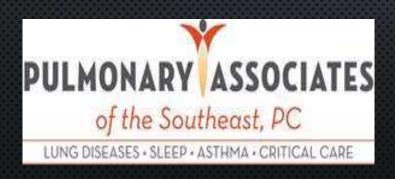
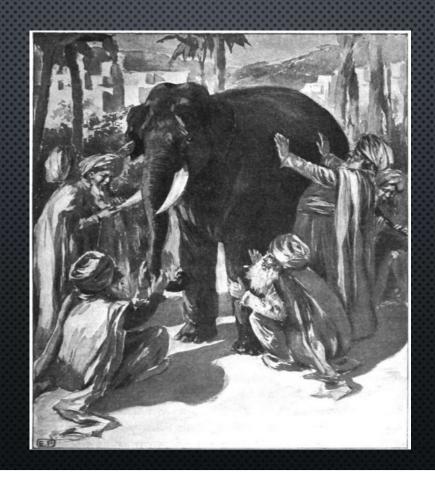
EFFECTS OF SLEEP ON MEN'S HEALTH

PRESENTED BY DR. DAVID FRANCO

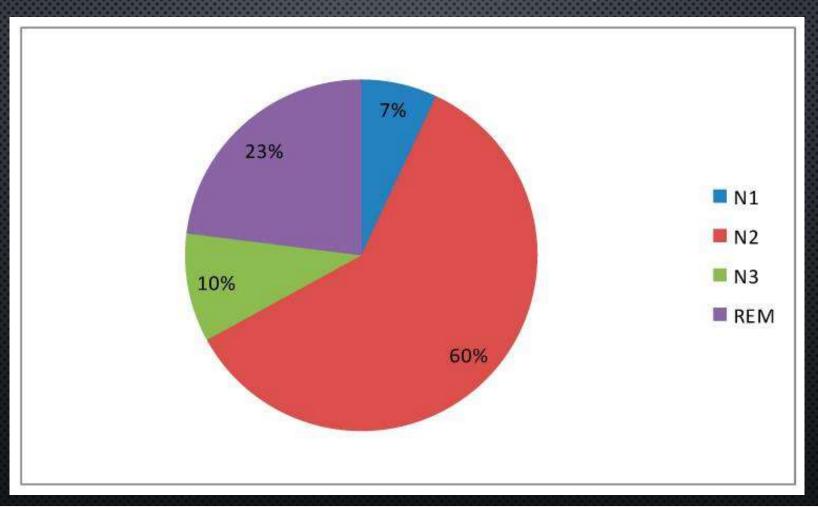




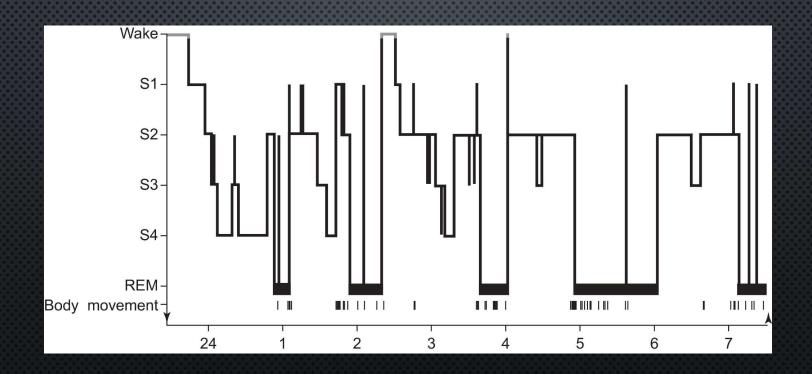
THE BLIND MEN AND THE ELEPHANT



NORMAL SLEEP ARCHITECTURE



NORMAL SLEEP ARCHITECTURE



REASONS FOR NOCTURNAL AWAKENINGS



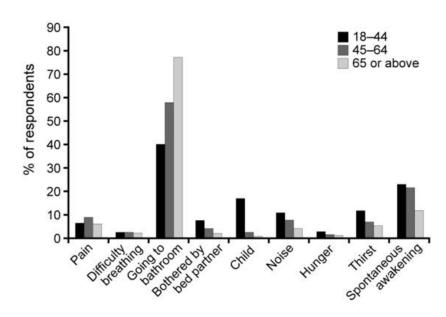
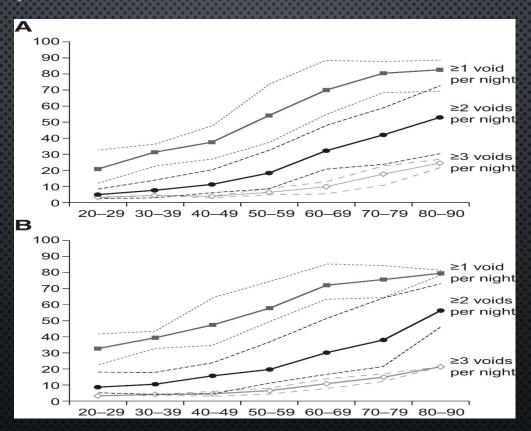


Figure 1.

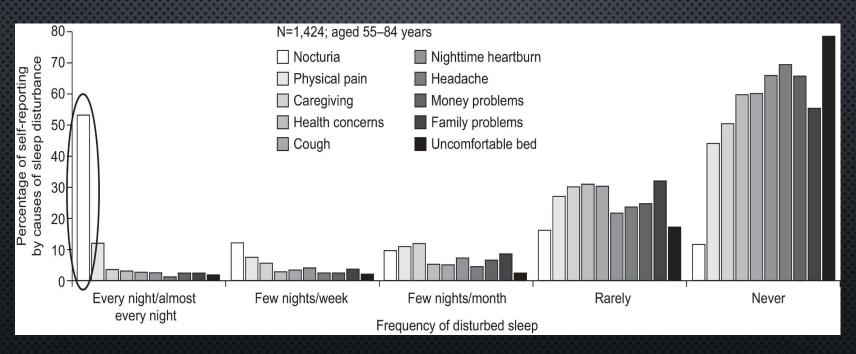
Reasons for nocturnal awakenings among the US general population by age group*8

*All reasons were cited as 'often'.

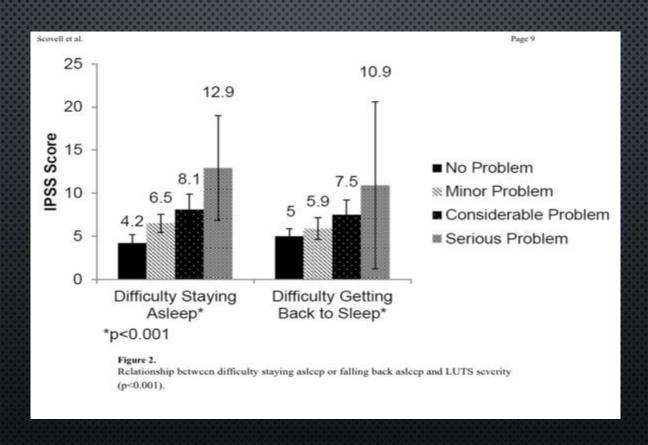
FREQUENCY OF NOCTURIA WITH AGING



NOCTURIA -MEDICAL AND SOCIAL COMPLAINTS



SLEEP MAINTENANCE INSOMNIA AND LUTS



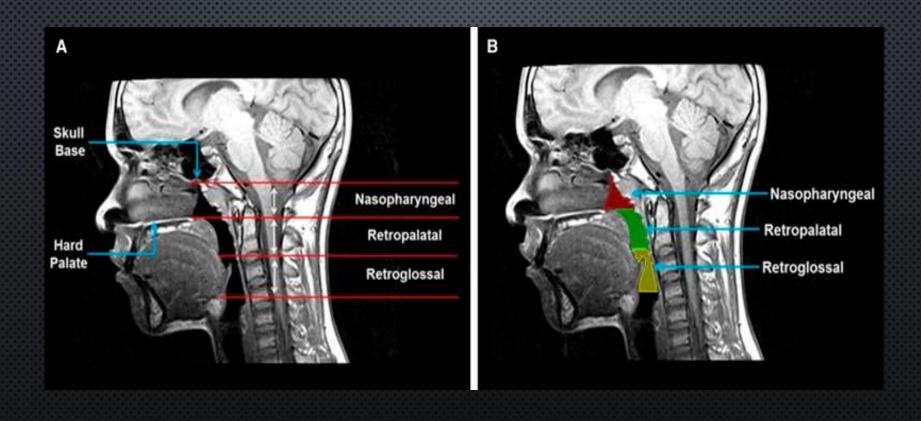
EFFECTS OF NOCTURIA ON SLEEP AND HEALTH

Ancoli-Israel et al. Page 14

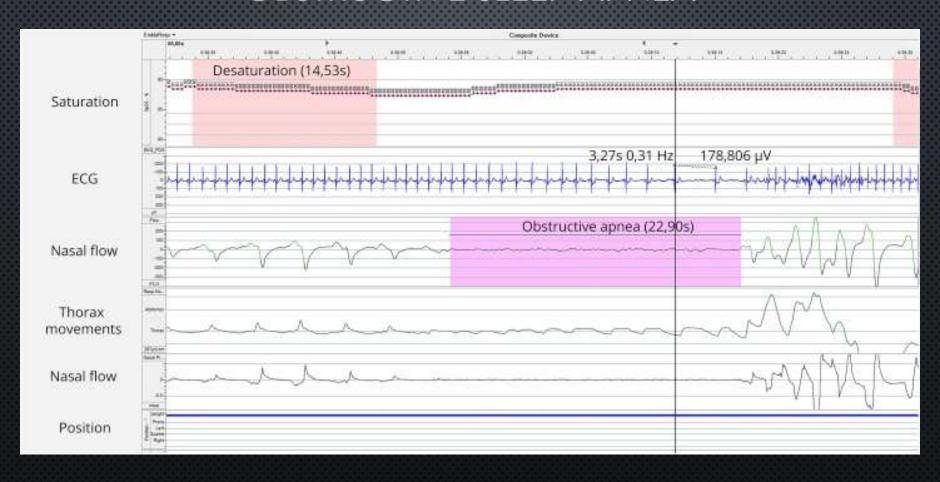
Practice points

- Chronic insomnia complaints are very frequent among older adults with nocturia, particularly difficulty falling asleep, fewer total hours of sleep, and difficulty falling back to sleep.
- Nocturia is an independent predictor of insomnia and deterioration of sleep quality
- Sleep apnea is associated with increased nocturia.
- Nocturia is also known to impair functioning, quality of life and productivity.
- Patients with two or more voids a night have a higher risk of mortality after controlling for co-morbidities
- In patients with insomnia co-morbid with nocturia, health care professionals should consider concurrent intervention for both conditions.

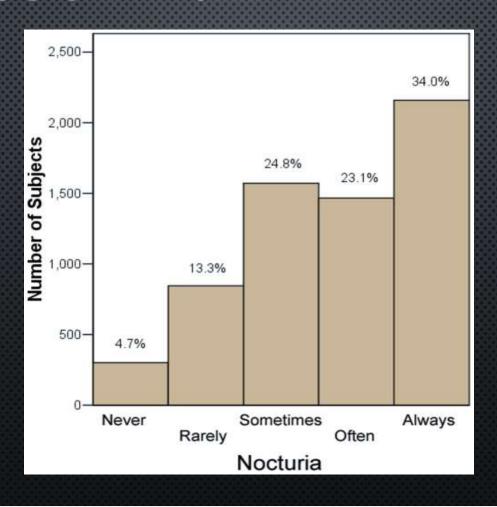
UPPER AIRWAY ANATOMY



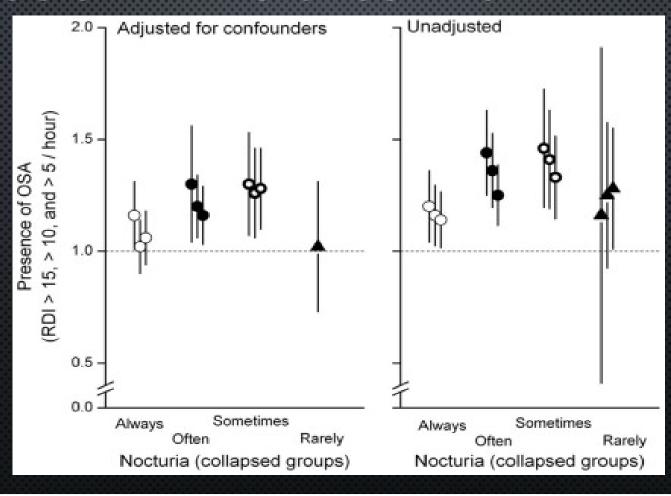
OBSTRUCTIVE SLEEP APNEA



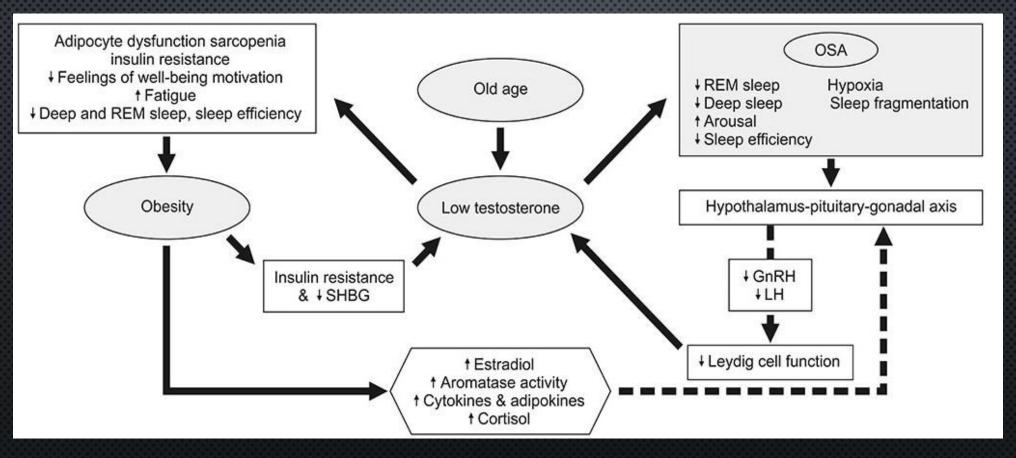
NOCTURIA IN SLEEP HEART HEALTH STUDY



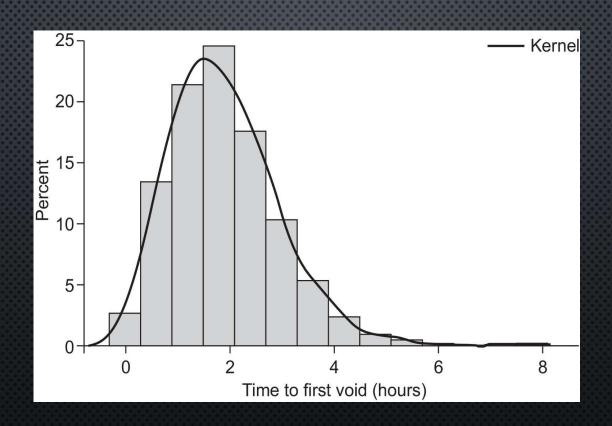
NOCTURIA AND OBSTRUCTIVE SLEEP APNEA



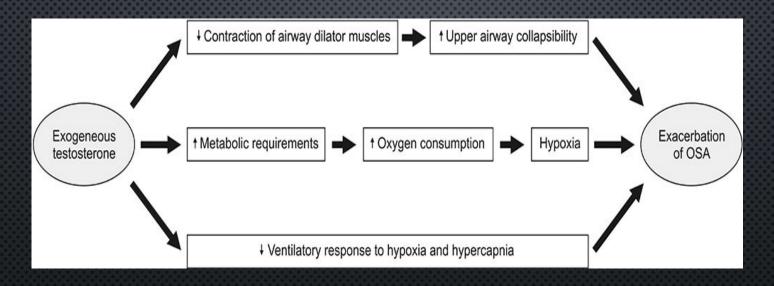
Potential Effects of Obesity and Sleep Apnea on Testosterone Levels



TIME TO FIRST VOID



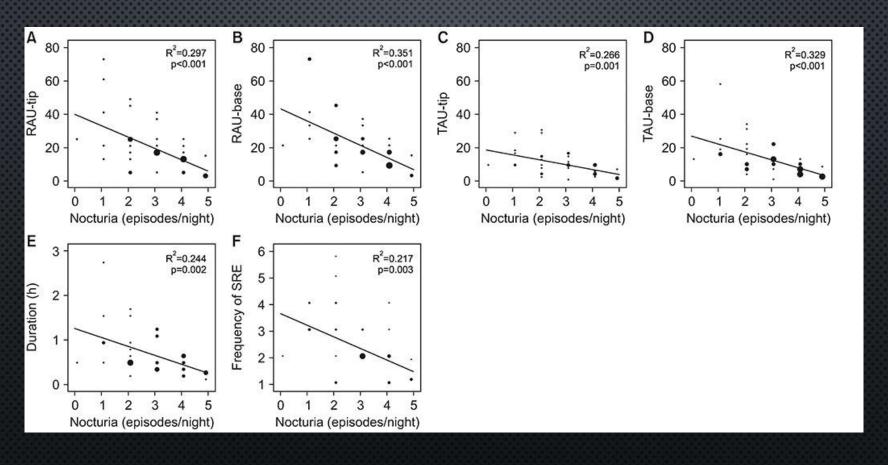
TESTOSTERONE EFFECT ON UNTREATED OSA



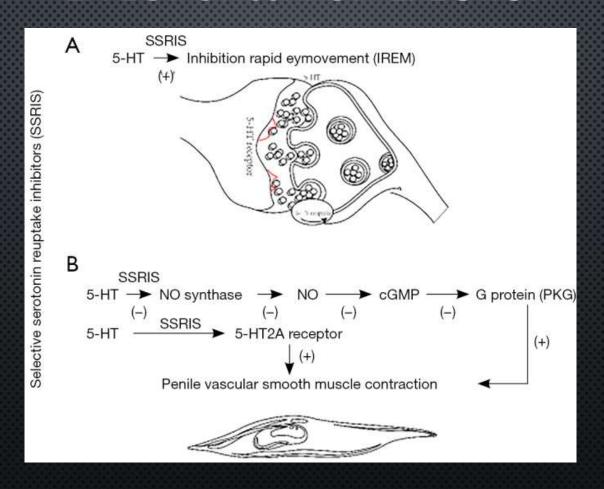
ETIOLOGY OF ERECTIONS

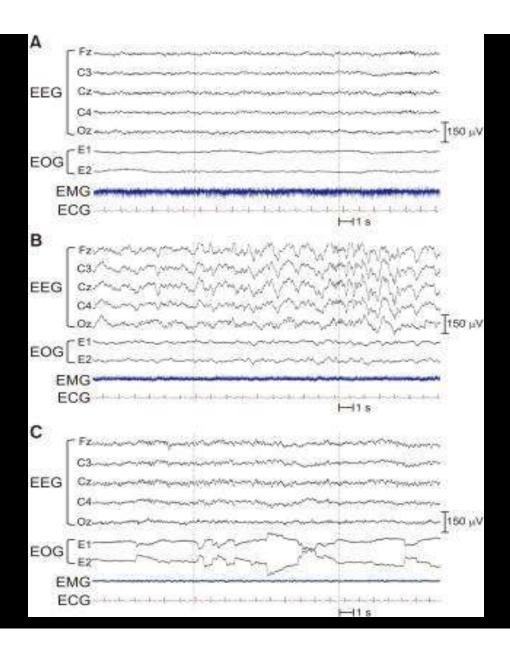
Reflex erection	Physical stimulation
Psychogenic erection	— Auditory stimulation — Visual stimulation — Olfactory stimulation — Hallucinations stimulation
Nocturnal spontaneous erection	Physiological erection Erection 3-5 times in REM stage Pathological erection Sleep-related painful erection
Persistent abnormal erection	Neurological abnormal Neurological diseases that compress the erection center such as spinal cord. etc Mechanical abnormal erection Penile trauma, Pelvic tumor, etc
	Drug-induced abnormal erection Sickle cell anemia, thrombophlebotis, etc Hypoxia abnormal erection Testosterone, thiazide, etc

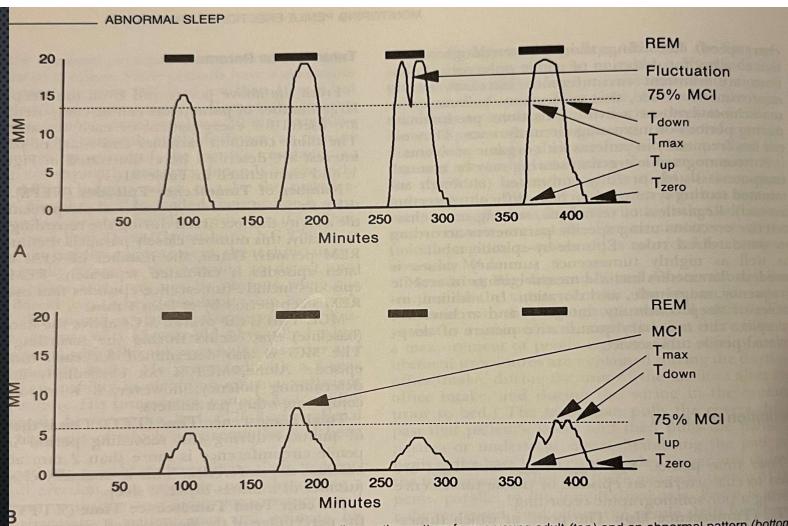
NOCTURIA AND SLEEP RELATED ERECTIONS



EFFECT OF SSRI ON ERECTION

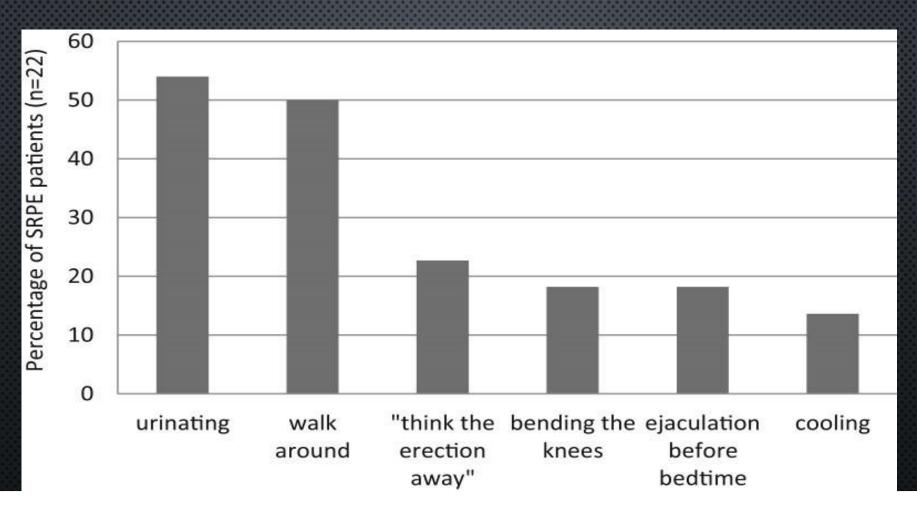




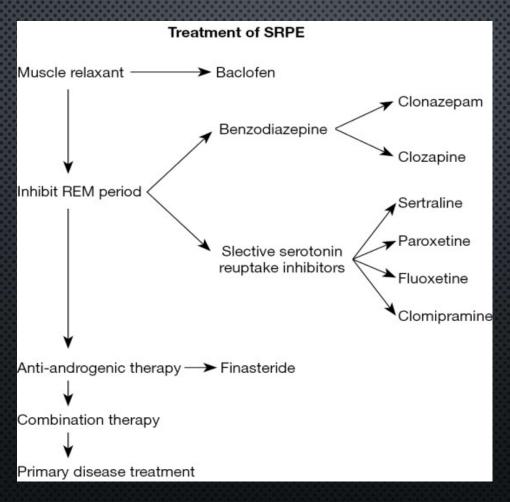


-1. A and B, Schematics of a normal sleep-related penile erection pattern from a young adult (top) and an abnormal pattern (bottom). Ites indicate circumference change in millimeters; the abscissas indicate elapsed time in minutes during polysomnography. REM ods are indicated by the four dark bars along the top of the figures. Points (defined in the text) that are important for scoring the e records are indicated by arrows for an erection episode in each figure.

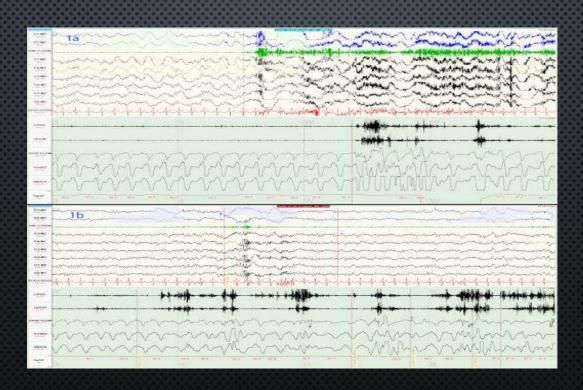
TERMINATING SLEEP RELATED PAINFUL ERECTIONS



TREATMENT OF SLEEP RELATED PAINFUL ERECTIONS



POLYSOMNOGRAPH DURING SLEEP SEX



THANK YOU

DR. DAVID FRANCO

