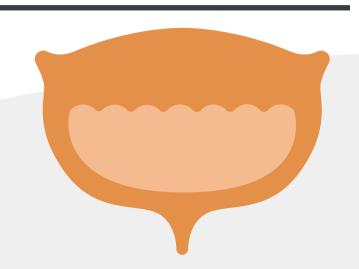


# UROLOGICAL ALTERATIONS

# IN DIABETIC PATIENTS

People with diabetes may show an early onset of disturbing bladder symptoms or changes in their sexual function. These complications are the result of damages on blood vessels and nerves caused by diabetes.



Men: erection or ejaculation difficulties.

# **ERECTILE DYSFUNCTION**

Inability to get or keep an erection firm enough to have sex.

- Diabetic men are in a greater risk of having erectile dysfunction than non-diabetic men.
- The condition may appear 10 to 15 years earlier than in non-diabetic men.
- Erectile dysfunction may be an early sign of diabetes,



Women: sexual arousal problems and poor vaginal lubrication.

# **SEXUAL PROBLEMS**

- Decreased vaginal lubrication, vaginal dryness.
- Pain and discomfort during sexual intercourse.
- Decreased or absent sexual drive.
- Inability to achieve or maintain arousal.
- Reduced sensation or absent sensitivity in the genital area.
- Difficulties to achieve orgasm.

especially in men around 45 years old.



#### Causes

6. Alcohol abuse.

1.Nerve alterations (neurological). 7. Blood vessels disease. 2. Medication. 8. Medication side effects. 3. Structural abnormalities. 9. Psychological factors. 4. High blood pressure. 10. Smoking. 5. Renal disease.

#### Causes

- 1. Nerve damage.
- 2. Decreased blood flow to tissues.
- 3. Hormonal changes.
- 4. Medications.
- 5. Alcohol abuse.
- 6. Smoking.
- 7. Psychological problems, such as anxiety or depression.
- 8. Gynecological infections.
- 9. Other diseases and conditions related to pregnancy or menopause.

# **Treatment**

- Oral medication.
- Vacuum penile pump device.
- Urethral medications.
- Injections applied directly to the penis.

### **Surgery:**

- Penile prosthesis implant.
- Surgery to repair penis arteries.
- Psychological therapy to decrease anxiety or treat other issues.

# **RETROGRADE EJACULATION**

A condition that occurs when semen flows into the bladder instead of going out through the penis during ejaculation, because sphincters do not work properly. Semen enters the bladder and leaves the body through urination, without affecting the bladder, resulting in a reduced quantity of semen during ejaculation and causing fertility problems.

# **Treatment**

- Vaginal lubricants.
- Sexual arousal techniques:
- Changes in position and stimulation during the sexual intercourse, psychological therapy, Kegel exercises to strengthen pelvic muscles, which may improve sexual response.

#### **RETROGRADED EJACULATION**

Some of the urological problems that may affect men and women with diabetes are bladder and urinary tract infections.

# **Overactive bladder**

Involuntary bladder contractions during filling. **Symptoms** 

# **Sphincters control**

Increased urinary frequency.

- Sudden and strong urge to urinate.
- Urinary incontinence: It occurs after you have a sudden and strong urge to urinate.

If the nerves controlling the sphincter muscles become damaged, they may weaken and result in dribbling or they may remain closed when urinating.



**Cause:** Inadequate control of blood glucose, prostate surgery and medications.

# Treatment

- Medication for sphincter strengthening.
- Treatments for infertility: sperm collection from the urine for artificial insemination.



#### **Urinary retention**

If the bladder gets too full, urine accumulates and damages the kidneys. If it remains for too long in the body, it can cause an infection. Urinary retention can also cause overflow incontinence.

# Treatment

- Urinary retention: medications to stimulate emptying, in order to urinate at fixed times; intermittent catheterization, massages in the lower part of the abdomen to stimulate emptying.
- Urine leakage: medications, Kegel exercises for strengthening the sphincter muscles, surgery.

# **URINARY INFECTIONS**

They are usually produced by bacteria, most of them come from the digestive system, and reach the urinary tract. They can be classified in:

- Urethritis: bacteria grow in the urethra.
- Cystitis: bacteria up the urinary tract cause an infection.
- Pyelonephritis: It is a untreated infection that extends further into the body, affecting the kidneys.

# Symptoms of urinary tract infections:

- Overwhelming need to urinate.
- Pain or burning during urination.
- Cloudy or reddish urine.
- In women, pressure on the pubic bone.
- In men, a feeling of fullness in the rectum.

# Can you prevent the sexual and urological problems associated with diabetes?

People with diabetes may decrease the risk of having sexual and urological problems by:

- Maintaining glucose, blood pressure and blood cholesterol levels within the values recommended by the physician.
- Staying physically active and maintaining a healthy weight.
- Smoking cessation decreases the risk of developing sexual and

#### urological problems secondary to nerve damage.