

# MULTIPLE SCLEROSIS AND SEXUAL HEALTH

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# Disclosures

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- Professional Education Services Group staff have no financial interest or relationships to disclose

# Learning Objectives

- Appreciate the impact of sexual dysfunction on individuals with MS
- Learn about the multifactorial nature of sexual dysfunction
- Understand the multifaceted treatment approaches to sexual dysfunction

# Obtaining CME Credit

- If you would like to receive CME credit for this activity, please visit [www.pesgce.com/PVAsummit2011](http://www.pesgce.com/PVAsummit2011)
- This information can also be found in the Summit 2011 Program on page 8

# Sexual Dysfunction in MS

- **Frequency** M 78 – 91%  
F 45 – 72%
- **Causes** Brain, Cord, Drugs, Comorbidities  
Insomnia, Mood Disorders, Stress  
Partner Relations, Pain
- **Features** Erections/Lubrication, Ejaculation,  
Orgasm, Libido
- **Players** Patient, Partner, Nurses, Physicians,  
Psychologists, PT/OT

# 2002 WHO Definition of Sexual Health

- State of physical, emotional, mental & social well-being
- In relation to sexuality, it is not merely the absence of disease, dysfunction, or infirmity
- Sexual health requires a positive & respectful approach to sexuality & sexual relationships, as well as the possibility of having pleasurable & safe sexual experiences, free of coercion, discrimination, and violence

# Sexual Dysfunction

**Sexual Health** Part of General Health & Well-Being

**Sexual Issues** can often be treated & must be treated

**Parallel linked Components** Emotions, Libido, Erection, Lubrication, Ejaculation, Orgasm

**Intimacy** not just about Sex

**Libido** sensitive to Mood, Stress, Depression, Drugs

**Orgasm** Learned Reflex in which Brain interprets multiple separate Events as pleasurable

**Life before Illness** influences Life after Illness, e.g. Body Image, ability to express Emotions

# Common Concerns

- Urinary & Bowel Accidents
- Not satisfying a Partner
- Being considered unattractive
- Inadequate personal Satisfaction
- Preparation too much Trouble
- Hurting oneself
  - Pain, Spasms
  - Mucosal & Skin Breakdown
- Loss of Interest
- Disliking Method of Satisfaction
- Partner as Lover & Caregiver
- Where do you have Sex in a NH?

# Male Sexual Dysfunction

- Hypo & Hyper-libidinisism
- Fatigue
- Spasticity & Spasms
- Erectile Dysfunction
- Ejaculatory Disorders
- Premature Ejaculation
- Anorgasmia

# Female Sexual Dysfunction

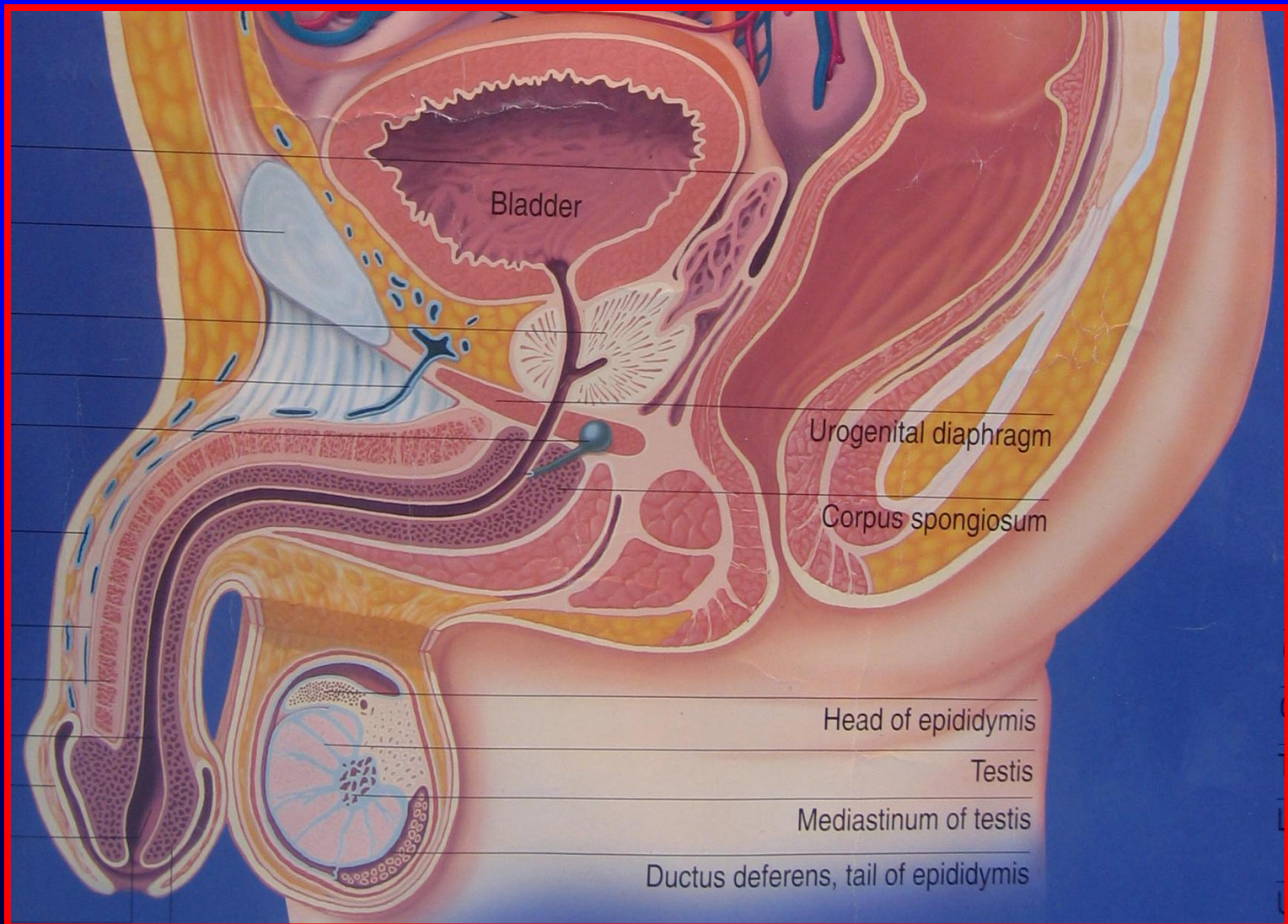
- Hypo & Hyper-libidinism
- Fatigue
- Spasticity & Spasms
- Hypoactive Sexual Desire Disorder
- Sexual Aversion Disorder
- Sexual Arousal Disorder
- Orgasmic Disorder
- Sexual Pain Disorders
  - Dyspareunia
  - Vulvar Vestibulitis
  - Vulvodynia
  - Vaginismus



# Causes of Sexual Dysfunction

- **Psychological & Relational Issues**
  - **Chronic Illness can lead to Depression, Anger & Insecurity, an obvious Impediment to social & intimate Relations.**
  - **Good Communication & often Counseling are crucial.**
- **Drugs, Medications**
  - **Abuse** EtOH & other
  - **Hormones** Prostate Enlargement, Cancer
  - **HTN/Heart** Diuretics, Digoxin, Ca<sup>2+</sup>,  $\alpha$  &  $\beta$  Channel Blockers
  - **Drugs** Anxiety, Depression, Hallucinations, Seizures
  - **Drugs** nasal Congestion, Cholesterol, Ulcers, Pain

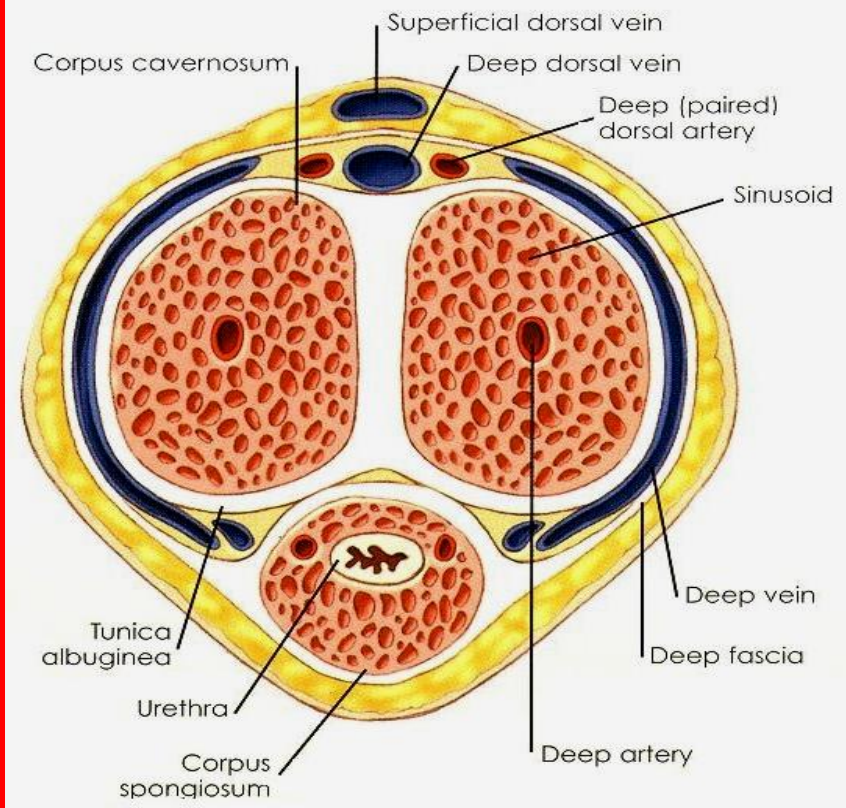
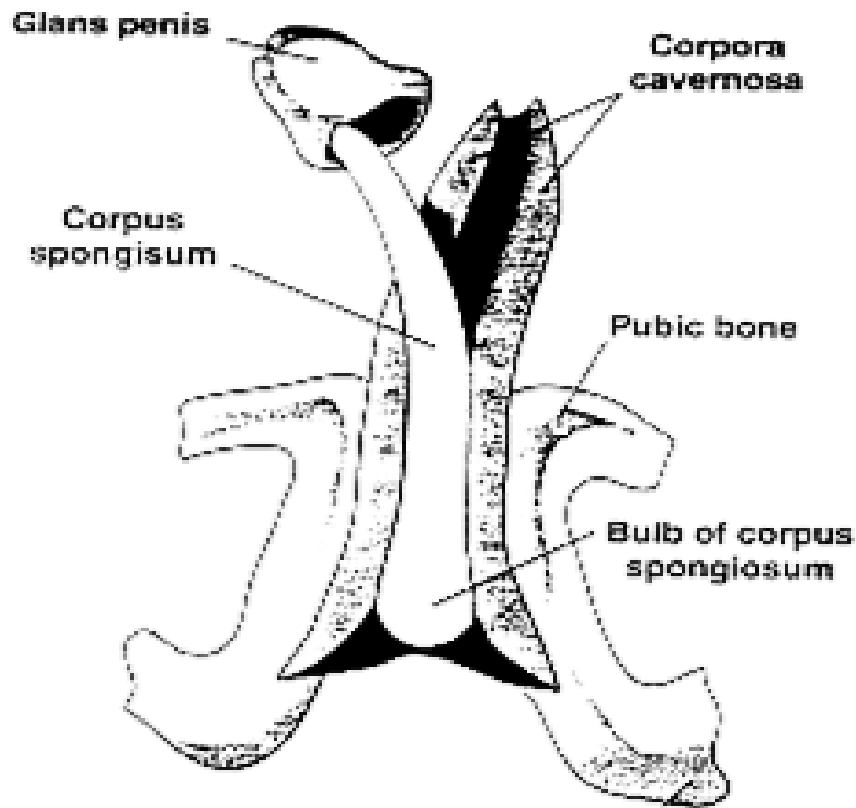
# Male Anatomy



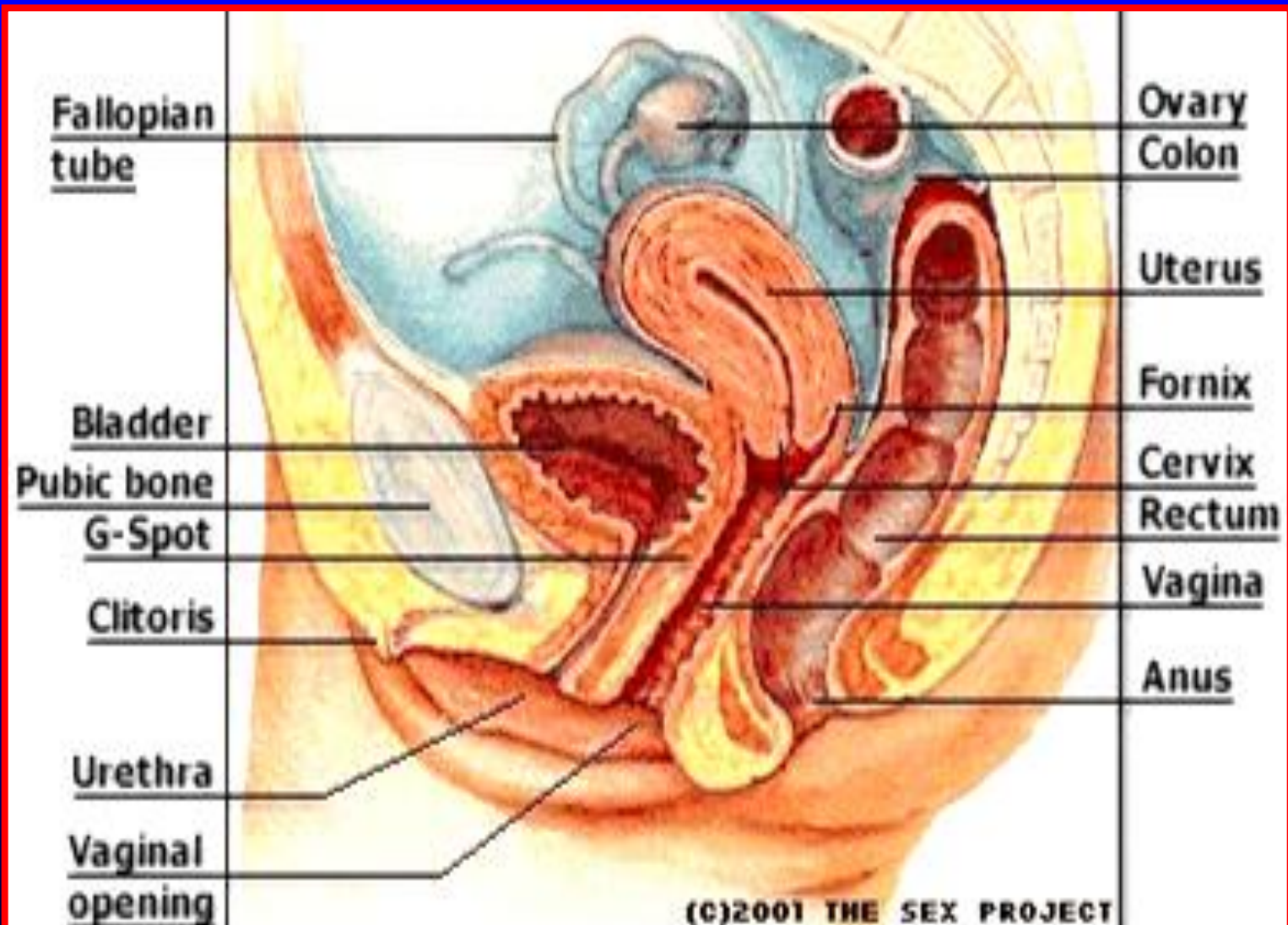
# Male Anatomy

2 Chambers, Corpora Cavernosa: This spongy Tissue contains smooth Muscle, fibrous Material, Spaces, Veins & Arteries. A tough Membrane, Tunica Albuginea, surrounds them.

The Corpus Spongiosum at the Underside of the Penis surrounds the Urethra.



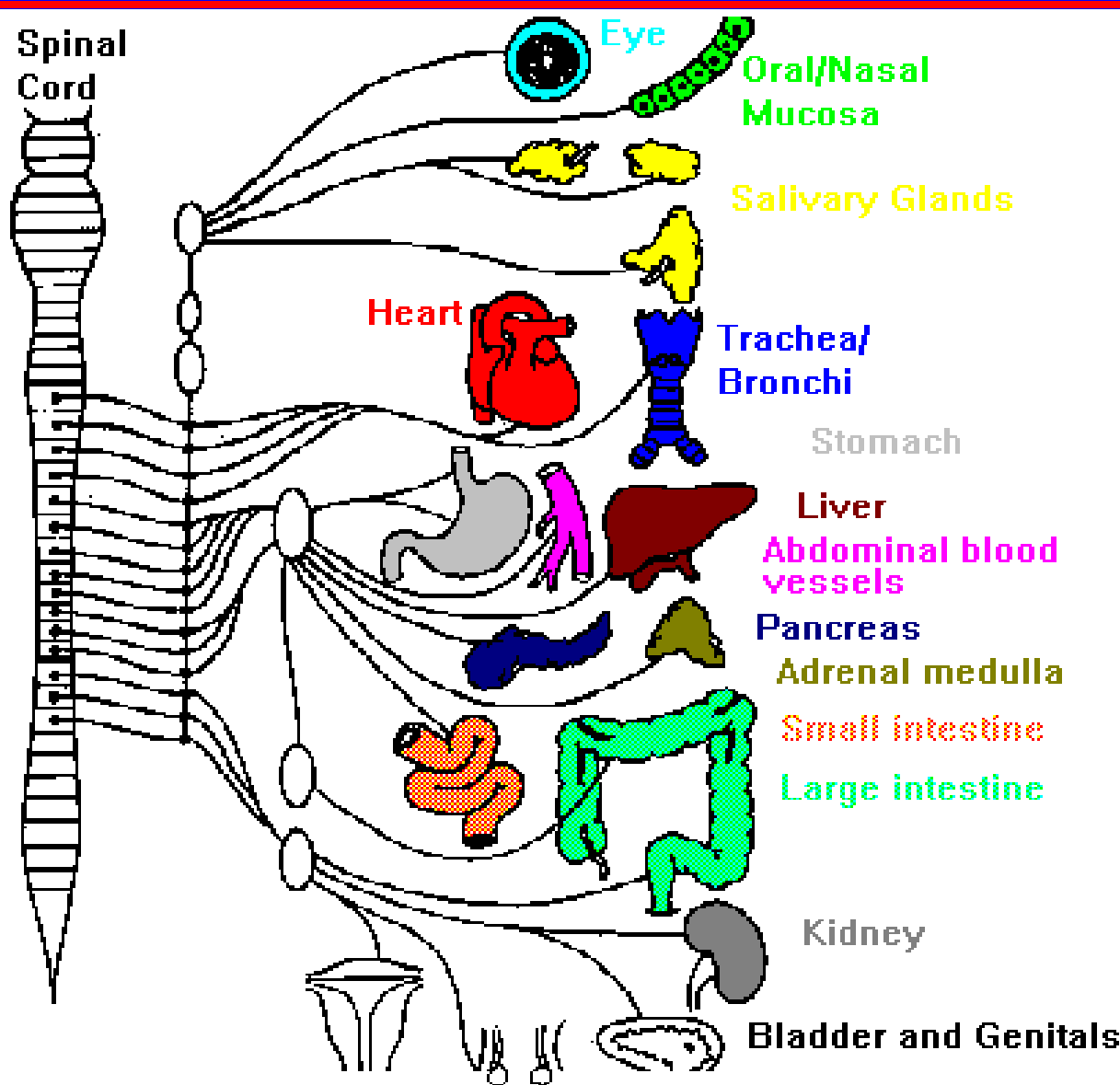
# Female Anatomy



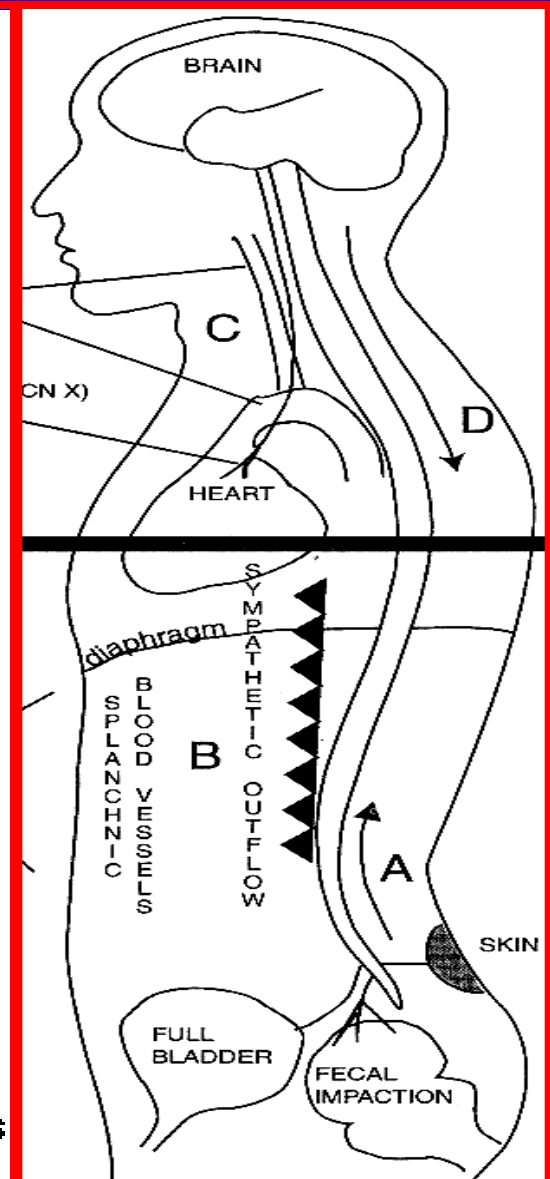
(C)2001 THE SEX PROJECT

# Sexual Function – Innervation

Sympathetic




Parasympathetic



# Sexual Physiology

- Interaction** Hormonal, vascular, neural (Brain+Cord), neurochemical Functions
- Components** Begins with **mental** or **sensory** Stimulation  
**Psychogenic (Smells, Sounds, Sights, Thoughts),**  
**sympathetic:** Brain → T10 – L2 → hypogastric/pudendal N.  
**Reflex, parasympathetic, involuntary, asexual:**  
Stimulation of genital & other erogenous Areas, Bladder activate pelvic/pudendal N. → S2 – 4 Fibers.  
(Genital–Brain Pathway via CN X)
- Result**
- Increased Heart & respiratory Rate & Blood Pressure
  - **8x ↑ Blood into Corpora Cavernosa, venous Compression:**  
→ **Tumescence & Erection**
  - **Emission: T10–L2 Stimulation of Vas deferens & seminal Vessels**
  - **Ejaculation: S2–4 Contraction of pelvic Floor Muscles**
  - **Vaginal Vasocongestion, Lubrication, labial+clitoral Enlargement**
  - **T10–L2 Stimulation of Bartholin Glands**
  - **S2 – 4 Contraction of uterine, vaginal & pelvic Floor Muscles**
- Orgasm** Learned Reflex in which Brain interprets multiple separate Events as pleasurable, followed by Relaxation

# Sexual Dysfunction: Outcomes



<b>MS Plaques</b>	impairs psychogenic Pathways to & from Brain, but often not the reflexogenic Mechanisms
<b>Libido</b>	May be affected directly by MS Plaques and indirectly by Stress, Depression, Meds
<b>SCI &gt;T6</b>	NI or enhanced Reflex, ↓ psychogenic Response
<b>SCI S2-4</b>	NI psychogenic, ↓ Reflex Response
<b>Outcomes</b>	<ul style="list-style-type: none"><li>- Complete vs. incomplete</li><li>- unable to achieve any sexual Responses</li><li>- Response possible, but inadequate for Intercourse</li><li>- Response further impaired by Medications &amp; other medical Conditions</li><li>- When Ejaculation occurs, it may be retrograde or Propulsion via Penis may be disrupted.</li></ul>

# Evaluation

- **Medical and Sexual History**
- **Physical Examination**
  - **Secondary sexual Characteristics**
  - **Check for genital Abnormalities**
  - **Check Groin and peripheral Pulses**
- **Lab Tests**
  - **Sex Hormones, HgA1c, Lipids**
- **Psychological Evaluation**

# Sexual Dysfunction: Treatment

- **Problem with Bladder Function**  
Drink less before Sex  
Intermittent Catheterization before Sex  
Tape Foley to Thigh/Belly, or remove
- **Problem with Bowel Function**  
Timed Bowel Program  
Eat less, avoid Caffeine before Sex
- **Problems with Sensation**  
Vibrators, Masturbation,  
Sensate Focus, Pleasure Mapping
- **Problems with Desire & Arousal**  
Estrogen, Testosterone, PDE 5 Inhibitors  
Lubricants, Dopamine Agonists
- **Problems with Orgasm & Satisfaction**  
Education, Communication, Exploration.  
Visual/manual Stimulation & Vibrators.  
If Medication Effect, consider Alternatives
- **Spasms & Spasticity**  
Muscle Relaxants & Physical Therapy

# Sexual Dysfunction: Treatment

## Hormone Therapy

Hormonal Abnormalities are rare Causes.  
But low Testosterone can result in ED.

**Success** Increased Libido, but  
ED improved only in 50%

**Risk** May increase Risk of benign  
& malignant Prostate Growth

**Cost** 200mg im q2–3 wk ~\$ 20/mo  
Andro-Gel/-Derm ~\$200/mo

# Sexual Dysfunction: Treatment

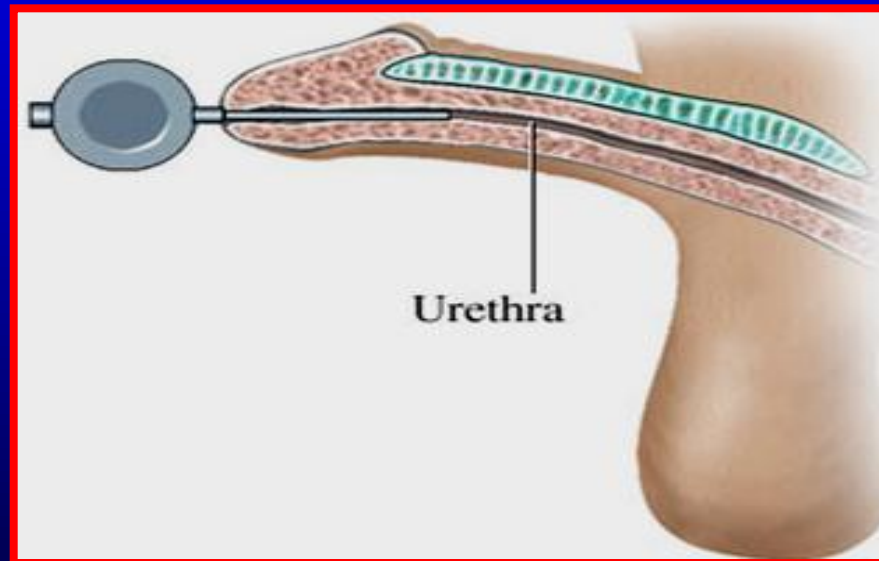
**MUSE: Medicated Urethral System for Erection**

Aprostadi Pellet (3 mm) is placed in Urethra.  
Drug absorption into Tissue causes Arteries to widen & Tissue to engorge. Erection in 10 min.  
Dose 125, 250, 500, 1000 mcg. Lasts 30-60 min.  
Max: 2x/Day

**Success** 40%

**Risk** Infection  
Burning  
Fainting

**Cost** \$17 - 25



# Sexual Dysfunction: Treatment

## Penile Injections

Papaverin 7-60mg, Prostaglandin E 2-40mcg, Aprostadil 1-60mcg,  
Pap+Phen, Pap+Phen+Prost,  
VIP, Moxysylate 10-30mg,  
Erection starts in 15 min,  
lasts >60 min. 1x/week

**Success** >85%

**Risk** Priapism, Scarring,  
Tingling, Infection,  
Seizures, Pain, ↓ BP  
→ **Use minimal Dose!**

**Cost** \$15 - 25/Injection



# Sexual Dysfunction: Treatment

Vacuum Pump  
Manual or Battery

Blood is drawn to Penis by Vacuum resulting in Erection.

Success

Maintained by Constriction Ring  
~90% in SCI with Perseverance

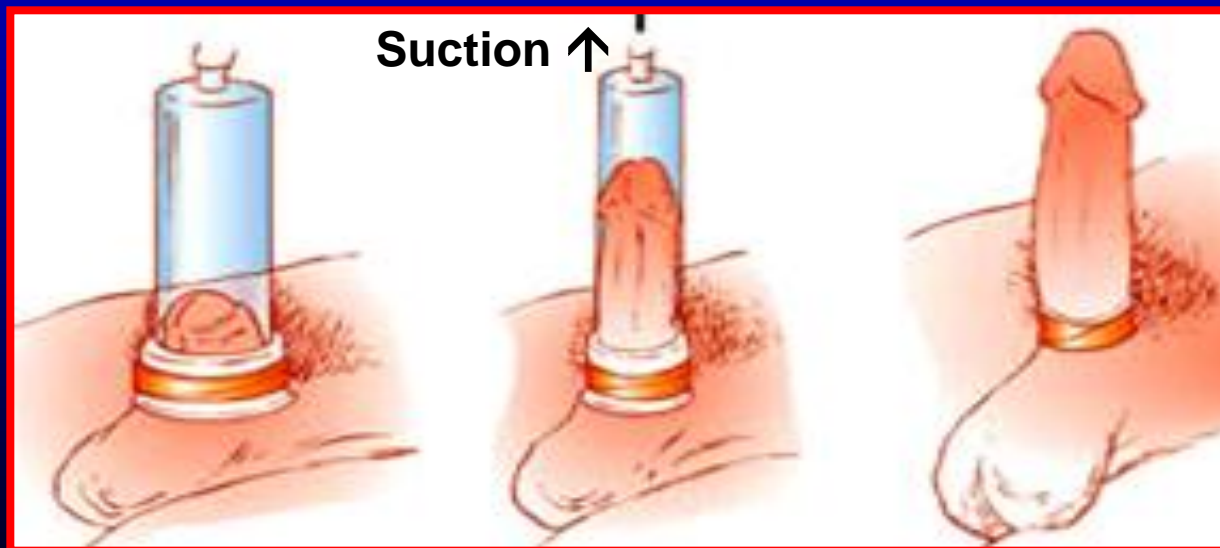
Disadvantage

Blood Clots, Petechiae, cold Penis,  
Skin Damage, Pivoting

Set Alarm Clock!

Cost

\$100 - 400



# Sexual Dysfunction: Treatment

**Constriction Rings** When Erection can be reached,  
but not maintained

**Risk** Blood Clots, Petechiae,  
Pivoting, Skin Damage  
**Set Alarm Clock!**

# Sexual Dysfunction: Treatment

## Oral Drugs (PDE 5 Inhibitors)

Cialis	(Tadalafil)	5, 10, 20 mg
Viagra	(Sildenafil)	25, 50, 100 mg
Levitra	(Vardenafil)	2.5, 5, 10, 20 mg

**Mechanism** - Blocks Enzyme that inactivates Chemical which  $\uparrow$  Blood Flow  
- Hypophysial Oxytocin Release (may affect arousability)

**Success** ED in general 75 - 80%  
SCI T6 - L5 65 - 75%  
Prostate Surgery 40%  
Psychological Problems >90%

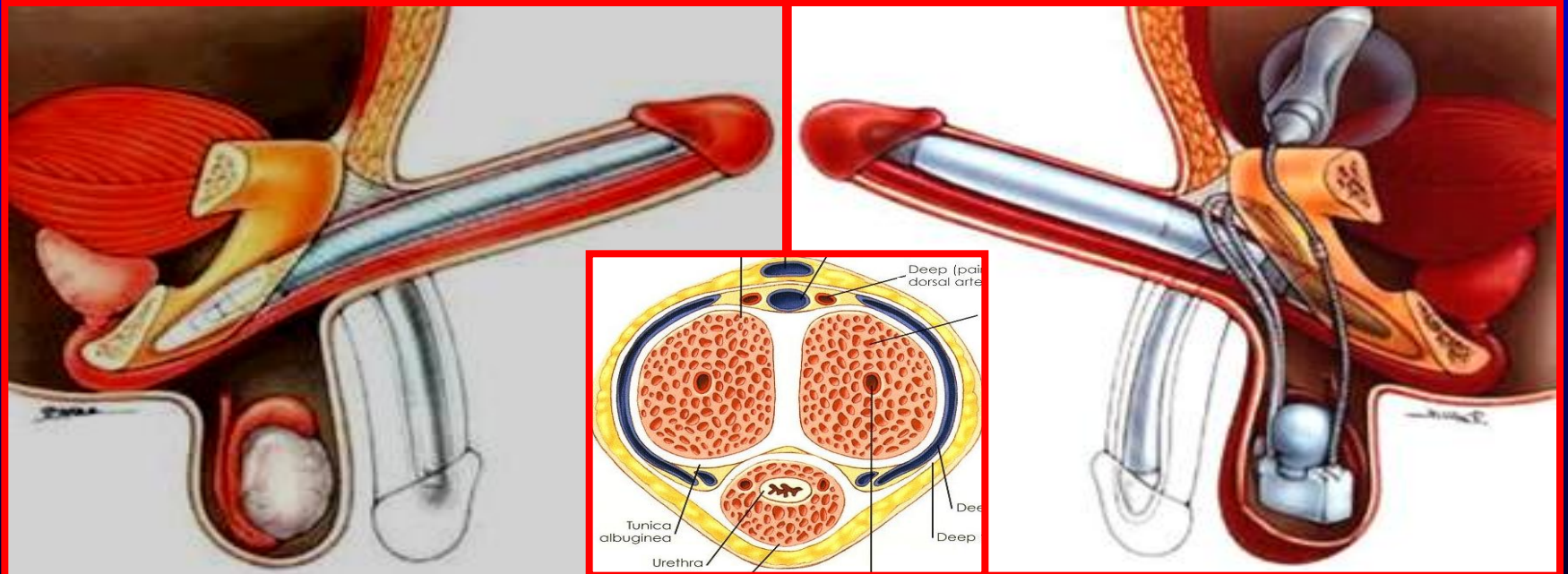
**Onset** 0.5 - 4 (Viagra) or - 36 (Cialis) Hrs  
Sexual Stimulation needed

**Cost** \$10/Tablet

**Risk** CAD, Vision, Headache, Flushing, BP, Nausea, Nitrates,  $\alpha$ -Blockers  
 $\rightarrow$  Minimal effective Dose

# Sexual Dysfunction: Treatment

<b>Penis</b>	Rigid, malleable or inflatable
<b>Implants</b>	If other Options fail!
<b>Satisfaction</b>	>95%
<b>Risk</b>	mechanical Failure, Sores, Scars, Erosion, Infection
<b>Cost</b>	\$13,000



# Sexual Dysfunction: Treatment

## Eros Clitoral Therapy Device

Small handheld Device with soft Silicon Cup attached to Battery Compartment. When turned on & with the cup placed over the clitoris, it exerts gentle suction causing increased Blood Flow. This stimulates clitoral Nerves & facilitates Arousal, Sensitivity, Lubrication & Orgasm.

Cost                      \$350



# Treatment of Male Infertility

## “Assisted” Ejaculation (Masturbation)

- Extraction via Incision/Needle from Testicle, Epididymis, Vas deferens
- Rectal Probe Ejaculation (RPE)
- Penile Vibratory Stimulation (PVS)

## Success/ Cost of PVS

30-40% low Amp, 55-85% high Amp  
60-80%  $\geq$ T10, better Sperm than RPE  
\$40-100 low Amp, \$400 high Amp

## Risk

- Retrograde Ejaculation into Bladder (PVS < RPE). → Catheter Retrieval
- Autonomic Dysreflexia ( $\geq$ T6): Chills, Sweating, high BP. → Meds, Bladder
- Pain, Muscle Contractions (RPS)
- Irritation, Swelling, Bleeding (PVS)

# Treatment of Male Infertility

**Freezing Sperm:** not recommended - 50% die

**Intrauterine Insemination:**

Sperm injected into Uterus via Tube. Cost \$700

**In vitro Fertilization:** Eggs & Sperms retrieved mixed, incubated x 2 D for Fertilization, injected thru Catheter via Vagina into Uterus. Cost \$9,000

**Gamete intrafallopian Transfer:** Sperm & Egg retrieved, placed into fallopian Tubes. Cost \$11000

**Intracytoplasmic Sperm Injection:** Few Sperm needed; injected into surgically obtained Egg, which is then placed into Uterus. Cost \$13,000

**Motility:** ↓ fast, → Sperm must be handled quickly

# SCI: Female Fertility

Women with MS can engage in **sexual Activity**, have Children, & need to consider Contraception

Disease modifying Drugs are contraindicated in Pregnancy

Pregnancy is a highly effective immunomodulatory State

After Childbirth the Likelihood of Relapse is high, possibly modified by Breast Feeding

**Contraception:** Hormonal Methods may cause DVT. Diaphragms, cervical Cap, Sponge ↓safe due to ↓feeling

Before getting pregnant, Women should chose an Obgyn and a **Team** with a Neurologist, Urologist, Physiatriist, Anesthesiologist, Respiratory Therapist, OT, PT, RN

This Team can deal with **possible Issues** including: Exacerbations, Changes in Bowel Habits, Spasms, UTI, Pressure Sores from Weight & Posture Changes, respiratory Problems, Leg Edema, Muscle Spasms, DVTs, Autonomic Dysreflexia, Breast Feeding.

# Key Points & Outlook

Evaluation & Treatment take **Time**,  
involve **both Partners** & a Treatment Team.  
May require Changes in Life Style, Medications.  
A Trial & Error Approach is warranted.

Every Person with MS and every Couple are  
different: The Approach must be custom-tailored.

Successful Outcome depends on Openness,  
Trust and Communication between Partners.

**Providers must be comfortable discussing Sex.**

Sexual **Pleasure comes in all Shapes** & Forms.  
Satisfaction may not require an Orgasm.

**Sex is Exercise:** Don't ignore Heart Disease.

And lastly: **Safe Sex must be practiced.**



**Robert Doisneau, The Kiss at City Hall, 1950**



**Gustav Klimt, The Kiss, 1907**