ANATOMY & PHYSIOLOGY OF MALE ERECTION

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DIAGNOSIS OF MANAGEMENT DISEASE
stress
BEFORE TALKING:
Please connect the tongue to the brain.
I am the center of history.
Nerve impulse
Release of messenger substances
Blood inflow is increased
Blood outflow is prevented
Cavernous bodies fill with blood
Blood accumulates in the cavernous body
Erection
house
car

Handsome
Family Dysfunction

NOT

Erectile Dysfunction
Precede all questions listed below with the phrase, “Over the past 4 weeks, . . .” Use the scale to the right of each question in determining response.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Response options</th>
</tr>
</thead>
</table>
| Q1. How often were you able to get an erection during sexual activity?    | 0 = No sexual activity  
1 = Almost never/never  
2 = A few times (much less than half the time)  
3 = Sometimes (about half the time)  
4 = Most times (much more than half the time)  
5 = Almost always/always |
| Q2. When you had erections with sexual stimulation, how often were your erections hard enough for penetration? | Q8. How much have you enjoyed sexual intercourse?  
0 = No intercourse  
1 = No enjoyment  
2 = Not very enjoyable  
3 = Fairly enjoyable  
4 = Highly enjoyable  
5 = Very highly enjoyable |
| Q3. When you attempted sexual intercourse, how often were you able to penetrate (enter) your partner? | Q9. When you had sexual stimulation or intercourse, how often did you ejaculate?  
0 = Did not attempt intercourse  
1 = Almost never/never  
2 = A few times (much less than half the time)  
3 = Sometimes (about half the time)  
4 = Most times (much more than half the time)  
5 = Almost always/always |
| Q4. During sexual intercourse, how often were you able to maintain your erection after you had penetrated (entered) your partner? | Q10. When you had sexual stimulation or intercourse, how often did you have the feeling of orgasm or climax?  
0 = Did not attempt intercourse  
1 = Very difficult  
2 = Difficult  
3 = Slightly difficult  
4 = Not difficult |
| Q5. During sexual intercourse, how difficult was it to maintain your erection to completion of intercourse? | Q11. How often have you felt sexual desire?  
0 = Did not attempt intercourse  
1 = Extremely difficult  
2 = Very difficult  
3 = Difficult  
4 = Slightly difficult  
5 = Not difficult |
| Q6. How many times have you attempted sexual intercourse? | Q12. How would you rate your level of sexual desire?  
0 = No attempts  
1 = One to two attempts  
2 = Three to four attempts  
3 = Five to six attempts  
4 = Seven to 10 attempts  
5 = More than 11 attempts |
| Q7. When you attempted sexual intercourse, how often was it satisfactory to you? | Q13. How satisfied have you been with your overall sex life?  
0 = Did not attempt intercourse  
1 = Almost never/never  
2 = A few times (much less than half the time)  
3 = Sometimes (about half the time)  
4 = Most times (much more than half the time)  
5 = Almost always/always |
|                           | Q14. How satisfied have you been with your sexual relationship with your partner? |
|                           | Q15. How do you rate your confidence that you could get and keep an erection? |

**SCORING**

<table>
<thead>
<tr>
<th>Domain:</th>
<th>Erectile function</th>
<th>Intercourse satisfaction</th>
<th>Orgasmic function</th>
<th>Sexual desire</th>
<th>Overall satisfaction</th>
</tr>
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<tbody>
<tr>
<td>Questions:</td>
<td>1._____</td>
<td>6._____</td>
<td>9._____</td>
<td>11._____</td>
<td>13._____</td>
</tr>
<tr>
<td>2._____</td>
<td>7._____</td>
<td>10._____</td>
<td>12._____</td>
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</tr>
<tr>
<td>3._____</td>
<td>8._____</td>
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<td>4._____</td>
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<td>5._____</td>
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<tr>
<td>15._____</td>
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<td></td>
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</tbody>
</table>

**Total score**  
(1-30)  
(0-15)  
(0-10)  
(2-10)  
(2-10)
Nerve Impulse → Release of messenger substance → Blood inflow is increased
Blood accumulates in cavernous body → Cavernous body fill with blood → Blood outflow is prevented

ERECITION
• Sexual stimulation triggers release of neurotransmitters from the cavernous nerve terminals. This results in relaxation of these smooth muscles and the following events
• (1) dilation of the arterioles and arteries by increased blood flow in both the diastolic and systolic Phases
• (2) trapping of the incoming blood by the expanding sinusoids
• (3) compression of the subtunical venous plexuses between the tunica albuginea and the peripheral sinusoids, reducing venous outflow
• (4) stretching of the tunica to its capacity, which occludes the emissary veins between the inner circular and outer longitudinal layers and further decreases venous outflow to a minimum
• (5) an increase in PO2 (to about 90 mm Hg) and intracavernous pressure (around 100 mm Hg), which raises the penis from the dependent position to the erect state (the full-erection phase); and
• (6) a further pressure increase (to several hundred millimeters of mercury) with contraction of the ischiocavernosus muscles (rigiderection phase).
Erection thus involves sinusoidal relaxation, arterial dilation, and venous compression
The innervation of the penis is both autonomic (sympathetic and parasympathetic) and somatic (sensory and motor)
PDE-5 inhibition enhances cGMP and erection.
I got one!
Corpora cavernosa expands compressing the superficial venules of the penis

Vasa erigentes dilate

Nervi erigentes release nitric oxide

Sacral parasympathetic outflow
Sexual responses are controlled by a complex and coordinated interplay of both the somatic and the autonomic nervous system in multiple components of the brain, spinal cord, and relevant peripheral organs. Erectile bodies are an essential element of the penis and engorgement of the penis with blood leads to penile tumescence. Blood engorgement is due to relaxation of smooth-muscle cells of erectile tissue and endothelium of the penile arteries. The penis gains additional rigidity when the ischiocavernosus muscles contract. Stimuli from peripheral and/or central origins activate particular spinal nuclei, causing penile erection. Ejaculation consists of two phases, emission and expulsion, which correspond, respectively, to secretion of the different components of the semen by sex glands and forceful expulsion of semen due to rhythmic contractions of the bulbospongiosus muscle. A spinal generator of ejaculation integrates genital stimuli and sexual cues and, when the excitatory threshold is reached, triggers ejaculation by orchestrating the activation of autonomic and somatic pathways commanding the peripheral events of ejaculation.
Modern concept of peripheral erectile mechanisms.

[Article in Ukrainian]
Boiko MI, Nurimanov KR.

Abstract
The article describes the peripheral mechanisms of erection and control over them. This knowledge has been acquired as a result of the recent development of pharmacological research designed to study the regulation of erectile smooth muscle tone. Smooth muscle fibres of the corpora cavernosa and arteries supplying the penis relax in response to a reduction of intracellular calcium. This relaxation allows both an increase of the blood flow to the penis and opening of sinusoid spaces. Cyclic nucleotides, cGMP and cAMP, are intracellular messengers of the mediators acting on smooth muscle fibres and regulating these intracellular calcium movements. Nitric oxide (NO) increases the intracellular cGMP concentration that triggers relaxation. Other proerectile mediators, such as vasoactive intestinal polypeptide, prostaglandin E1, are of the secondary importance. In contrast, neurotransmitters of the sympathetic nervous system (norepinephrine), neuropeptide Y, and endothelin induce contraction of cavernous smooth muscle fibres, thereby opposing erection. Oxygenation of the cavernous tissue is also an important factor in the regulation of local mechanisms of erection. Regulation of calcium sensitivity as well as functioning of intracellular contact--gap junction are of certain interest. A better understanding of the peripheral pharmacology of erection opens the way to new pathophysiological and therapeutic prospects in the broad context of erectile dysfunction.

PMID: 11296549 [PubMed - indexed for MEDLINE]
Role of hydrogen sulfide in the physiology of penile erection.
Qiu X1, Villalta J, Lin G, Lue TF.

Abstract
Hydrogen sulfide (H(2)S), which is a well-known toxic gas, has recently been recognized as a biological messenger that plays an important role in physiological and pathophysiological conditions. Relatively high levels of H(2)S have been discovered in mammalian tissues. It is mainly synthesized by 2 enzymes, including cystathionine β-synthase and cystathionine γ-lyase, which utilize L-cysteine as substrate to produce H(2)S. H(2)S has been demonstrated to exhibit potent vasodilator activity both in vitro and in vivo by relaxing vascular smooth muscle. Recently, H(2)S has been discovered in penile tissue with smooth muscle relaxant effects. Furthermore, other effects of H(2)S could play a role in the physiology of erection. Understanding H(2)S in the physiology of erection might provide alternative erectile dysfunction strategies for those patients with poor or no response to type 5 phosphodiesterase inhibitors. This review intends to present the H(2)S pathway in penile tissue and the potential role of H(2)S in the physiology of erections.
Evolution in the concept of erection anatomy.

Awad A¹, Alsaid B, Bessede T, Droupy S, Benoît G.

Author information

Abstract

PURPOSE: To review and to summarize the literature on anatomy and physiology of erection in the past three decades, especially the work done in our institution.

METHODS: A search of the PubMed database was performed using keywords erection, anatomy and erectile dysfunction (ED). Relevant articles were reviewed, analyzed and summarized.

RESULTS: Penile vascularisation and innervation vary substantially. Internal pudendal artery is the major source of penile blood supply, but a suprapelvic accessory pudendal artery that may originate from inferior vesical or obturator or external iliac arteries is not uncommon. Section of this artery during radical prostatectomy (RP) may adversely affect postoperative potency. Anastomoses between the supra and the infralevator arterial pathways are frequent. The cavernous nerves (CNs) contain parasympathetic and sympathetic nerve fibers and these nerves lie within leaves of the lateral endopelvic fascia. Anastomoses between the CNs and the dorsal nerve of the penis are common. Nitric oxide released from noradrenergic, noncholinergic neurotransmission of the CN and from the endothelium is the principal neurotransmitter-mediating penile erection. Interactions between pro-erectile and anti-erectile neurotransmitters are not completely defined. Finally, medial preoptic area and paraventricular nucleus are the key structures in the central control of sexual function and penile erection.

CONCLUSIONS: The surgical and functional anatomy of erection is complex. Precise knowledge of penile vascularisation and innervation facilitates treatment of ED especially after RP.
<table>
<thead>
<tr>
<th>organ</th>
<th>function</th>
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<tbody>
<tr>
<td>testis with seminiferous</td>
<td>sperm production</td>
</tr>
<tr>
<td>tubules</td>
<td></td>
</tr>
<tr>
<td>collecting ducts</td>
<td>transport and storage</td>
</tr>
<tr>
<td>epididymis</td>
<td>transport, maturation and ejaculation</td>
</tr>
<tr>
<td>vas deferens (sperm duct)</td>
<td>transport and ejaculation</td>
</tr>
<tr>
<td>seminal vesicles</td>
<td>secrete thick liquid to transport sperm</td>
</tr>
<tr>
<td>prostate gland</td>
<td>secretes thin alkaline solution to neutralise</td>
</tr>
<tr>
<td></td>
<td>urine and female system</td>
</tr>
<tr>
<td>cowper’s gland</td>
<td>secretions may lubricate, flush out urine or form</td>
</tr>
<tr>
<td></td>
<td>a gelatinous plug</td>
</tr>
<tr>
<td>urethra</td>
<td>passage for urine and sperm</td>
</tr>
<tr>
<td>penis</td>
<td>copulation</td>
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</tbody>
</table>
How do we know if a Male Sexual Dysfunction problem is a psychological or a Physical sexual side effect? Dr. Oz is recommending that gentleman: "wrap a strip of lick-and-stick stamps around your penis."
DON'T MOVE!

THE DOG CAN'T SEE YOU IF YOU DON'T MOVE
ANTI-STRESS KIT

BANG HEAD HERE

DIRECTIONS:
1. Place on FIRM surface.
2. Follow Directions Provided in the Circle.
3. Repeat Until You Are Anti-Stressed, or Become Unconscious
A critical analysis of candidacy for penile revascularization.

Dabaia AA¹, Teloken P, Mulhall JP.

Author information

Abstract

INTRODUCTION: Penile revascularization (PR) is a potentially curative procedure for young men with isolated arteriogenic erectile dysfunction. Standard preoperative evaluation is erectile hemodynamics (HDX) using duplex Doppler penile ultrasound (DUS) and/or cavernosometry (DIC) and assessment of cavernosal arterial anatomy by selective internal pudendal arteriography (SIPA).

AIM: The aim of this study was to review our experience with men who sought a second opinion from us regarding their candidacy for PR.

METHOD: Study population consisted of men (i) who presented to us for a second opinion regarding PR; (ii) who had DUS/DIC and SIPA; and (iii) had been advised by outside surgeon to undergo PR. Review of the HDX study and SIPA was conducted. Discrepancies between these studies resulted in repeating the DIC in men with normal SIPA or repeating the SIPA in men with normal HDX studies.

MAIN OUTCOME MEASURES: Discrepancies between HDX and SIPA and the results of repeat HDX or SIPA were the main outcome measures.

RESULT: Forty-five patients participated in the study; mean age was 33 years with 4% ≥50 years old. Median vascular risk factor number was 1 (ranged 0-3). A credible trauma history was present in 11%. Thirty-three percent had prior DIC and 49% of patients had a significant discrepancy between HDX study and SIPA, including all patients seen by a community urologist. Thirty-eight percent had a discrepancy between side of abnormality on HDX and SIPA where both studies were abnormal (group A). Seven percent had abnormal HDX and normal SIPA (group B). Four percent had a normal HDX study with an abnormal SIPA (group C). Repeat DIC (n = 20) was conducted in groups A + B and was normal in 70% of cases. Repeat SIPA (n = 2) was conducted in group C and was normal in both patients.

CONCLUSION: Almost one half of patients had a significant discrepancy between HDX and SIPA. Of these, 73% had normal repeat studies, making them no longer candidates for penile revascularization.
HOW STRESS AFFECTS THE BODY

Stress is recognized as the #1 proxy killer disease today. The American Medical Association has noted that stress is the basic cause of more than 60% of all human illness and disease.

**STRESS FACTS**

Understanding the mechanics of stress gives you the advantage of being more aware of and sensitive to your own level of stress and knowing when and how to take proactive steps. This increased awareness also helps you to better care for your family, friends and colleagues. Here are a few stress facts that many people are unaware of:

**FACT #1: YOUR BODY DOESN'T CARE IF IT'S A BIG STRESS OR A LITTLE ONE.**

The human body doesn't discriminate between a big stress or a little one. Regardless of the significance, stress affects the body in predictable ways. A typical stress reaction, which most of us experience dozens of times each day, begins with a cascade of 1,400 biochemical events in your body. If these reactions are left unchecked, your cognitive functioning is impaired, your energy is drained, and you're robbed of your effectiveness and clarity.

**FACT #2: STRESS CAN MAKE SMART PEOPLE DO STUPID THINGS.**

Stress causes what brain researchers call "cortical inhibition." The phenomenon of cortical inhibition helps to explain why smart people do dumb things. Simply said, stress inhibits a small part of your brain and you can't function at your best. When we are in coherence—a state where we are cognitively sharp, emotionally calm, and we feel and think with enhanced clarity—the brain, heart, and nervous system are working in harmony. This state of coherence facilitates our cognitive functioning—we are actually operating at peak performance mentally, emotionally, and physically.

**FACT #3: PEOPLE CAN BECOME NUMB TO THEIR STRESS.**

We can be physiologically experiencing stress yet mentally numb to it because we've become so accustomed to it. Some have become so adapted to the daily pressures, irritations, and annoyances of life that it starts to seem normal. Yet the small stresses accumulate quickly and we may not realize how much they are impairing our mental and emotional clarity and our overall health until it shows up as a bad decision, an overreaction, or an unwanted diagnosis at the doctor's office.

**FACT #4: WE CAN CONTROL HOW WE RESPOND TO STRESS.**

We don't need to be victims of our own emotions, thoughts and attitudes. We can control how we respond to stress and we can become more sensitive to stressful situations and how they are affecting us before it manifests as a physical, mental or emotional complaint. There are simple, scientifically validated solutions to stress that empower people to rewire their own stress response.

**FACT #5: THE BEST STRATEGY IS TO HANDLE STRESS IN THE MOMENT.**

The best way to manage stress is to deal with it the very moment you feel it come up. Millions of Americans unnecessarily use the binge-and-purge approach when it comes to stress. They stress out all day, believing that they can wait until later to recover when they go to an evening yoga class, go to the gym or chill out when they fake the weekend off. Unfortunately, when we put off going for our own inner balance our bodies have already activated the stress response and it's hard to turn it off.

**HeartMath**

HeartMath’s research shows how emotions change our heart rhythm patterns. Positive emotions create coherent heart rhythms, which look like rolling hills—it’s a smooth and ordered pattern. In contrast, negative emotions create chaotic, erratic patterns. Using a heart rhythm monitor, you can actually see your heart rhythms change in real time as you shift from stressful emotions like anger or anxiety to positive feelings like care, appreciation, or love. Coherent heart rhythm patterns facilitate higher brain function, whereas negative emotions inhibit a person’s ability to think clearly. Coherent heart rhythms also create a feeling of solidity and security.

HeartMath is a registered trademark of HeartMath LLC.
Wow, that 500m Zoom Function is really Cool!

Don’t be afraid of silly ideas.

- Paul Arden
Afghan air force 2nd Lt. Niloofar Rhmani made history on May 14, 2013 when she became the first female to earn the status of pilot.

The club can't even handle me right now.
پرورش سیستم تناسلی از منظر طب سنتی ایران

• بیضه‌ها حاوی بافت سفید غددی و نرم حاوی سوراخ‌های فراوان و نیز دارای مجاری رگ مانند با اشعابات و سوراخ‌های بسیار ریز است. غشاپذیری که از صفاق ریزه ره دو بیضه را می‌پوشاند. از هر یک از بیضه‌ها مجاری‌های رگ مانند به سمت بالا می‌آید این اید این‌ها از بیضه‌ها جدا هست و در ابتدا متسع بوده و به تدریج تنگ تر می‌شود تا به گردن مثانه برسد و کمی پایین تر از آن به مجاری ادرار میریزد. به این مجاری "اوعیه (مجاری نگهدارنده) منی" گفته می‌شود.
ماده منی در بیضه‌ها نظج پیدا می‌کند یعنی ساخت آن تکمیل می‌شود. ادعاد بر این است که منی در اصل حاصل فعل و انفعالات انجام شده در تمامی اعضاء بدن است. در واقع این ماده قابلیت جایگزینی به جای مواد از دست رفته هر یک از اعضاء را داشته وی به عنوان ماده اولیه منی مصرف می‌شود.

دلیل بر این که در تشکیل منی همه اعضاء نقش دارند:

۱ - خارج شدن حتی مقدار کمی از منی، ضعف خیلی بیشتری نسبت به خارج شدن مقدار زیادی خون ایجاد می‌کند.

۲ - هر عضوی که در پدر ضعف داشته باشد در اغلب موارد در فرزند هم ضعیف است.
قضیب (پنیس)

دارای بافت غدیدی و عصب و عروق و شریان‌های زیاد است.

مجاری متفاوتی برای ادرار، منی و ماده ودی (ترشحات غیر از ادرار و منی) به پیش‌ابراه وارد می‌شوند.
قضیه‌ای پنیس دارای حس زیاد است. چرا که محل اجتماع اعصاب است. اگر حس آن زیاد نبود لذت تام رخ نمی‌داد و آدمی خود را ذلیل این کار که سراسر حکمت است نمی‌فرمود.

• نیروی نعوظ از قلب است و حس آن از اعصاب نخاعی و مغز و ماده منی طبیعی و کافی نیاز به کبد سالم دارد و میل به مبادله (نزدیکی) وابسته به سلامت کبد و کلیه است و اصل در سلامت جنسی سلامت قلب است.
THE PATIENTS KNOW MORE ABOUT THEIR DISEASES THAN ME. I MUST GET FASTER MODEM, HIGHER SPEED INTERNET ACCESS THAN THEM.
I have in come but I tried my best not effect my opinion by

Evaluating the efficacy of vacuum constrictive device and causes of its failure in impotent patients

Ferdaoud Khayami, 1,2 Seyed Kazem Forootan, 1,2, Hassan Ghaseemi, 2 Seyed Roohollah Mirti, 4 Ehsan Farhadi 4

1 Family Sexual Health Clinic and Research Center, Shahed University, Tehran, Iran
2 Department of Urology, Shahed University, Tehran, Iran
3 Department of Rheumatology, Shahed University, Tehran, Iran
4 Medical Student, School of Medicine, Shahed University, Tehran, Iran

Purpose: This study evaluates the efficacy of Vacuum constrictive device (VCD) and the reasons for its failure.

Materials and Methods: In this cross-sectional study, 1500 men with organic erectile dysfunction (ED) were enrolled from July 2003 to July 2010. The treatment efficacy was analyzed using International Index of Erectile Function (IIEF) and questioning patient's partner regarding the man’s ability to perform vaginal penetration (APVP). The patient’s spouses, who responded negatively to APVP, were evaluated by a midwife for virginity, vaginal atrophy and abstained sex.

Results: Totally 1310 (87.4%) patients attained full erection at first training session, remaining 188 (12.6%) were able to have full erection one week after practicing with VCD, 1419 (94.6%) were able to have successful intercourse and responded positively to APVP; 81 (3.4%) were unable to have intercourse as stated by their wife's (negative response to APVP) that in 43 (33%), 30 (37%), and 8 (9.8%) cases the causes of failures were their wife’s virginity, sex abstinence, and senile vaginal atrophy, respectively. Regarding erectile issue of IIEF scores in patients responded positive to APVP there were significant improvement from the scores of 9.3 ± 3.0 to 27.5 ± 5.0 after treatment (P < .05).

Conclusion: With proper training and appropriate devices, VCD could induce sufficient erection in all patients. VCD in patients with virgin wife is ineffective, and female factors affect on success rate in VCD therapy.

Keywords: erectile dysfunction, therapy; treatment outcome; vacuum, penile erection.

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The most painful goodbyes are the ones that are never said and never explained.
STRESS!

When faced with a challenge, your body comes under stress. In small doses, stress is actually very beneficial for your body as it gives you a sudden boost of energy and makes you more alert. However, if you are feeling stressed for too long, it can really take its toll on your mental and physical health.

Women are more likely to suffer from stress than men. 64% of women that die suddenly from heart attack had no previous symptoms.

Nearly 1/3 of women ages 18-59 suffer from lack of interest in sex due to stress. Women are nearly 3x more likely to develop autoimmune diseases as a result of stress than men.

Stress induced heart disease is the #1 killer in women, but only 8% of women see it as a threat. 105 million work days are lost each year due to stress, costing employers £1.24 billion per year!


#9 DIGESTION
Stress can disturb the delicate balance of microorganisms in our guts, leading to multiple digestive problems. [11]

#10 BELLY FAT
Repeated studies have linked elevated cortisol levels with excess fat in the abdominal region, even among otherwise slender women. [10]

#11 BACK PAIN
Stress, along with elevated cortisol levels, has been linked to chronic back pain. Stress management is a treatment option for chronic pain sufferers. [8]

#12 SEX DRIVE
Studies have shown that elevated cortisol levels appear to interfere with sexual function, and prevent us from getting aroused. [12]

#13 BLOOD PRESSURE
Stress results in higher blood pressure, which can contribute to a host of health issues.
I THINK IT'S STRESS!!
THANKS