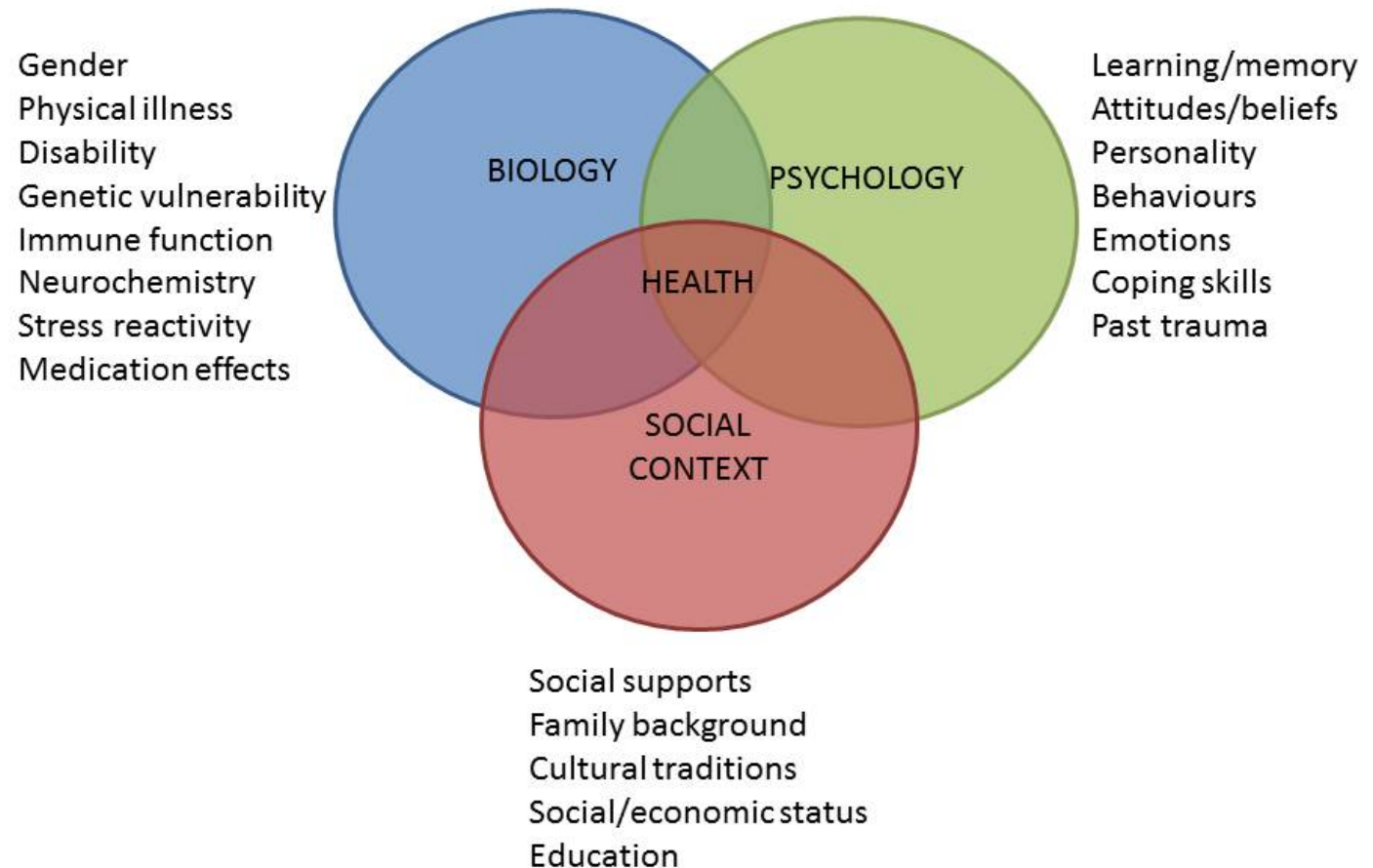
# More on Sexual Function

- **Rosemary Basson 2004**

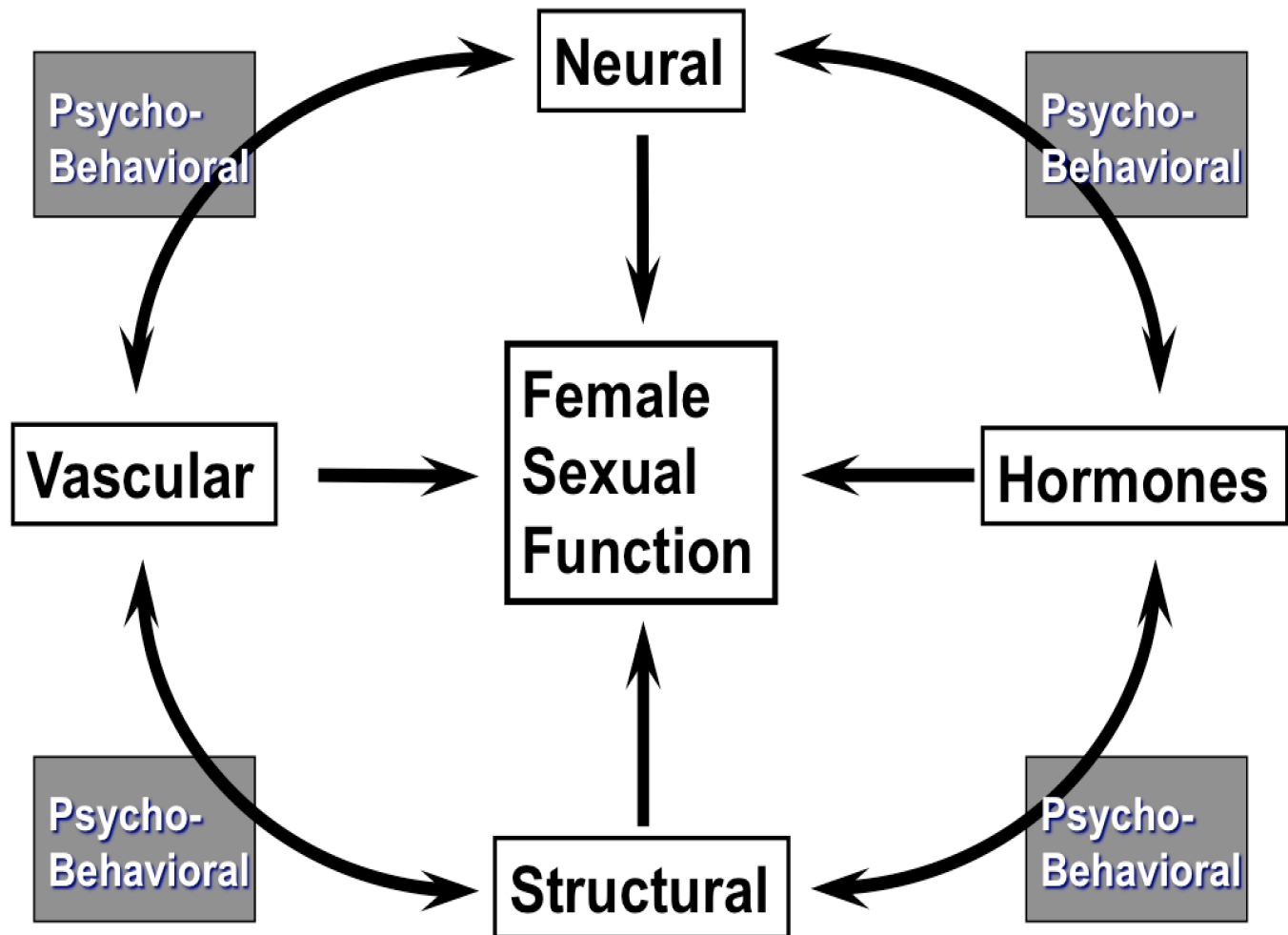


# BioPsychoSocial

## BIOPSYCHOSOCIAL APPROACH TO UNDERSTANDING HEALTH

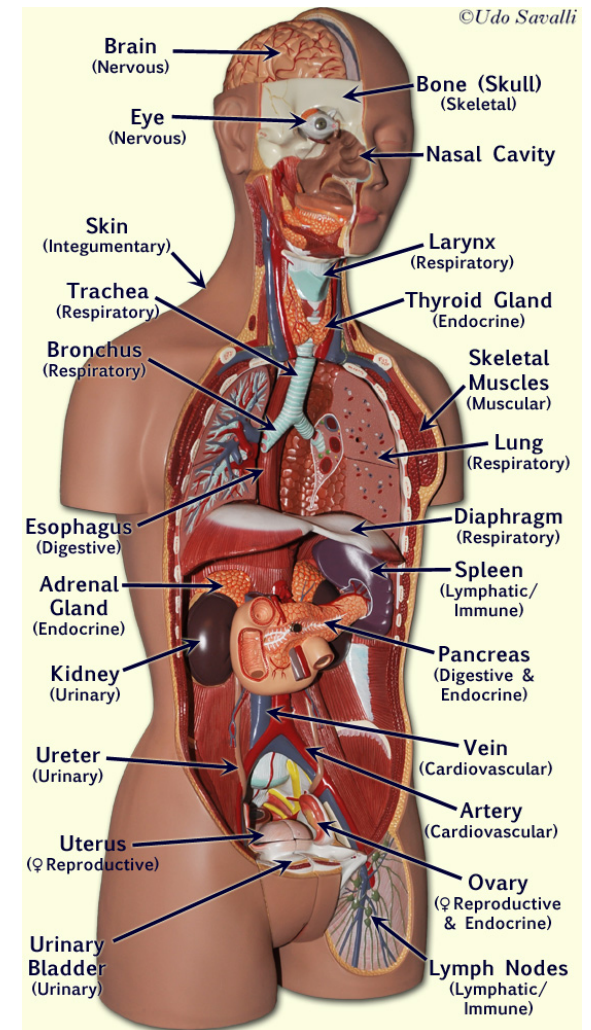


## Physiological Factors Influencing Female Sexual Function



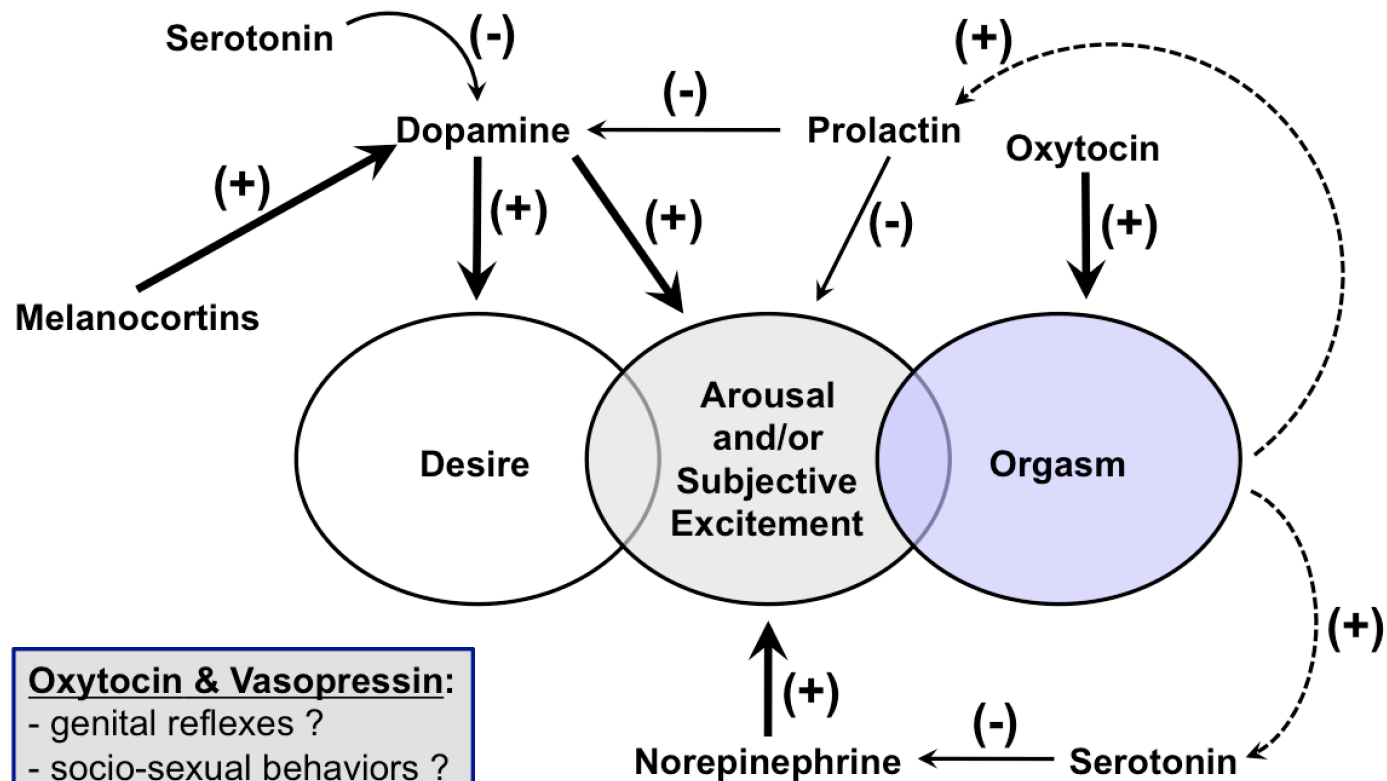
# What Parts are Involved?

- The Answer is almost all!
- Brain is most important
- Almost every other system



# Neurology of Desire

## Human Central Mechanisms: *Insights from Clinical Drug Trials*



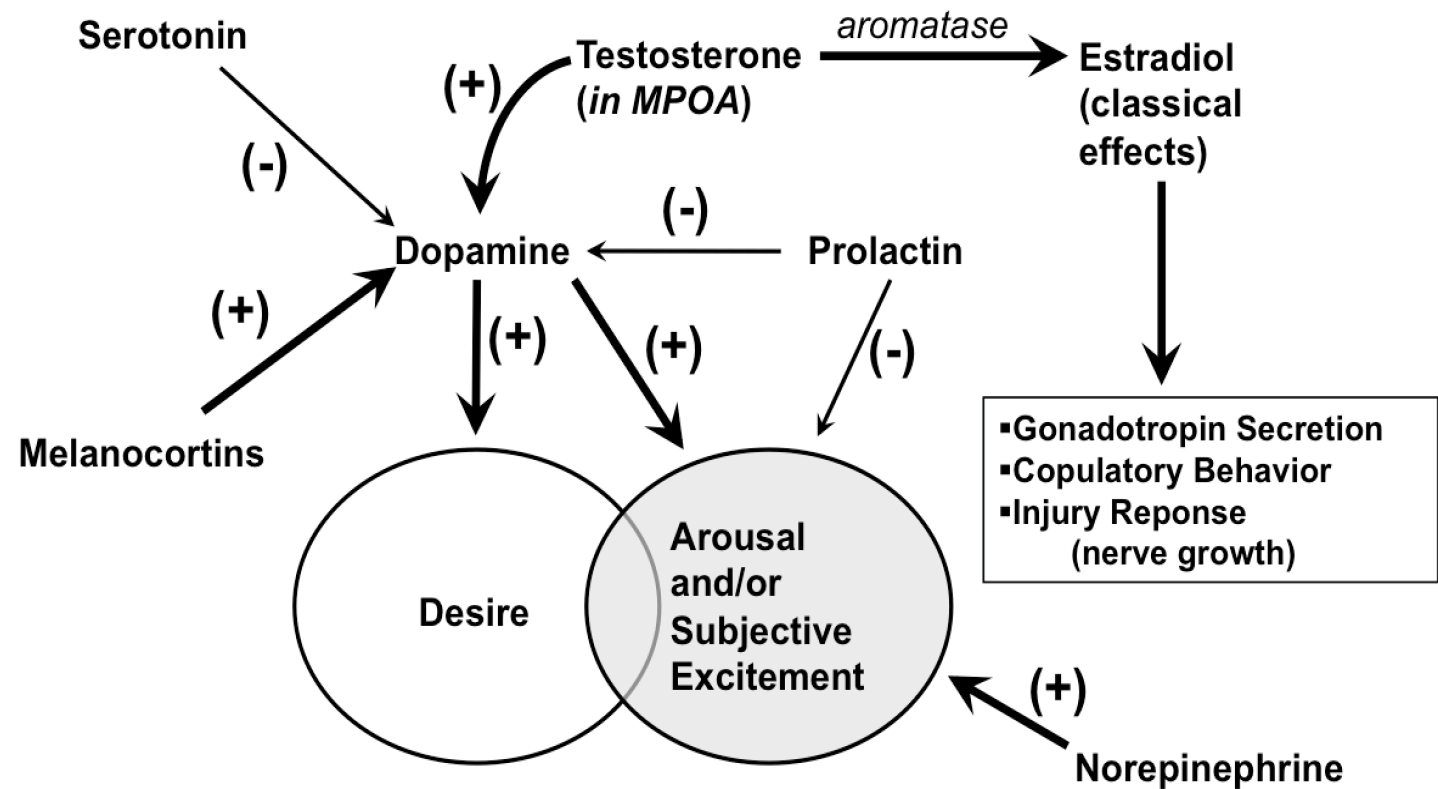
### Oxytocin & Vasopressin:

- genital reflexes ?
- socio-sexual behaviors ?

Different receptor subtypes and their pre- vs. post-synaptic distribution can mediate opposing effects on sexual function.

# Endocrinology of Desire

## Effects of Sex Steroid Hormones in the Brain



# How Does Cancer Treatment Affect Sex?

*Surgery*

*Radiation*

**Answer:**

In almost every way!

*Chemotherapy*

*Medication*

# Treatment Side Effects

- Surgery:
  - Body image
  - Bowel changes
  - ROM issues
  - Menopause
  - Pain
  - Changes in vaginal size/sensitivity



# Treatment Specific Side Effects

- Chemo/Hormone therapy:
  - Irregular menses
  - Early menopause
  - Hot flashes
  - Insomnia
  - Irritability
  - Depression
  - Vaginal dryness
  - Painful intercourse
  - Infertility
  - Decreased libido

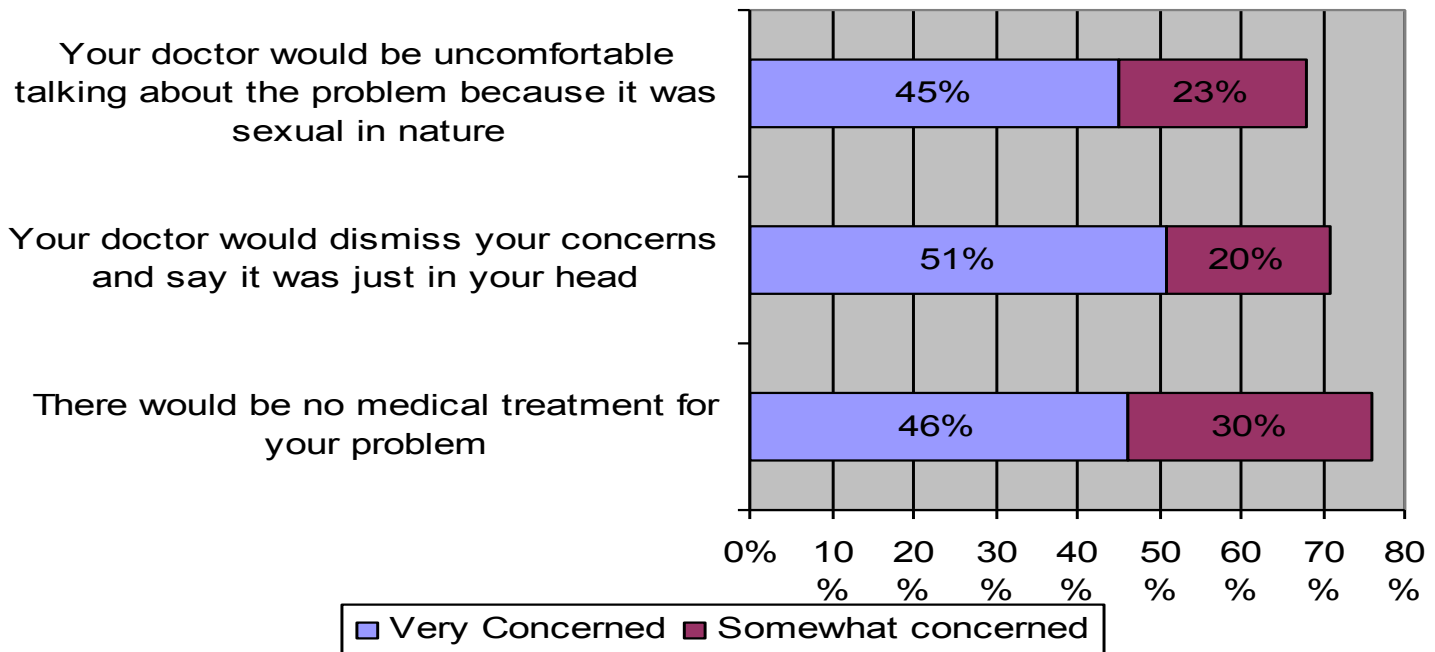
## Treatment Side Effects: Cont

– Radiation/ brachytherapy:

- Pelvic fibrosis
- Vaginal atrophy/stenosis
- Scarring
- Decreased lubrication
- Urinary effects
- Erythema
- Edema
- Ulceration
- Decreased elasticity
- Shortening, and increased irritation of vagina

# Talking to Your Provider

**If you wanted to talk to your doctor about a sexual problem, how concerned would you be that --- might happen?**



Marwick, C Survey says patients expect little physician help on sex.  
*JAMA* 1999;281:2173-2174.

# Patients, physicians, and asking about sex

- 25% of primary care physicians take a sex history (Jonassen, et al 2002)
- 75% patients believe that their physicians would dismiss their sexual health concerns or embarrass the physician (Marwick 1999)
- Over 90% of patients believe it is physician's role to address sexual health concerns and are grateful when this happens (Ende, et al 1984)

# What are some of the Symptoms and Treatment Options?

- **Dryness**
- **Genitourinary Syndrome of Menopause**
- **Muscular Pain**
- **Neurologic Pain**
- **Low Desire**
- **Partner and Relationship Issues**

# Treatment of local dryness

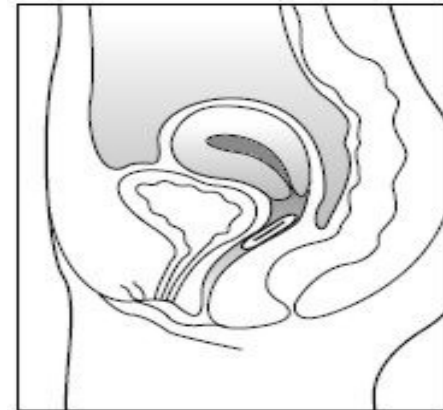
- **Moisturizers**
  - Replens-best studied
  - Rephresh
  - Vagisil
  - Feminase
  - Luvena
  - Hyaluronic Acid
- **Lubricants**
  - Water based: K-Y, Astroglide, Liquid Silk: not all the same
  - Silicone Based: Pink, Pjur Eros, K-Y
- **Oil Based**
  - Elegance Women's
  - Olive Oil
  - Coconut Oil

# Dryness Treatments continued

- **Genitourinary Syndrome of Menopause (GSM)**
  - Related to decreased hormone levels/blood flow
- **Vaginal Estrogens**
  - Creams: use 2-3x week
  - Causes elevated systemic estrogen (highest in first 3-4 mos)
    - Usually avoid in hormone receptor positive cancer
- **Data does not support recurrence of hormone responsive endometrial cancer with local estrogen**

## GSM continued

- **Alternative forms of hormones**
  - E-string: silicone ring, slow release of local estrogen over three months



- Vagifem/Yuvafem: tablet inserted at night, QD for 2 weeks, then biweekly
- Risk is thought to be low for breast cancer pts based on lowest absorption
- Don't confuse with Femring (a hormone replacement therapy)!



# Newest Local Treatment

- **Vaginal DHEA**
  - dehydroepiandrosterone (DHEA; EndoCeutics)
  - Endogenously adrenal makes most
  - DHEA then can be turned into T and E which helps both locally and systemic
  - Does Vaginal DHEA increase systemic hormones?
    - Data so far is very reassuring
    - All levels stay within postmenopausal range
    - No concern for endometrial proliferation

Martel C, et al. J Steroid Biochem Mol Biol. 2016 May;159:142-53

D.J. Portman, et al Menopause, 22 (12) (2015), pp. 1289–1295

Barton et al J Clin Oncol 32:5s, 2014

## More than GSM: Radiation induced stenosis

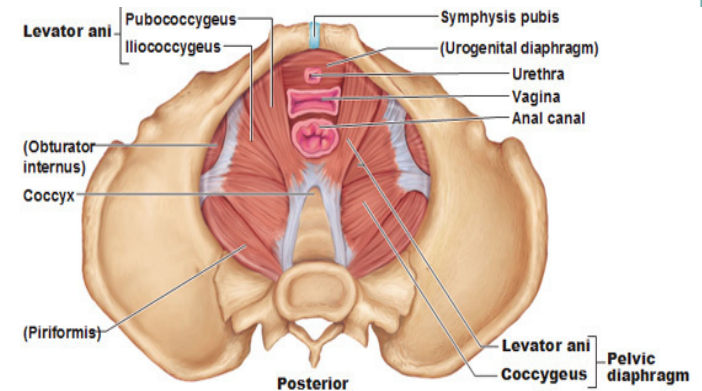
- Radiation for cervical and endometrial cancers, or to the pelvic region: risk for fibrosis / stenosis
- Risk increases with brachytherapy
- Decreased blood supply leads to dry, tender, less elastic tissue that may close off vagina

# Options to help treat and prevent stenosis

- Women who are sexually active should be encouraged to remain active prior to treatment and as early as 4 weeks after
- Vaginal dilator with or without estrogen cream used 3 times a week
  - Start 4-6 weeks after radiation ends\*
- **Dilators can be daunting but remember you can start small and increase size of dilator**
  - Try to make it a pleasurable activity



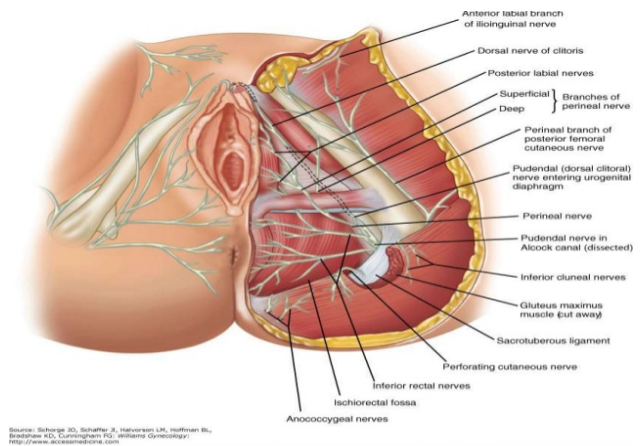
# Treatments for Muscular Pain



- Pain presents as tightness/tension usually but can also present as burning and sharp
- Physical Therapy and manual manipulation
- Low-dose diazepam, 5-mg tablets or compounded in suppositories, inserted vaginally or rectally before physical therapy
  - helps relax pelvic floor muscles to facilitate manual maneuvers
- Targeted injections of trigger points can also relieve pain
  - Hartmann D, Sarton J. Best Pract Res Clin Obstet Gynaecol 2014
  - Coady D, Kennedy V. Obstet Gynec 2016

# Neurologic Pain

- Neurologic sexual pain
  - Neuromata
  - Sites of surgical transection nerves
- Treatment can be with manual physical therapy modalities
- Targeted perineural pudendal/ pelvic nerve injections, using an anesthetic and corticosteroid, may provide permanent relief
- Dellon AL, Coady D, Harris D. J Reconstr Microsurg 2015



## More on Nerve Pain

- Most neuropathic medications don't have very good efficacy
  - Opioid pain relievers do not relieve neuropathic pain and should be avoided
  - Topical medications, including lidocaine, gabapentin, and amitriptyline, applied locally to the vulva or other painful sites benefit some women and avoid systemic side effects.
  - Alternative therapies such as exercise, mindfulness and omega-3 do have evidence to support use
- Coady D, Kennedy V. Obstet Gynec 2016

# Other Interventions for Women

- Devices and toys
  - Very helpful for self stimulation
- Special creams containing L-arginine (dilates blood vessels) & menthol applied to clitoris to increase blood flow
- Lasers therapy?
  - Evidence based on small studies, no sham, no randomization
  - Safety established but not efficacy

# What About Desire?

- **Low desire is the #1 complaint across all women**
- **Desire relates to a complex interplay between chemicals in the brain and response from the genitals**
- **There is well established evidence that desire is lower in women who have been treated for cancer**
- **There is only one approved medication to treat low desire**



## **Flibanserin: not the “female viagra”**

- **5HT1A agonist and 5HT2A antagonist**
- **Increased dopamine and norepinephrine**
- **Initially developed as an antidepressant**
- **Has been shown in numerous studies to improve sexual desire and number of satisfying sexual events**
- **Controversy over significance of the benefits**
  - **Measurements in SSE or subjective desire**

## More options for Low Desire

- **Physical Activity**
  - #1 predictor of desire if physical wellbeing
- **Evidence for other medications (all off label)**
  - Testosterone
  - Bupropion (NDRI)
  - Bupirone (5HTA1 partial agonist) →
  - Oxytocine → No/poor data on HSDD
  - Bremelanotide: phase three trials

## Mental Health Professionals

- Trained in counseling techniques
- Usually in outpatient settings or part of 'hospital team'
- Must pursue extensive training to become 'certified sex therapist' and be licensed in their professional field
- Must maintain their certification through ongoing training
- [aasect.org](http://aasect.org)

## A Note on Partners Care

- **Increased relationship stress impairs arousal, lubrication, orgasm and sexual satisfaction**
  - Speer, JJ, et al., The Breast Journal 2005
- **“...a partner’s emotional involvement was a strong predictor for a woman’s sexual, marital and emotional adjustment after breast cancer”**
  - Wimberly et al, 2005 quoted in Huber, C. et al, Oncology Nursing Forum 2006

## ***More Resources***

- [\*\*http://www.cancersexnetwork.org/\*\*](http://www.cancersexnetwork.org/)
- [\*\*https://www.nccn.org/patients/resources/survivorship/sexual\\_health.aspx\*\*](https://www.nccn.org/patients/resources/survivorship/sexual_health.aspx)
- [\*\*Sex Matters for Women\*\*](#) by Sallie Foley, MSW, Sally Kope, MSW, and Dennis Sugrue, PhD
- [\*\*Sexuality and Fertility after Cancer\*\*](#) by Leslie Schover, PhD
- [\*\*Sexy Ever After: Intimacy Post-Cancer\*\*](#) by Keri Peterson, M.D. and Patty Brisben
- [\*\*Woman Cancer Sex\*\*](#) by Anne Katz, R.N., PhD

# Final Note

- ***Sexuality is a part of every person...from before they were born until they die***
- ***Sexuality is a quality of life issue***
- ***Each person has a right to their sexuality***

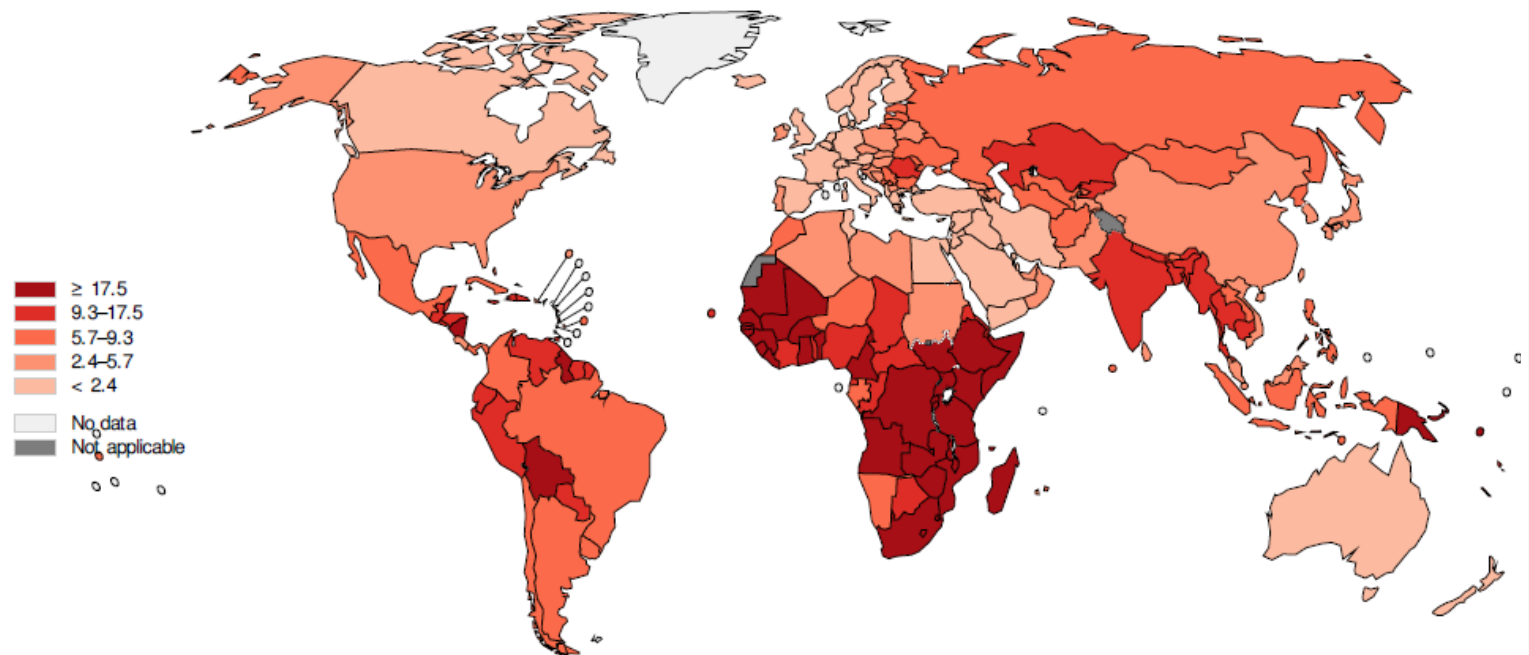


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# Questions???

# Cervical Cancer

Estimated age-standardized rates (World) of deaths, cervical cancer, worldwide in 2012



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Data source: GLOBOCAN 2012  
Map production: IARC  
(<http://gco.iarc.fr/today>)  
World Health Organization

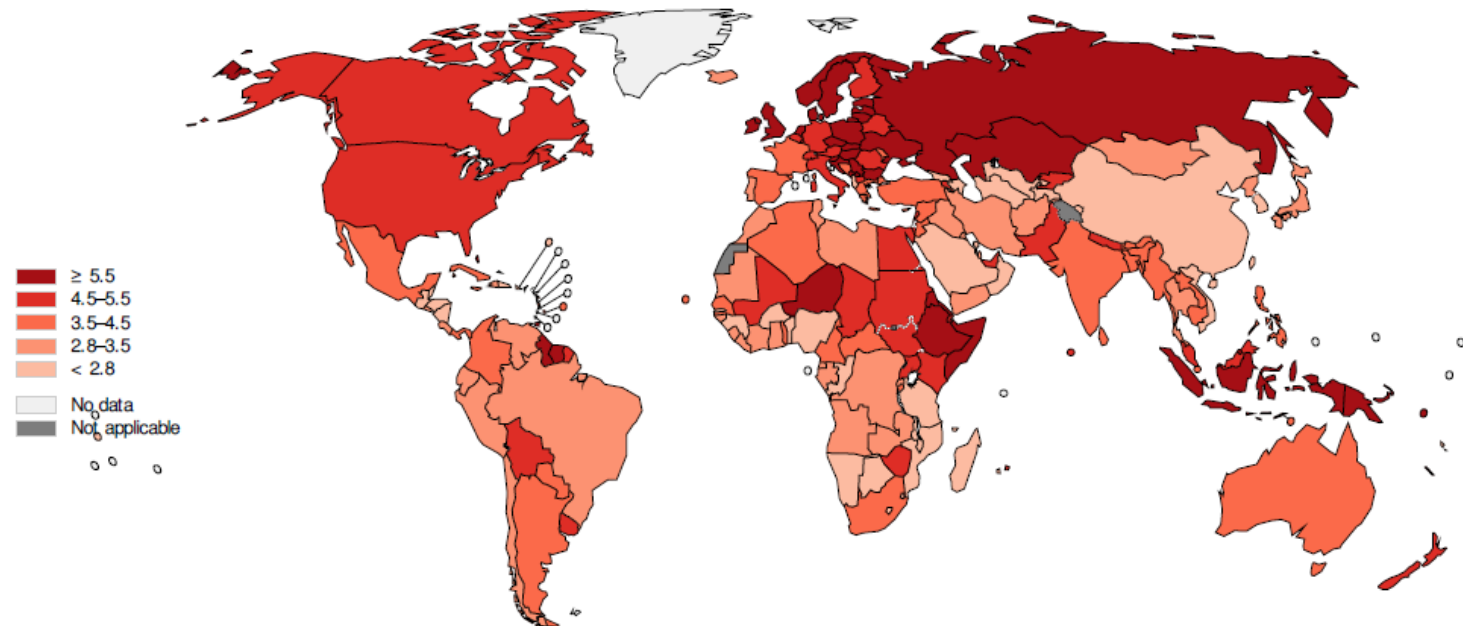


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# Ovarian Cancer

Estimated age-standardized rates (World) of deaths, ovarian cancer, worldwide in 2012



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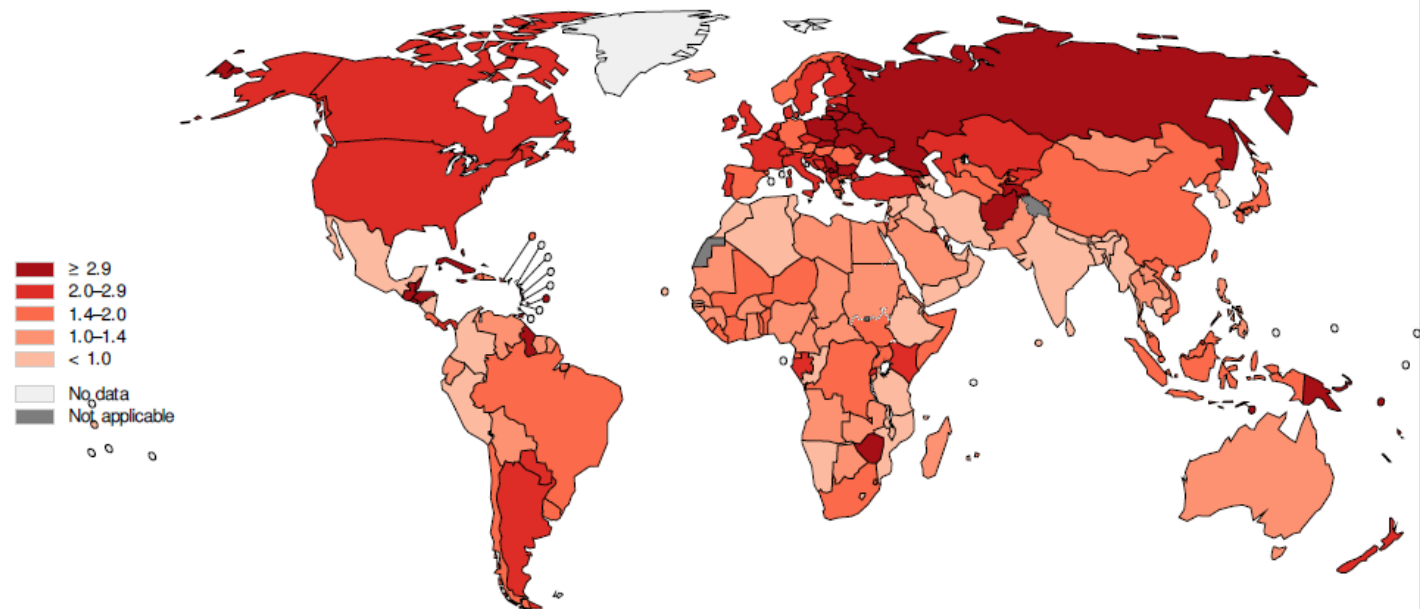
Data source: GLOBOCAN 2012  
Map production: IARC  
(<http://gco.iarc.fr/today>)  
World Health Organization



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# Uterine Cancer

Estimated age-standardized rates (World) of deaths, corpus uteri cancer, worldwide in 2012



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Data source: GLOBOCAN 2012  
Map production: IARC  
(<http://gco.iarc.fr/today>)  
World Health Organization



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# Feedback

- **Why did you sign up for Mini Medical School?**
- **What was the most interesting thing you learned in the past 6 weeks?**
- **What should we have covered that we missed?**
- **How can we improve awareness for gynecologic cancers?**

# Thank you!



September is Gynecologic Cancer Awareness Month