### MODERN TOOLS IN MANAGEMENT OF SEXUAL DYSFUNCTION THERE BENEFITS AND DISADVANTAGES

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#### DEFINITION

- Persistent, recurrent problems with sexual response, desire, orgasm or pain that distress you or strain your relationship with your partner are known medically as sexual dysfunction. It can happen during any phase of the sexual response cycle. It prevents a person from experiencing satisfaction from sexual activity.
- The sexual response cycle traditionally includes excitement, plateau, orgasm and resolution. Desire and arousal are both part of the excitement phase of the sexual response.
- Some 43% of women and 31% of men report some degree of sexual dysfunction.
- Sexual response involves a complex interplay of physiology, emotions, experiences, beliefs, lifestyle and relationships. Disruption of any component can affect sexual desire, arousal or satisfaction, and treatment often involves more than one approach.

### CLASSIFICATION

Sexual dysfunction generally is classified into four categories:

- Desire disorders: lack of sexual desire or interest in sex.
- Arousal disorders: inability to become physically aroused or excited during sexual activity.
- Orgasm disorders: delay or absence of orgasm (climax).
- Pain disorders: pain during intercourse.

# What are the symptoms of sexual dysfunction?

#### **IN MALES:**

- Inability to achieve or maintain an erection (hard penis) suitable for intercourse (erectile dysfunction).
- Absent or delayed ejaculation despite enough sexual stimulation (retarded ejaculation).
- Inability to control the timing of ejaculation (early, or premature, ejaculation).

#### **IN FEMALES:**

- Inability to achieve orgasm.
- Inadequate vaginal lubrication before and during intercourse.
- Inability to relax the vaginal muscles enough to allow intercourse.

## What causes sexual dysfunction?

- Physical causes: Many physical and/or medical conditions can cause problems with sexual function. These conditions include diabetes, heart and vascular (blood vessel) disease, neurological disorders, hormonal imbalances, chronic diseases such as kidney or liver failure, and alcohol use disorder and substand use disorder. In addition, the side effects of some medications, including some antidepressant drugs, can affect sexual function.
- Psychological causes: These include work-related stress and anxiety, concern about sexual performance, marital or relationship problems, depression, feelings of guilt, concerns about body image and the effects of a past sexual trauma.

# What medications can cause sexual dysfunction?

#### **Non-prescription medicines**

Some over-the-counter antihistamines diphenydramine, cimetidine and decongestants can cause erectile dysfunction or problems with ejaculation.

#### **Antidepressants**

- Tricyclic antidepressants, including amitriptyline, doxepin imipramine and nortriptyline (Aventyl, Pamelor)
- Monoamine oxidase inhibitors (MAOIs), including phenelzine and tranylcypromine.
- Antipsychotic medications, including thioridazine, thiothixene, and haloperidol
- Anti-mania medications such as lithium carbonate
- Selective serotonin reuptake inhibitors (SSRIs) such as fluoxetine, sertraline, and paroxetine.

#### The following medications may cause erectile dysfunction:

- Anti-hypertensive medications (used to treat high blood pressure)
- Diuretics, including spironolactone (Aldactone) and the thiazides (Diuril, Naturetin, and others)
- Centrally acting agents, including methyldopa (Aldomet) and reserpine (Serpasil, Raudixin)
- a-Adrenergic blockers, including prazosin (Minipress) and terazosin (Hytrin)
- b-adrenergic (beta) blockers, including propranolol (Inderal) and metoprolol (Lopressor)
   The following medications may decrease sexual desire:
- Hormones
- Leuprolide
- Goserelin

# How is sexual dysfunction diagnosed?

- In most cases, patient recognize something's interfering with his / her enjoyment (or a partner's enjoyment) of a sexual relationship. We usually begins with a complete history of symptoms and a physical. Diagnostic tests may be done to rule out medical problems that may be contributing to the dysfunction. Typically lab testing plays a very limited role in the diagnosis of sexual dysfunction.
- An evaluation of attitudes about sex, as well as other possible contributing factors —fear, anxiety, past sexual trauma/abuse, relationship concerns, medications, alcohol or drug abuse, etc. helps a clinician understand the underlying cause of the problem and recommend the right treatment.

## How is sexual dysfunction treated?

- Most types of sexual dysfunction can be addressed by treating the underlying physical or psychological problems. Other treatment strategies include:
- Medication: When a medication is the cause of the dysfunction, a change in the medication may help. Men and women with hormone deficiencies may benefit from hormone shots, pills or creams. For men, drugs, including sildenafil (Viagra®), tadalafil (Cialis®), vardenafil (Varimax®) and avanafil may help improve sexual function by increasing blood flow to the penis
- For women, hormonal options such as estrogen and testosterone can be used (although these medications are not approved for this purpose). In premenopausal women, there are two medications that are approved by the FDA to treat low desire, including flibanserin (Addyi®) and bremelanotide (Vyleesi®).
- Mechanical aids: Aids such as vacuum devices and penile implants may help men with erectile dysfunction (the inability to achieve or maintain an erection). A vacuum device (EROS-CTD<sup>TM</sup>) is also approved for use in women, but can be expensive. Dilators may help women who experience narrowing of the vagina. Devices like vibrators can be helpful to help improve sexual enjoyment and climax.

- Sex therapy: Sex therapists can people experiencing sexual problems that can't be addressed by their primary clinician. Therapists are often good marital counselors, as well. For the couple who wants to begin enjoying their sexual relationship, it's well worth the time and effort to work with a trained professional.
- Behavioral treatments: These involve various techniques, including insights into harmful behaviors in the relationship, or techniques such as self-stimulation for treatment of problems with arousal and/or orgasm.
- Psychotherapy: Therapy with a trained counselor can help you address sexual trauma from the past, feelings of anxiety, fear, guilt and poor body image. All of these factors may affect sexual function.
- Education and communication: Education about sex and sexual behaviors and responses may help you overcome anxieties about sexual function. Open dialogue with your partner about your needs and concerns also helps overcome many barriers to a healthy sex life.

#### WHAT IS NEW IN MANAGEMENT?

 To bridge the gap between conventional diagnostic methods and MODERN needs new and modern diagnostic methods were introduced in last decade

- Non Invasive Penile Doppler
- Nocturnal Penile Tumescence Test

#### NON INVASIVE PENILE DOPPLER

- □ There are a significant number of men under 40 who experience erectile dysfunction (ED). In the past, the vast majority of cases were thought to be psychogenic in nature. Studies have identified organic etiologies in 15-72% of men with ED under 40
- The significant prevalence of vascular etiologies of ED in young men should prompt consideration of nocturnal penile tumescence testing and penile Doppler ultrasound but !!!

- Penile Doppler needs injection Papaverine to be given in penis which can sometimes cause pain and priapism, also it needs special ultrasound training and PNDT permission and can not be performed by treating SEXOLOGIST in own clinic easily.
- □ So WHAT IS THE SOLUTION ?

## WHAT IS THE SOLUTION ?



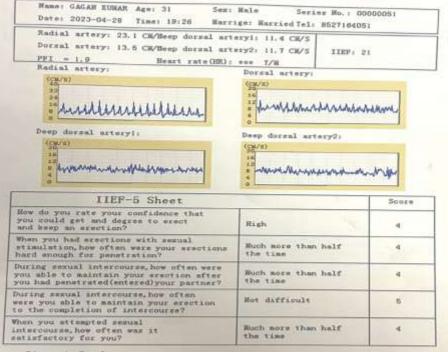
- The technical solution adopted by the present invention to solve this problem is a medical device for detecting penile vascular lesions.
- It consists of computer, blood flow Doppler analysis software, Doppler control motherboard and Doppler probe.
- Visually reflect the blood flow velocity of the penis, and calculate the penile blood flow index (PFI) according to the blood flow velocity value
- This is much easier to perform and does not require any special training or license and hence can be performed in privacy by SEXOLOGIST in there own clinic

## **DEMONSTRATION**



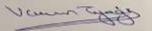
### REPORTING

#### Report of Doppler PERFECT TYAGI HOSPITAL



Disgnoris Result:

MORRAL STUDY



#### CN102949211A

China



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Other languages: Chinese

Inventor: 丁桂江

Current Assignee: SANWE MEDICAL TECHNOLOGY JIANGSU

Co Ltd

Worldwide applications

2011 • CN

Application CN2011102468031A events ②

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2013-03-06 • Publication of CN102949211A

Status Pending

nt citations (1), Legal events, Similar documents, r area. and Related Applications

External links: Espacenet, Global Dossier, Discuss

### OUR EXPERIENCE

■ We are using this machine for last 2 year in our hospital and have performed 118 penile doppler till date and successfully detected 23 cases of vasculogenic ED which were confirmed by coloured doppler and successfully treated with EXTRACORPOREAL SHOCK WAVE THERAPY and oral medications AND other methods.

# NOCTURNAL PENILE TUMESCENCE (NPT)

- Nocturnal penile tumescence testing has been used in the past as a means of separating neurogenic from psychogenic erectile dysfunction. If an individual with erectile dysfunction was documented to attain a full erection while sleeping, a psychogenic basis for the erectile dysfunction was presumed to be present.
- Nocturnal penile tumescence (NPT) or sleep-related erections (SREs) have been measured since the 1960s. Initially a mercury strain gage was used to measure penile circumference. Later a standardized scoring system with definitions of measurements and assessment of penile rigidity was added.

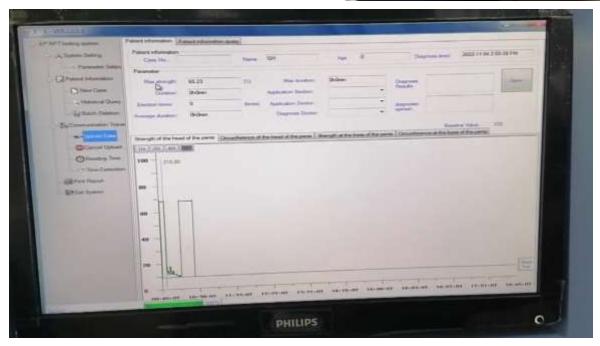
- The vast majority of SREs are temporally related to REM sleep. Typically, the erection initiates during the transition from NREM to REM sleep with full tumescence throughout REM. The penis then becomes flaccid again when NREM sleep commences.
- Rigidity is defined as penile buckling resistance and is one of the most important components of the NPT test. Circumference usually correlates with rigidity, but dissociation between the two measurements may occur. To measure rigidity, a patient is awakened during a SRE and the technician applies a force parallel to the shaft of the penis. The force is progressively increased until buckling of the penis is noted.

### WHAT'S NEW IN NPT

- The new computer based module is attached to thigh of subject and left overnight
- Test can be performed in hospital or at patient home
- Data recorded is analysed with the help of software to determine test result









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### WHATS NEW IN TREATMENT?

Extra corporeal shock wave therapy

Male Sexual dysfunction therapy Machine

□ RF device

## **ESWT**

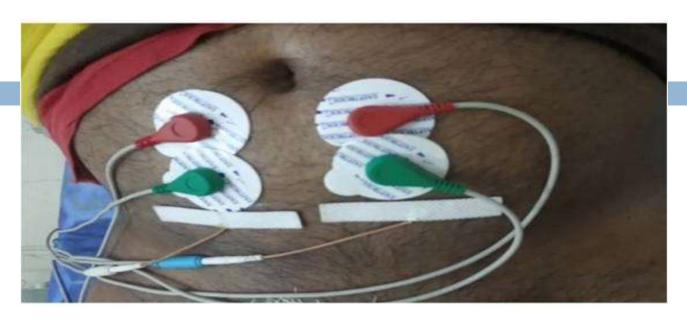


- Linear focusing shockwave for the treatment of vascular erectile dysfunction. This procedure was developed under the name LSTC-ED (Linear Shockwave Tissue Coverage – Erectile Dysfunction).
- The energy from shock wave therapy stimulates new blood vessel growth through a process called angiogenesis. This increases penile blood flow, which may improve erectile function.
- Shockwaves have shown excellent results in the treatment of vascular erectile dysfunction (ED). A functional improvement was demonstrated 6 months after treatment and proves the long-term effect of LSTC-ED treatment.

# MALE SEXUAL DYSFUNCTION THERAPY DEVICE ( MSDT )

#### Sanwe 三维医疗







#### 1) Apparatus Introduction

SW-3503 is a new type of non-invasive and non-traumatic high-tech therapeutic apparatus with the combination of modern digital technology and science principle of channels and collaterals of traditional Chinese medical science. It applies extra corporeal therapy to user which is safe, painless, and non-dependent. And it has many physiological therapeutic techniques, such as electro low frequency stimulation, negative pressure suction, pneumatic massage, water massage, strong current stimulation and medicated fluid bath.

#### 2) Applicable Range

Widely used in treatment for

- 1)male sexual dysfunction: Erectile dysfunction, ejaculation obstacles, sexuality barriers, defective ejaculation, minor-penis, delayed puberty of male teenagers, and sexual function degeneration of the middle and old male.
- 2)Prostate Disease: Prostatitis, prostatic hyperplasia, prostate pain syndrome

## Therapeutic Functions

- Low-frequency electric pulse stimulation
- □ Vacuum negative pressure suction
- Pneumatic massage
- Water massage
- Bubble massage
- Strong current stimulation
- Medical Bath Therapy

## RF DEVICE



#### MECHANISM AND USAGE

- It has been widely acknowledged that collagen fibers are important penile constituents which maintain the penile structure during erection, while allowing adequate resistance during the return to the nonerect state.
- Vertica addresses significant unmet needs in the sexual health market, by utilizing pioneering Radio Frequency (RF) technology to restore and enhance the penile erectile mechanism, by stimulating collagen production in the corpora cavernosa (the penile erectile tissues).
- Vertica is intended for use both by men experiencing erectile difficulties, and those wishing to optimize erectile function and prevent ED due to erectile mechanism degradation in the erectile tissues.

### **ADVANTAGES**

- Non-invasive and easy to use, initially requires treatment only twice a week for 15-30 minutes, with weekly follow-up, or as necessary according to the severity of the condition.
- Rehabilitates the Tunica Albuginea to restore the natural erectile mechanism and improve erectile function.
- Allows for spontaneity unlike medication, injections, vacuum and other devices,
   Vertica eliminates the need to time treatment with sexual activity.
- □ **High efficacy and safety profile** demonstrated by the results of a pilot clinical study conducted at the Neuro-urology unit, Rambam hospital, Israel.
- No side effects and no adverse events.

### BENEFITS OF MODERN TOOLS

- Makes diagnosis more scientific and conclusive
- Easy to perform test with less subjective variation
- Better therapeutic options with less adverse effects
- More options to explore

# DISADVANTAGES OF MODERN DIAGNOSTIC TOOLS

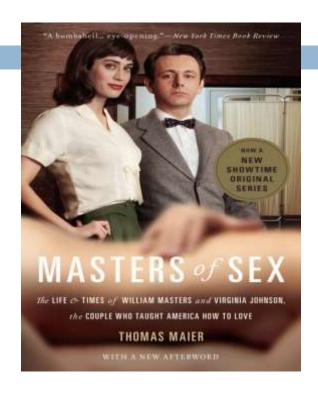
- Results are not standardized and most of the tools are not FDA approved
- Cost is also a limiting factor
- Initial cost of machine is high / ROI is difficult
- Learning curve is very long and time consuming

# DISADVANTAGES OF MODERN THERAPEUTIC TOOLS

- Results are variable and may differ significantly in different patients
- Most of the therapies are still not FDA approved
- Devices are costly and ROI is difficult
- Trained operators are difficult to find

#### THANK YOU





**Sigmund Freud** born 6 May 1856 – 23 September 1939) was an A<u>ustrian neurologist</u> and the founder of <u>psychoanalysis</u>.

**John Davison Rockefeller Sr.** (July 8, 1839 – May 23, 1937) was an American oil industry business magnate, industrialist, and philanthropist. He is widely considered the wealthiest American of all time

Andrew Carnegie born (November 25, 1835 was a Scottish-American industrialist and philanthropist

Alfred Charles Kinsey (FATHER OF SEXOLOGY) born June 23, 1894 was an American biologist professor of entomology and zoology and sexologist who in 1947 founded the Institute for Sex Research at Indiana University previously known as the Kinsey Institute for Research in Sex, Gender, and Reproduction.