

MULTIMORBIDITIES AND SEXUAL DYSFUNCTIONS –THE LINKS

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DISCLOSURES

- ADVISORY BOARD-Bayer ,Lilly ,
- Speaker engagements - Bayer ,Lilly .Sanofi
Aventis ,Himalaya pharma ,Pfizer
pharmaceuticals,Jannsen ,Astra Zeneca

MULTIMORBIDITY

- Multimorbidity may be defined as the simultaneous occurrence of several medical conditions in the same person (1)
 - The prevalence of having 2 or more medical conditions in the 18- to 44-year, 45- to 64-year, and 65-year and older age-groups was, respectively, 68%, 95%, and 99% among women and 72%, 89%, and 97% among men (2)
 - “Neuropsychiatric disorders” (NPS), “Cardiovascular and metabolic disorders” (CMD), and “Anxiety, depression, somatoform disorders and pain”
-
- van den Akker M, Buntinx F, Roos S, Knottnerus JA. Comorbidity or multimorbidity: what’s in a name? A review of the literature. *Eur J Gen Pract.* 1996;2:65–70
 - *Ann Fam Med.* 2005 May; 3(3): 223–228
 - *BMC Geriatrics* 2014, **14**:70

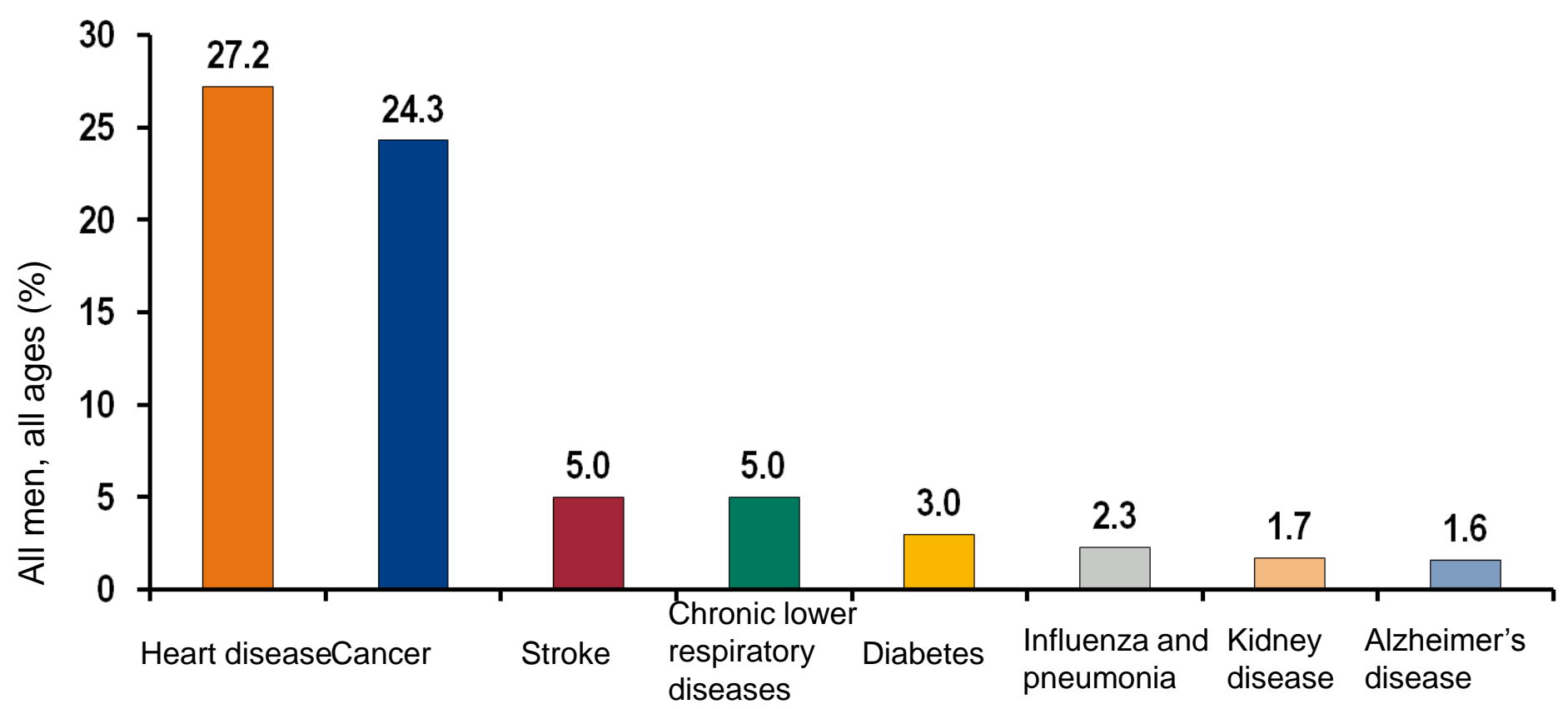
3FOUR50

3 RISK FACTORS - TOBACCO USE, POOR DIET AND LACK OF PHYSICAL ACTIVITY

FOUR MAJOR CHRONIC DISEASE - HEART DISEASE, DIABETES, LUNG DISEASE AND CANCERS

50 PERCENT OF DEATHS IN THE WORLD

Heart disease: a leading cause of mortality among men in the United States in 2004

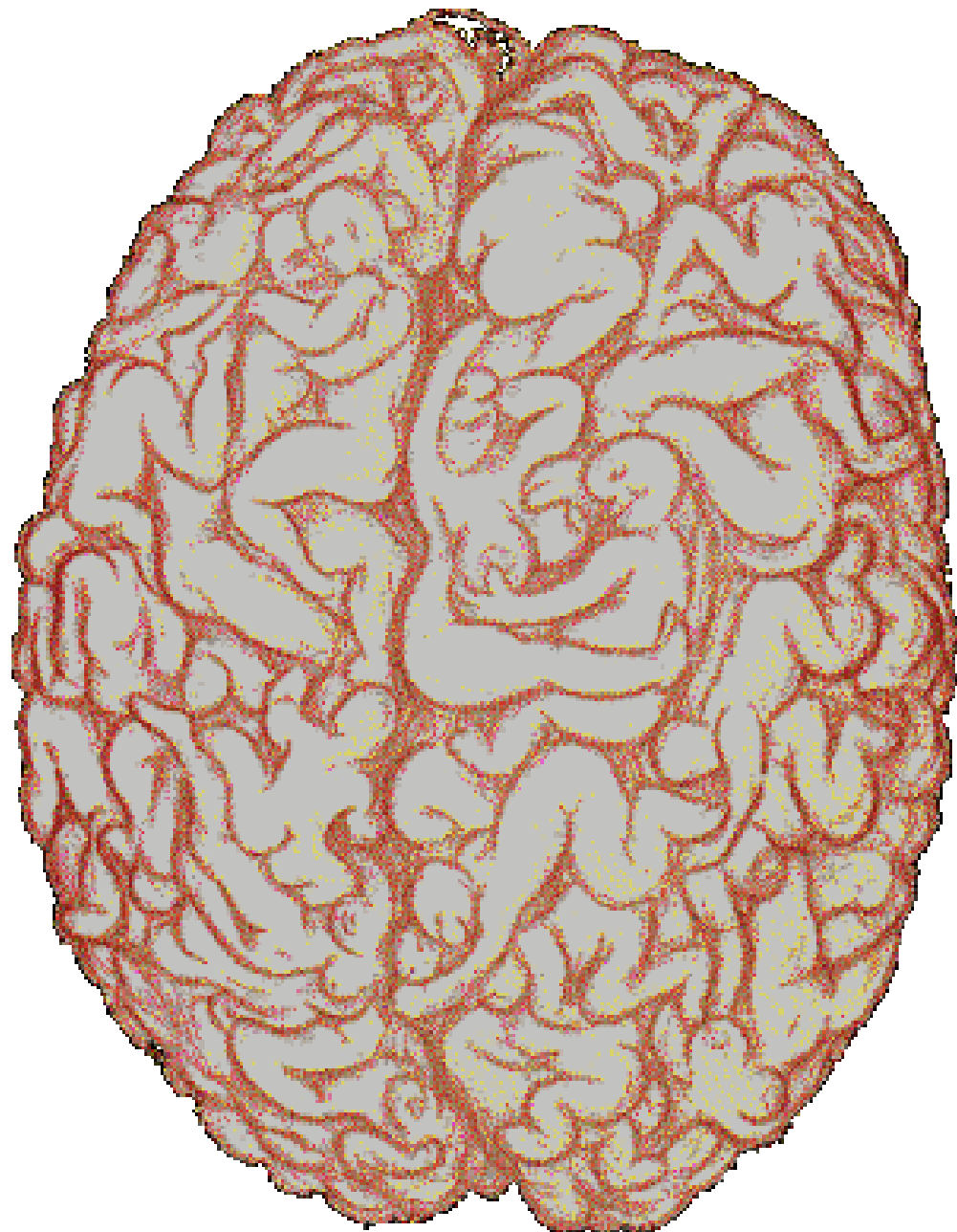


Centers for Disease Control and Prevention 2007. <http://www.cdc.gov/men/lcod/index.htm>

Years of Life Lost in Thousands (% of total)	1990 Rank	Disorder	2010 Rank	Disorder	Years of Life Lost in Thousands (% of total)	Percent Change
1413 (12.2%)	1	Diarrheal diseases	1	HIV/AIDS	11,201 (47%)	4923
1083 (9.3%)	2	Lower respiratory infections	2	Diarrheal diseases	1,138 (4.9%)	-19
692 (6.0%)	3	Interpersonal violence	3	Interpersonal violence	1,018 (4.4%)	47
668 (5.8%)	4	Tuberculosis	4	Lower respiratory infections	873 (3.7%)	-24
524 (4.5%)	5	Preterm birth difficulties	5	Tuberculosis	760 (3.7%)	14
467 (4.0%)	6	Stroke	6	Stroke	543 (2.3%)	16
367 (3.2%)	7	Ischemic heart disease	7	Preterm birth difficulties	500 (2.1%)	-5
349 (3.0%)	8	Neonatal encephalopathy	8	Diabetes	489 (2.1%)	98
297 (2.6%)	9	Mechanical forces	9	Mechanical forces	393 (1.7%)	32
271 (2.1%)	10	Congenital anomalies	10	Ischemic heart disease	383 (1.6%)	4
247 (1.9%)	11	Diabetes	11	Neonatal encephalopathy	341 (1.5%)	-2
223 (1.9%)	12	HIV/AIDS	12	Road injury	237 (1.0%)	77
216 (1.9%)	13	Measles	13	Hypertensive heart disease	213 (0.9%)	90
203 (1.8%)	14	Protein-energy malnutrition	14	Drug-use disorders	212 (0.9%)	2079
199 (1.7%)	15	Syphilis	15	Chronic kidney disease	211 (0.9%)	138
	21	Road injury	17	Congenital anomalies		
	25	Hypertensive heart disease	31	Syphilis		
	30	Chronic kidney disease	39	Measles		
	67	Drug-use disorders	47	Protein-energy malnutrition		

Figure 3. Causes of Premature Death in 1990 and 2010 in South Africa.

Years of life lost is an estimate of the average number of years that a person would have lived if he or she had not died prematurely. Pink shading indicates infections and neonatal and childhood disorders; yellow shading, violence and injury; and blue shading, noncommunicable diseases. Mechanical forces refers to forms of injury other than interpersonal violence and road injury. Data are from the Institute of Health Metrics and Evaluation.³⁴



WHO Definition of Sexual Health:

Sexual Health is a state of...

- Physical
- Mental
- Social

... well being in relation to sexuality. It requires a POSITIVE and RESPECTFUL approach to sexuality and sexual relationships as well as the possibility of having pleasurable and safe sexual experiences, free of **coercion, discrimination** and **violence**.

Sexual function

- Critical for satisfying and pleasurable human behaviour
- Critical for self worth
- Critical for self importance
- Vital for sharing intimacy with a partner
- Vital for emotional bonding

Female and Male Sexual Dysfunction (DSM-5)

FEMALE

**302.72 Female sexual
Interest/Arousal disorder**

302.73 Female orgasmic disorder

**302.76 Genito-pelvic pain/Penetration
Disorder**

**302.79 Other specified sexual
dysfunction**

302.70 Unspecified sexual dysfunction

**Substance /Medication-induced sexual
dysfunction**

MALE

**302.71 Male hypoactive sexual desire
disorder**

302.72 Erectile disorder

302.74 Delayed ejaculation

302.75 Premature ejaculation

**302.79 Other specified sexual
dysfunction**

**Substance/ Medication- induced sexual
dysfunction**

General factors affecting sexual functioning

- Current sexual status
- Pre-morbid sexual functioning
- Psychosocial aspects of sexuality
 - Psychological status
 - » Anxiety & depression
 - » Identity , sense of worth
 - » Domestic role changes
 - » finances
 - Relationship status

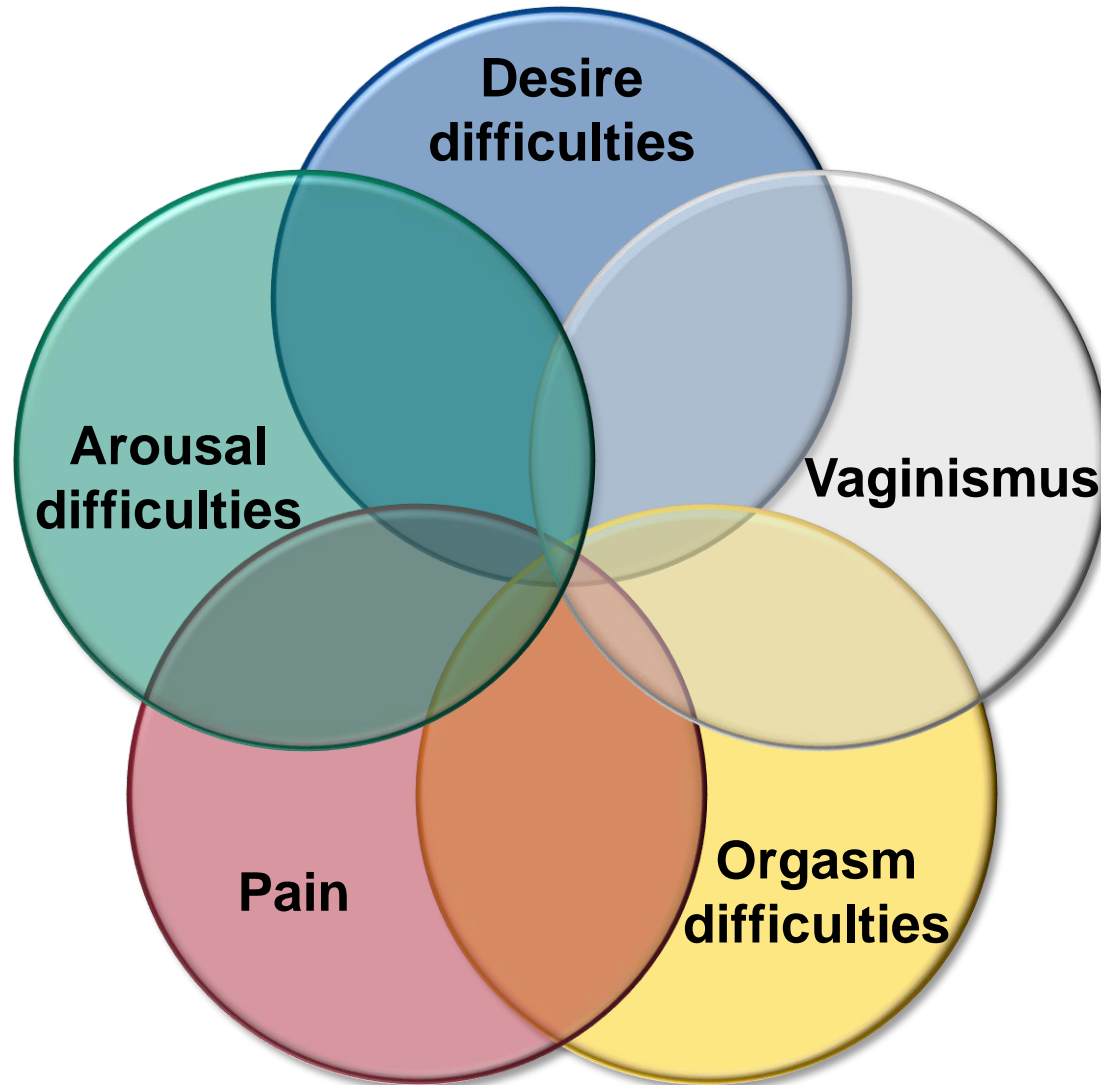
Perception of own sexuality before disease



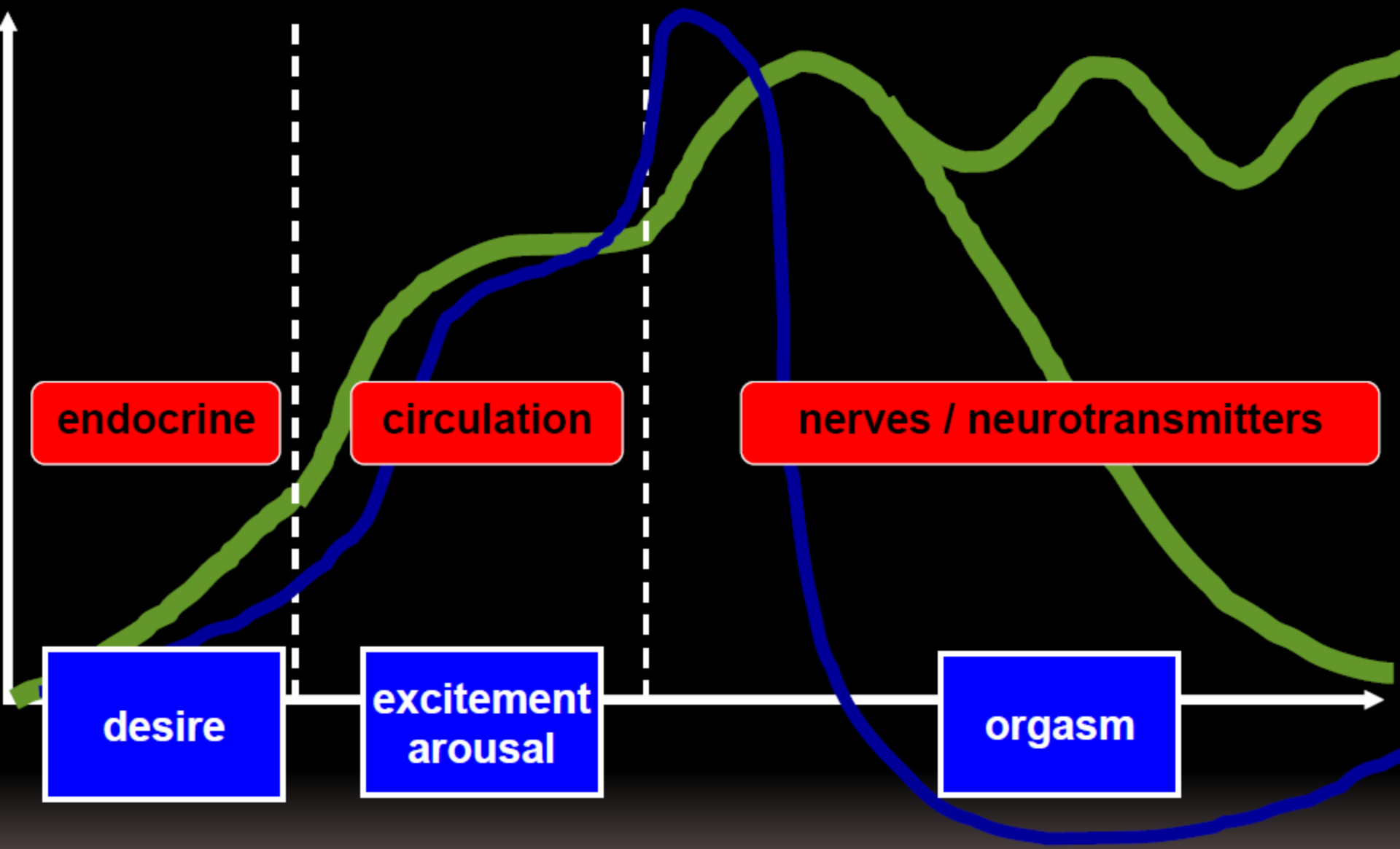
General factors affecting sexual functioning

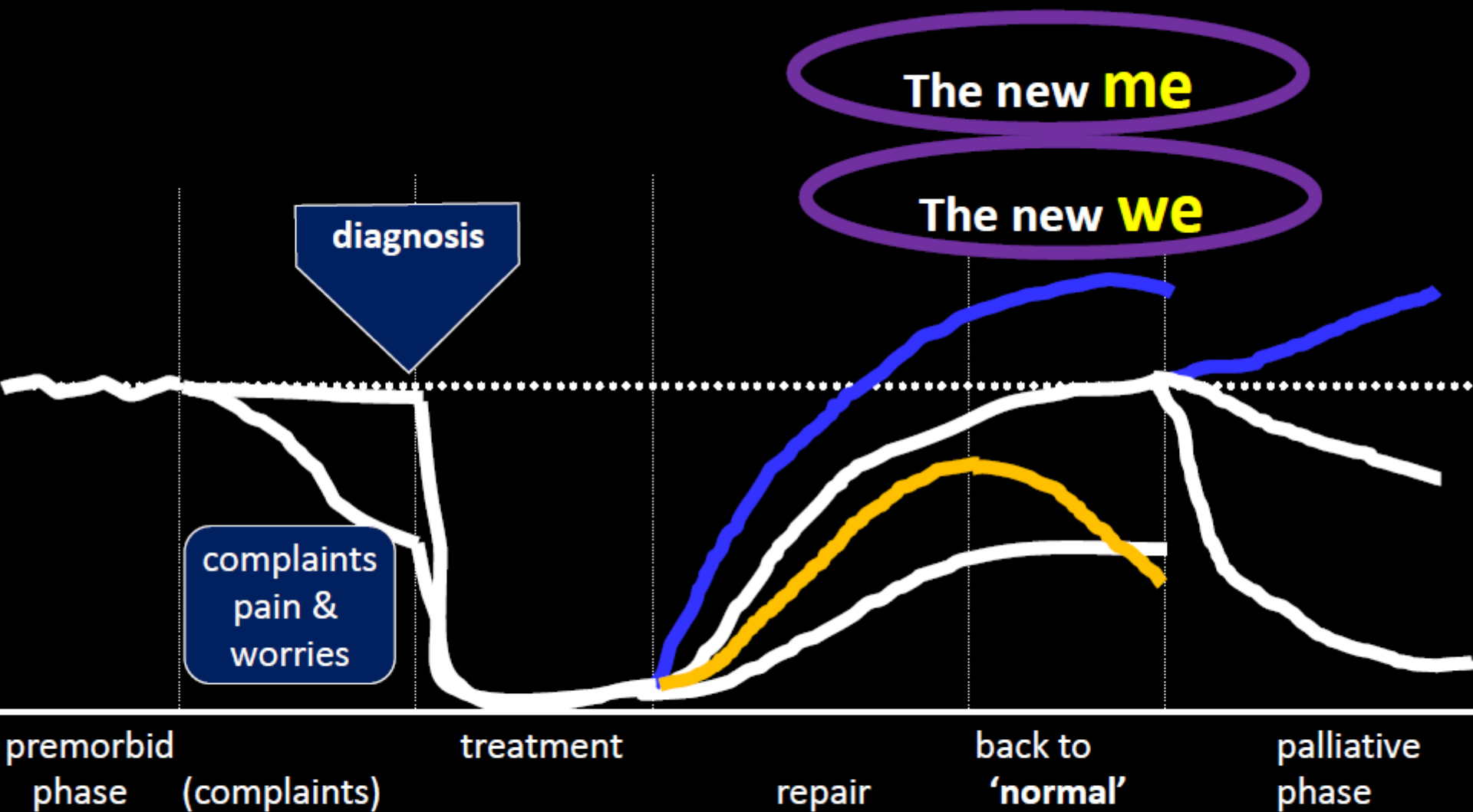
- Medical aspects
 - Co-morbidity
 - » Diabetes ,hypertension, vascular disease etc.
 - Cancer related fatigue
 - » Anaemia, metabolic changes,
 - Pharmacologic
 - » Chemotherapy
 - » Opioids
 - » SSRIs

Female sexual problems tend to co-exist

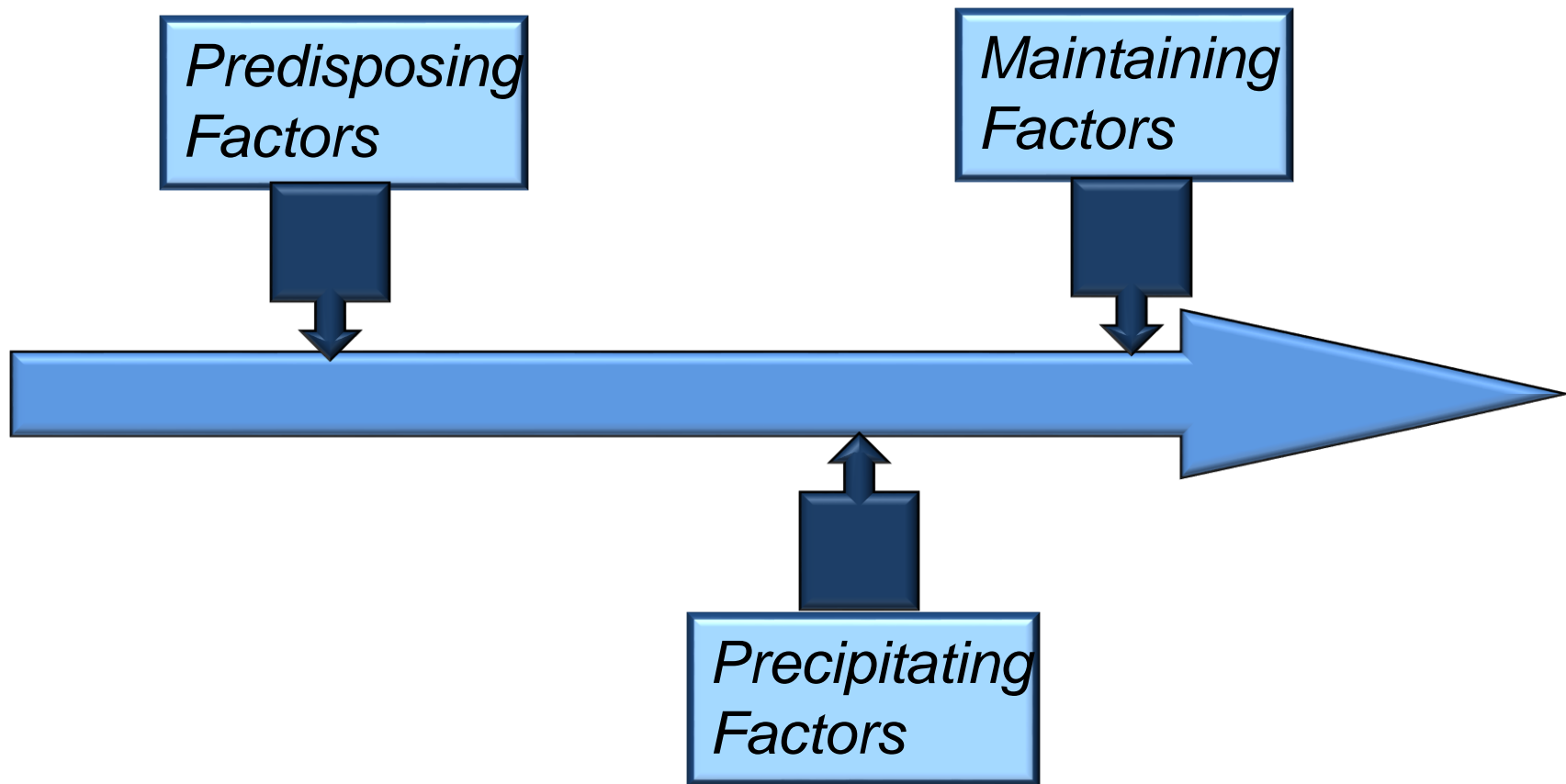


Simplified basics of sexual function & its disturbances in cancer (treatment)



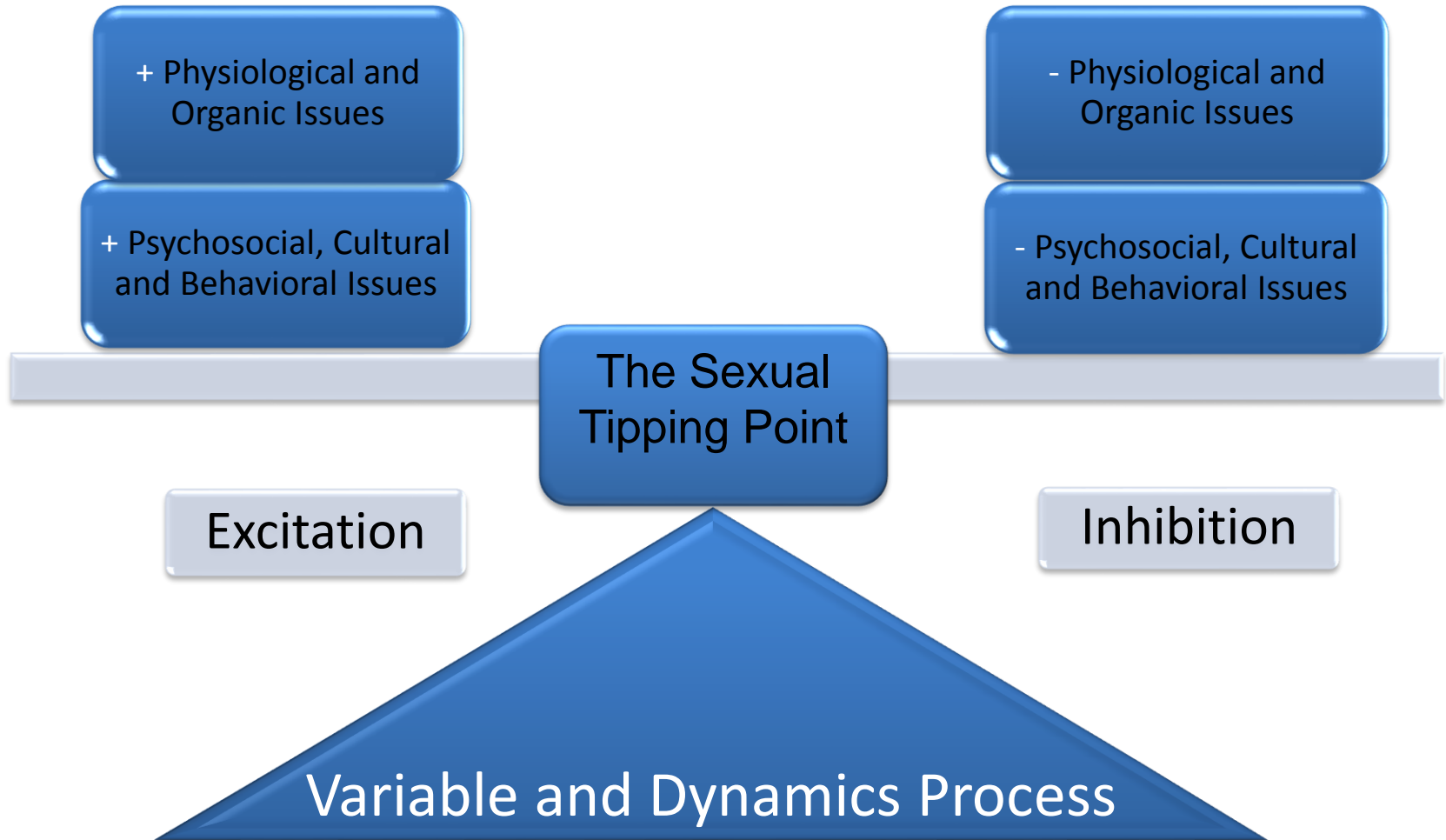


What causes sexual problems?

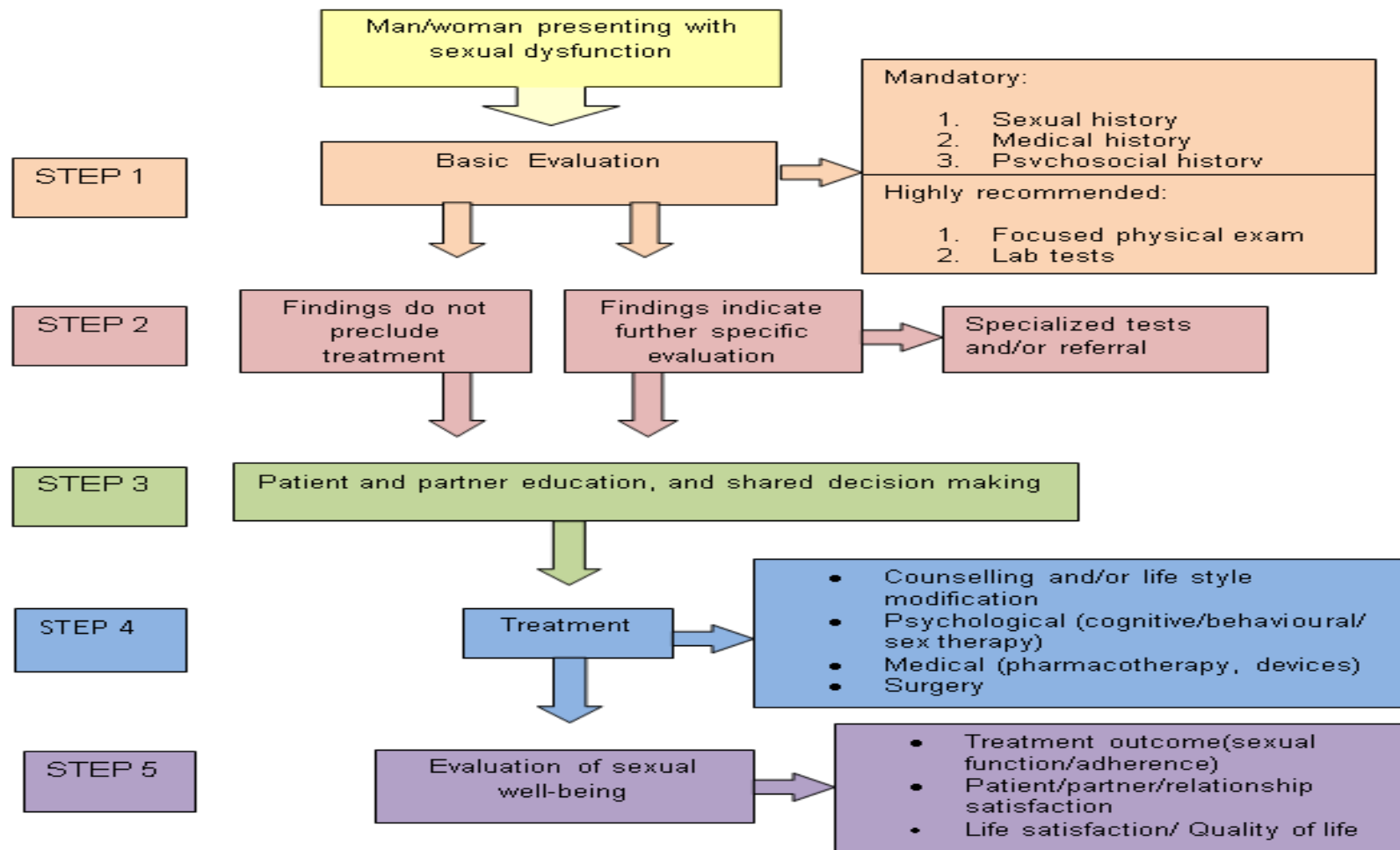


Multifactor models: The sexual Tipping point model

(Perelman, 2009)



The International Consultation of Sexual Medicine - 5 (ICSM-5) Diagnostic and Treatment Algorithm (for men and women)



Sexual health of the elderly-

The Specific Challenges

- The sexual health of the elderly male, female, and couples is the result of a complex interaction of biological, psychological, relational, and socio-cultural factors.
- **sexual activity decreases with age**
- **sexual problems increase with age**

AGING AND SEXUALITY - BIOPSYCHOSOCIAL CHANGES

- Degenerative changes in vasculature
- Metabolically induced neuronal dysfunction-decreased response and receptivity
- Decline of sex steroid hormones
- General morbidity incr. and medication use
- Age related cognitive changes
- Depressed mood/antidepressants
- Duration of disability/loss of interaction

What do the guidelines say?

“The recognition of ED as a warning sign of silent vascular disease has led to the concept that a man with ED and no cardiac symptoms is a cardiac (or vascular) patient until proven otherwise.”

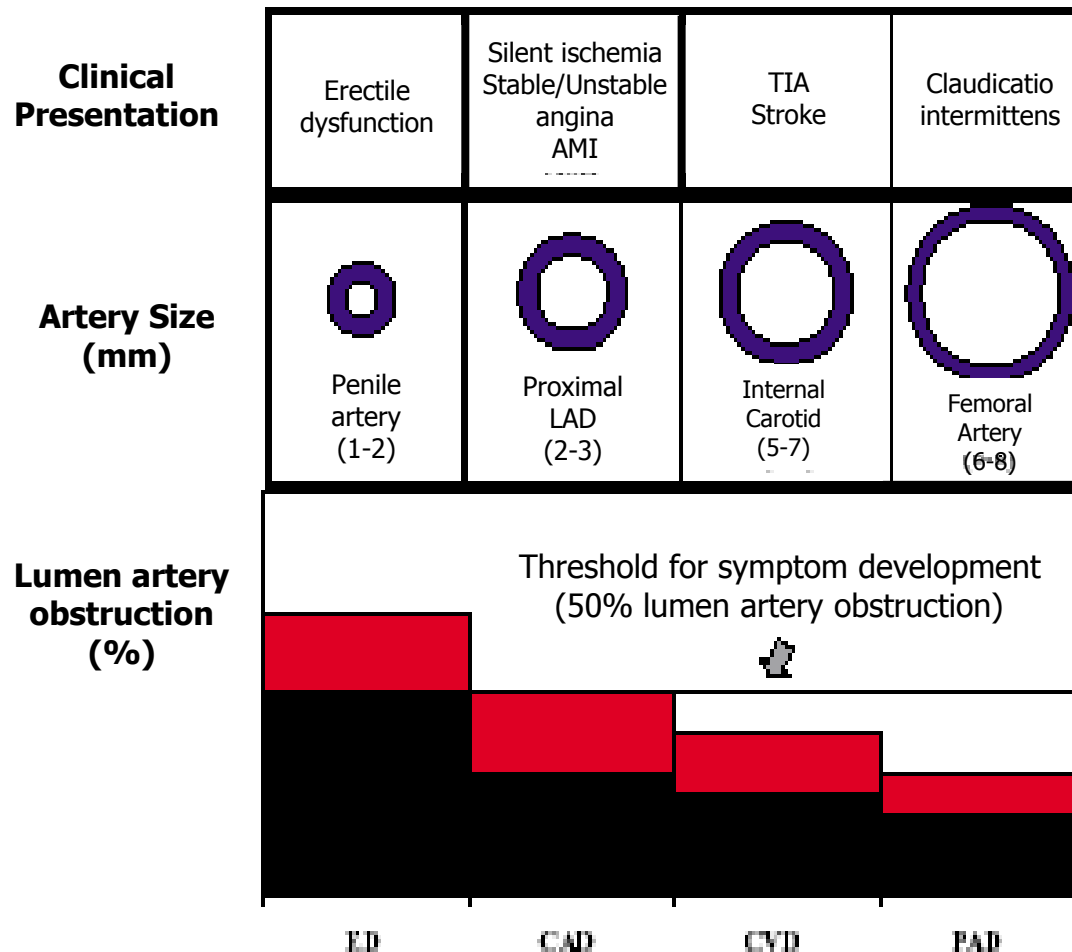
Princeton II Guidelines : Jackson G et al. 2006.

Relative Risks for Men With Erectile Dysfunction

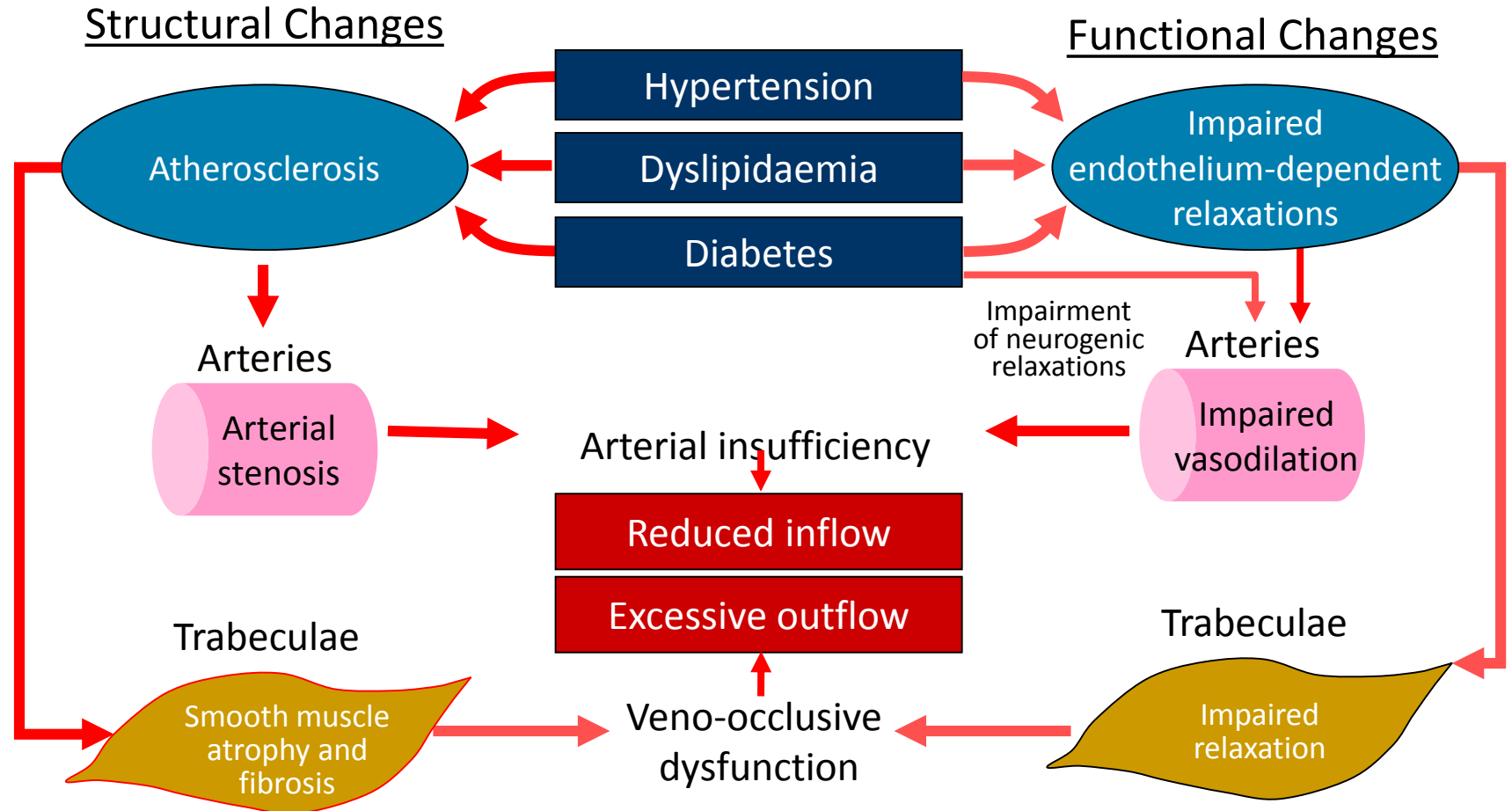
Mayo Clin Proc. 2012 Aug; 87(8): 766–778

	Relative risk	95% Confidence interval	<i>P</i> value
Overall	1.48	1.25-1.74	<.001
Coronary heart disease	1.46	1.31-1.63	<.001
Stroke	1.35	1.19-1.54	<.001
All-cause mortality	1.19	1.05-1.34	.005

ED - the “Tip of the Iceberg” of a Systemic Vascular Disorder?



CV Risk Factors, Endothelial Dysfunction and ED



Erectile Dysfunction and Subsequent Cardiovascular Disease in 9457 men followed up for 7 years

Thompson IM *et al.* *JAMA* December 21,
2005, Vol 294, No.23, 2996-3002

Conclusions:

- Development of Incident ED was associated with a 25% additional risk of CV events. incident and prevalent 45%, comparable to smoking or family history of MI
- ***In the majority of men, an acute coronary event was the first presenting symptom of CHD.***
- ED presents an average of 3 years before a myocardial event should prompt an assessment of CV risk factors and appropriate interventions

Conclusions (OnTarget- Transcend):

- 1459 men mean age 64, with CHD randomised to Ramipril, Telmisartan or both assessed for ED at baseline 2 and 4 years (35% with T2D)
- ***Prevalent and incident ED was associated with 1.84 all cause 1.93 all cardiac and 2.02 MCI mortality.***
- ED represents an early symptom of endothelial dysfunction and patients with ED have particularly high CV risk. ***The identification of men with ED offers an opportunity for early risk adjusted treatment to reduce future CV events.*** Bohm et al.

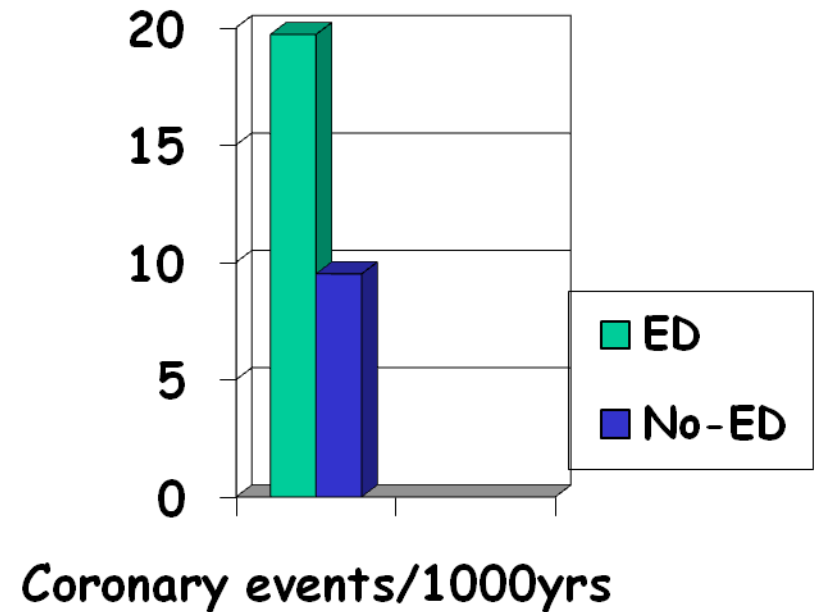
Circulation March 30th 2010.109.864199

ED predicts CHD in T2D –

Ma et al J Am Cardio 2008 51:2045-50

- 2306 men with T2D (mean age 54) and no CHD followed up for 4 yrs.
- 26.7% had ED at baseline.
- 123 CHD events in 4 yr (12.0/1000 pt yrs)
- Those who developed Incident ED had 19.7 events v 9.5/1000 with no ED.

CONCLUSION – presence of ED in T2Ds without CHD predicts CHD events in next 4 yrs (HR 1.6) greater than HbA1c, raised cholesterol and microalbuminuria.



ED Predicts coronary events

1400 men 40-75, with no known CAD 10yr follow up

Inman et al Mayo Clin Pr 2009;84:108-113

Age Group	ED at baseline	No baseline ED
<u>40-49</u>	<u>48.52 (1.23-269.26)</u>	<u>0.94 (0.02-5.21)</u>
50-59	27.15 (7.40-69.56)	5.09 (3.38-7.38)
60-69	23.97 (11.49-44.10)	10.72 (7.62-14.66)
70+	29.63 (19.37-43.75)	23.30 (17.18-30.89)
	CAD events per 1000 pt years with CI interval	Inman et al Mayo Clin Pr 2009

Incident (ED) has been associated with

- diabetes [1],
- cardiovascular dx [2]
- and musculoskeletal disease [3],
- depression and anxiety [4],
- poorer socioeconomic status [5],
- lifestyle factors [6],
- declining muscle mass and strength [7],
- lower testosterone [8],
- and medication usage [9].

1 Malavige LS, Levy JC. Erectile dysfunction in diabetes mellitus. J Sex Med 2009;6:1232-47.

2 Miner M, Seftel AD, Nehra A, et al. Prognostic utility of erectile dysfunction for cardiovascular disease in younger men and those with diabetes. Am Heart J 2012;164:21-8.

3 Newman AM. Arthritis and sexuality. Nurs Clin North Am 2007;42:621-30, vii.

4 Hall SA, Shackelton R, Rosen RC, Araujo AB. Sexual activity, erectile dysfunction, and incident cardiovascular events. Am J Cardiol 2010;105:192-7.

5 Chew KK, Stuckey B, Bremner A, Earle C, Jamrozik K. Male erectile dysfunction: Its prevalence in Western Australia and associated sociodemographic factors. J Sex Med 2008;5:60-9.

6 Bacon CG, Mittleman MA, Kawachi I, Giovannucci E, Glasser DB, Rimm EB. Sexual function in men older than 50 years of age: Results from the Health Professionals Follow-Up study. Ann Intern Med 2003;139:161-8.

7 Cohen PG. Aromatase, adiposity, aging and disease. The hypogonadal-metabolic-atherogenic-disease and aging connection. Med Hypotheses 2001;56:702-8.

8 Isidori AM, Buvat J, Corona G, et al. A critical analysis of the role of testosterone in erectile function: From pathophysiology to treatment- a systematic review. Eur Urol 2013;65:99-112.

9 Tomas DR. Medications and sexual function. Clin Geriatr Med 2003;19:553-62.

A list of the drugs potentially causing or worsening sexual function are shown as follows:

1. Abused drugs (amphetamines, opiates, cocaine, marijuana, nicotine, and heroin);
2. Alcohol;
3. Antiarrhythmics;
4. Antidepressants (tricyclics, SSRI, and MAO-inhibitors);
5. Antihistamines (dimenhydrinate, diphenhydramine, and promethazine);

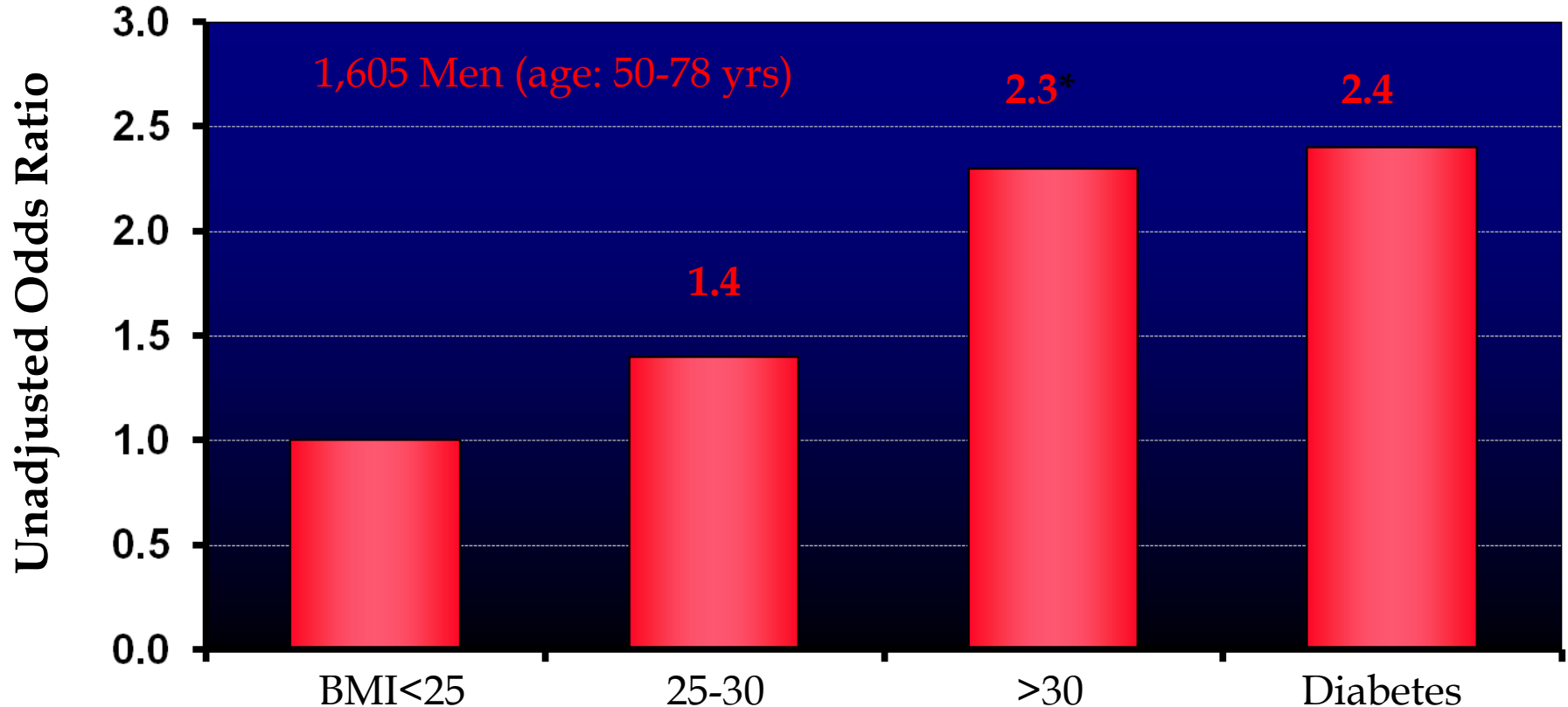
6. Antipsychotics: butyrophenones (haloperidol) and phenothiazines (promazine);
7. barbiturates;
8. benzodiazepines;
9. b-blockers (dose-dependent; propranolol, atenolol, and carvedilol in decreasing order; nebivolol seems to have beneficial effects);
10. Central antihypertensives;
11. 5- reductase inhibitors;
12. digoxin;

13. Diuretics (thiazide diuretics);
14. Drugs for Parkinson's disease;
15. Fibrates (clofibrate, gemfibrozil);
16. H₂-blockers (cimetidine, ranitidine)
17. Lithium;
18. Muscle relaxers;
19. Nonsteroidal anti-inflammatory drugs.

The Prevalence of Comorbid Conditions Increases With ED Severity

Comorbidity	ED Severity				
	None	Mild	Mild to Moderate	Moderate	Severe
High Blood Pressure	24%	25%	32%	42%	39%
High Cholesterol	20%	25%	27%	35%	38%
Enlarged Prostate	10%	16%	16%	23%	26%
Heart Trouble	3%	7%	10%	16%	34%
Anxiety	13%	15%	18%	19%	18%
Diabetes	11%	8%	11%	16%	24%
Depression	8%	8%	12%	12%	12%
Heart Attack/Surgery	4%	7%	8%	13%	29%
Hardening of Arteries	3%	6%	7%	10%	13%
Spinal Cord Injury	3%	5%	5%	3%	5%
Prostate Cancer	0	1%	1%	1%	0

Obesity is Associated with Erectile Dysfunction



* $p < 0.05$ vs reference group

Mandatory Investigations for all men with ED (ISSM/EAU)

1. Fasting Blood Glucose

2. Lipid profile

3. Total Testosterone (8am and 11am)

SHBG, free testosterone, prolactin, LH dependent on local service or detection of initial TT level.

4. Thyroid function (if symptoms suggest?)

CONSIDER GETTING THESE DONE ON ALL PATIENTS BEFORE INITIAL CONSULTATION and Rx

Type 2 *Diabetes*

“There is no place for mediocrity in the management of type 2 diabetes – it must be comprehensive, initiated promptly, delivered as intensively as possible and individually tailored “

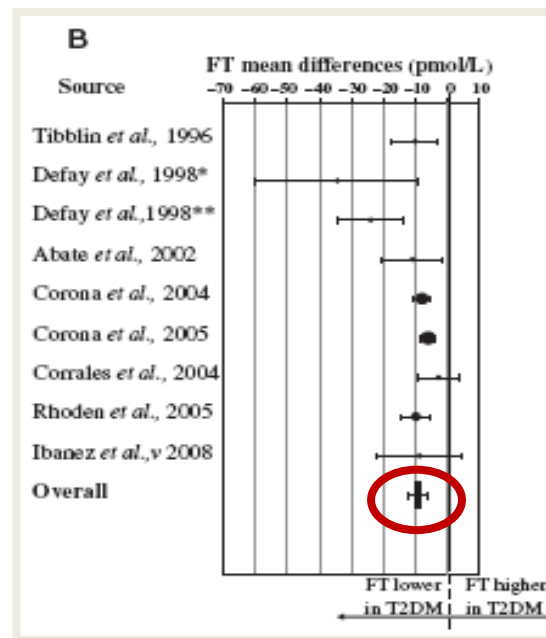
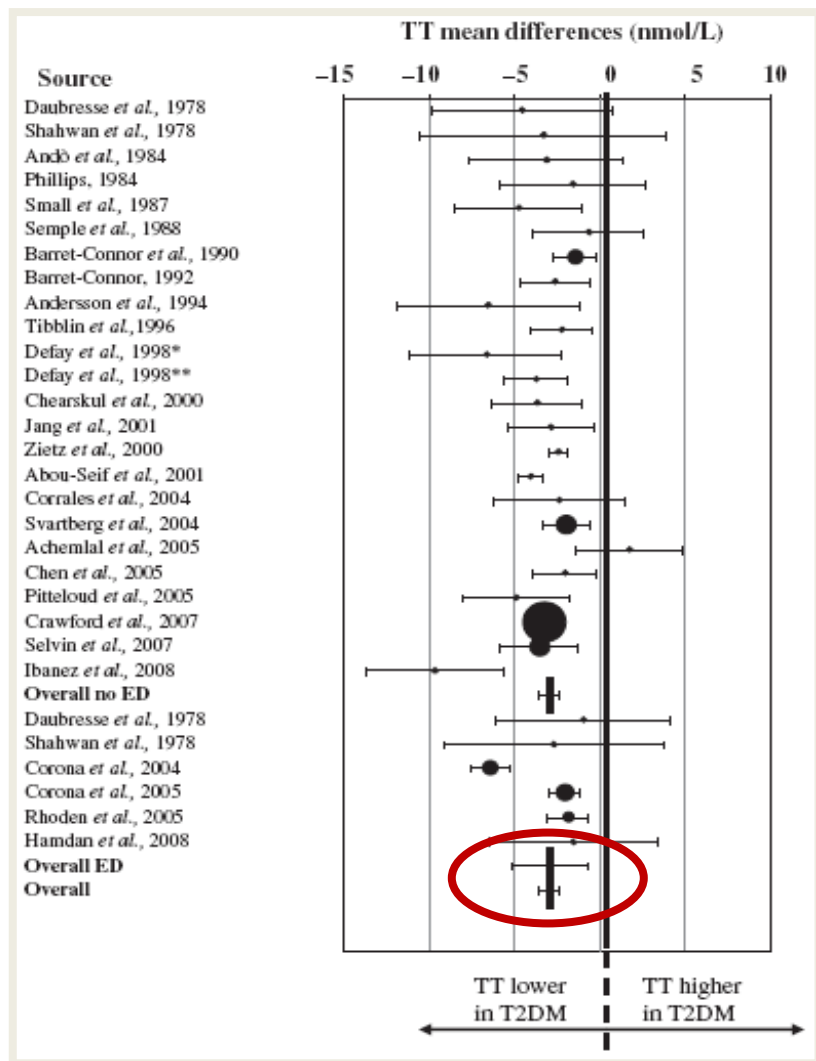
Sir George Alberti (President RCP and IDF)

Gender differences in T2D

- The prevalence of T2D in men is 5.8% and 3.7% in women (Fox et al Circulation 2006)
- 3% of men and 0.7% of women have undiagnosed T2D (British Heart Foundation Stats 2006)
- The mortality rate in T2D has fallen by 28% since 1980 and remained unchanged in men* .
- Mortality is 30-40 % higher in T2D men with low testosterone (Khaw 2007).
- **The link between low testosterone and T2D in men is established in multiple studies**
- * Eliasson et al 2006

Low Testosterone is associated with T2D *meta-analysis of over 28 cross-sectionnall studies*

(Corona et al 2010)



- Confirms previous meta-analysis by Ding 2006: 30-40% have low TT
- Dhindsa et al 2010: 50% of obese diabetic men have low FT

Erectile Dysfunction and Diabetes

- Diabetes
 - 20-85% of men with diabetes suffer from ED (ranging from mild to complete)
 - In the Massachusetts Male Aging Study, ED was three times more common in diabetic men vs nondiabetic men
 - ED occurs earlier in men with diabetes compared with men who do not have diabetes
 - The risk of ED increases:
 - The longer diabetes is present
 - If the condition is inadequately controlled (raised blood glucose and HbA_{1c})
 - Men with diabetes should be advised to discuss their condition with a physician if they have not already done so

TD and Metabolic Diseases: a frequent association. Data from epidemiological studies

- Cross-sectional: **Low T significantly associated with:**
 - **Obesity:** RR 2.38 (*Mulligan 2006*)
 - **Type II diabetes:** RR 2.1 (*Mulligan 2006*), 30-40% of men (*Ding 2006*)
 - **Metabolic Syndrome (MS):** incl. inverse relationship between T and number of MS components (*Muller 2005, Kaplan 2006*)
 - **Insulin resistance** (*Muller 2005*)
 - **Especially in men with ED:** the ED+MS+TD triad is very prevalent (*Corona 2006, 2008, Guay 2007, Shabsigh 2008*)
- Prospective Cohort studies:
 - **Low testosterone predicts:**
 - **Type II diabetes** (*Stellato 2000, Oh 2002*)
 - **Metabolic Syndrome** (*Laaksonen 2004, Rodriguez 2007*)
 - **Obesity, T II diabetes & MS predict subsequent T deficiency** (*Laaksonen 2005, Derby 2006, Travison 2007*)

The argument for measuring testosterone in T2D

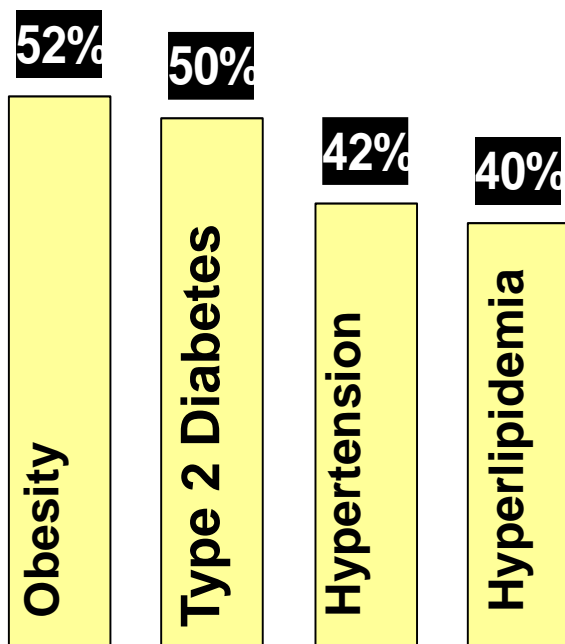
- NICE 2008 suggests that all men with T2D be assessed for ED annually.
- The prevalence of ED in T2D is 75%.
- All current ED international guidelines advise testosterone measurement as mandatory.
- Endocrine Society guidelines recommend testosterone evaluation in men with T2D.
- Low testosterone is strongly linked with increased CHD and all cause mortality.
- ED therapies are less effective in hypogonadal men with T2D (55-60%).

NICE GUIDANCE on ED and T2D (May 2008)

- Erectile dysfunction
- Review the issue of erectile dysfunction with men annually.
- Provide assessment and education for men with erectile dysfunction to address contributory factors and treatment options.
- Offer a phosphodiesterase-5 inhibitor (choosing the drug with the lowest acquisition cost, in the absence of contraindications, if erectile dysfunction is a problem.
- Considered a NEUROPATHIC complication!
- IS ED NOT IMPORTANT FOR MEN WITH CHD?

Rates of Low T in Selected Conditions

Prevalance of Low Testosterone ¹



Other Areas of Concern

HIV/AIDS

30% of HIV-infected men and 50% of men with AIDS have low testosterone.²

Chronic Pain

74% of men consuming sustained-action oral opioids have low testosterone.³

1. Mulligan, et al. *Int J Clin Pract* 2006 Jul;60(7):762–769

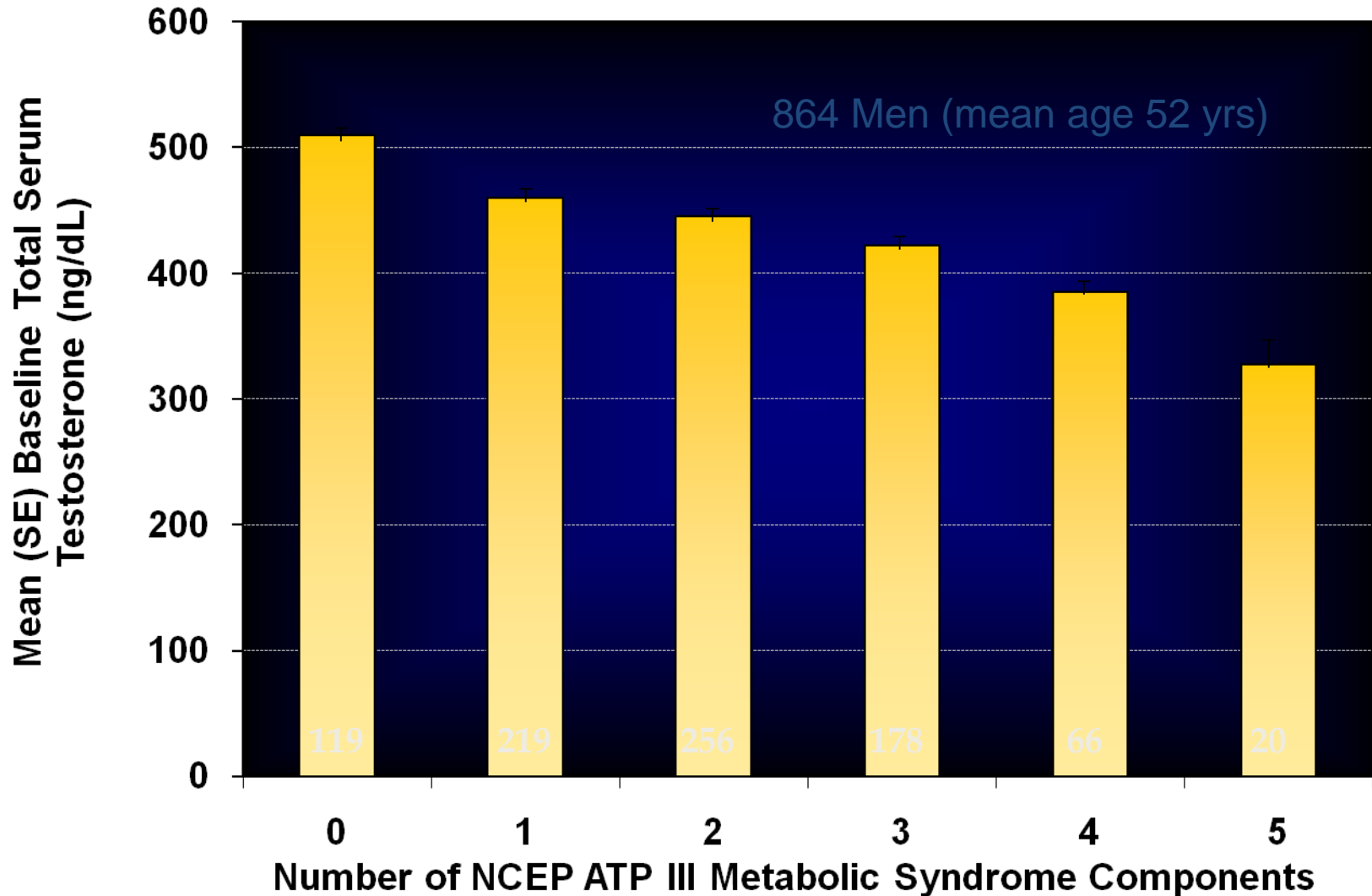
2. Dobs A.S. *Clin Endocrinol Metab* 1998;12:379-370

3. Daniell HW. *J Pain* 2002 Oct;3(5):377-84

HIV ,STI's

- Chlamydia ,gonorrhoea ,syphilis and trichomoniasis affect 448million people every year ⁽¹⁾
- 35 million people estimated to have HIV ⁽²⁾
- Concurrent sexual health burden and resultant overall health and wellbeing of populations

Baseline Total Testosterone -Patients with none, 1, 2, 3, 4 or all 5 Metabolic Syndrome Components

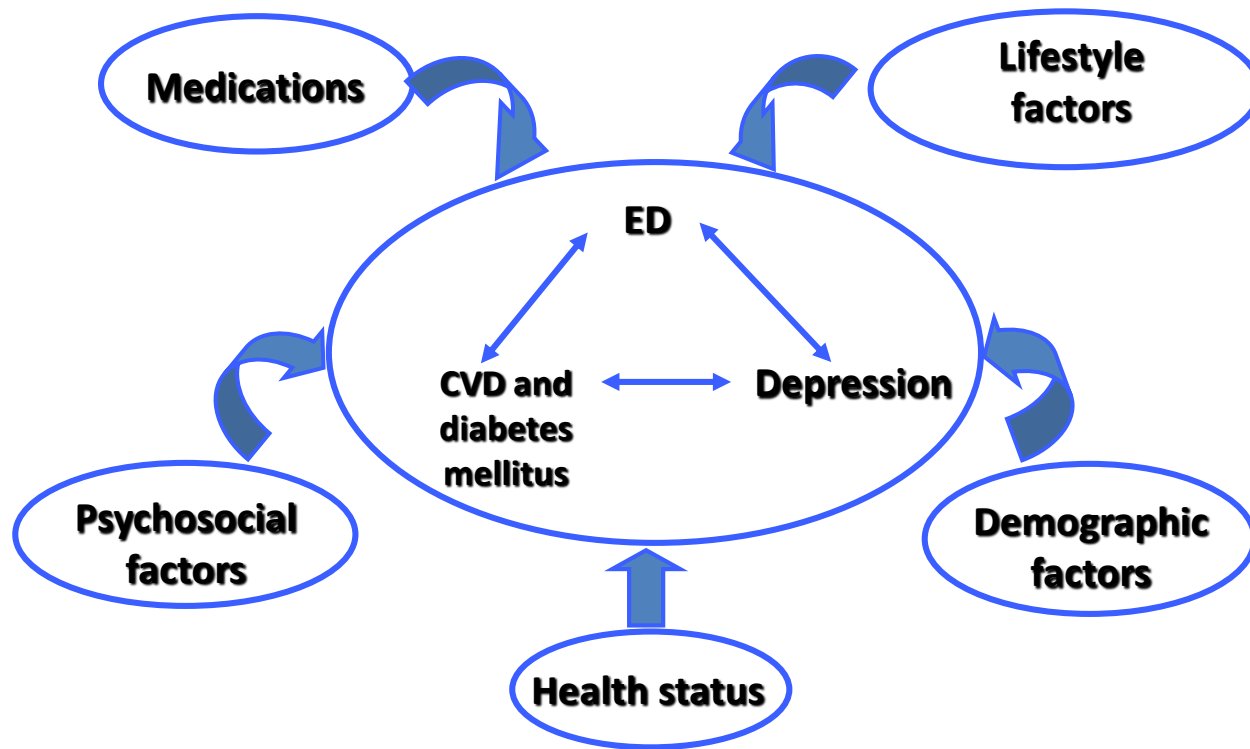


Kaplan SA et al. J Urology 176:1524-1528 (2006)

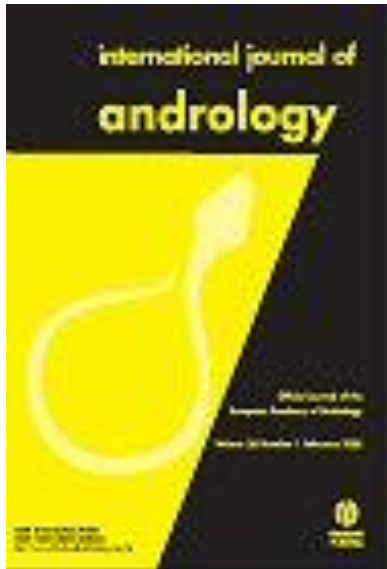
Testosterone supplementation in T2D and metabolic syndrome

- **Improves insulin resistance, reduces visceral fat mass and HbA1c with symptomatic improvement (Kapoor 2006).**
- Times 2 study (Jones et al 2009).
- Moscow study (Kalinchenko 2009)
- The Testogel study (Bouloux press 2009)
- IPASS study (Zitzmann press 2009)
- Dimalite stdy (Heufelder 2009)
- **No significant rise in PSA and NO CASES of prostate cancer in any of the studies**

ED, CVD, diabetes, and depression – a mutually reinforcing circle



Guidelines



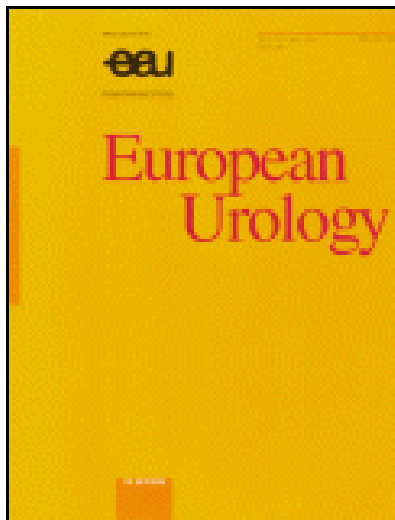
international journal of andrology, 28:125-127 (2005)

doi: 10.1111/j.1365-2605.2005.00553.x

RECOMMENDATIONS

Investigation, treatment and monitoring of late-onset hypogonadism in males: ISA, ISSAM, and EAU recommendations

E. NIESCHLAG,^{*,†} R. SWERDLOFF,^{†,‡} H. M. BEHRE,[‡] L. J. GOOREN,[§]
J. M. KAUFMAN,[¶] J.-J. LEGROS,^{**} B. LUNENFELD,^{††} J. E. MORLEY,^{‡‡}
C. SCHULMAN,^{§§} C. WANG,^{¶¶} W. WEIDNER^{***} and F. C. W. WU^{†††}



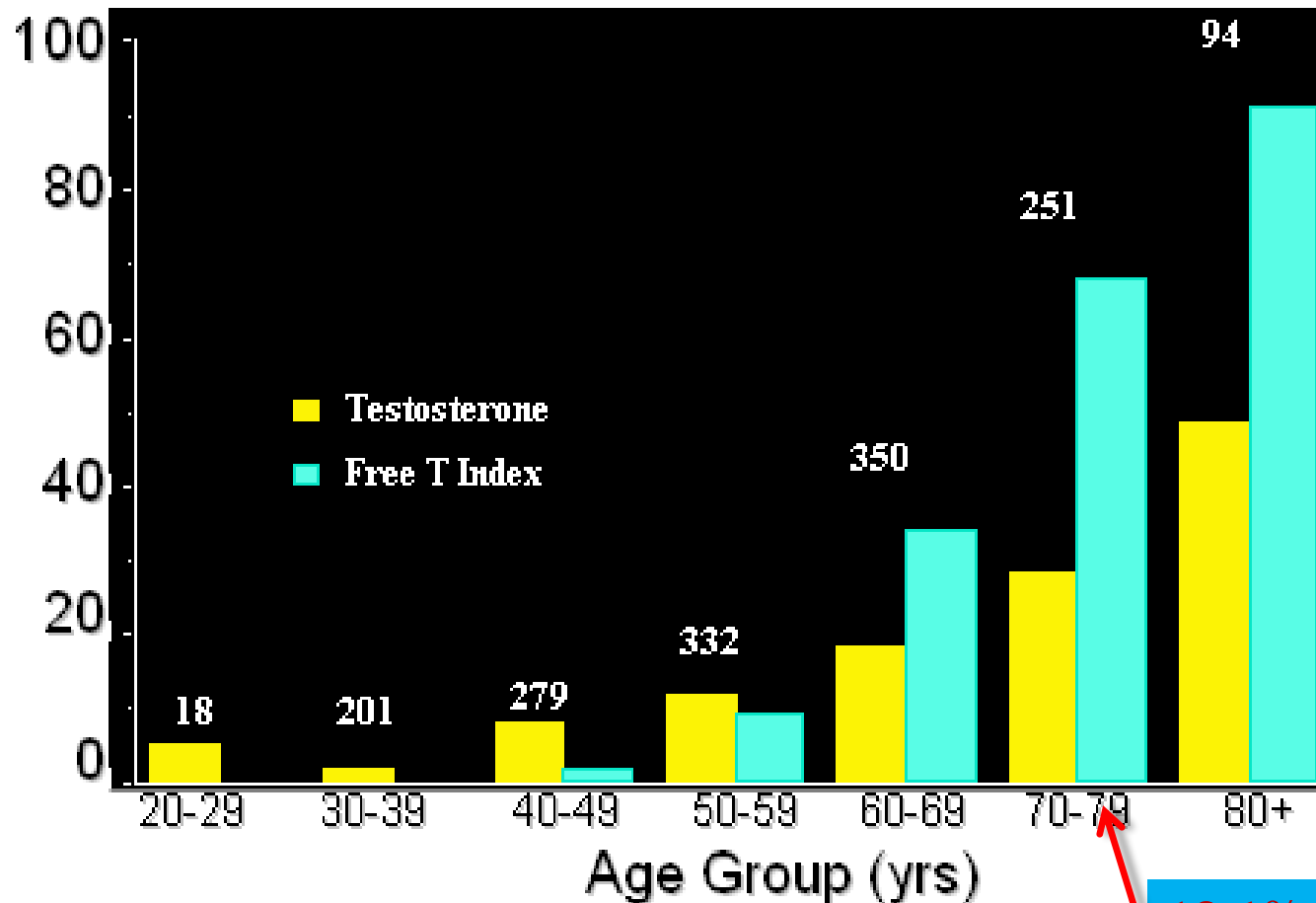
**European
Urology**

European Urology 48 (2005) 1-4

Investigation, Treatment and Monitoring of Late-Onset Hypogonadism in Males ISA, ISSAM, and EAU Recommendations

E. Nieschlag^{a,*}, R. Swerdloff^b, H.M. Behre^c, L.J. Gooren^d, J.M. Kaufman^e, J.-J. Legros^f,
B. Lunenfeld^g, J.E. Morley^h, C. Schulmanⁱ, C. Wang^j, W. Weidner^k, F.C.W. Wu^l

Late Onset Hypogonadism (LOH):Prevalence

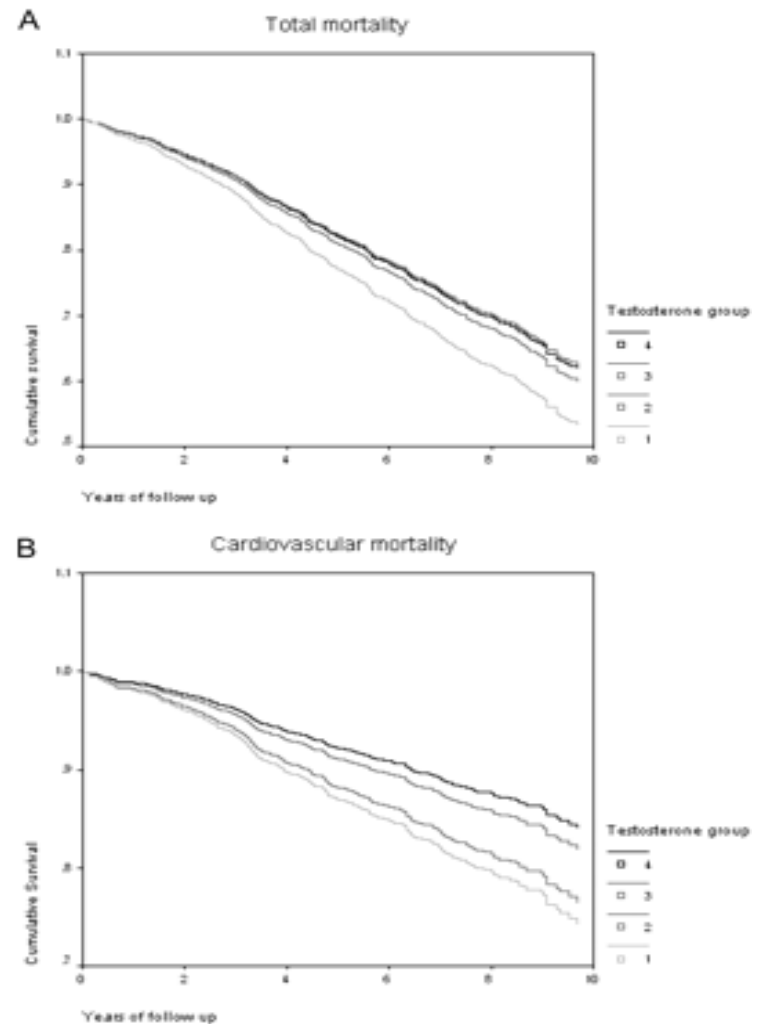


18.4% men over 70 yrs
-Araujo ,JCEM 2007

Low Testosterone associated with increase CV and all cause mortality

Khaw et al (*Circulation*. 2007;116:2694-2701.)

- **Figure.** Multivariate-adjusted survival by quartile group of endogenous testosterone concentrations (1 is lowest, 4 is highest) in 2314 men 42 to 78 years old in EPIC-Norfolk 1993 to 2003.
- **Conclusions—** In men, endogenous testosterone concentrations are inversely related to mortality due to cardiovascular disease and all causes. Low testosterone may be a predictive marker for those at high risk of cardiovascular disease.



Low Testosterone predicts incident CVA and TIA in older men

- 3443 Australian men over 70 followed up for 3.5 yrs
- Lowest quartile of T defined as <11.7 nmol/l or FT <222 pmol/l
- Incident stroke or TIA in 119 men (3.5%)
- **HR 1.99 for TT ($p=0.014$) and 1.69 for FT ($p=0.01$)**

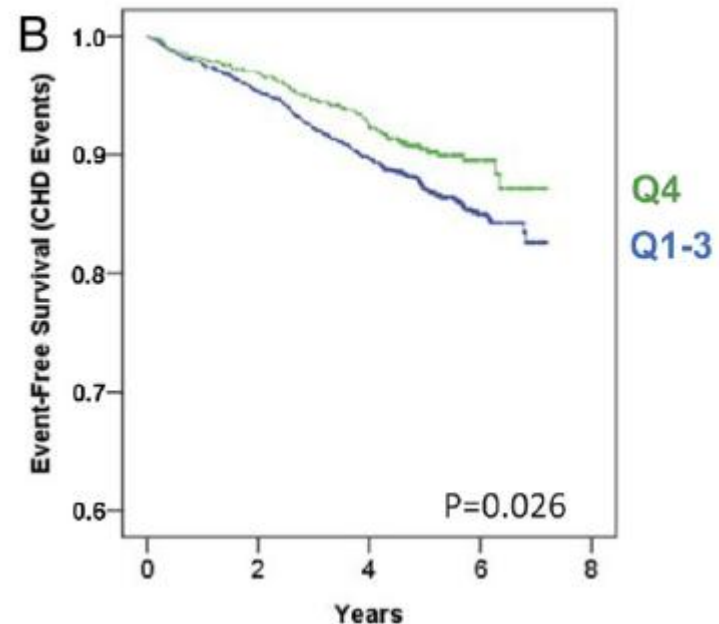
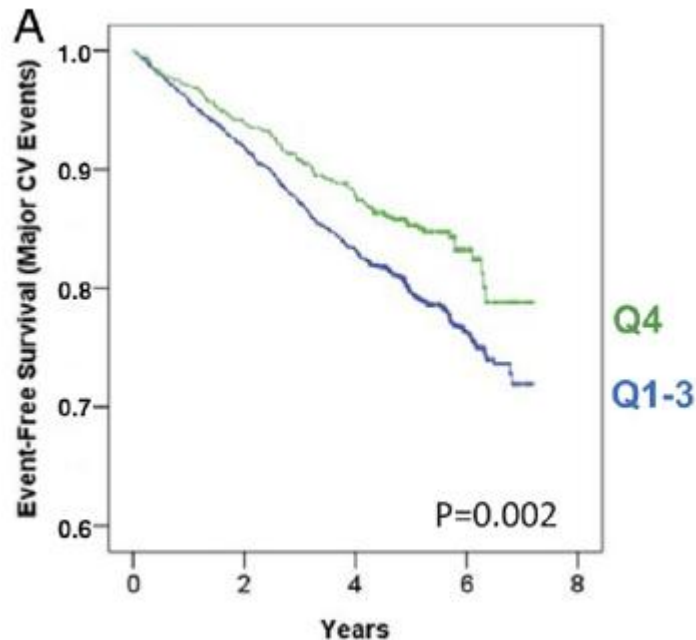
after adjustment for all risk factors

- Yeap, Hyde et al J Clin Endocrin and metab 2009.94.7.2253-59

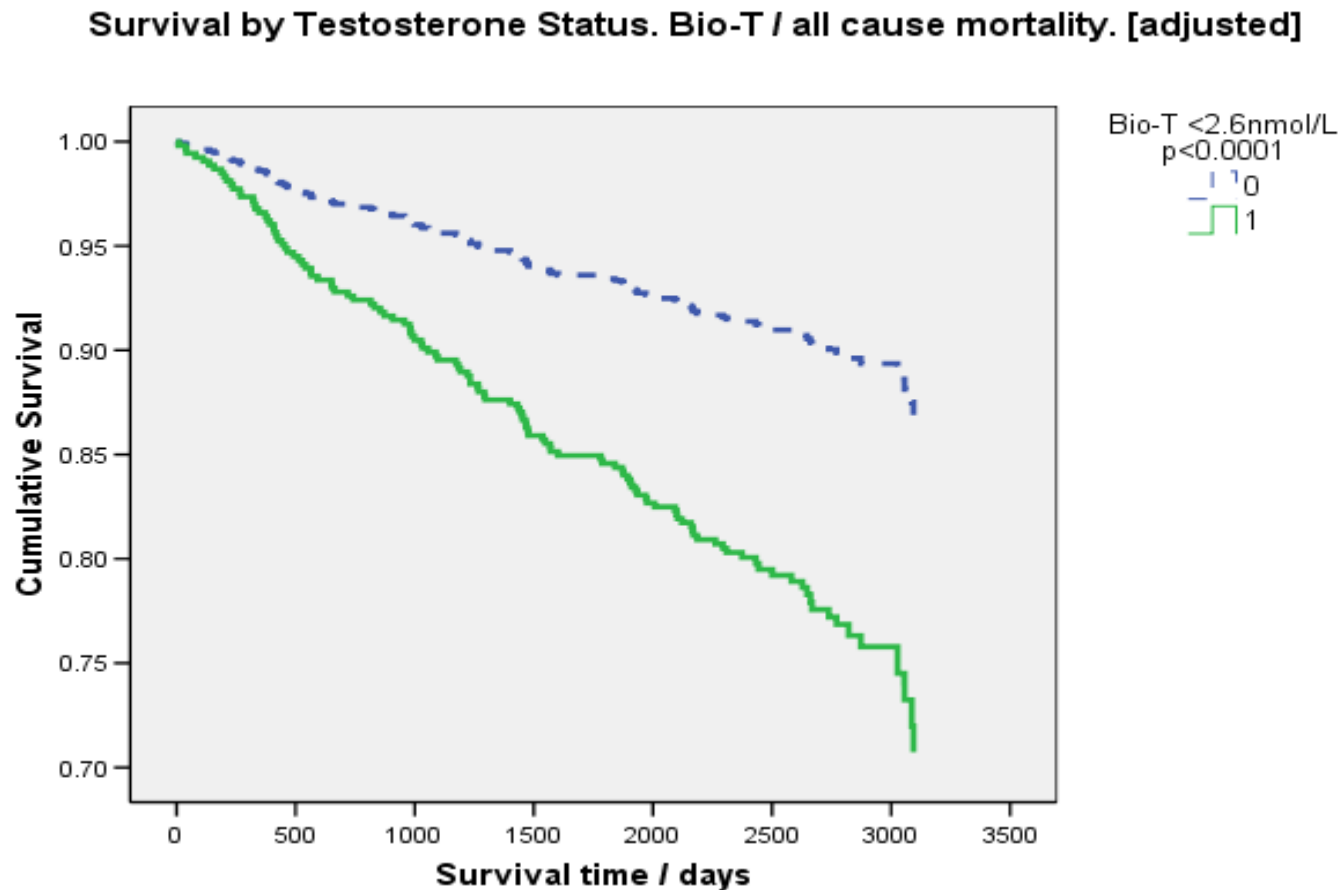
High Serum Testosterone Is Associated With Reduced Risk of Cardiovascular Events in Elderly Men

The MrOS (Osteoporotic Fractures in Men) Study in Sweden

Claes Ohlsson, MD, PhD,* Elizabeth Barrett-Connor, MD,† Shalender Bhasin, MD, PhD,§ Eric Orwoll, MD, PhD,|| Fernand Labrie, MD, PhD,¶ Magnus K. Karlsson, MD, PhD,# Östen Ljunggren, MD, PhD,** Liesbeth Vandenput, PHARM D, PhD,* Dan Mellström, MD, PhD,* Åsa Tivesten, MD, PhD†



Effect of Baseline Bioavailable Testosterone on All-Cause Mortality
in Men with Proven Coronary Heart Disease n=930 mean follow up
6.9 years



Low-Dose Transdermal Testosterone Therapy Improves Angina Threshold in Men With Chronic Stable Angina

A Randomized, Double-Blind, Placebo-Controlled Study

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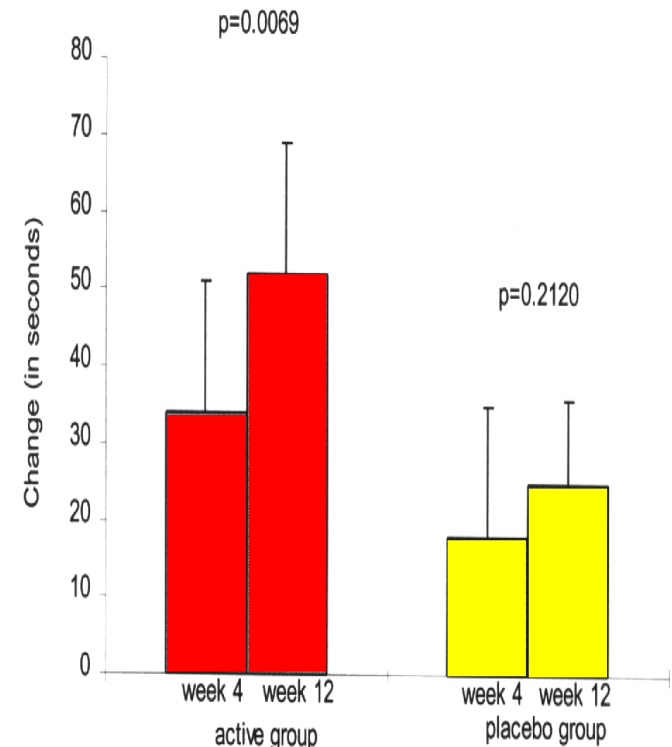
Background—Experimental studies suggest that androgens induce coronary vasodilatation. We performed this pilot project to examine the clinical effects of long-term low-dose androgens in men with angina.

Methods and Results—Forty-six men with stable angina completed a 2-week, single-blind placebo run-in, followed by double-blind randomization to 5 mg testosterone daily by transdermal patch or matching placebo for 12 weeks, in addition to their current medication. Time to 1-mm ST-segment depression on treadmill exercise testing and hormone levels were measured and quality of life was assessed by SF-36 at baseline and after 4 and 12 weeks of treatment. Active treatment resulted in a 2-fold increase in androgen levels and an increase in time to 1-mm ST-segment depression from (mean \pm SEM) 309 ± 27 seconds at baseline to 343 ± 26 seconds after 4 weeks and to 361 ± 22 seconds after 12 weeks. This change was statistically significant compared with that seen in the placebo group (from 266 ± 25 seconds at baseline to 284 ± 23 seconds after 4 weeks and to 292 ± 24 seconds after 12 weeks; $P=0.02$ between the 2 groups by ANCOVA). The magnitude of the response was greater in those with lower baseline levels of bioavailable testosterone ($r=-0.455$, $P<0.05$). There were no significant changes in prostate specific antigen, hemoglobin, lipids, or coagulation profiles during the study. There were significant improvements in pain perception ($P=0.026$) and role limitation resulting from physical problems ($P=0.024$) in the testosterone-treated group.

Conclusions—Low-dose supplemental testosterone treatment in men with chronic stable angina reduces exercise-induced myocardial ischemia. (*Circulation*. 2000;102:1906-1911.)

Key Words: testosterone ■ hormones ■ angina ■ ischemia

Change in Seconds from Baseline to 1mm ST Depression



Hypogonadism is associated with increased risk of depression (2)

- Retrospective cohort study (level of evidence 2b)
- Mean age 67.1 years
- Hypogonadism defined as total testosterone <250 ng/dL
- Relative risk of depression in patients with hypogonadism = 1.784

	Depression (+)	Depression (-)	Total	2-year depression incidence
Hypogonadism (+)	28	123	151	18.54%
Hypogonadism (-)	62	535	597	10.39%
Total	90	658	748	12.03%

Depression, sexual dysfunction, and cardiac risk

- The association between depression, ischaemic heart disease (IHD), and CV mortality has been well documented^{1,2}
- Depression is also associated with sexual dysfunction, most frequently with ED^{1,3}
- Thus, irrespective of whether ED is a symptom or a cause of depression, a cardiac patient who is depressed is more likely to have ED¹

1. Roose SP, Seidman SN. *Am J Cardiol.* 2000;86(suppl):38F–40F.

2. Frasure-Smith N, Lespérance F. *Arch Gen Psychiatry.* 2003;60:627–636.

3. Feldman HA, Goldstein I, Hatzichristou DG, et al. *J Urol.* 1994;151:54–61.

Significant correlations

- Hypogonadism ,ED ,PE show significant correlation with physical and mental health particularly quality of life ,metabolic syndrome, CVD and depressive symptoms₁
- The Multinational Survey of the Aging Male (MSAM-7) showed that roughly 50% out of the patients affected with moderate-to-severe LUTS present a concurrent ED especially in those aged over 70 years old₂

• 1 Tan H M et al J Sex Med 2012;3 :663-671

2 Rosen R et al Eur Urol 2003;44 no 6 :637 649

Do not leave the man alone

- Be proactive when a man presents with ED
- “Treat ED and check for T” is of paramount importance
- Provide the best care for men presenting with ED and/or TDS!



QUALITY OF LIFE

- Independent of body weight ,poor Physical and Emotional QOL is associated with higher prevalence of Male SD and Impaired sexual function is connected to a Diminished individual and Social QOL.¹

- Laumann E O et al J AMA 1999;6 537 544



Multimorbidity and sexual function in middle aged and older women

- The more chronic conditions reported the - -
 - lower the interest in or satisfaction with sexual activity
 - greater the difficulty with arousal ,lubrication and orgasm

Depression and urinary incontinence were consistent independent predictors of worse sexual function after controlling for age, sex ,race/ethnicity, partner status and chronic conditions.

Links with Depression /urinary incontinence

Depression

- Low sexual desire
- Problems with sexual arousal
- Difficulty with orgasm

Urinary Incontinence

--Decreased interest in satisfaction with sexual activity

Sexuality in Diabetic Women

- Women with diabetes have many potentially contributing factors to their risk of sexual dysfunction including:
 - vascular
 - neurogenic
 - metabolic,
 - sex hormone and
 - psychologic abnormalities

Sexuality in Diabetic Women

- Symptoms most commonly reported by women with diabetes include
 - loss of libido,
 - diminished clitoral sensitivity,
 - decreased vaginal lubrication and
 - increased vaginal discomfort

Sexuality in Diabetic Women

- In women, the presence of diabetes is an independent predictor of orgasmic dysfunctions.
- The presence of depressive symptoms , individual perception of sexual needs and partner –related factors are stronger predictors of FSDs.

Dealing with Sexual Difficulties in patients with rheumatic disease

- Sexual counselling should be routinely provided
- Provide information on the impact of the treatment on sexuality
- Open sexual communication between partners should be encouraged
- Often couples have not discussed sexuality for years yet introduction of changes in their sex lives necessitates communication about such issues
- The changes in sexual function occurring after treatment initiation may disrupt the sexual relationship and may require adaptation to the new situation

Dilemmas ...

1. Remember that patients with chronic illness' often have sexual problems
2. Recognize when patients want to talk about their sexual problems
3. Encourage patients to discuss their sexual problems
4. "Learn the language"
5. Taking a sexual history
6. Confront their own sexuality

Interventions

- 4 Shared decision making about therapeutic options --
“what the couple feel and think’
- 5 EVALUATION OF-
 - Intimacy ,closeness
 - Physical contact (pleasure ,frequency)
 - Couple interaction /communication
 - Sexual domains (motivation,arousal ,orgasm &pain)
 - Individual body awareness and fantasy centred exercises
 - Couple –oriented systemic interventions



Here lies
our faithful
Sexlife

10 Jan 1978
21 March 2006



AFRICAN SOCIETY FOR SEXUAL MEDICINE CONGRESS

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Sexuality and Intimacy - The Missing links in Holistic Care



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