

Beyond Masculinity – Men’s Health Across the Life-span



Benjamin Olmedo MMSc, MPH, PA-C
AAPA We Are Family Medicine Conference
January 14th 2024

Disclosures

Non-Declaration Statement: I have no relevant relationships with ineligible companies to disclose within the past 24 months. (Note: Ineligible companies are defined as those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.)

Educational Objectives

- Describe the health status of Men in the United States.
- Demonstrate an understanding of how to navigate the healthcare challenges for Men's Health within Primary Care across the life-span.
- Discuss how to improve Men's health at the Primary Care level.

Agenda

- What is “Men’s Health” ?
- Across the Life-span: Overview of Statistics
- What can we do in Primary Care?
 - Evidence Based Physical Examination: Child, Adolescent and Adult Male
 - Promoting Cardiovascular Health in Men
 - Hypogonadism: Cardiometabolic Syndrome and Low Testosterone
 - Testicular, Scrotal and Penile Disorders
 - Prostate Health and Lower Urinary Tract Symptoms
 - Prostate Cancer
- Masculinity & Preventative Health – Substantial Challenge?
- The Future of Men’s Health in Primary Care

What is “Men’s Health”

4 General Categories:

- Conditions unique to men (i.e. prostate cancer, erectile dysfunction).
- Diseases more prevalent in men (i.e. Cardiovascular disease, substance abuse)
- Health Challenges with risk factors unique to men (i.e. intentional and unintentional injury)
- Population level (and individual) health challenges that require interventions specifically tailored to men (i.e. access to care, “Masculinity”).

Across the Life-span:

Men's Health Statistics

- Risk of Death, at every age, is higher for boys and men in comparison to girls and women.
- The CDC reported in 2021, a 5.9 year life-expectancy gap between men (73.2 years) and women (79.1 years) in the United States.
- Since 1980, Men in the U.S. have the lowest life expectancy at birth relative to 21 other high-income countries.
- In comparison to Women in the U.S., Men in the U.S. are:
 - 2 x more likely to die from COVID-19
 - 4 x more likely to die by Suicide
 - 2 x more likely to die as boys/teenagers due to injury
 - Higher risk of death due to Cardiovascular Disease and Cancer

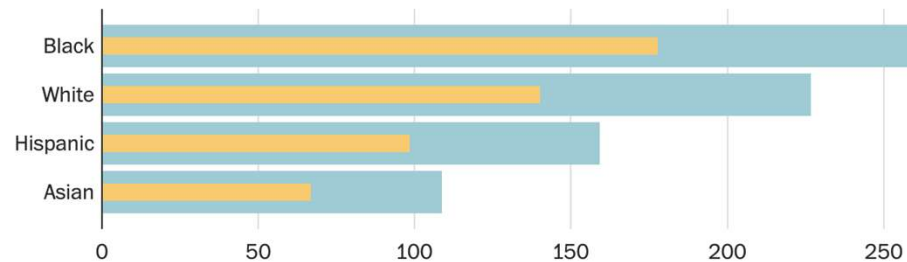
Higher Chronic Disease Mortality in the U.S.

American mortality divides

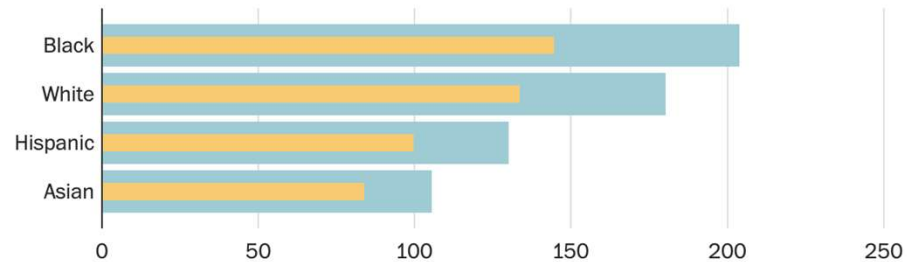
Age-adjusted death rates per 100,000 people by race, gender and cause of death

Male death rate Female death rate

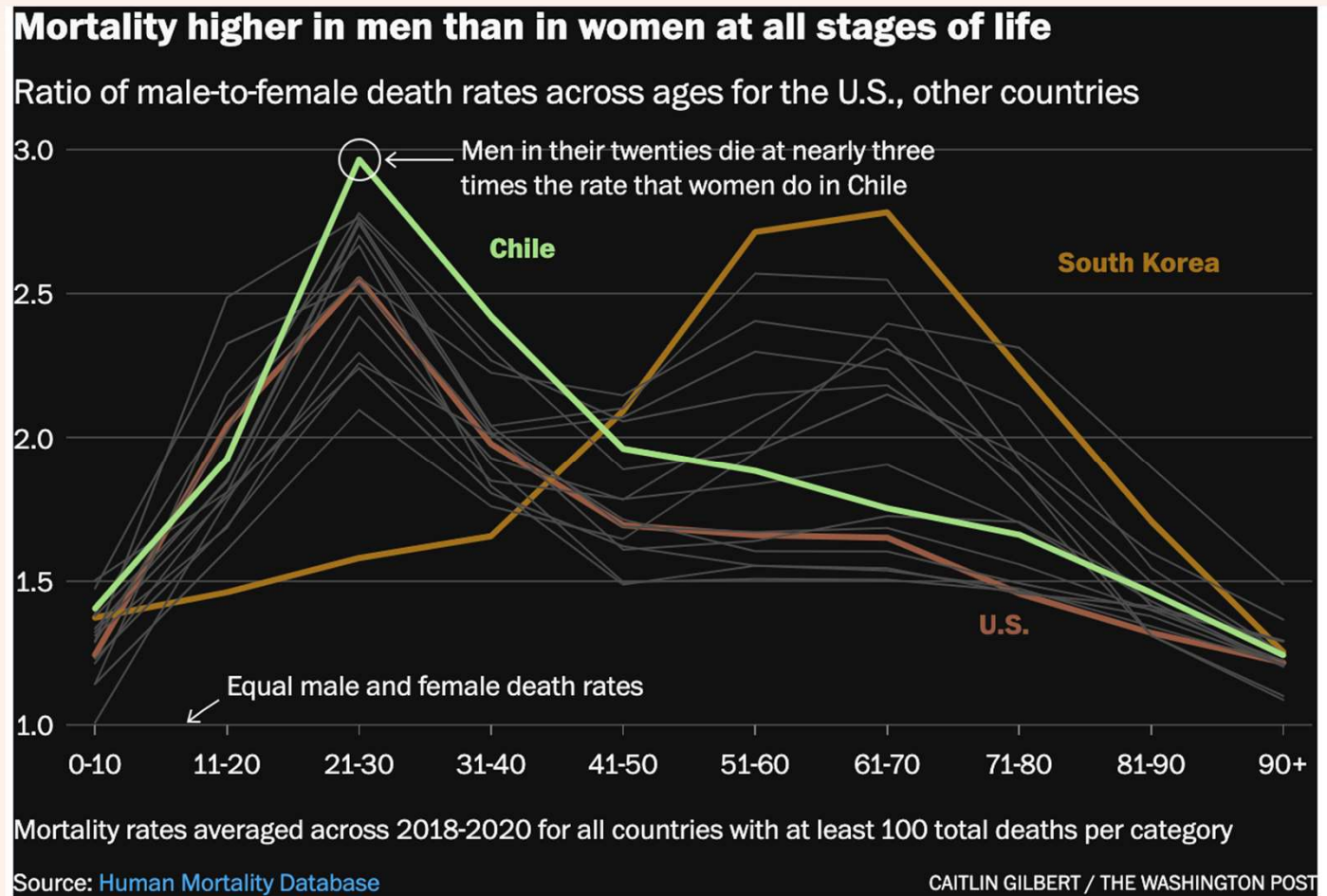
HEART DISEASE



CANCER



Higher Mortality in Men across the Life-span Worldwide



What can we do in Primary Care?

- Preventative Health Exam across all life-stages
 - Well Child
 - Well Adolescent
 - Well Adult
- Address Physical Determinants – “Screening Tests”
- Address Social Determinants – “Masculinity”
- Increase Access to Care tailored to Male patients

Male – Well Child

Table 5.1 Key physical examination components in childhood and adolescence well examinations from Bright Futures

	Blood pressure	Weight for length/BMI	Eyes	Mouth	Neuro	GU	Skin	MSK	Spine	Chest
12 months		*	*	*	*	*				
15 months		*	*	*	*					
18 months		*	*	*	*		*			
2 years		*	*	*	*					
2 ½ years		*	*	*	*					
3 years	*	*	*	*	*					
4 years	*	*	*	*	*					
5–6 years	*	*	*	*	*					
7–8 years	*	*		*		*		*		
9–10 years	*	*				*	*		*	
11–17 years	*	*				*	*		*	*
18–21 years	*	*				*	*	*		

*Bright Futures recommends a comprehensive physical examination, with concentration on key components for specific age groups

Table 5.4 Selected screening recommendations for child/adolescent male

	Bright Futures from AAP*	AAFP/USPSTF*
Vision	Ages 3–6 years, 8,10, 12, 15, 18 years	No routine screening
Hearing	Ages 4–6 years, 8, 10 year	No routine screening
Obesity screening	Annual BMI screening starting age 2 years	Routine BMI screening (B)
Hypertension	Routine BP screening starting at age 3 years	Routine screening (I)
Dental caries	Periodic screening: 12–30-month visits; 3 years, and 6 years; dental referral for a visit every 6 months	<ul style="list-style-type: none"> No routine screening (I) Prescribe oral fluoride supplementation (B) PCP to apply fluoride varnish to teeth (B)
Genital herpes screening	No routine screening	No routine screening (D)
HIV screening	Risk screening starting at age 11 years	Routine screening starting at age 15 (A)
Chlamydia and gonorrhea screening	Screen if adolescent is sexually active per CDC STD treatment guidelines, endorsed by AAP	I (adolescent men)
Depression screening	Annually starting at age 11 year	B (ages 12–18)
I (ages 7–11)		

*AAP does not offer appraisal evaluation in Bright Futures

*AAFP follows the USPSTF guidelines: A, recommends this service; B, recommends; C, recommends selectively providing this service; D, recommends against this service; I, current evidence is insufficient to make recommendation

2012 Task Force (AAP, AAFP, ACOG, CDC), technical report on circumcision.

Benefits outweigh the risks of the procedure.

* Men's Health in Primary Care, Current Clinical Practice, 2016.

Male – Well Adolescent

- Bright Futures and Screening Recommendations
- Impact of “Masculinity”
- Increased risk for substance abuse, risk taking behavior and injury.
- Top 3 causes of death: Unintentional Injury, Homicide and Suicide.
- HEEADSSS Psychosocial History:
 - Home – environment - education/employment – activities – drug use – diet – safety – sexuality – suicidality.
- Sports / Employment / Pre-Participation Physicals: Opportunity?
- Adolescent Male Centered Health Care: What does that look like?

Male – Well Adult

- 11.5% of Males less than 65yo are uninsured.
- Blood Pressure Screen, Body-Mass Index, address Cardiovascular Risk Factors.
- Testicular Cancer: USPTF – No Benefit.
- Prostate Cancer Screening: Controversial.
- Affordable Care Act covered services.
- Establish Relationship – Lifestyle Changes – Medication Management (where indicated) – Access to Care

Abdominal Aortic Aneurysm
one-time screening

Alcohol misuse screening and
counseling

Aspirin use for cardiovascular
prevention

Blood pressure screening

Cholesterol screening

Colorectal cancer screening for
adults over 50

Depression screening

Diabetes (type 2) screening for
adults with hypertension

Diet counseling for adults at
higher risk for chronic disease

HIV screening for everyone ages
15–65 and other ages at increased
risk

Immunizations

Obesity screening and counseling
for all adults

Sexually transmitted infection
(STI) prevention counseling for
adults at higher risk

Syphilis screening for all adults at
higher risk

Tobacco use screening for all
adults and cessation interventions
for tobacco users

Promoting Cardiovascular Health

- Cardiovascular Risk screening with an assessment of risk factors every 4 – 6 years for individuals 20 – 79 years of age.
- Risk factors: Age, Family History, Diabetes, Smoking status, Cholesterol, Blood Pressure.
- American College of Cardiology / American Heart Association 10-year Atherosclerotic cardiovascular disease (ASCVD) risk calculator.

<http://tools.cardiosource.org/ASCVD-Risk-Estimator/>

- Life-style changes/adaptations: Diet, Exercise, Stress, Relationships.
- Cardiology Referral as indicated.
- Specialty testing as indicated: Sleep Study, Stress test, Cardiac CT, etc.

Hypogonadism & Cardiometabolic Health

Fig. 13.4 Composition of serum testosterone. *SHBG* sex hormone-binding globulin, *T* testosterone. Adapted from [16]

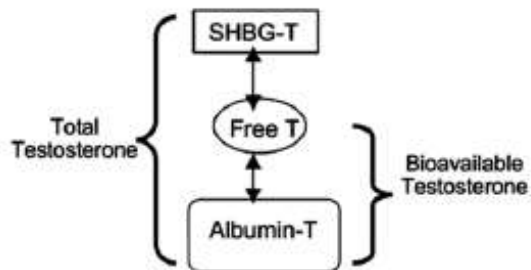
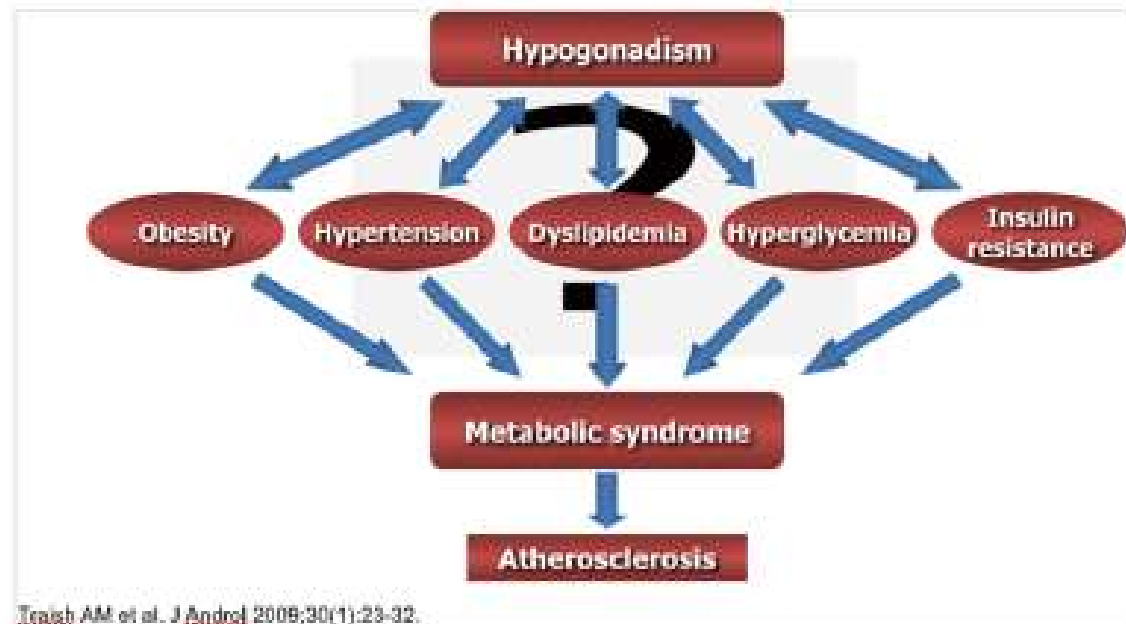


Table 13.2 Should clinicians screen for testosterone deficiency in men?

Yes
Testosterone levels decline as men age
Testosterone deficiency is a real syndrome with real symptoms and improvable metabolic outcomes
Studies suggesting cardiovascular risk associated with TRT have major flaws
TRT has proven benefit in cardiometabolic syndrome
No
Aging adults are a profitable market; TRT has been promoted as a "youth-restoring tonic and disease preventive"
"Pharmaceutical companies use nonspecific symptoms to foster disease states"
No consistent relationship has been proven between testosterone levels and symptoms associated with low testosterone

TRT testosterone replacement therapy
Adapted from [17, 18]

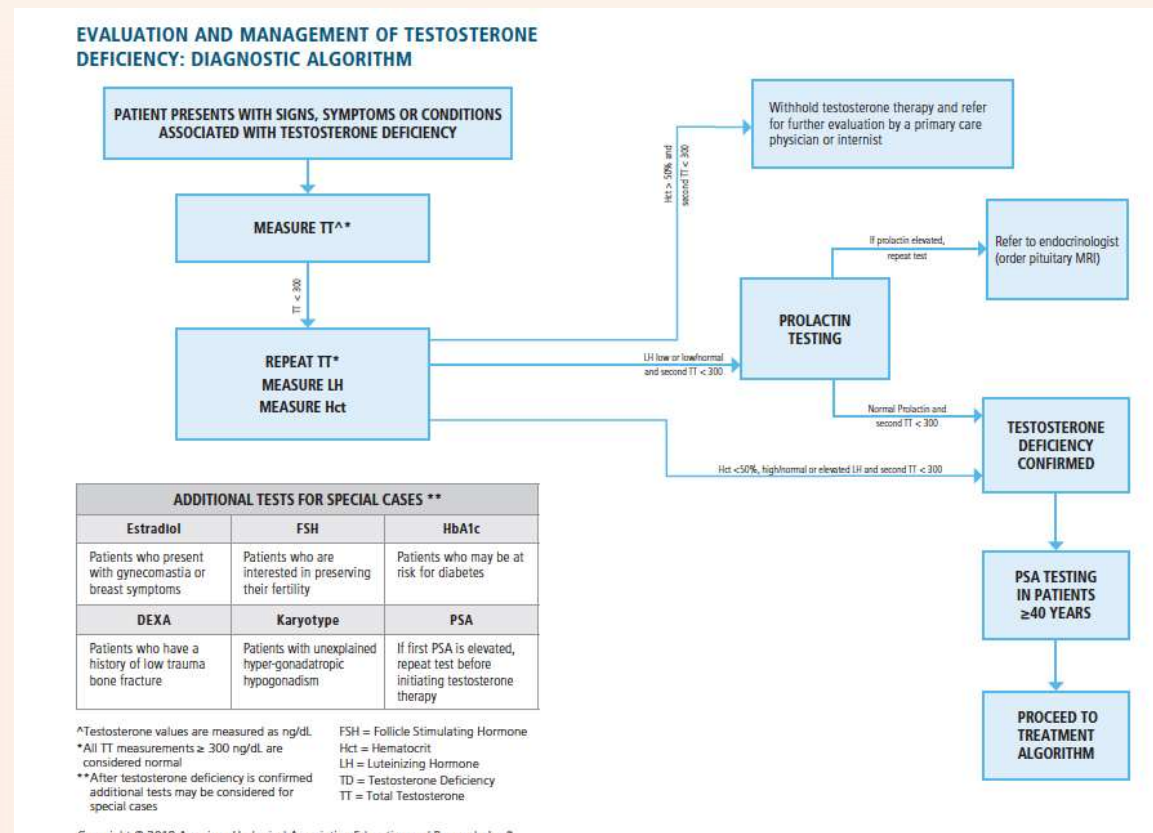


Traish AM et al. *J Androl* 2009;30(1):23-32.

* AM Traish et al. The Darkside of Testosterone Deficiency I & II. *Journal of Andrology*, Vol 30, No. 1, Jan/Feb 2009.

Hypogonadism & Cardiometabolic Health

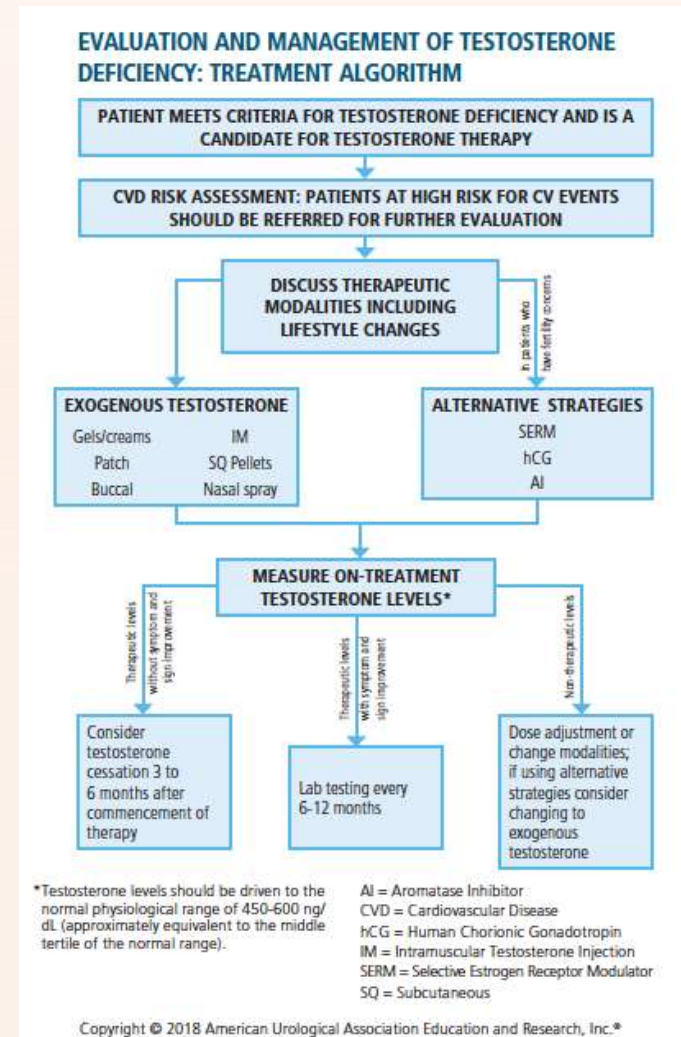
Physical Symptoms and Signs
Reduced energy
Reduced endurance
Diminished work performance
Diminished physical performance
Loss of body hair
Reduced beard growth
Fatigue
Reduced lean muscle mass
Obesity
Cognitive Symptoms and Signs
Depressive symptoms
Cognitive dysfunction
Reduced motivation
Poor concentration
Poor memory
Irritability
Sexual Symptoms and Signs
Reduced sex drive
Reduced erectile function



Hypogonadism Treatment

Testosterone Replacement Treatment Risks:

- Cardiovascular Risks
- Polycythemia
- Prostate Cancer Risks
- Negative impact on Fertility
- Overtreatment



Testicular, Scrotal and Penile Disorders

	Infants / Children	Adolescent / Young Adult	Adult	Older Men > 60 years old
Testicular	Testicular Torsion Torsion of Appendix Testes Tumor/Malignancy	Tumor/Malignancy Orchitis Testicular Torsion Torsion of Appendix Testes	Tumor/Malignancy Orchitis	Orchitis
Scrotal	Hydrocele Inguinal Hernia	Epididymitis Varicocele Inguinal Hernia	Epididymitis Fournier's Gangrene Inguinal Hernia Varicocele, Hydrocele Epididymal Cyst	Epididymitis Fournier's Gangrene Hydrocele Inguinal Hernia
Penile	Phimosis / Paraphimosis Priapism (5-10yo)	Phimosis / Paraphimosis STI	Priapism Peyronie's Disease STI	Penile Cancer/STI Priapism Peyronie's Disease

Prostate Health & Lower Urinary Tract Symptoms (LUTS)

- 25% of Men > 50 yo have moderate to severe LUTS

Causes of male lower urinary tract symptoms (LUTS)

Obstruction:

- Benign Prostatic Obstruction
- Foreign Body
- Urethral stricture

Primary Bladder Pathology:

- **Overactive Bladder**
- **Detrusor Underactivity**

Infectious:

- Urinary Tract Infection
- Prostatitis

Malignant:

- Bladder Tumor
- Prostate Cancer

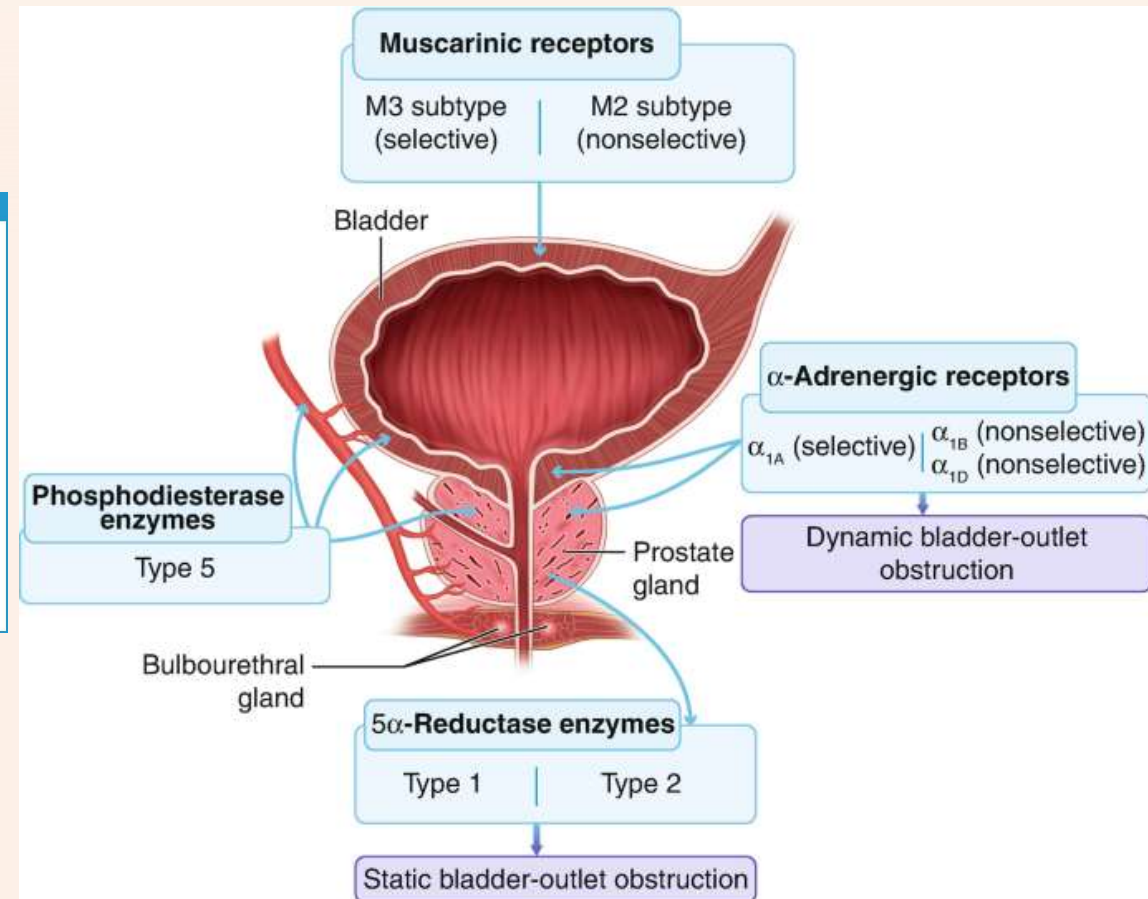
Neurogenic bladder dysfunction

Diuretic causes:

- Diabetes
- Nocturnal Polyuria

Extra-vesical cause:

- Distal Ureteric Stone

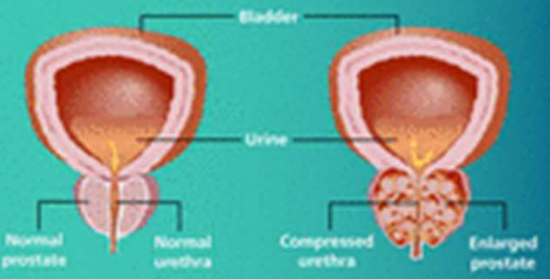


What about Prostate Cancer and PSA Screening?

Prostate Health & Lower Urinary Tract Symptoms (LUTS)

Does Treatment of Lower Urinary Tract Symptoms Reduce Mortality Risk in Older Men?

Benign prostatic hyperplasia, a condition in older men causing lower urinary tract symptoms (LUTS), has been associated with a higher mortality risk



Bladder
Urine
Normal prostate Normal urethra Compressed urethra Enlarged prostate

However, it is unclear whether treating LUTS reduces the risk of mortality

This study investigated the relationship between LUTS and all-cause mortality in older men with benign prostatic hyperplasia by analyzing data from the MTOPS (Medical Treatment of Prostate Symptoms) trial

MTOPS data (1993-1998)

3,046 men with moderate to severe LUTS

Randomization

- Placebo
- Doxazosin
- Finasteride
- Doxazosin and finasteride

Median age: 62 years

Median follow-up time for survivors: 6.6 years

Primary exposure: change in the AUASS from baseline

Median baseline American Urological Association symptom score (AUASS): 17/35

Primary outcome: all-cause mortality

Risk of death was decreased if there was an improvement in the:

- AUASS (4% reduction per 1-point improvement in the AUASS)
- Storage symptoms (HR 0.94, 95%CI 0.88-0.99, P = .03)
- Voiding symptoms (HR 0.95, 95%CI 0.91-0.99, P = .04)
- Urinary quality of life question

Improvements in AUASS were associated with reduced mortality risk regardless of the type of medication used

Improvements in LUTS were linked to a reduced risk of mortality in older men, with implications on when treatment should be offered

Prostate Cancer

- Prostate cancer is the most frequently diagnosed cancer in men.
- Prostate cancer is the second leading cause of male cancer-related mortality in the United States.
- The average age at the time of diagnosis is 66 years. Median-age of death due to Prostate Cancer is 80 years old.
- African Americans have a 70% greater risk of prostate cancer and 2 x greater risk of death (4.5% vs 2.5%)
- Higher risk: Family History, Occupational Exposure (i.e. Veterans/Agent Orange), history genetic mutations (i.e. BRCA1/2, etc.)
- DRE has low sensitivity and specificity when used alone. DRE Not recommended to screen for prostate cancer without PSA testing

Prostate Cancer – Screening Guidelines

TABLE 1

Recommendations for prostate cancer screening by various organizations^{9,12-14}

Organization	Year updated	Screening age (y)	Screening of patients at high risk	Screening interval	PSA level for biopsy
US Preventive Services Task Force ¹⁴	2018	Shared decision-making for patients 55-69	None specified	None specified	None specified
American Cancer Society ¹²	2010	Begin at age 50 in those with life expectancy > 10 y	Begin at age 40 in those with life expectancy > 10 y	Annual if PSA > 2.5 ng/mL	Select patients if PSA > 2.5 ng/mL; most patients if PSA > 4 ng/mL
American Urological Association ¹³	2013	55-69	40-69	Every 2 y	None specified
American College of Physicians ⁹	2013	50-69	40-69	Annual if PSA > 2.5 ng/mL	None specified

PSA, prostate-specific antigen.

Underlying Challenges in Men's Health: Masculinity vs Prevention

- Masculinity as Social Determinant?
 - Lack of access to care
 - Lack of seeking care and delay in seeking care
 - Risk Taking Behaviors
 - Stoicism
 - Stress Response
- 33% of Men do not have a primary medical home.
- 41% of Men do not receive recommended preventative health screenings during an average year.
- Lack of Insurance, Incarceration, Substance Abuse, Violence, etc...

The Future of Men's Health

- Improve Health Seeking Behavior
- Integrated Men's Healthcare that includes physical diagnosis and preventative screening in the context of:
 - Socioeconomic factors
 - Behavioral factors
 - Cultural factors
 - Environmental factors
- Improve Integrated Behavioral Health in primary care focused on the Adolescent Male and Young Adult Male.
- Implementation of Clinical Decision Making Tools and Artificial Intelligence to improve recommended preventative health screenings.

Take Home Points

- Men have unique characteristics that predispose them to worse health outcomes.
- Men have unique healthcare needs across the life-span.
- There are healthcare gaps within Men's Health that can be uniquely addressed at the Primary Care level.
- Masculinity is a social construct that can be influenced to either enhance or inhibit healthy behaviors.

References

- Men's Health in Primary Care, Current Clinical Practice, Springer Publishing, 2016.
- J.Dasarathy. PSA Cancer Screening: A Case for shared decision-making. Journal of Family Practice, Vol 69, No 1, Jan/Feb 2020.
- Evaluation and Management of Testosterone Deficiency Guidelines, American Urologic Association, 2018.
- Center for Disease Control and Prevention, National Center for Health Statistics, Men's Health, FastStats, December 23rd 2023.
- T.Parker-Pope & C.Gilbert. A Silent Crisis in Men's Health Get's Worse. Washington Post, April 17th, 2023.
- DG Moon. Changing Men's Health – Leading the Future. World Journal of Mens Health Vol. 36, No. 1, January 2018.
- M Jain, S Leslie, & A Sapra. Prostate Cancer Screening. National Library of Medicine, National Institutes of Health, StatPearls Publishing, January 2023.
- AM Traish et al. The Darkside of Testosterone Deficiency I & II. Journal of Andrology, Vol 30, No. 1, Jan/Feb 2009.

Questions?



Benjamin Olmedo MMSc, MPH, PA-C
ben.olmedo@gmail.com