



Fatherhood Talk Tuesday

June 8, 2021



Agenda

Housekeeping	Lisa Hong, NICHQ
Welcome & Introductions	Kenn Harris, NICHQ
Men's Health in the Era of Covid-19: A Practical Approach	Dr. Kevin Billups, Meharry Medical College
Q&A	All
Closing	Danisha Charles, NICHQ

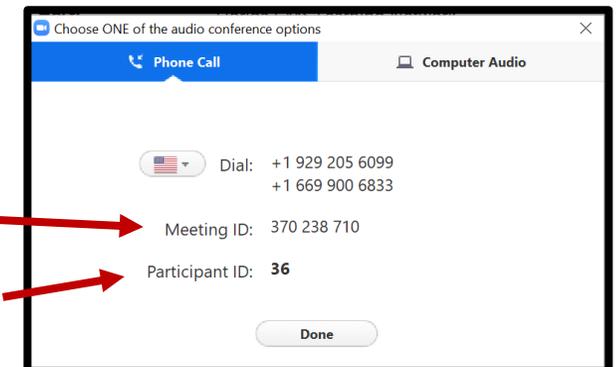
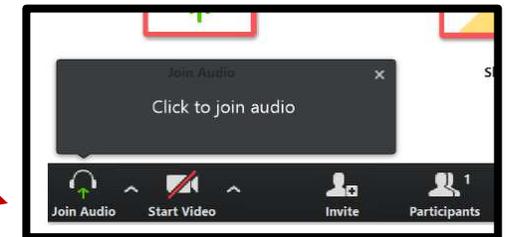
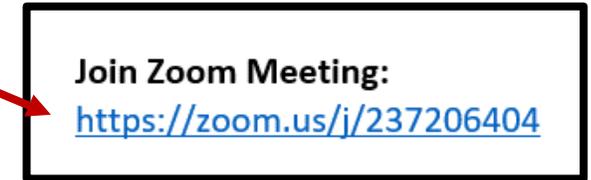
Meeting Logistics



- This session is being recorded.
- All participants are muted upon entry. We ask that you remain muted to limit background noise.
- Members are encouraged to participate in the discussion by typing your comments or asking questions using the chat box.

Connecting to the Audio Conference

- Join the Zoom Meeting by **clicking the Zoom Meeting link** & launching the Zoom application
- An audio conference box will appear
 - If you do not see the box, click '**Join Audio**'
- From the audio conference box, select '**Phone Call**' or '**Computer Audio**'
 - If using the phone:
 - Dial one of the given numbers next to "**Dial**"
 - You will be prompted to enter the **Meeting ID**
 - Then you will be prompted to enter the **Participant ID**



How to Chat

The image shows a Zoom Meeting window with a dark theme. At the bottom, there is a toolbar with icons for Unmute, Start Video, Participants, Chat, Share Screen, Record, and Reactions. A red box highlights the Chat icon. A red arrow points from this box to a sidebar on the right side of the window. The sidebar is titled 'Chat' and has a dropdown menu set to 'Everyone'. Below the dropdown is a text input field labeled 'Type message here...' and a 'File' button. A red arrow points from the text input field to a red box containing the text 'Chat here to everyone!'. Another red arrow points from the top of the sidebar to a red box containing the text 'A sidebar will appear where you can chat to all participants.' A third red arrow points from a red box containing the text 'Click the Chat button at the bottom of the Zoom window.' to the Chat icon in the toolbar.

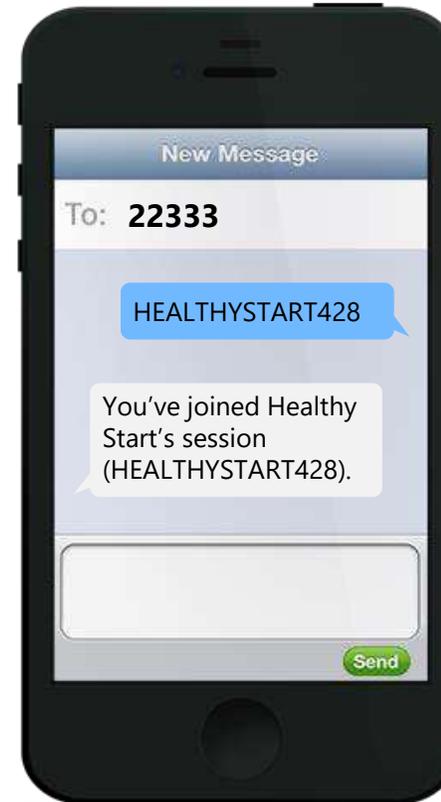
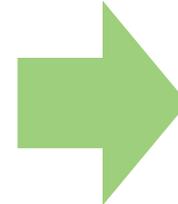
- 1 Click the **Chat** button at the bottom of the Zoom window.
- 2 A sidebar will appear where you can chat to all participants.
- 3 Chat here to everyone!

Participating with Poll Everywhere via text messaging

Send all messages to
the five-digit number
22333

To join, include in body
of text the word
HEALTHYSTART428

*You only need to do this
once*



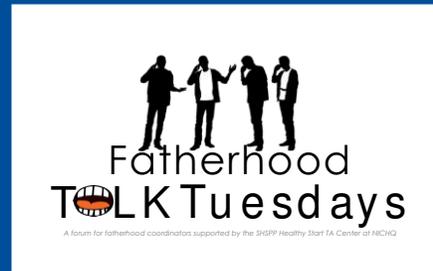
After you have
successfully joined, you
will receive a
confirmation message.

Additional Tips for Poll Everywhere

- Capitalization does not matter; spelling and spaces do.
- You only have to text '**HEALTHYSTART428**' the first time. After that, send normal text messages to respond to polls.
- If texting **22333** does not work, visit pollev.com/HEALTHYSTART428 to respond to the current poll.
- There will be NO charges to your cellphone beyond what your phone carrier typically charges for a text message.

Welcome & Introductions

Kenn Harris, NICHQ



Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

Dr. Kevin Billups

Professor of Medicine & Urology
Meharry Medical College





Men's Health in the Era of Covid-19: A Practical Approach

Dr. Kevin Billups
Meharry Medical College



Men's Health in the Era of COVID-19: A Practical Approach

Kevin L. Billups, MD

Professor of Medicine and Urology

Director of Men's Health

Meharry Medical College School of Medicine

kbillups@mmc.edu



Dr. Billups Disclosures

- None

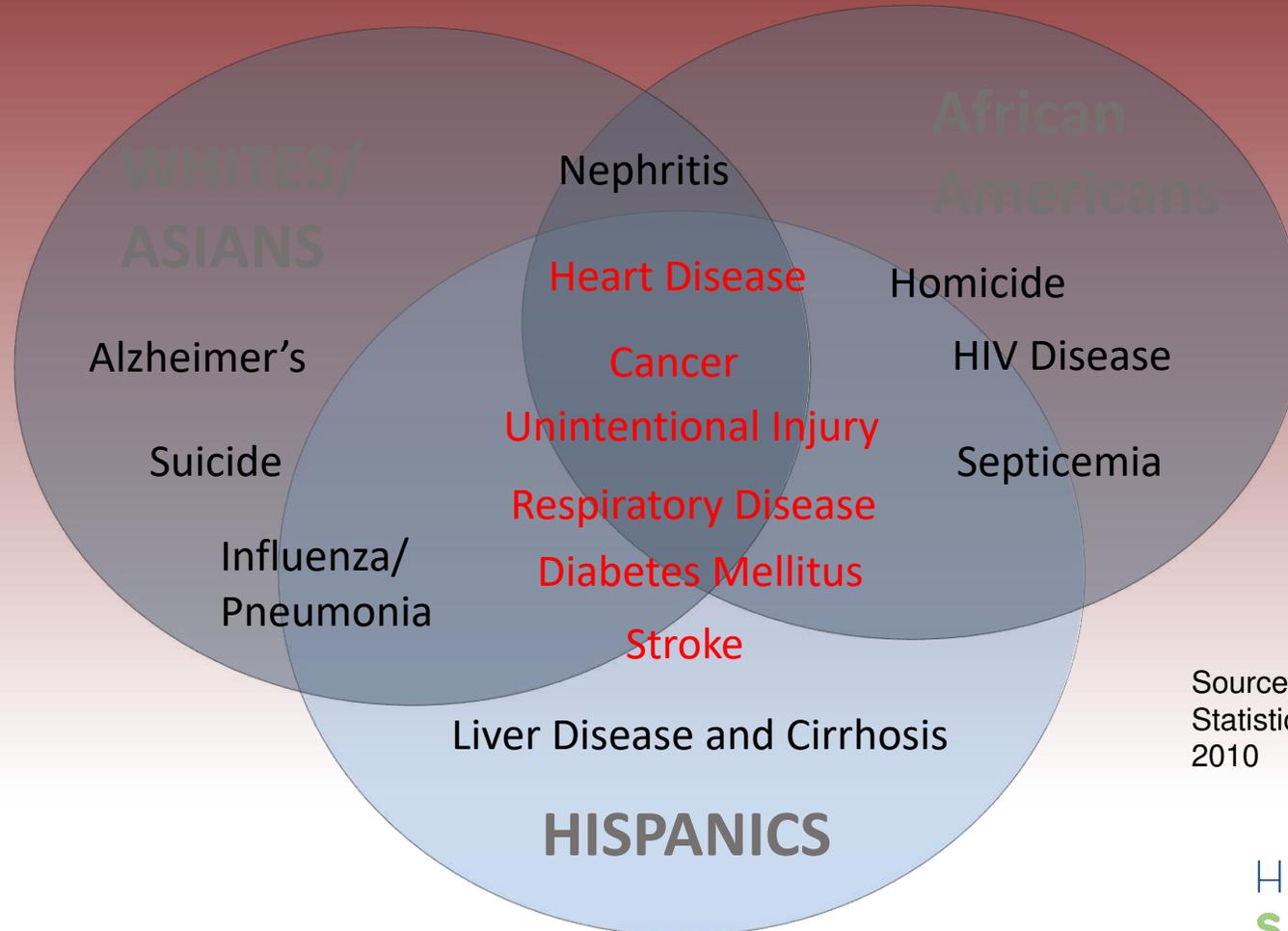
Presentation Outline

- What is Men's Health all About?
- My Approach to Men's Health
- Understanding Erectile Dysfunction & Testosterone Deficiency
- Implications for Chronic Disease Management
- The Future of Men's Health

What is Men's Health?

The World Health Organization (WHO) in the 1940's defined Men's Health as a state of complete physical, mental, and social well-being, as experienced by men, and not merely the absence of disease or infirmity. These often relate to structure such as male genitalia or to conditions caused by hormones specific to, or most notable in, males.

Leading Causes of “Men” Death by Race/Ethnicity



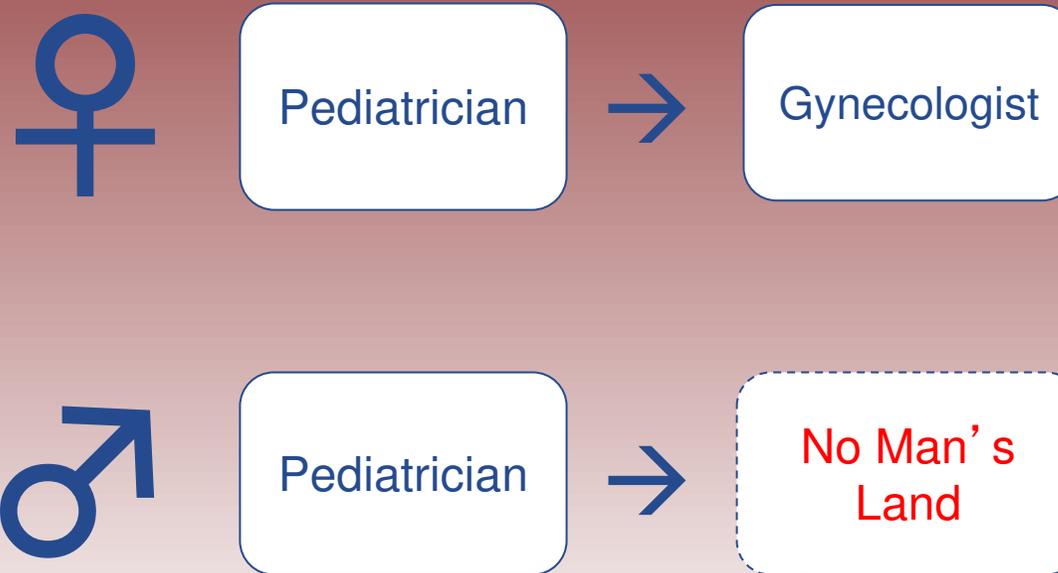
Source: National Vital Statistics Reports 62:6, 2010

The Facts of Life For Men Today

- Men Die 5.6 Years Earlier Than Women; AA Men 9.9 Years Earlier
- Life expectancy in the US has dropped 1 full year with COVID-19 (2.7 years for African Americans; 1.9 year for Hispanics)
- At least 50% of premature male deaths are preventable

Why Men Get Off To a Slow Start

- Consider Female versus Male Health Care Pathways



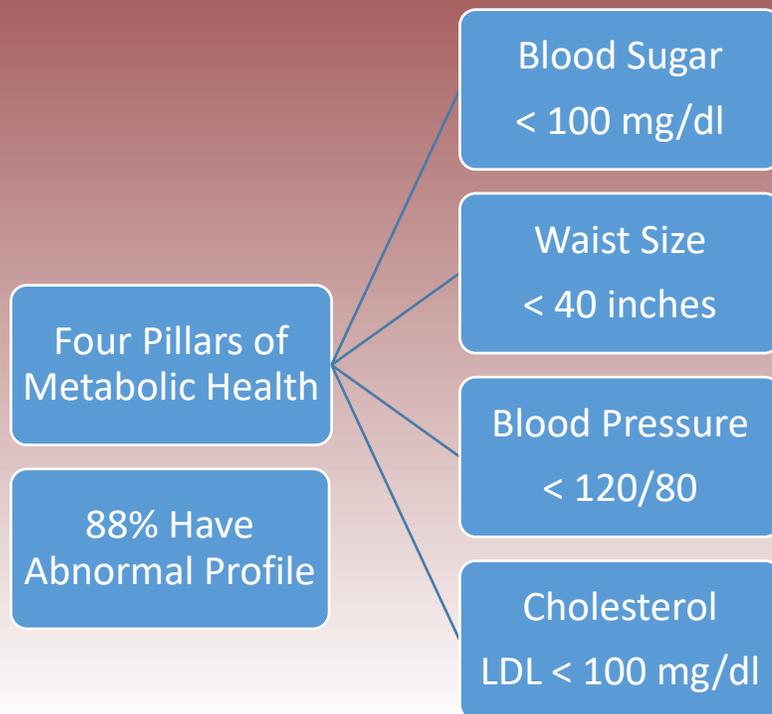
How I Currently Approach Men's Health

Men's Health: Common Symptoms

- Erectile Dysfunction
- Decreased libido/fatigue
- Weight Gain
- Snoring/Sleep Apnea
- Arthritis & Gout
- Acid Reflux
- Low Back & Leg Pain

Men's Health = Metabolic Health

The Path to Optimal Results



The Result of Poor Metabolic Health: “The Real Pandemic”

- Diabetes: 85,000 Deaths Annually - 50% of US adults have diabetes or pre-diabetes
- Hypertension: Nearly 50% of adults in the US have HBP are taking medication for it – about 500,000 deaths (primary or contributing cause)
- Overweight/Obese: Almost 75% of US adults (42% obese)
- High Cholesterol: 29 million American adults with total cholesterol greater than 240 mg/dl
- Heart Disease: 655,000 deaths annually; about 1 in 4 deaths
- Cancer: Nearly 607,000 Deaths annually

Directly related to nutrition & lifestyle



Achieving Optimal Men's Health

Easy Pathway

- Recognize the symptom(s)
- Choose a treatment
- No real plan often means no results

Effective Pathway

- Recognize the symptom(s)
- Understand the link metabolic health & disease
- Choose a solution

COVID-19 Risk Factors

- Major Risk Factors
 - Diabetes
 - Hypertension
 - Obesity
- Common Denominator
 - All are diet (nutrition) related
 - All are lifestyle (exercise, sleep hygiene) related

COVID-19: A Tale of Two Pandemics

- Diabetes, Hypertension and Obesity
 - Slow pandemic developing over the past 30 years
 - Increase the risk for severity associated with COVID infection
- COVID-19
 - Fast pandemic developed over the past 15 months

COVID-19 Risk Factors: Significance & Outcomes

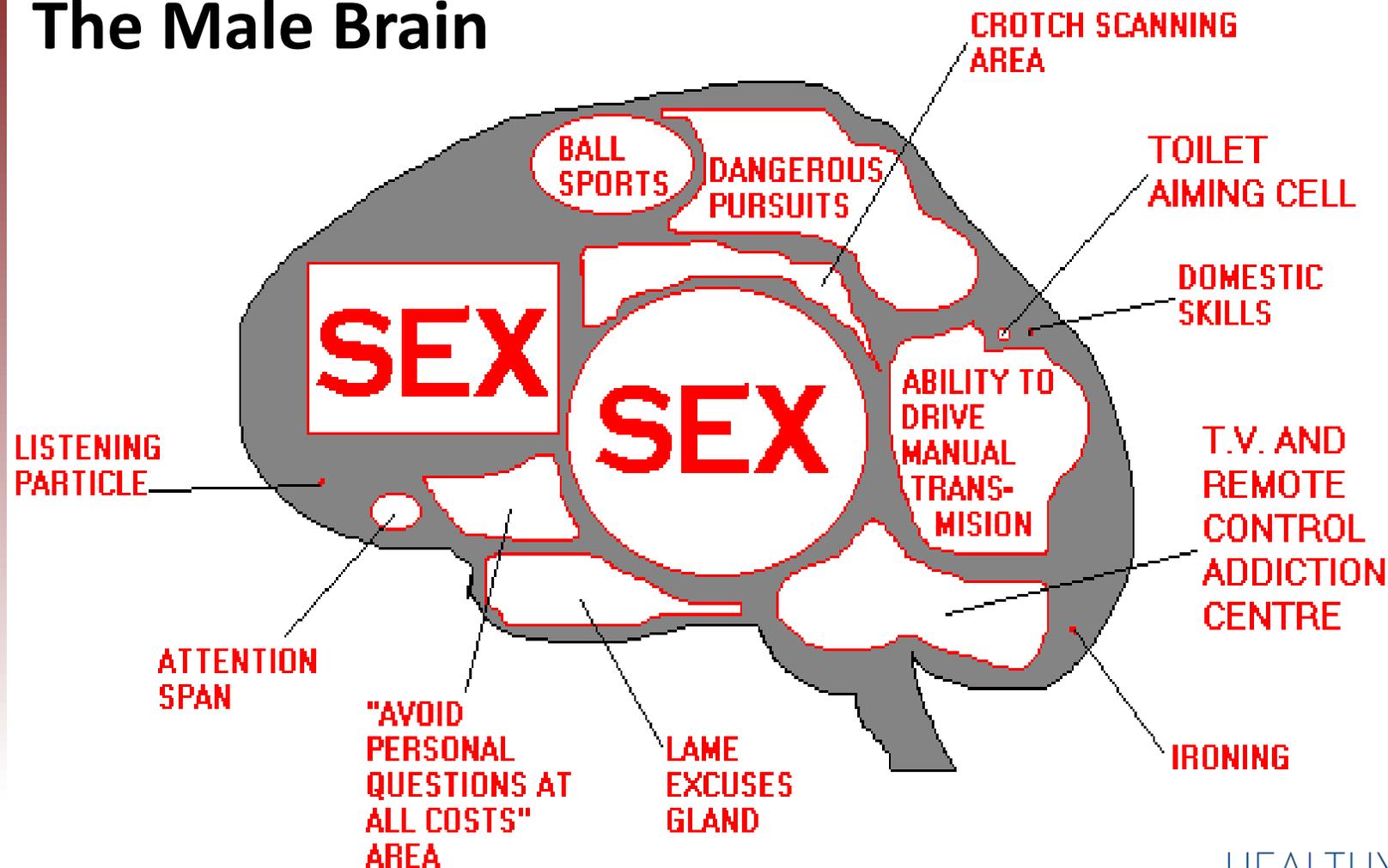
- Diabetes, Hypertension
 - Each increase the risk of hospitalization 3x to 4x in an additive fashion
 - Diabetes plus Hypertension = about 6x to 8x increase risk of hospitalization
- Obesity
 - Moderate obesity (BMI of 30 to 40) = 4x increased risk of hospitalization
 - Severe obesity (BMI of >40) = 6x increased risk of hospitalization

The Solution: Get Healthier & Take Control of Your Life

- Symptoms are linked to metabolic health and chronic medical conditions
- You can change your metabolic health profile within 6 weeks
- Integrating lifestyle changes with medical supervision gets results
- Education triggers engagement which leads to empowerment

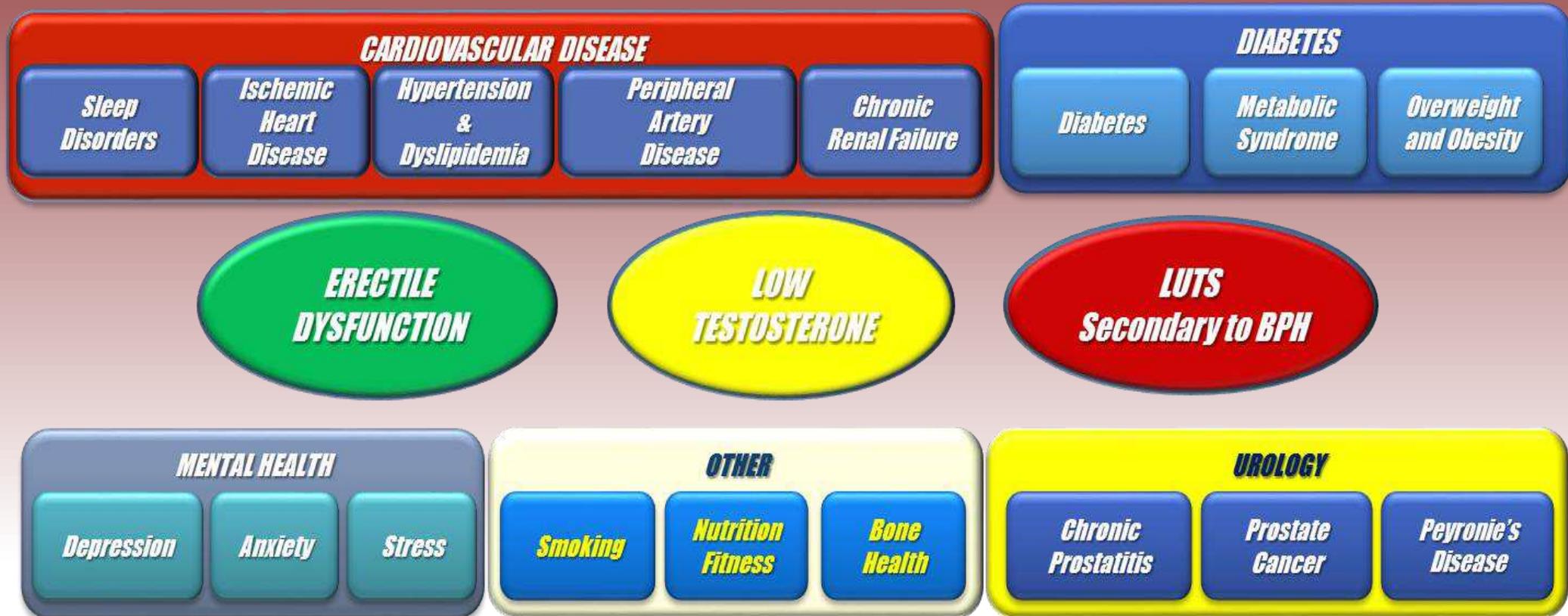
The Real Driver for Men's Health

The Male Brain



Men's Health, Sexual Medicine & Cardiometabolic Risk

Men's Health and Sexual Medicine correlates with all major chronic disease areas and impacts men across all racial, ethnic and socio-economic and geographical boundaries



Common Men's Health Conditions

- Erectile Dysfunction
- Testosterone Deficiency (Hypogonadism)
- Premature Ejaculation
- Peyronie's Disease
- Benign Prostate Disease
- Infertility

Male Sexual Health Correlates

Causes of ED

- **Coronary Artery Disease (CAD)**
- Hormonal Problems
- **Injuries**
- Nerve Damage (RRP, MS, Parkinson's)
- **Infections**
- **Diabetes**
- **Stress, Depression & Anxiety**
- **Alcohol & Drug Abuse**
- **Hypertension**

Top 10 Leading Causes of Death¹

- **Heart Disease (CAD)**
- **Cancer**
- **Stroke**
- **Accidents**
- **Lung disease (COPD)**
- **Pneumonia**
- **Diabetes**
- **Suicide**
- **Liver Disease (Cirrhosis)**
- **Homicides**

Hypogonadism^{2,3}

- **Obesity** (52.4)
- **Diabetes** (50.0)
- **Hypertension** (42.4)
- **Hyperlipidemia** (40.4)
- Osteoporosis (44.4)
- **Asthma/COPD** (43.5)
- **Prostate Disease** (41.3)

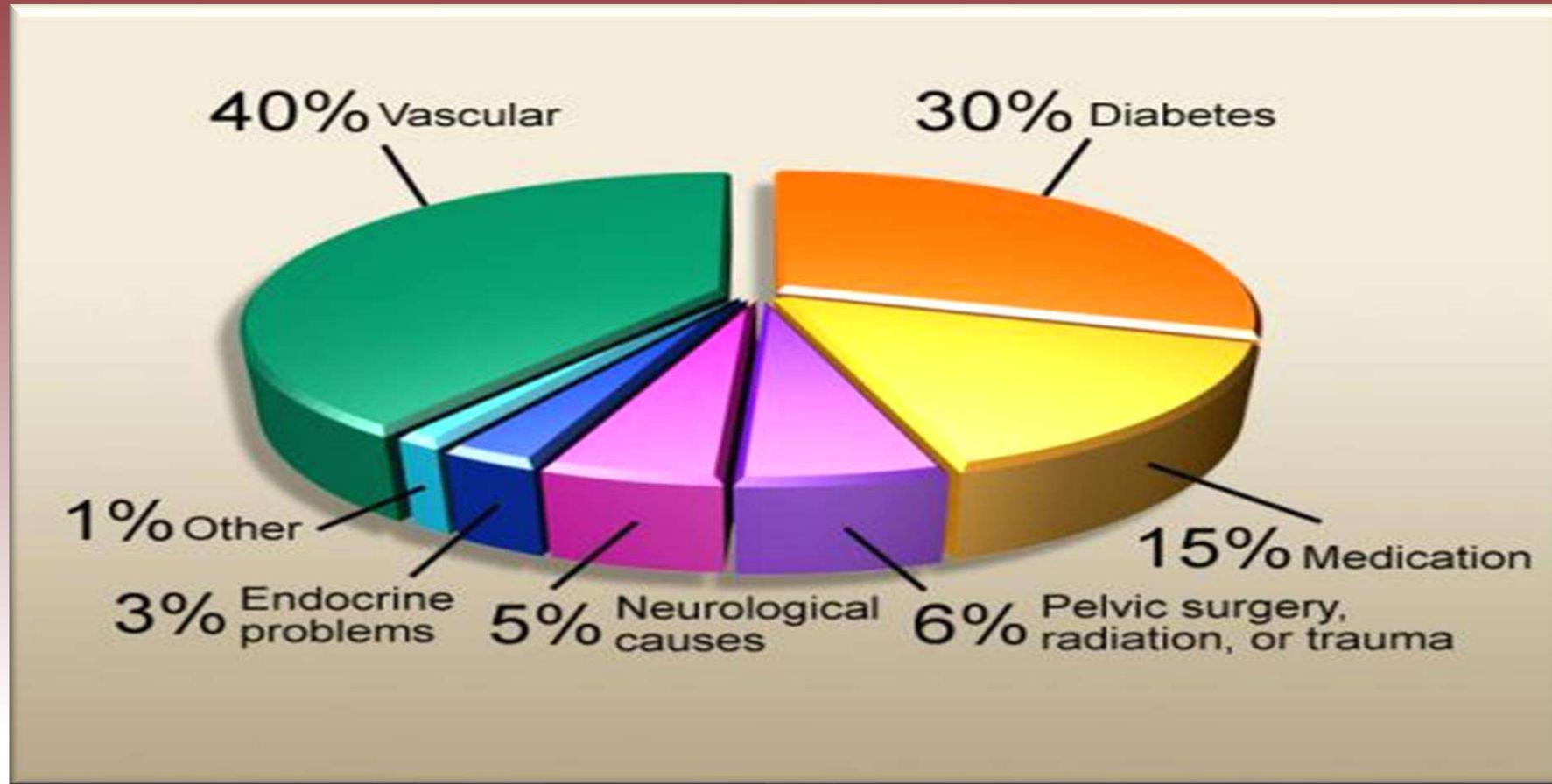
¹Centers for Disease Control

²Hypogonadism In Males (HIM) Mulligan, T. et al, *Int J Clin Pract.* 2006; 60 (7): 762-769

³() = percent prevalence

Causes of Erectile Dysfunction (ED)

Organic Causes of ED: Percentage Distribution



With permission from Goldstein I, and the Working Group for the Study of Central Mechanisms in Erectile Dysfunction. Sci Am. August 2000:70-75.

Clinical Evaluation of Erectile Dysfunction

The evaluation of the male with ED comprised of three Phases:

- History & Physical Exam
- Lab testing
- Adjunctive testing
 - Imaging and related modalities
- The modern ED assessment is an evaluation for vascular disease

American College of Cardiology ASCVD Risk Calculator

- Calculates Lifetime & 10-year ASCVD Risk
- Indicates Optimal ASCVD Risk
- **Projects 10-year Risk Reduction by Intervention/Therapy**
 - Smoking cessation
 - Statin therapy
 - Blood pressure medication
 - Aspirin therapy
- **Provides Risk Reduction Scenarios**
- **Provides Treatment Advice based on individual patient data**
 - LDL-C Management
 - Blood Pressure Management
 - Tobacco Cessation
 - Diabetes Mellitus Management
 - Lifestyle Recommendations
 - Aspirin Use
 - Therapy Safety Information

The screenshot shows the ASCVD Risk Estimator Plus interface. At the top, it displays the American College of Cardiology logo and the title "ASCVD Risk Estimator Plus". The main results area shows a "Current 10-Year ASCVD Risk" of 30.8% (high), a "Lifetime ASCVD Risk" of 69%, and an "Optimal ASCVD Risk" of 1.2%. Below this, there are input fields for patient data: Current Age (45), Sex (Male), Race (White), Systolic Blood Pressure (140), Diastolic Blood Pressure (90), Total Cholesterol (320), HDL Cholesterol (24), LDL Cholesterol (180), History of Diabetes (No), Smoker? (Current), On Hypertension Treatment? (No), On a Statin? (No), and On Aspirin Therapy? (No). A "Determine Therapy Impact" button is located at the bottom right of the form.

ASCVD Risk Estimator Plus

Laboratory Testing

- Hemoglobin A₁C (Diabetes)
- Hemoglobin & Hematocrit
- Hypothalamic-pituitary-gonadal axis evaluation
 - Total Testosterone
 - Free Testosterone
 - Sex Hormone-Binding Globulin (SHBG)
 - Prolactin
 - Luteinizing Hormone (LH)
 - Follicle Stimulating Hormone (FSH)
- PSA
- Lipid profile
 - Total cholesterol
 - HDL
 - LDL
 - Triglycerides
- Thyroid function tests (if indicated)
 - Thyroid-Stimulating Hormone (TSH)
 - Triiodothyronine (T3)
 - Total Thyroxine (T4)
 - Free Thyroxine (FT4)
- Vitamin D 25-Hydroxy

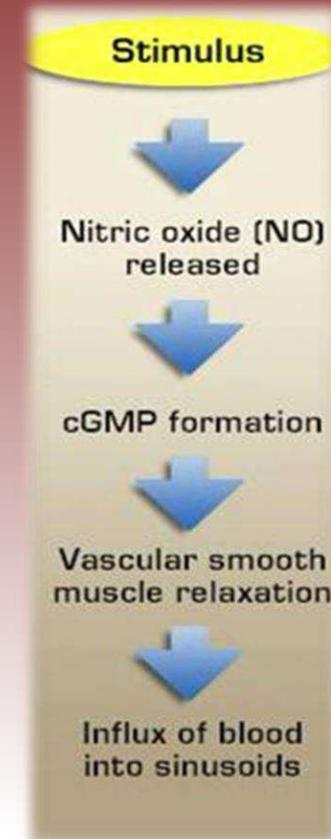
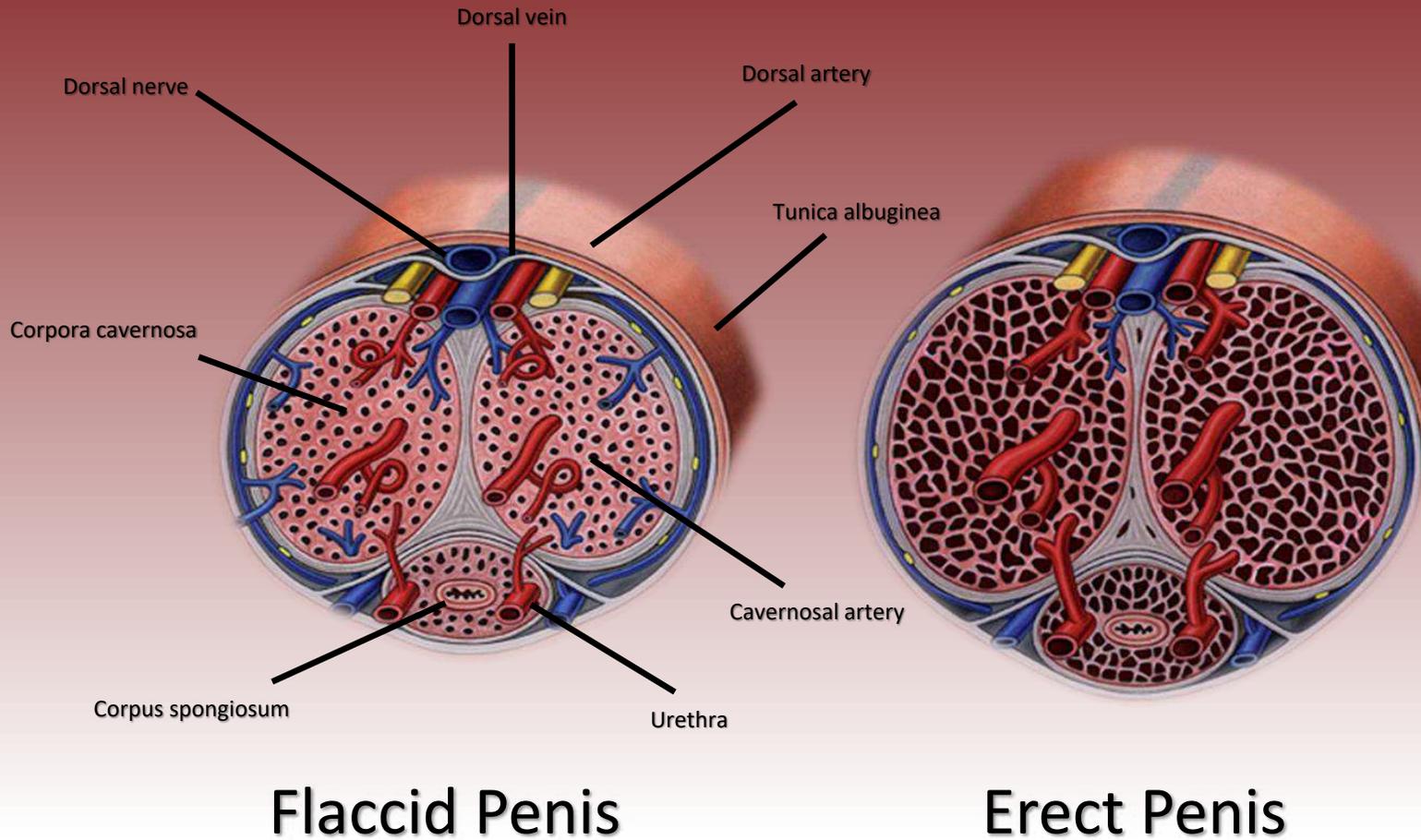
Imaging Studies

- Nocturnal Rigidity
 - Rigiscan
 - Stamp or Tape Test
- Specialized Vascular Evaluation
 - Diagnose arterial and venous insufficiency in men with ED
 - Penile Color Duplex Doppler Ultrasonography
 - Utilizing ICI to evaluate blood flow direction and velocity
 - Diagnostic for both arterial insufficiency and veno-occlusive dysfunction

Broderick GA, Arger P. Duplex Doppler ultrasonography: noninvasive assessment of penile anatomy and function. Semin Roentgenol. 1993; 28(1):43–56.

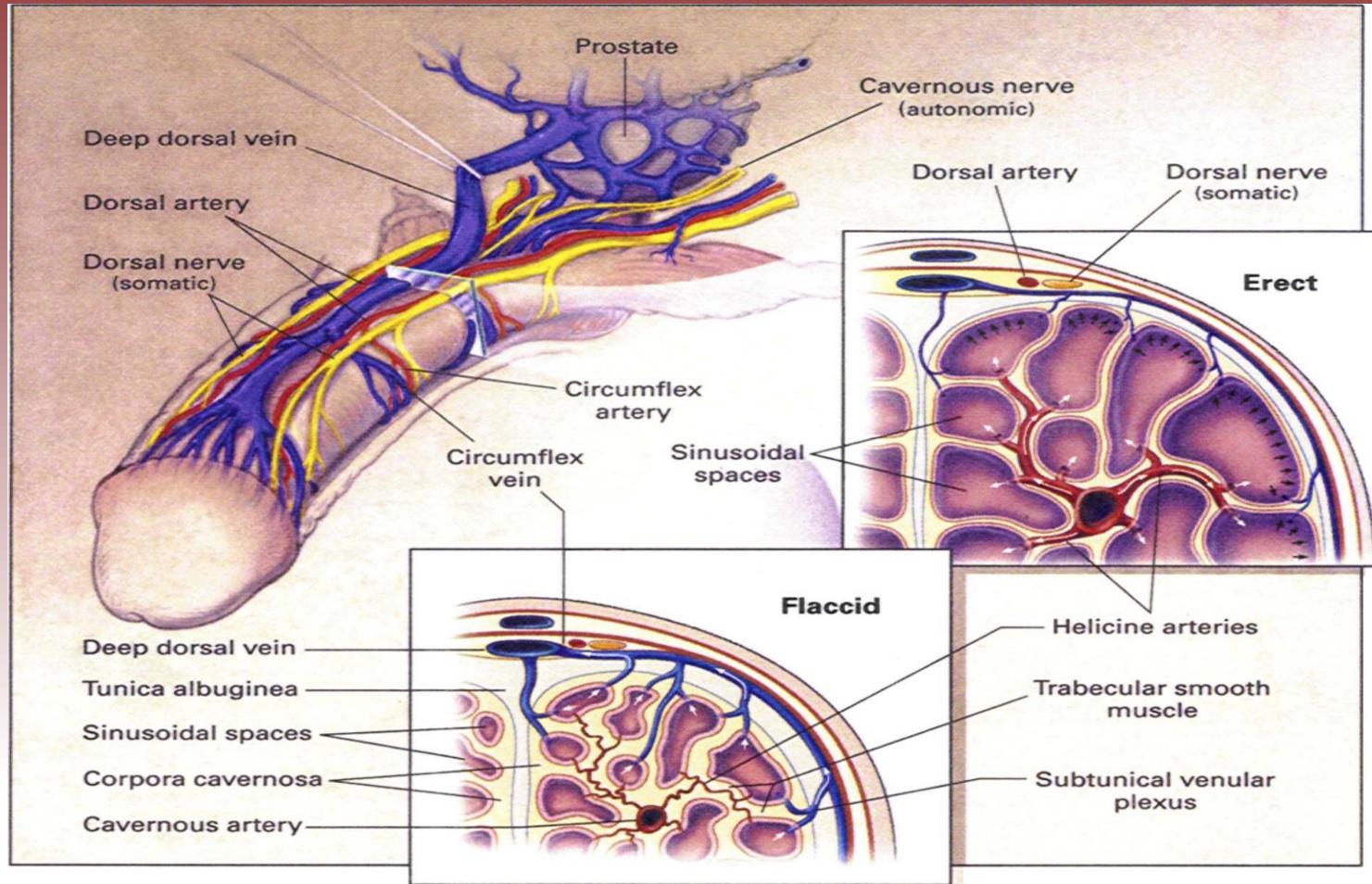
Erectile Dysfunction Medical Management

Male Erectile Physiology



National Erectile Dysfunction Foundation. Understanding Erectile Dysfunction. 1998.

Penile Anatomy

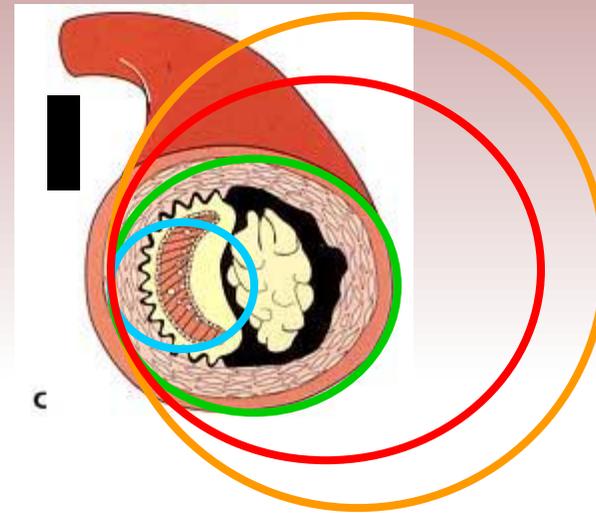


Vascular ED: Early Marker of More Diffuse Vascular Disease

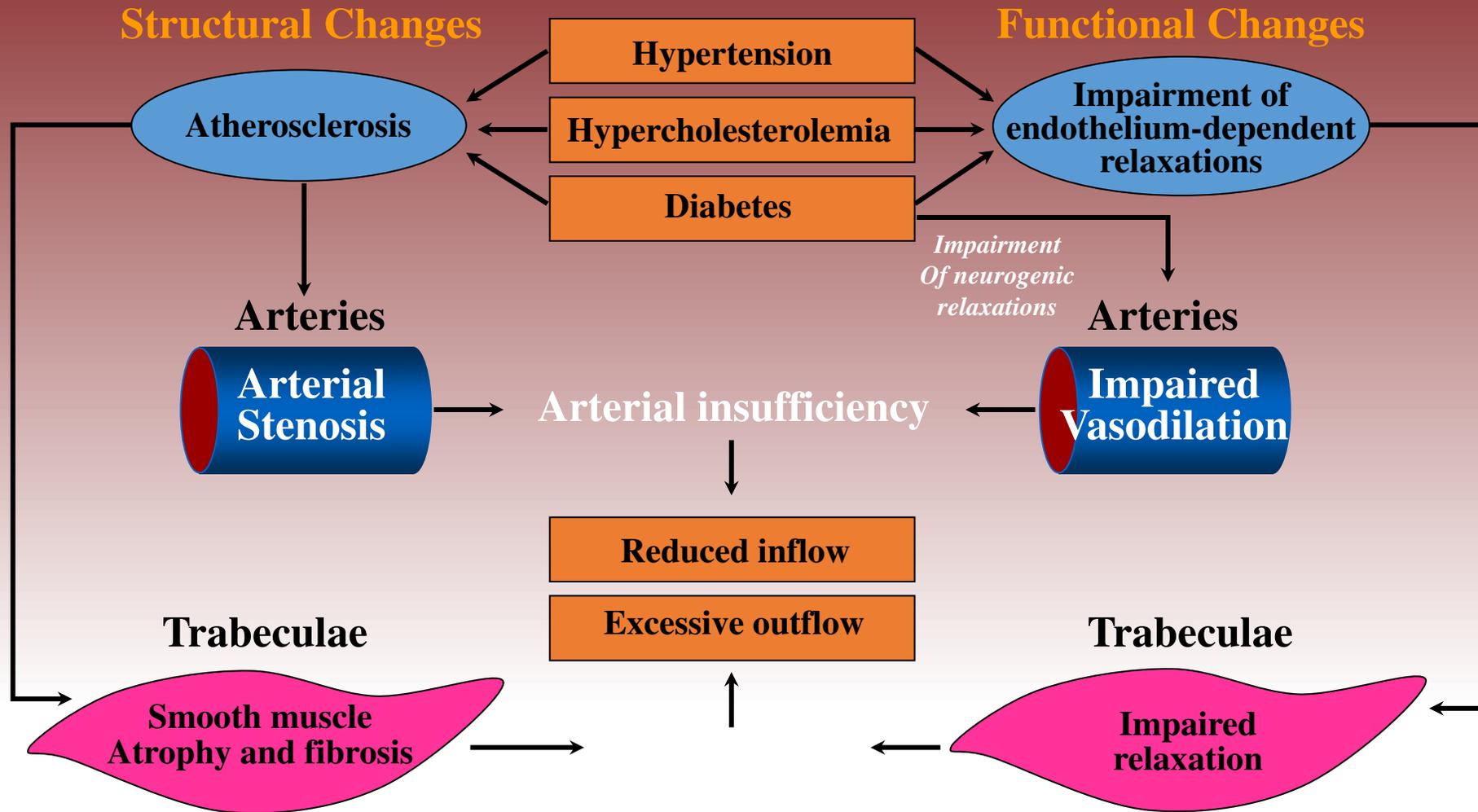
ED may be silent to the patient and healthcare provider — BUT THE VASCULAR DISORDER LINK WITH ED IS NOT CLINICALLY SILENT

Smaller penile arteries suffer obstruction from plaque burden earlier than the larger arteries

- **Penile 1-2 mm**
- **Coronary 3-4 mm**
- **Carotid 5-7 mm**
- **Iliofemoral 6-8 mm**

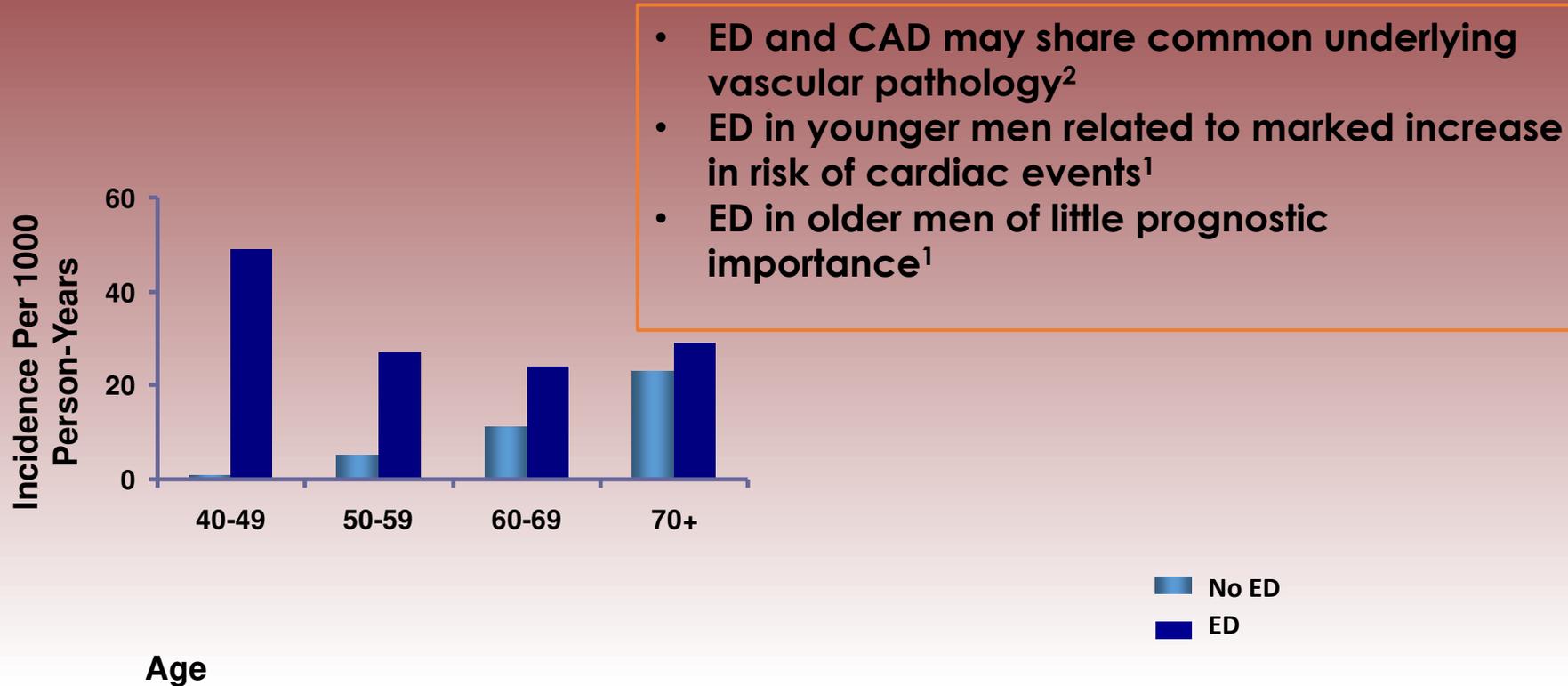


Vascular Causes of ED



ED Predicts Coronary Events: 10-Year Follow-up

1990-2000: **2115 community-dwelling men aged 40 -79** entered *Olmstead County Study of Urinary Symptoms and Health Status Among Men*¹



CAD Incidence-Densities/1000 person-years¹

. Inman BA et al. *Mayo Clin Proc.* 2009;84(2):108-113. 2. Reproduced from Miner MM. *J Androl.* 2011;32(2):125-134.

Vascular ED: Clinical Significance

- Vascular ED: powerful marker of increased CVD risk beyond traditional risk factors
- Detection of vascular ED should trigger CVD risk assessment/reassessment for subclinical CAD
- No guidelines exist for w/u vascular ED
- In patients with vascular ED considered at intermediate or high CVD risk, coronary artery calcium (CAC) may be particularly valuable for further assessment

Erectile Dysfunction Algorithm[©]

COUNSEL THE MAN AND PARTNER REGARDING

- The value of psychosocial/relationship support from trained professionals to optimize treatment satisfaction
- The importance of lifestyle change (weight loss, exercise, smoking cessation) to improve erectile function and overall health.
- The benefits and risks/burdens of all available ED treatments that are not contraindicated

Using a shared decision-making framework, identify appropriate treatment¹ based on values and priorities of man and partner

PDE5i

Vacuum Devices

Intraurethral (IU) alprostadil

Intracavernosal injection (ICI)

Penile prosthesis Surgery

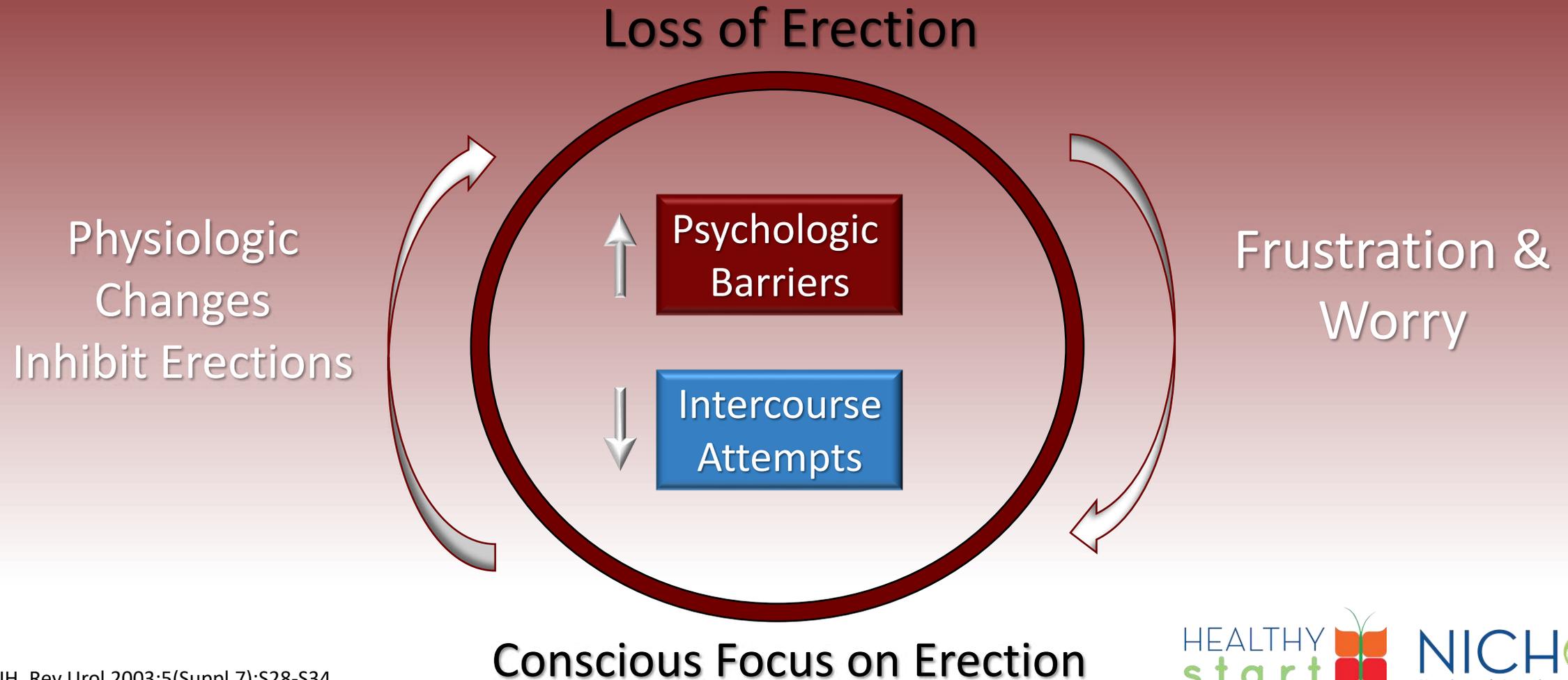
ASSESS OUTCOMES, ADVERSE EVENTS (AEs), AND SATISFACTION OF MAN AND PARTNER

IF INADEQUATE EFFICACY AND/OR UNACCEPTABLE AEs AND/OR INSUFFICIENT SATISFACTION, THEN ADDRESS AS APPROPRIATE

- Dose adjustments (for PDE5i, IU alprostadil, ICI)
- Revisit instructions to maximize efficacy (for all treatments)
- Revisit values and priorities of man and partner with mental health professional to refine values and priorities and/or to address psychosocial or relationship barriers to successful treatments
- Consider alternate treatment

¹ For men with testosterone deficiency defined as the presence of symptoms and signs and a total testosterone <300 ng/dl, counseling should emphasize that restoration of testosterone levels to therapeutic levels is likely to increase efficacy of ED treatments other than prosthesis surgery.

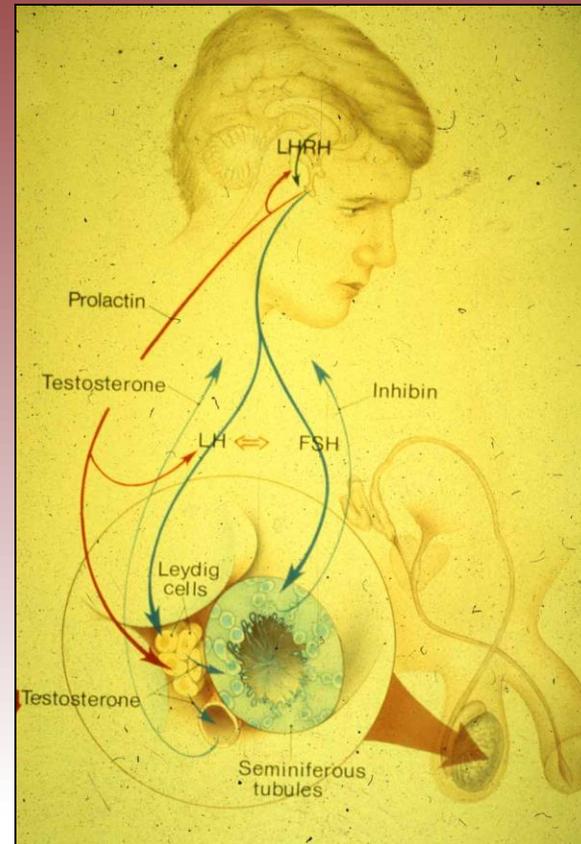
Physiologic and Psychologic Impact of Erectile Dysfunction



Testosterone Deficiency Evaluation & Management

Definition of Hypogonadism

- A reduction in testosterone production
 - Primary: testicular failure
 - Secondary: hypothalamic or pituitary dysfunction (Co-morbidity related)
 - Combined: decreased pulsatility of gonadotropins plus decreased Leydig cell response
- Congenital or acquired
- May be multifactorial: aging, chronic disease, unhealthy behavioral habits, and side effects from medications
- Lifestyle changes can have an impact



Testosterone Deficiency Signs & Symptoms

Physical

- Decrease muscle mass and strength
- Decreased bone mineral density
- Diminished energy, sense of vitality, or well-being
- Gynecomastia
- Anemia
- Frailty
- Increased body mass index (BMI)
- Fatigue
- Insulin resistance
- Enlarged Liver/Elevated LFT's

Psychological

- Diminished energy, sense of vitality, or well-being
- Impaired cognition and memory
- Decreased mood

Sexual

- Decreased bone mineral density
- Decrease spontaneous erections
- Erectile dysfunction
- Difficulty achieving orgasm
- Diminished libido

Hypothalamic-Pituitary-Testicular Axis in Aging Males

- Altered hypothalamic secretion of Gonadotropin Releasing Hormone (GnRH)
- Altered signal to pituitary to release Luteinizing Hormone (LH)
- Altered signal to testes (Leydig Cells)
- Low testosterone levels

Morley JE. J Gend Specif Med. 2001;4:49-53.

Tenover JL. Int J Androl. 1999;22:300-306.

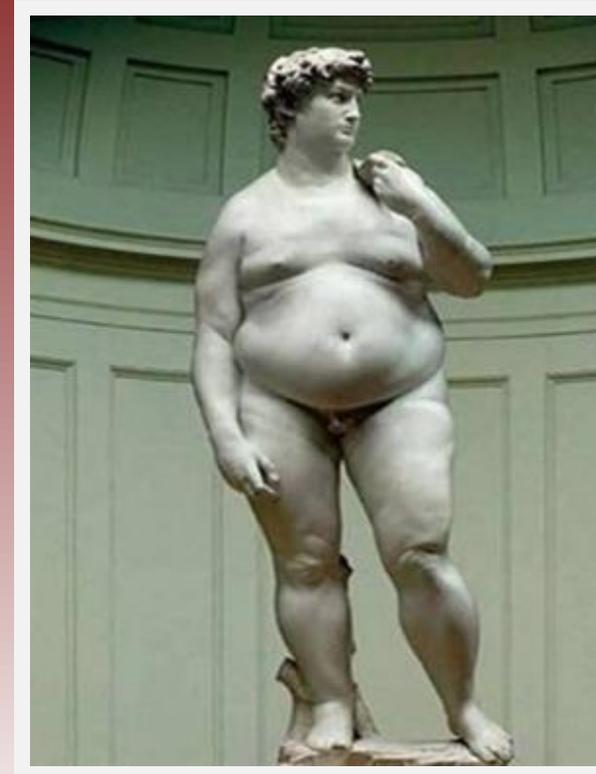
Matsumoto AM, J. Gerontol: Med. Sciences. 2002;57A(2):M76-M99.

Prevalence of Major Risk Factors with Hypogonadism

Overall Prevalence of Biochemical Hypogonadism in Clinical Practice: 38.9%

Risk Factor	Hypogonadism ^a Prevalence (95% CI)	Odds Ratio (95% CI)
Obesity	52.4 (47.9-56.9)	2.38 (1.93-2.93)
Type 2 diabetes	50.0 (45.5-54.5)	2.09 (1.70-2.58)
Hypertension	42.4 (39.6-45.2)	1.84 (1.53-2.22)
Hyperlipidemia	40.4 (37.6-43.3)	1.47 (1.23-1.76)
Asthma or COPD	43.5 (36.8-50.3)	1.40 (1.04-1.86)
Prostate disease	41.3 (36.4-46.2)	1.29 (1.03-1.62)

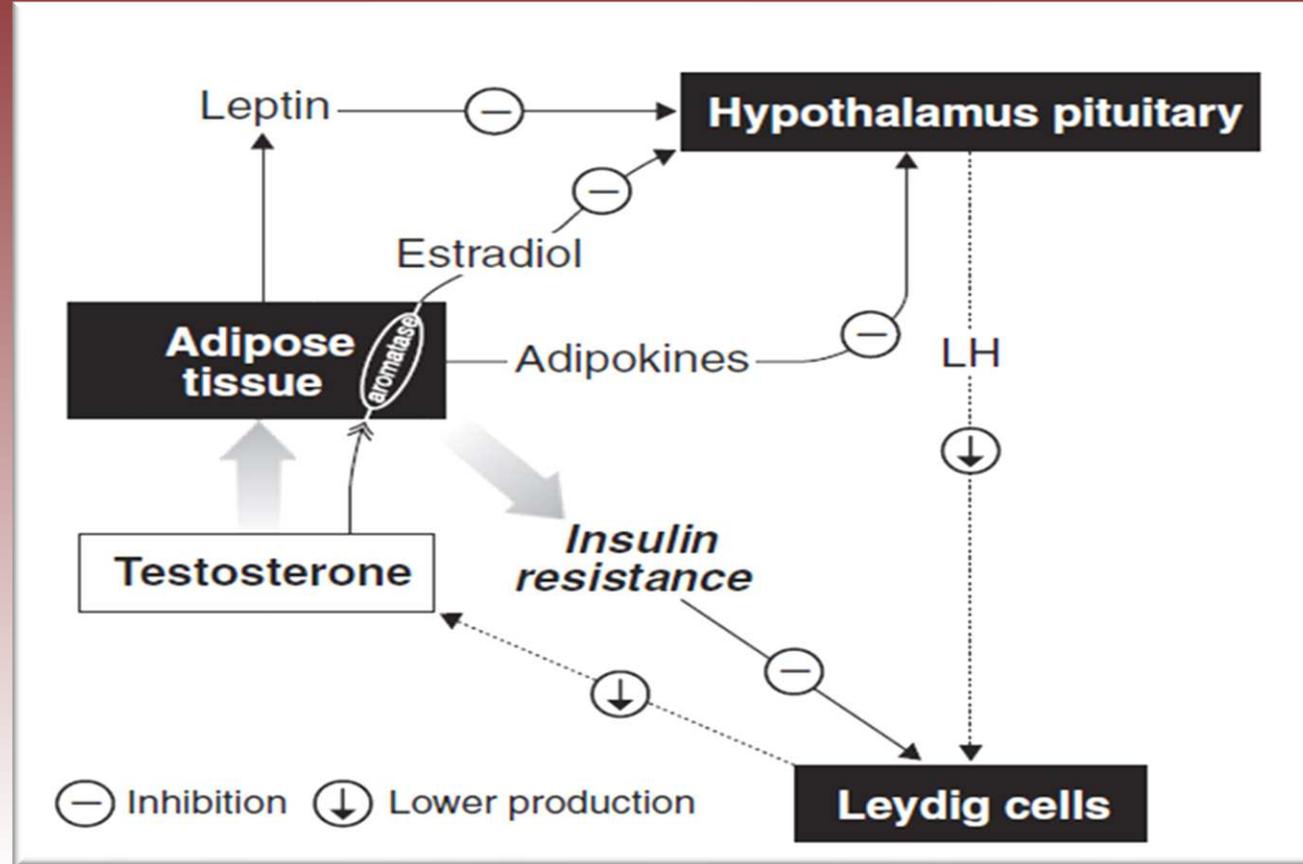
After a 2 year visit to the USA, David is returning to Italy...



Proudly Sponsored by:

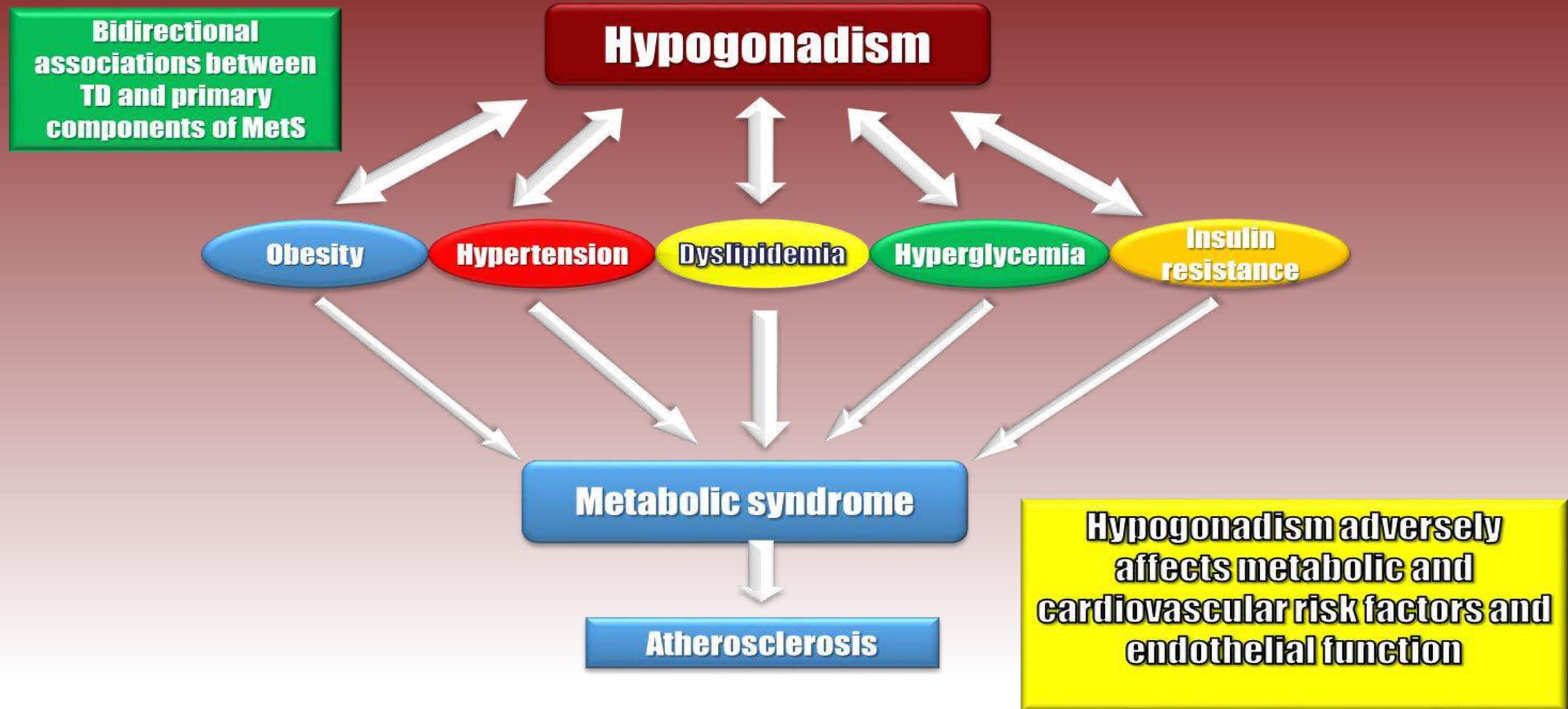


Hypogonadism-Obesity & Insulin Resistance



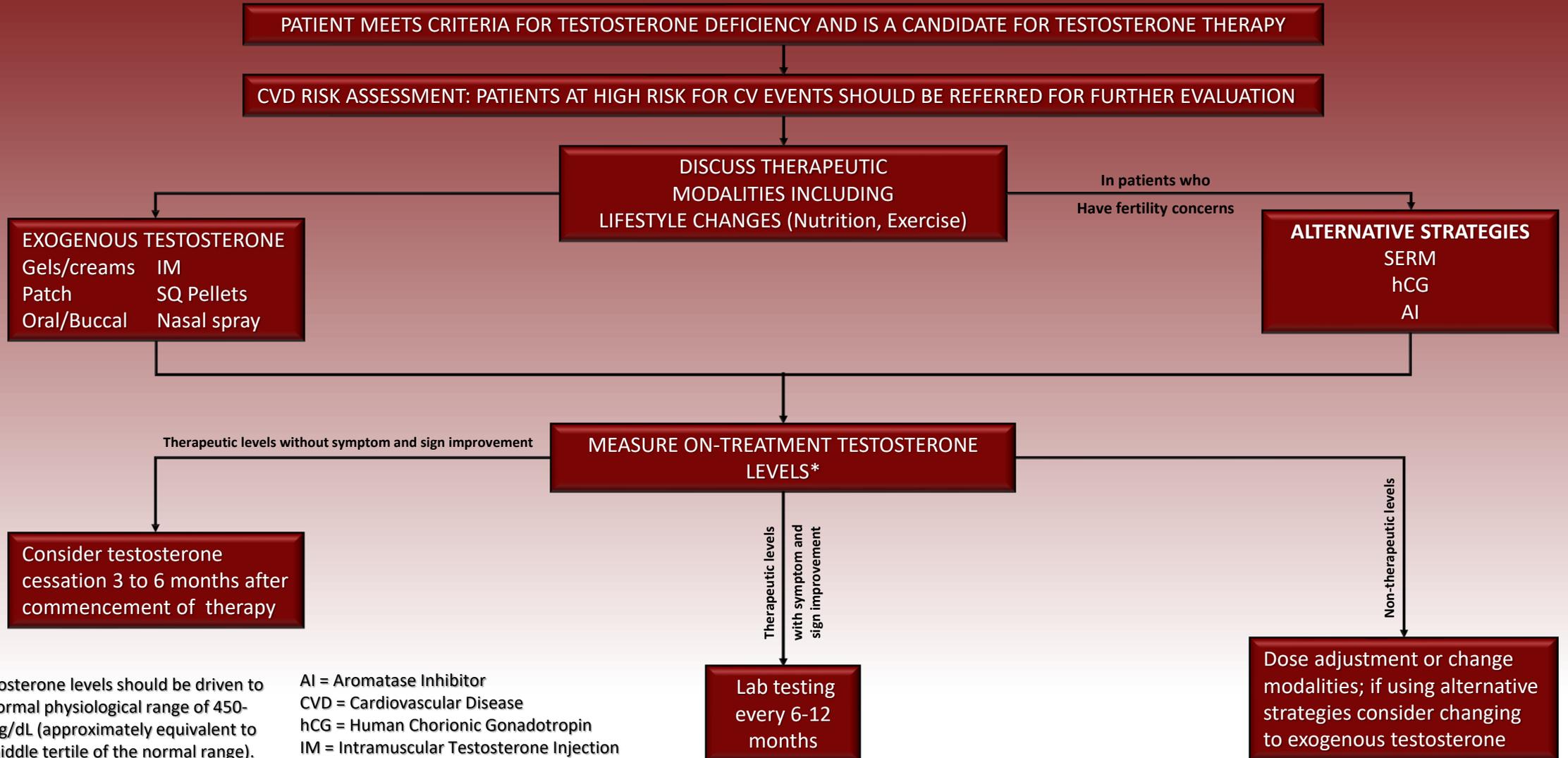
Dandona P, Dhindsa S, Chaudhuri A, et al. *Curr Mol Med.* 2008;8(8):2289-94.
Kapoor D, Malkin CJ Channer KS, et al. *Clin Endocrinol(Oxf)* 2005;63(3):239-50.

A RELATIONSHIP WE SHOULD DISCUSS



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

Evaluation and Management of Testosterone Deficiency: Treatment Algorithm



*Testosterone levels should be driven to the normal physiological range of 450-600 ng/dL (approximately equivalent to the middle tertile of the normal range).

AI = Aromatase Inhibitor
 CVD = Cardiovascular Disease
 hCG = Human Chorionic Gonadotropin
 IM = Intramuscular Testosterone Injection
 SERM = Selective Estrogen Receptor Modulator
 SQ = Subcutaneous

TRT Contraindications & Precautions

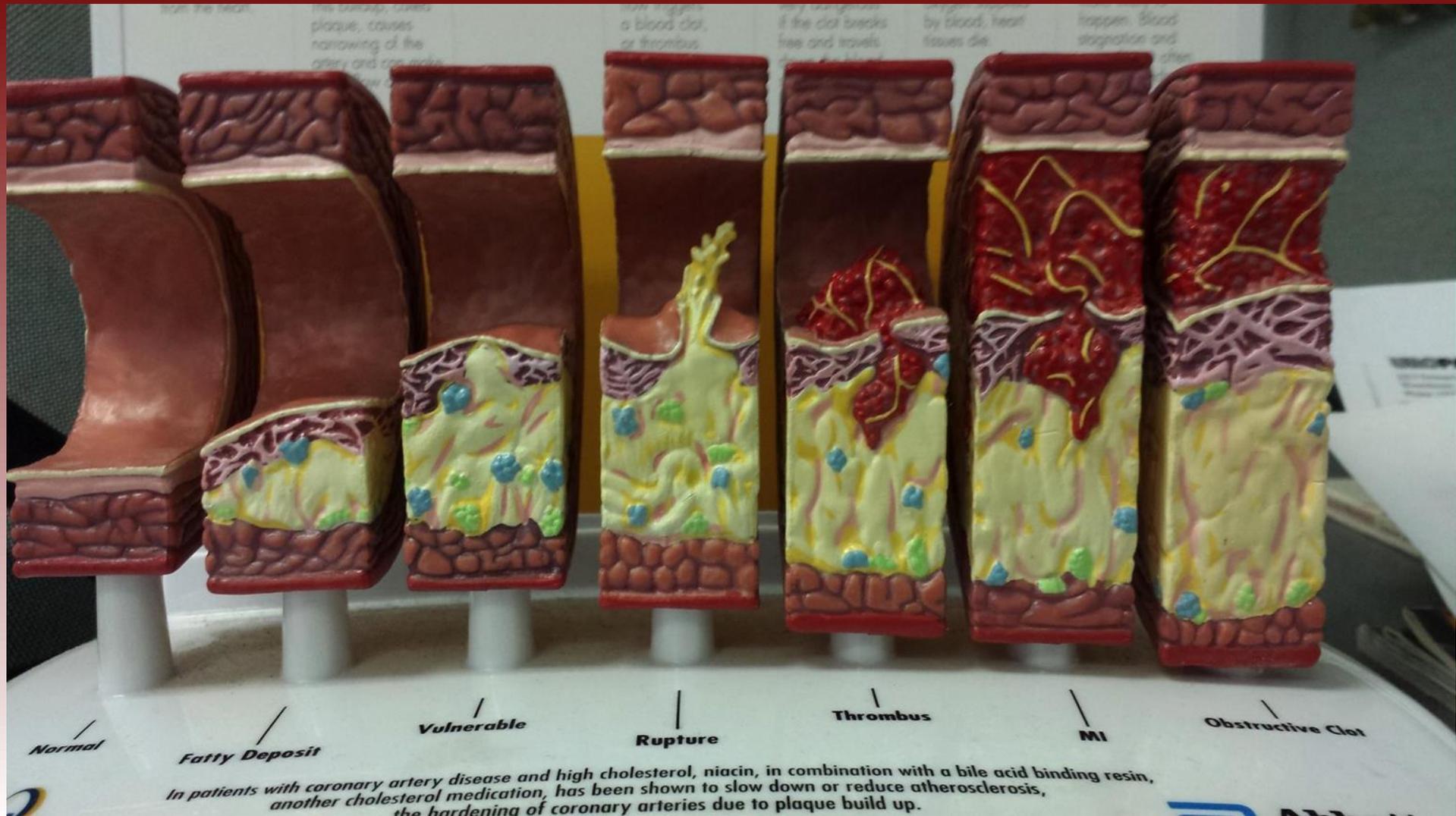
Contraindications	Precautions
<ul style="list-style-type: none">▪ Male breast cancer▪ Prostate cancer (known or suspected)▪ Known or suspected sensitivity to ingredients used in the medication or delivery system	<ul style="list-style-type: none">▪ Benign Prostatic Hyperplasia (BPH)▪ Lower Urinary Tract Symptoms (LUTS)▪ Edema in patients with preexisting cardiac, renal, or hepatic disease▪ Gynecomastia▪ Precipitation or worsening of sleep apnea▪ Azoospermia▪ Testicular atrophy▪ Cardiovascular Risk Assessment

“Men Food”



Salt Lick, Driftwood, TX.

Photo: Raphael Brion



Endothelial Cell Destruction

- Nitric Oxide production for health
- Oxidative stress and inflammation cause damage
- Viagra and other meds try to boost production of native nitric based on current ECC damage
- Good nutrition helps to keep your endothelium health via better production of nitric oxide and less inflammation and oxidative stress

A week's worth of groceries of a family



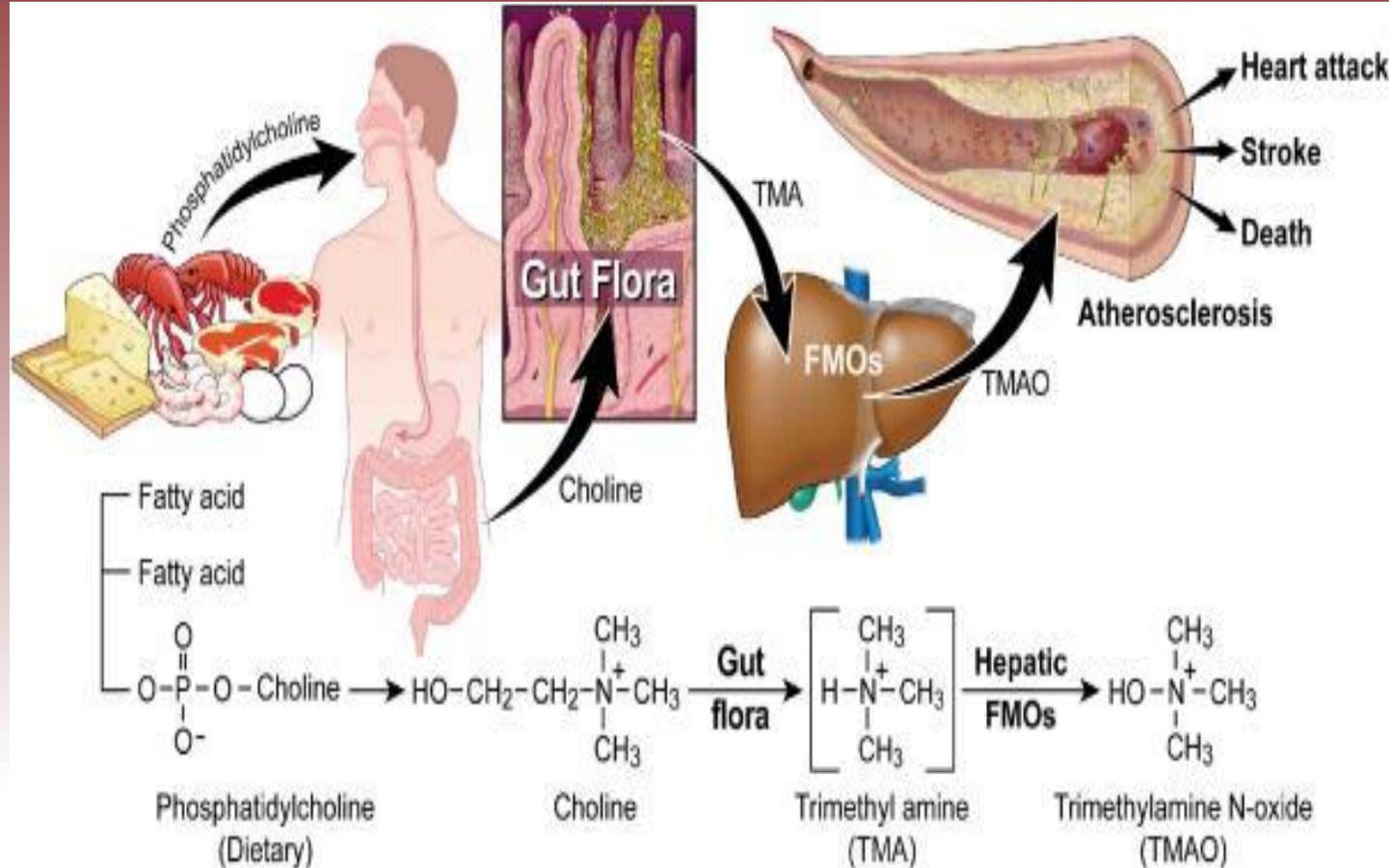
A week's worth of groceries of a family in China



A week's worth of groceries of a family in the US



Nutrition and the Gut Biome: Role of Choline, L-carnitine and Inflammation beyond saturated fat for Cardiovascular Disease



What You Eat Is Important

- **Eggs, Milk, Liver, Red Meat, Shellfish and Fish major dietary source of Carnitine and Choline**
- Gut bacteria metabolize both to TMAO
- **Resultant inflammation – mechanism for cancer promotion/accelerating vascular disease (heart attack, stroke).**
- Effect is blunted in vegans/vegetarians
 - Gut bacteria as a result of the shift from animal product digesting bacteria
- Whole Food Plant-based healthy eating NOT plant only

Take-Home Messages for Men's Health & Food

- Consider **nutrition as the first aspect of care** for Men's Metabolic Health
 - Eat “real” food
 - Not too much
 - Mostly plants (Michael Pollan quote)
- Nutrition should be viewed as a long-term solution. You cannot undo 30 years of bad eating habits in one week

Concluding Thoughts

- Erectile Dysfunction and Testosterone Deficiency are more than just sexual health conditions
- They are often symptoms of poor metabolic health and undetected or inadequately controlled chronic medical conditions
- Medical treatments address the symptoms but not the underlying causes
- Integrating lifestyle changes (plant-based nutrition strategy, exercise and adequate sleep) are a critical part of overall management
- Sexual health concerns are an important driver for prevention and chronic disease management in men
- Sexual health is just another on-ramp to chronic disease management

Questions

Kevin L. Billups, MD
klbillups@gmail.com
Phone: 615-920-4671



Closing

Danisha Charles, NICHQ



Can be found on the EPIC website or
bit.ly/hs-deadlines-and-events

June 2021

Deadlines:

- Jun 4 [NPCL International Fatherhood Conference Survey Due](#)
- Jun 15 HSMED-II Report (CSV or XML) Due
- Jun 30 Aggregate Report (Excel) Due
- Jun 30 Grantee Performance Report Due

Events:

- Jun 1 [Webinar: Legacy of Slavery & Impact of Racism on Breastfeeding](#)
- Jun 2 HS Breastfeeding Cohort Meeting #4 — *Cohort members only*
- Jun 7 [Networking Café](#)
- Jun 8 [Fatherhood Talk Tuesday](#)
- Jun 9 NPCL International Fatherhood Conference – *Registrants only*
- Jun 10 NPCL International Fatherhood Conference – *Registrants only*
- Jun 16 Healthy Start COIN Meeting #7 — *COIN members only*
- Jun 16 HS Evaluation Cohort Meeting #3 — *Cohort members only*
- Jun 18 [Quality Improvement Learning Academy Meeting #5](#)
- Jun 21 TIROE CoP Learning Session #2 – *COP members only*
- Jun 24 [CAN Learning Academy Meeting #2](#)

24/7 Dad Training Webinar

July 16, 2021
12-5 p.m. ET

To register, visit healthystartepic.org
or the link in the chat box.



Available to Grantees: **One-Year License of Fathering in 15 Curriculum**



**If you are interested in obtaining the
Fathering in 15 curriculum for your
Healthy Start project, please complete
the survey at your earliest convenience.**

Contact Information

Michael Muni

Project Officer, Division of Healthy Start & Perinatal Services

Maternal and Child Health Bureau (MCHB)

Health Resources and Services Administration (HRSA)

Email: mmuni@hrsa.gov

Phone: 301-443-2052

Web: www.mchb.hrsa.gov

Twitter: [Twitter.com/HRSAgov](https://twitter.com/HRSAgov)

Facebook: [Facebook.com/HHS.HRSA](https://facebook.com/HHS.HRSA)



Connect with HRSA

To learn more about our agency, visit

www.HRSA.gov



Sign up for the HRSA *eNews*

FOLLOW US:



Evaluation

*Fatherhood Talk Tuesday is on
Summer Break!*

**Next Fatherhood Talk Tuesday:
September 14, 2021**



Thank you!

Contact the TA & Support Center at
healthystart@nichq.org