

# Sleep Statistics

- We spend about 1/3 of our lives asleep.
- Average 3,000 hours of sleep per year.
- Most people do not get enough sleep.
- Effects of sleep deprivation: Problems with health, mood, concentration, memory, emotional stability

# Signs of Sleep Disorders

- Consistent failure to get enough sleep or restful sleep
- Consistently feeling tired upon waking &/or waking with a headache
- Chronic fatigue, tiredness, sleepiness during the day
- Struggling to stay awake while driving or doing something passive, e.g. watching TV
- Difficulty concentrating at work or school
- Slowed or unusually delayed response to stimuli or events
- Difficulty remembering things or controlling emotions
- Frequent urge to nap during the day
- Snoring or ceasing to breathe during sleep

# 2 Categories of Sleep Disorders

## ■ Dyssomnias

- Difficulty getting enough sleep
- Problems in the timing of sleep
- Complaints about the quality of sleep

## ■ Parasomnias

- Abnormal behavioral & physiological events during sleep
- e.g. nightmares, sleep walking, sleep talking

# Primary Insomnia

- Difficulty initiating sleep, maintaining sleep, &/or nonrestorative sleep for at least 1 month
- Primary: insomnia is not related to other medical or psychiatric problems
- One of the most common sleep disorders: 1/3 of general population report Sx
- Women report insomnia 2x as often as men

# Primary Insomnia

- **Contributing Factors:**
  - Medical factors, such as pain & physical discomfort and respiratory problems
  - High body temperature
  - Inactivity during the day
  - Psychological disorders
  - Stress
  - Unrealistic expectations regarding sleep
  - Poor bedtime habits or sleep hygiene
  - Rebound insomnia (sleeping pills)

# Primary Insomnia

## ■ Treatments:

- Prescription drugs (benzodiazepines) & OTC drugs → excessive sleepiness, dependence, rebound insomnia
- Other drug options: antihistamines, Remeron, Trazedone
- Relaxation training
- Stimulus control procedures
- Setting regular bedtime routines
- Sleep restriction
- Confronting unrealistic expectations about sleep

# Primary Hypersomnia

- **Predominant complaint:** excessive sleepiness for at least a month
- **Sleeping too much:** prolonged sleep episodes or daytime sleep episodes occur almost daily
- **Treatments:** stimulants; provigil

# Narcolepsy

## ■ Features:

- Daytime sleepiness
- Irresistible attacks of refreshing sleep occur almost daily
- Cataplexy – sudden loss of muscle tone (associated with intense emotion & the sudden onset of REM sleep)
- Sleep paralysis
- Hypnagogic & hypnopompic hallucinations
- Intrusions of REM sleep into the transition between sleep and wakefulness (at sleep onset or awakening)

## ■ Treatments:

- Stimulants
- Provigil
- Antidepressants

# Breathing Related Sleep Disorders

- Sleep is disrupted by a sleep-related breathing condition
- Breathing is interrupted during sleep, producing numerous brief arousals during the night
- Leads to excessive sleepiness during the day
- **Treatments:**
  - Weight loss
  - Medications to stimulate breathing (medroxyprogesterone, tricyclics)
  - Mechanical devices to reposition tongue or jaw

# Sleep Apnea

- **Symptoms:** restricted airflow &/or brief periods (10-30 seconds) where breathing ceases completely
- **Signs:** loud snoring, heavy sweating during the night, morning headaches, sleep attacks during the day
- **Obstructive Sleep Apnea:** airflow stops despite continued respiratory activity; airway is too narrow, damaged, abnormal
- **Central Sleep Apnea:** complete cessation of respiratory activity; associated with certain CNS disorders, e.g. degenerative disorders, cerebral vascular disease, head trauma
- **Contributing Factors:** more common in males, the obese, & middle to older age
- **Prevalence:** occurs in 10-20% of population

# Circadian Rhythm Sleep Disorders

- Inability to synchronize one's circadian sleep-wake pattern with the sleep-wake schedule of the surrounding environment
- Results in disrupted sleep – either insomnia or excessive sleepiness during the day
- 2 types:
  - **Jet lag type** – sleep problems caused by rapidly crossing multiple time zones
  - **Shift work type** – sleep problems associated with night shift work or frequently changing shift work

# Circadian Rhythm Sleep Disorders

- **Phase Shifts:**

- **Delayed Sleep Phase Type** – late sleep onset & late awakening
- **Advanced Sleep Phase Type** – early sleep onset & early awakening

- **Treatments**

- **Phase delays** – moving bedtime later
- **Phase advances** – moving bedtime earlier
- Use of a bright light (>2,500 lux)

# Parasomnias

- Disturbances in arousal and sleep stage transition that intrude into the sleep process
- 2 types:
  - Those that occur during rapid eye movement (REM) sleep
  - Those that occur during non-rapid eye movement (NREM) sleep

# Nightmares

- Occurs during REM (dream) sleep
- Extremely frightening dreams that interrupt sleep and interfere with daily functioning
- Person readily awakens from dreams, has detailed recall, and rapidly becomes oriented and alert
- Common in children (10-50%), but not adults (5-10%)

# Sleep Terrors

- **Symptoms:**
  - Occurs during NREM sleep
  - Intense fear, panicky scream, autonomic arousal (heart racing, rapid breathing, sweating)
  - Relatively unresponsive to efforts of others to comfort or wake the person during the episode
  - Abrupt awakening from sleep
  - Amnesia for the episode, no detailed dream recall
- **Prevalence:** more common in children (5%) than adults (<1%)
- **Treatment:** antidepressants, benzodiazepines, scheduled awakenings

# Sleep Walking (Somnambulism)

- **Symptoms:**
  - Occurs during NREM sleep
  - Rising from bed and walking about
  - Blank, staring face
  - Unresponsive to efforts of others to communicate
  - Can be awakened only with great difficulty
  - Upon awakening, short period of confusion or disorientation
  - Upon awakening, amnesia for episode
- **Prevalence:** primarily a childhood problem (15-30%)
- **Course:** most will outgrow by age 15
- **Causes:** fatigue, sleep deprivation, use of sedative or hypnotic drugs, stress, heredity

# Other NREM Parasomnias

- Sleep Talking
- Bruxism (teeth grinding)
- Nocturnal Eating Syndrome

# Sleep Hygiene

- Establish a set bedtime routine
- Set a regular sleep and wake time
- Go to bed when tired & get out of bed if unable to sleep within 15 minutes
- Reduce noise, light, stimulation, & temperature in bedroom
- Restrict activities in bed to those that help induce sleep
- Avoid using caffeine & nicotine 6 hours before bedtime
- Limit use of alcohol or tobacco
- Do not exercise or participate in vigorous activities in the evening
- Exercise during the day
- Eat a balanced diet
- Increase exposure to natural and bright light during the day
- Educate self about normal sleep and sleep behavior