



# Erectile Dysfunction and Diabetes

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# Definition of erectile dysfunction

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Impotence or erectile dysfunction describes the persistent inability to achieve or maintain a penile erection sufficient for sexual intercourse.



# Epidemiology

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Moderate to severe ED is found in 10% - 20% of men aged 40-70. Prevalence increases with age.

50-60% men will experience some degree of ED at age 40 or at some stage in their lives.



# Diabetes and ED

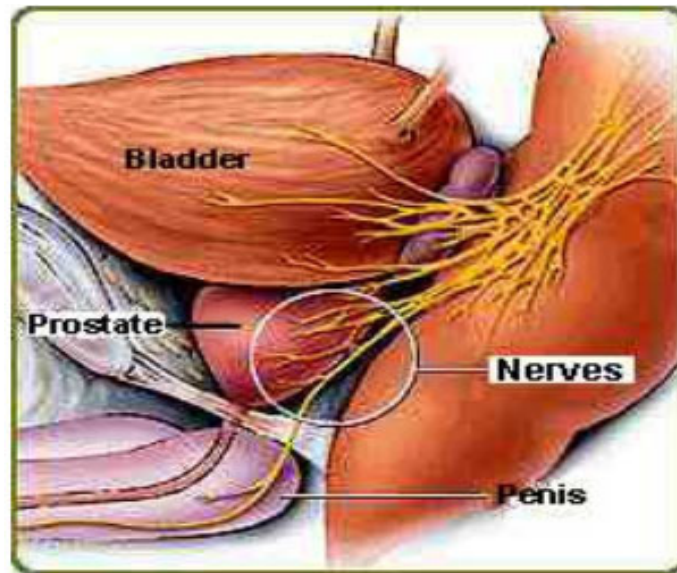
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A large percentage, 20%-75%  
of Patients with Diabetes suffer from  
ED.

Why?

# Nerve bundles and Diabetes

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- Due to high levels of sugar, nerve endings are eroded which causes dysfunction in the penile shaft.
- Penile muscle starts to atrophy and is replaced by scar tissue.
- Damage to all tissues that support the penis could happen if you do not keep diabetes under control



## Type 2 Diabetes and Blood Vessels

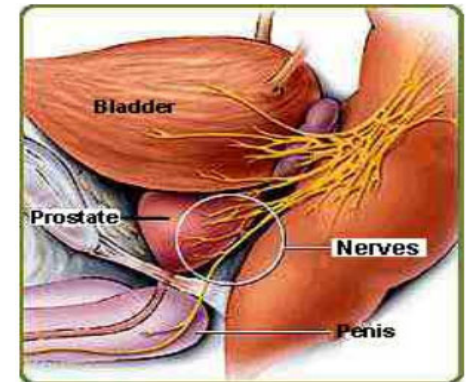
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- Uncontrolled high blood sugar damages the blood vessels, large and small, throughout the body.
- The blood vessels in the penis are already very tiny so when uncontrolled diabetes starts to undermine the blood vessels, the penis may experience consequences early on.

# Physiology of an Erection

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- The erection process is initiated by chemical neurotransmitters in the brain e.g. epinephrine, acetylcholine, nitric oxide.
- Physical or psychological stimulation causes nerves to send signals to vascular system to increase blood flow to the penis.





# Aetiology

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ED is generally divided into psychogenic and organic causes





## **Psychogenic**

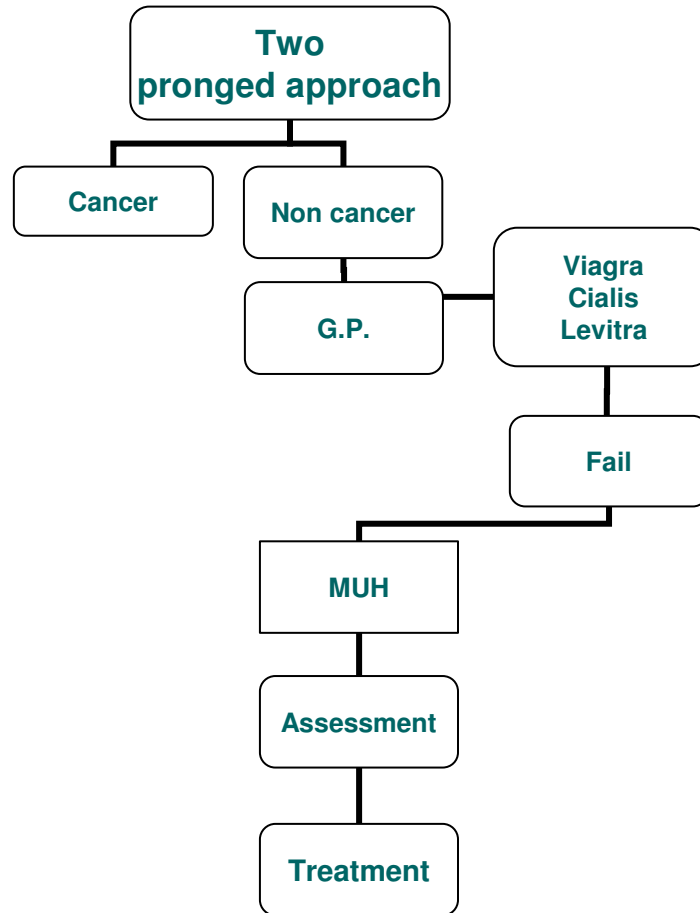
- Performance anxiety
- Depression
- Relationship problems
- Seek counselling  
anxiety and stress  
can worsen ED

## **Organic**

- Vascular disorders
- Neurological
- Hormonal
- pharmacological

# Management of ED

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# Treatment Options

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- PDE5 inhibitors (Viagra Cialis)  
50% - 60% success rate
- Caverject - intracavernosal (alprostadil)  
60% - 80% success rate
- MUSE – intraurethral (alprostadil)
- Psychosexual therapy
- Vacuum device  
Compliance issues
- Surgery



# Follow up and reassessment

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- Communication and education
  - answer patients questions
  - discuss partner problems
  - information on new treatments
- Medication adjustment
  - any adverse affects
- Medical and psychosocial reassessment
  - health promotion
  - encourage changes
- ED is a barometer for other problems