Erectile Dysfunction: It’s Not Just About Sex

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Disclosures

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Objectives

Upon completion of this program, you will be able to:

• Define erectile dysfunction (ED), its prevalence and causes

• Identify the link between erectile dysfunction, diabetes, and heart disease

• List 5 treatment options for ED

• Identify 2 reasons why it’s important to discuss ED with patients
Erectile Dysfunction Overview
Erectile Dysfunction

Definition:

The inability to maintain an erection firm enough to have sexual intercourse.
A normal penile erection requires:

- An increase in neurologically mediated penile arterial flow
- Cavernosal smooth muscle relaxation
- Restriction of penile venous outflow
1 in 5 American men ≥ 20 years old

OVER 39 MILLION American men

MORE THAN HALF of men over 40 have some degree of ED
Main Physical Causes of ED

- Vascular: 40%
- Diabetes: 30%
- Medication: 15%
- Pelvic Surgery, Radiation, or Trauma: 6%
- Neurological Causes: 3%
- Endocrine Problems: 1%
- Unknown*: 1%

*Not Reported
Erectile Dysfunction and Diabetes

- 15.5 million American males have diabetes
- More than 50% of men with diabetes have sexual troubles and it typically occurs within 10 years of their diabetes diagnosis
- ED is 3x more common, more severe and less responsive to oral treatment in men with diabetes compared to men without diabetes
- ED occurs 10-15 years earlier in men with diabetes than in men without diabetes
- In 12% of cases, ED can be the symptom that diagnoses diabetes
Why Do men With Diabetes Get ED?

Possible cause:

**Irreversible damage** of nerves, muscles and blood vessels by diabetes and other comorbidities associated with the disease

- As many as 70% of men with diabetes have nerve damage
- **Endothelial dysfunction**; a condition in which the inner lining of blood vessels fail to function normally
ED and Diabetes

**In men with diabetes, ED increases with:**
- Age
- Diabetes duration
- Poor glycemic control
- Presence of microvascular complications
- Cardiovascular disease
Heart disease is the leading cause of death for men in the US
- 1 in every 4 male deaths is due to heart disease
- Half of the men who die suddenly of coronary heart disease have NO PREVIOUS SYMPTOMS - silent CAD
- Between 70-89% of sudden cardiac events occur in men

ED is an independent risk factor for future cardiovascular events
On average, ED precedes the following by 3 years:
  - Coronary Artery Disease (CAD)
  - Peripheral Artery Disease (PAD)
  - Stroke

The severity of ED = severity of heart disease
ED and heart disease are considered two signs of the same disease process.

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Artery Size (mm)</th>
<th>Erectile Dysfunction</th>
<th>Chest Pain (stable or unstable)</th>
<th>Sudden Heart Attack</th>
<th>TIA Stroke</th>
<th>Internal Carotoid Artery (5-7)</th>
<th>Leg Pain While Walking</th>
<th>Femoral Artery (6-8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penile Artery (1-2)</td>
<td>50% obstruction</td>
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<td>Main Artery Supplying Blood to the Heart (3-4)</td>
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*Equal amounts of plaque are applied to the inner lining of the arteries; at 50% obstruction, the penile artery may cause symptoms of erectile dysfunction.*
ED, Diabetes & CVD Connection

Having diabetes nearly **doubles the risk** for heart attack and/or death from heart disease.

- Symptoms of heart disease will develop within 2-3 years of ED
- Within 3-5 years of ED, a cardiovascular event, such as a heart attack, will likely occur
Men with diabetes who experience ED, will develop coronary artery disease symptoms **2-3 years after the ED shows up**.

Within 3-5 years, a cardiovascular event, such as a heart attack or stroke, **will likely occur**.
ED Treatment Options
ED Treatment Options

- Oral Medications
- Injections
- Penile Implants
- Vacuum Erection Devices
- Urethral Suppositories
Oral Medications

Product Characteristics

• Generally the “First option”
• “PDE-5 Inhibitors” work in response to sexual stimulation
• Usually taken within 1 hour before anticipated sexual activity
• Typically works for up to 4 hours (~36 hours with Cialis™)

Concerns

• Effective in approximately 70% of cases but less effective in patients with diabetes
• Contraindicated in men who take nitrates- enhances their hypotensive effects
• Some oral medications’ efficacy can be affected by food
• Not to be taken more than once a day
Oral Medications

Approximately 50% OF MEN WITH ED give up or the pills stop working.
ED Treatment Options: Beyond PDE-5 Inhibitors
Vacuum Erection Device (VED)

- Externally applied device mechanically effects penile blood engorgement
- Cylinder/pump placed over penis creates closed chamber; pump slowly creates vacuum, drawing blood into corpora cavernosa
- Constrictive elastic ring then placed (max 30 minutes) at base of penis to restrict blood flow out of penis
Vacuum Erection Device

Product Characteristics
• Non-invasive
• Drug free
• Cost effective

Concerns
• Erection is not warm to the touch; different color
• Bruising/burst blood vessels
• Penile pain/discomfort
• Penile numbness
• Delayed or failed ejaculation
• Limits spontaneity
Urethral Suppository

Product Characteristics
- No needles or injections
- Alprostadil chemically identical to prostaglandin E1 inserted into urethra
- Vasodilatory effects increase blood flow
- Erection within 5 to 10 minutes
- Must be refrigerated
- May limit spontaneity

Concerns
- May cause pain: penis, urethra or testes
- Urethral pain or burning
- Hypotension / dizziness
- Recommend condom use with oral sex
Intracavernous Injection Therapy

Product Characteristics

• Alprostadil most widely used agent
• Injected directly into corpora cavernosa
• On-set of erection within 5 to 20 minutes

Concerns

• Penile pain
• Prolonged erection
• Penile fibrosis
• Injection site hematoma
• Must be refrigerated
• May limit spontaneity
Penile Implants

What is a penile implant?

• In clinical use since the 1970s, a penile implant is a medical device that is implanted into the penis during an outpatient surgical procedure
• GOLD standard!
• Malleable or inflatable
Inflatable Penile Prosthesis
Features of a Penile Implant

• Entirely contained in the body; discreet
• Permanent treatment option to ED
• Once activated, an erection can be maintained for as long as desired
• Spontaneous; have sex when the mood strikes
• Designed to feel natural during intercourse
• Typically does not interfere with ejaculation or orgasm
Concerns: most common side effects or reasons for removal

- Post-operative pain
- Mechanical malfunction, including auto-inflation
- Infection (1-3%)
- Repeat/revision surgery
Men with ED and diabetes were **50% more likely** likely to require secondary ED treatments

Men with ED and diabetes were **2x as likely** to undergo penile prosthesis surgery compared to men without diabetes
Penile Implants Have Been Well-Received by Patients & Partners

In one study of 200 patients and 120 partners, both men and their partners found the penile prosthesis to be satisfying.

- **92%** of patients reported sexual activity with the implant to be excellent or satisfactory.
- **96%** of partners reported sexual activity with the implant to be excellent or satisfactory.
- **98%** of patients reported their erections to be excellent or satisfactory.
Therapy & Counseling

- Psychological factors are responsible for about 10-20% of all cases of erectile dysfunction
- Common cause - depression, which occurs significantly more often in diabetes
- Couple or individual counseling may be appropriate
- Refer patient to a qualified mental health professional
ED: Why Discuss It?
ED can help identify hidden issues

Asking about *erectile function* at every appointment could help IDENTIFY and PREVENT progression of heart disease and reduce the likelihood of a deadly outcome.
Why You Should Care?

Discussing ED can help identify hidden issues:

• Erectile dysfunction signals possible developing CVD and is a warning sign for a future heart attack or stroke

ED can help motivate many patients to make lifestyle changes:

• The desire to prevent or improve ED symptoms motivates many patients to take better care of their health
• Improve quality of life
Tips for the ED Talk
Communicate the following:

**THERE IS HOPE!**

*Every man should be able to hear these words…*

There are **options** for you

You **don’t** have to live like this

You don’t have to **give up your sex life**
More “Tips for the Talk”

Patients will take their cue from you!

YOU have to be comfortable with the topic before you can talk to someone else

Be relaxed, casual, comfortable, LISTEN & BE SUPPORTIVE

Understand that any man with ED is most likely DROWNING IN DISAPPOINTMENT frustrated, alone, and exhausted
More “Tips for the Talk”

• Make the conversation a part of the overall health and treatment plan can make the conversation more comfortable for you and the patient.

  **Include:** ED in the list of diabetes complications you recite.

  **Mention:** “Poorly controlled diabetes can cause problems in the bedroom. Has that ever happened to you?”

  **Ask:** “Has having diabetes affected your romantic relationship in any way?”

  **Mention:** The Link. “Diabetes, heart disease and problems with erections are all linked.

• Let your patient know that more than 50% of men with diabetes have sexual troubles - He is **NOT ALONE**
Tips for the Talk…About Implants

• Don’t dismiss fears
  - Men who are ready to talk about implants may have failed many other therapies
  - Remind patients of the high partner and patient satisfaction

• Refer to ED Specialist or Prosthetic Urologist
  – Not all urologists perform the penile implant procedure; prosthetic urologists have training and experience in implant procedures
  – Low prevalence of prosthetic urologists - very specialized
  – A prosthetic urologist can offer the complete spectrum of treatment options for erectile dysfunction from PDE-5s to surgery
Resources

Visit [www.EDCure.org](http://www.EDCure.org) to find a trained Prosthetic Urologist

**Patients can:**

- Take a validated self-assessment, the Sexual Health Inventory for Men, to screen for the presence and severity of their ED
- Watch real stories from patients and their partners
- Explore treatment options
- Learn about the link between ED and diabetes
- Learn about the link between ED and CVD
- Find an ED Specialist
• Patient Education Seminars
  - Call 1-844-4ED-CURE to connect with a patient education coordinator and learn about nearby FREE patient education seminars
  - Email a Patient Education Coordinator for more information at MHPatientEducation@bsci.com

• Sexual Medicine Society www.sexhealthmatters.org
• Frank Talk Patient Blog www.franktalk.org
• dLife www.dlife.com
• WebMD www.webmd.com
• Health Slate Tablet (through AADE)
Questions?