

# KAZAN STATE MEDICAL UNIVERSITY

★ PSYCHIATRY DEPARTMENT ★



## EATING AND SLEEP DISORDERS

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# Eating Disorders

- ❑ **Anorexia nervosa** - An eating disorder characterized by (1) maintenance of an abnormally low body weight, (2) a distorted body image, (3) intense fears of gaining weight, and (4) in females, amenorrhea.
- ❑ **Bulimia nervosa** - An eating disorder characterized by (1) recurrent binge eating followed by self-induced purging, (2) accompanied by overconcern with body weight and shape.
- ❑ **Eating disorder** - A psychological disorder characterized by (1) disturbed patterns of eating and (2) maladaptive ways of controlling body weight.

# Eating Disorders

- **Results of a large, population based survey indicate that anorexia affects about 0.9% of women in our society (about 9 in 1,000).**  
**Bulimia is believed to affect about 1% to 3% of women.**
- **Rates of anorexia and bulimia among men are estimated at about 0.3% (3 in 1,000) for anorexia and 0.1% 0.3% (1 to 3 in a thousand) for bulimia.**
- **Many men with anorexia participate in sports, such as wrestling, that impose pressures on maintaining weight within a narrow range.**

# Overview of Eating Disorders

**Table 10.1 Overview of Eating Disorders**

TYPE OF DISORDER	Lifetime Prevalence in Population (approx.)	Description	Associated Features
Anorexia Nervosa	0.9%, or 9 in 1,000 women; about 0.3%, or 3 in 1,000 men	Self-starvation, resulting in a minimal weight for one's age and height or dangerously unhealthy weight	<ul style="list-style-type: none"> <li>• Strong fears of gaining weight or becoming fat</li> <li>• Distorted self-image (perceiving oneself as fat despite extreme thinness)</li> <li>• Two general subtypes: binge-eating/purging type and restrictive type</li> <li>• Potentially serious, even fatal medical complications</li> <li>• Typically affects young, European American women</li> </ul>
Bulimia Nervosa	1%–3% in women; about 0.1%–0.3% in men	Recurrent episodes of binge eating followed by purging	<ul style="list-style-type: none"> <li>• Weight is usually maintained within a normal range</li> <li>• Overconcern about body shape and weight</li> <li>• Binge-purge episodes may result in serious medical complications</li> <li>• Typically affects young, European American women</li> </ul>
Binge-Eating Disorder (a proposed diagnosis requiring further study)	3% in women; 2% in men	Recurrent binge eating without compensatory purging	<ul style="list-style-type: none"> <li>• Individuals with BED frequently are described as compulsive overeaters</li> <li>• Typically affects obese women who are older than those affected by anorexia or bulimia</li> </ul>

Source: APA, 2000; Hudson et al., 2006.

# Subtypes of Anorexia

There are two general subtypes of anorexia:

- (1) *A binge eating/purging type and*
- (2) *a restrictive type.*

First type characterized by frequent episodes of binge eating and purging; the second type is not. Individuals with the eating/purging type tend to have problems relating to impulse control, which in addition to binge-eating episodes may involve substance abuse or stealing

# Medical Complications of Anorexia

- Anorexia can lead to serious medical complications that in extrem cases can be fatal.
- **Losses of as much as 35% of body weight may occur, and anemia may develop.**
- Females suffering from anorexia are also likely to encounter **dermatological problems such as dry, cracking skin; fine, downy hair; even a yellowish discoloration of the skin that may persist for years after weight is regained.**
- **Cardiovascular complications include heart irregularities, hypotension (low blood pressure), and associated dizziness upon standing, sometimes causing blackouts.**

# Bulimia Nervosa

- Bulimia derives from the Greek roots bous, meaning “ox” or “cow,” and limos, meaning “hunger.”
- Bulimia nervosa is an eating disorder characterized by **recurrent episodes of gorging on large quantities of food, followed by use of inappropriate ways to prevent weight gain.**
- These may include **purging by means of self-induced vomiting; use of laxatives, diuretics, or enemas; or fasting or engaging in excessive exercise.**

# The Case of Ann

**“I was just afraid to go home and be around food.”**





# Bulimia Nervosa

**TABLE 10.3**

## Diagnostic Features of Bulimia Nervosa

- A. Recurrent episodes of binge eating (gorging) as shown by both:
  - 1. Eating an unusually high quantity of food during a 2-hour period, and
  - 2. Sense of loss of control over food intake during the episode.
- B. Regular inappropriate behavior to prevent weight gain, such as self-induced vomiting; abuse of laxatives, diuretics, or enemas; or fasting or excessive exercise.
- C. A minimum average of two episodes a week of binge eating and inappropriate compensatory behavior to prevent weight gain over a period of at least 3 months.
- D. Persistent overconcern with the shape and weight of one's body.

Source: Adapted from the *DSM-IV-TR* (APA, 2000).

# Medical Complications of Bulimia

Many medical complications stem from repeated vomiting: skin irritation around the mouth due to frequent contact with stomach acid, blockage of salivary ducts, decay of tooth enamel, and dental cavities.

- The acid from the vomit may damage taste receptors on the palate, making the person less sensitive to the taste of vomit with repeated purging.
- Decreased sensitivity to the aversive taste of vomit may help maintain the purging behavior.

# Causes of Anorexia and Bulimia

- Like other psychological disorders, anorexia and bulimia involve a complex interplay of factors (Polivy & Herman, 2002).
- Most significant are social pressures that lead young women to base their self-worth on their physical appearance, especially their weight.

# Sociocultural Factors

- Pressure to achieve an unrealistic standard of thinness, combined with importance attached to appearance in defining female role in society, can lead young women to become dissatisfied with their bodies (Stice, 2001).
- These pressures are underscored by findings that among college women in one sample, 1 in 7 (14%) reported that buying a single chocolate bar in a store would cause them to feel embarrassed (Rozin, Bauer, & Catanese, 2003).
- In another study, peer pressure to adhere to a thin body shape emerged as a strong predictor of bulimic behavior in young women (Young, McFatter, & Clopton, 2001).

# Sociocultural Factors

- Exposure to media images of ultrathin women can lead to the internalization of a thin ideal, setting the stage for body dissatisfaction (Blowers et al., 2003; Cafri et al., 2005).
- Even in children as young as eight, girls express more dissatisfaction with their bodies than do boys (Ricciardelli & McCabe, 2001).
- **Body mass index (BMI) - A standard measure of overweight and obesity that takes both body weight and height into account**

# Psychosocial Factors

- Although cultural pressures to conform to an ultrathin female ideal play a major role in eating disorders, the great majority of young women exposed to these pressures do not develop eating disorders.
- A pattern of overly restricted dieting is common to women with bulimia and anorexia. Women with eating disorders typically adopt very rigid dietary rules and practices about what they can eat, how much they can eat, and how often they can eat.



- **Death by Starvation.** A leading fashion model, Brazilian Ana Carolina Reston, was just 21 when she died in 2006 from complications due to anorexia. At the time of her death, the 5'7" Reston weighed only 88 pounds.  
Anorexia is a widespread problem among fashion models today, as it is among people in other occupations in which great emphasis is put on unrealistic standards of thinness

# Family Factors

- Eating disorders frequently develop against a backdrop of family problems and conflicts. Some theorists focus on the brutal effect of selfstarvation on parents.
- They suggest that some adolescents refuse to eat to punish their parents for feelings of loneliness and alienation they experience in the home



# Family Factors

- Families of young women with eating disorders tend to be more often conflicted, less cohesive and nurturing, yet more overprotective and critical than those of reference groups (Fairburn et al., 1997).
- The parents seem less capable of promoting independence in their daughters. Conflicts with parents over issues of autonomy are often implicated in the development of both anorexia nervosa and bulimia.

# Biological Factors

- Low levels of the chemical, or lack of sensitivity of serotonin receptors in the brain, may prompt binge-eating episodes, especially carbohydrate bingeing (Levitan et al., 1997).
- This line of thinking is buttressed by evidence that antidepressants, such as Prozac, which increases serotonin activity, can decrease binge-eating episodes
- in bulimic women (Walsh et al., 2004). We also know that many women with eating disorders are depressed or have a history of depression, and imbalances of serotonin are implicated in depressive disorders.

# Treatment of Eating Disorders

- People with anorexia may be hospitalized, especially when weight loss is severe or body weight is falling rapidly.
- In the hospital they are usually placed on a closely monitored refeeding regimen.
- Behavioral therapy is also commonly used, with rewards made contingent on adherence to the refeeding protocol.
- Commonly used reinforcers include ward privileges and social opportunities.

# Treatment of Eating Disorders

- Cognitive-behavioral therapy (CBT) has emerged as an effective treatment approach for bulimia and is currently recognized as the treatment of choice for this disorder.
- Interpersonal psychotherapy (IPT), a structured form of psychodynamic therapy, has also been used effectively in treating bulimia.
- IPT focuses on resolving interpersonal problems in the belief that more effective interpersonal functioning will lead to healthier food habits and attitudes.

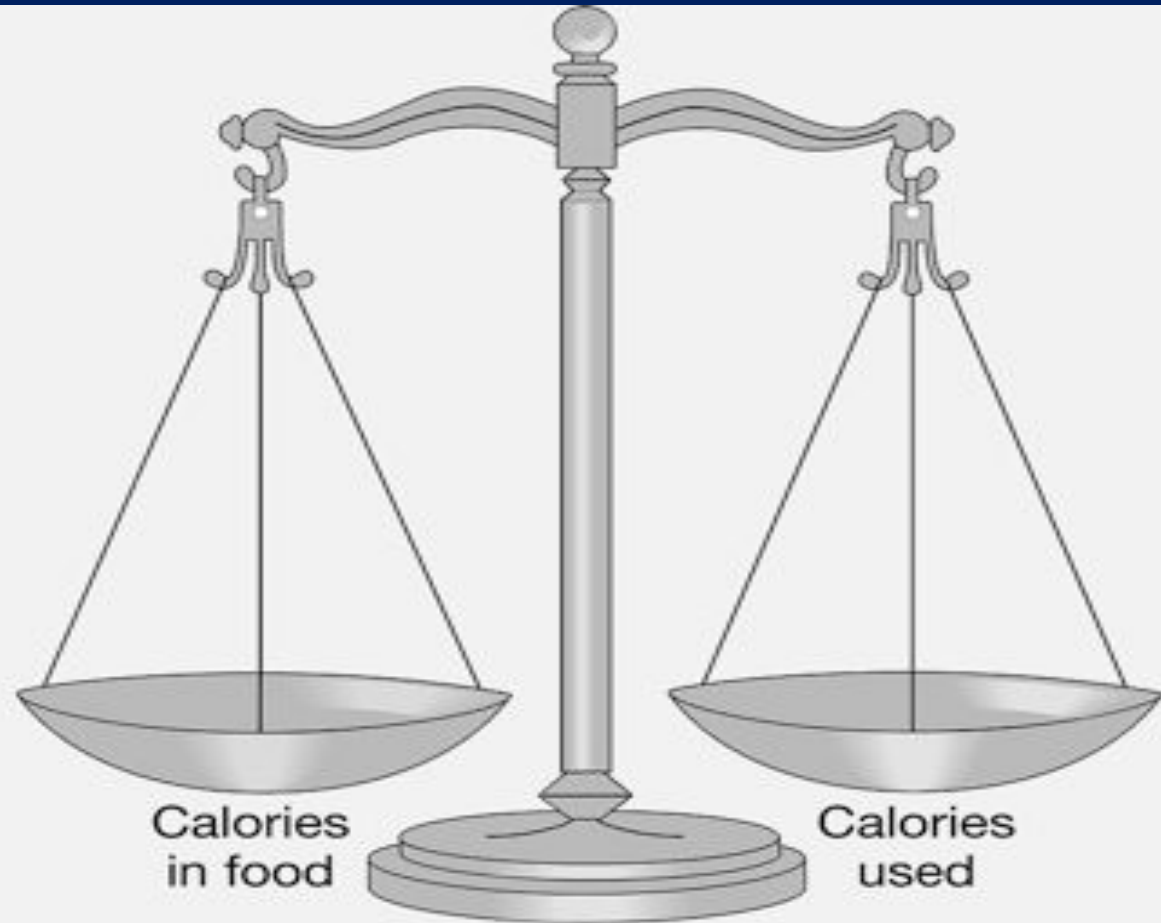
# Binge-Eating Disorder

- **Binge-eating disorder (BED) - A disorder** characterized by recurrent eating binges without purging; classified as a potential disorder requiring further study.
- Binge-eating disorder is classified in the DSM manual as a potential disorder requiring further study. Too little is known about the characteristics of people with BED to include it as an official diagnostic category.
- However, we do know that BED is more common than either anorexia or bulimia, affecting about 3% of women and 2% of men at some point in their lives.

# Binge-Eating Disorder

- People with BED are often described as “compulsive overeaters.”
- Cognitive-behavioral therapy (CBT) has shown herapeutic benefits in treating binge-eating disorder and is now recognized as the treatment of choice.
- **Obesity - A condition of excess body fat; generally defined by a BMI of 30 or higher.**

# Weight: A balancing act



**FIGURE 10.2** Weight: A balancing act.

# Rates of obesity (age 20 or higher).

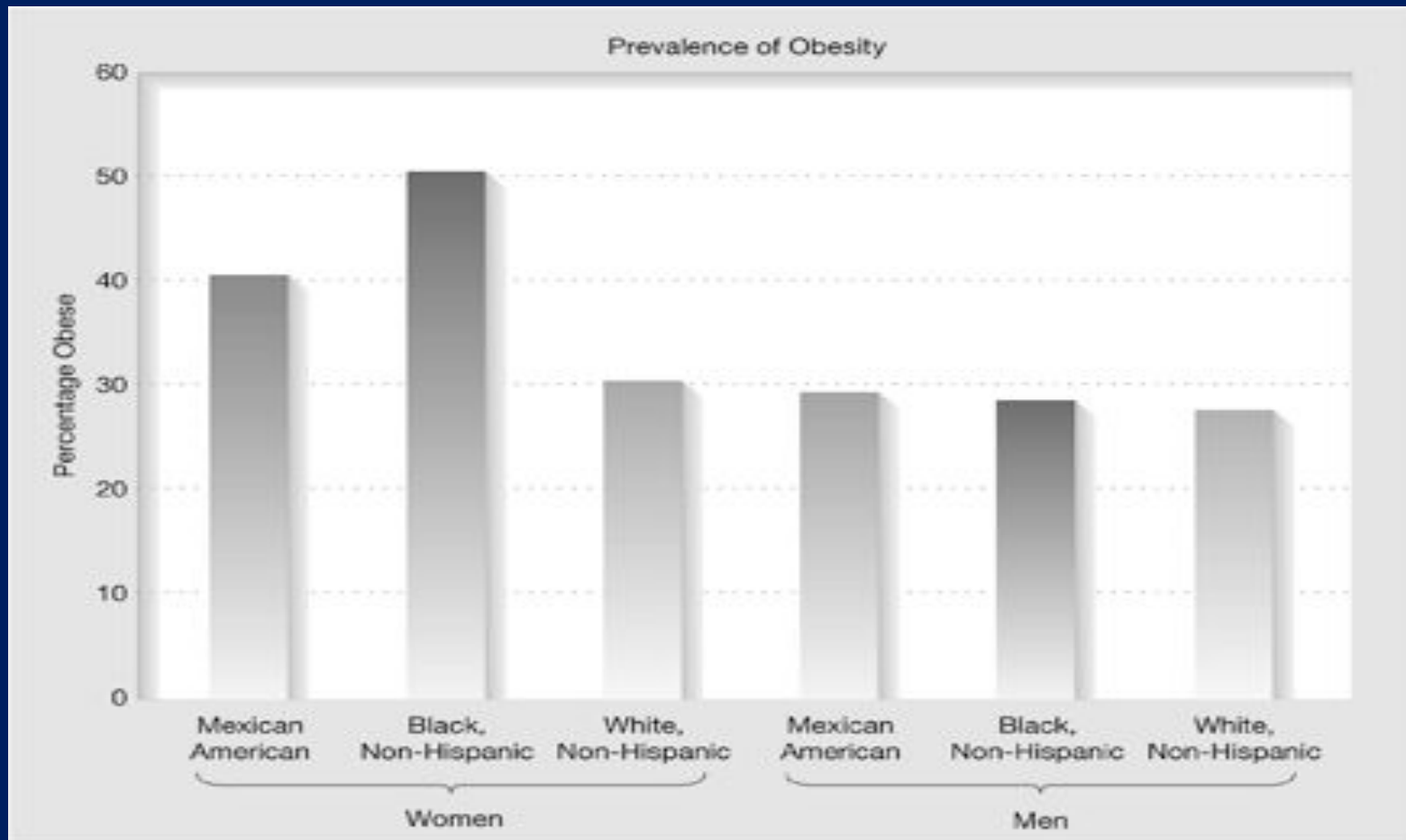


FIGURE 10.3 Rates of obesity (age 20 or higher).



# Sleep Disorders

- **Sleep disorders - Persistent or recurrent sleeprelated** problems that cause distress or impaired functioning.
- People with sleep disorders may spend a few nights at a sleep center, where they are wired to devices that track their physiological responses during sleep or attempted sleep—brain waves, heart and respiration rates, and so on.
- The DSM groups sleep disorders within two major categories: *dyssomnias and parasomnias*

# Dyssomnias

- Dyssomnias - Sleep disorders involving disturbances in the amount, quality, or timing of sleep.
- There are five specific types of dyssomnias:
  - Primary insomnia
  - Hypersomnia.
  - Narcolepsy
  - Breathing-related sleep disorder
  - Circadian rhythm sleep disorder.

# Insomnia

- **Insomnia - Difficulties falling asleep, remaining asleep, or achieving restorative sleep.**
- **Primary insomnia - A sleep disorder characterized by chronic or persistent insomnia not caused by another psychological or physical disorder or by the effects of drugs or medications.**
- **Chronic insomnia lasting a month or longer is often a sign of an underlying physical problem or a psychological disorder, such as depression, substance abuse, or physical illness.**

# Types of Sleep Disorders

**Table 10.4 Overview of Sleep Disorders**

TYPE OF DISORDER	Lifetime Prevalence in Population (approx.)	Description
<b>DYSSOMNIAS, WHICH ARE DISTURBANCES IN THE AMOUNT, QUALITY, OR TIMING OF SLEEP</b>		
Insomnia	10%	Persistent difficulty falling asleep, remaining asleep, or getting enough restful sleep
Hypersomnia	Unknown	Excessive daytime sleepiness
Narcolepsy	.02% (2 in 10,000) to 0.16% (16 in 10,000)	Sudden attacks of sleep during the day
Breathing-Related Sleep Disorder	1%–10%	Sleep repeatedly interrupted due to difficulties breathing
Circadian Rhythm Sleep Disorder	Unknown	Disruption of the internal sleep–wake cycle due to time changes in sleep patterns
<b>PARASOMNIAS, WHICH ARE SLEEP DISTURBANCES OCCURRING EITHER DURING SLEEP OR AT THE THRESHOLD BETWEEN SLEEP AND WAKEFULNESS</b>		
Nightmare Disorder	Unknown	Repeated awakenings due to nightmares
Sleep Terror Disorder	Unknown	Repeated experiences of sleep terrors resulting in abrupt awakenings
Sleepwalking Disorder	Estimated 1%–5% in children	Repeated episodes of sleepwalking

Source: APA, 2000; Smith & Perlis, 2006.

# Hypersomnia

- The word *hypersomnia* is derived from the Greek *hyper*, meaning “over” or “more than normal,” and the Latin *somnus*, meaning “sleep.”
- **Hypersomnia - A pattern of excessive sleepiness** during the day.
- The excessive sleepiness (sometimes referred to as “sleep drunkenness”) may take the form of difficulty awakening following a prolonged sleep period (typically 8 to 12 hours).

# Narcolepsy

- The word narcolepsy derives from the Greek *narke*, meaning “stupor” and *lepsis*, meaning “an attack.”
- **Narcolepsy - A sleep disorder characterized by sudden, irresistible episodes of sleep.**
- They remain asleep for about 15 minutes. The person can be in the midst of a conversation at one moment and slump to the floor fast asleep a moment later.

# Sleep Center.

People with sleep disorders are often evaluated in sleep centers, where their physiological responses can be monitored as they sleep.



# Narcolepsy

- The diagnosis is made when sleep attacks occur daily for a period of 3 months or longer and occur in conjunction with one or both of the following conditions:
  - (a) cataplexy (a sudden loss of muscular control)
  - (b) Intrusions of REM sleep in the transitional state between wakefulness and sleep.



# Breathing-Related Sleep Disorder

- **Breathing-related sleep disorder** - A sleep disorder in which sleep is repeatedly disrupted by difficulty with breathing normally.
- The subtypes of the disorder are distinguished in terms of the underlying causes of the breathing problem.
- The most common type is obstructive sleep apnea, which involves repeated episodes of either complete or partial obstruction of breathing during sleep.

# Circadian Rhythm Sleep Disorder

- **Circadian rhythm sleep disorder - A sleep disorder characterized by a mismatch between the body's normal sleep–wake cycle and the demands of the environment.**
- The disruption in normal sleep patterns can lead to insomnia or hypersomnia.
- For the disorder to be diagnosed, the mismatch must be persistent and severe enough to cause significant levels of distress or to impair the person's ability to function in social, occupational, or other roles.

# Parasomnias

- **Parasomnias - Sleep disorders involving abnormal behaviors or physiological events that occur during sleep or while falling asleep.**
- **Nightmare disorder - A sleep disorder characterized by recurrent awakenings due to frightening nightmares.**
- **Nightmares are often associated with traumatic experiences and generally occur most often when the individual is under stress.**

# Sleep apnea.

**Sleep apnea** (AP-ne-ah) is a common disorder in which you have one or more pauses in breathing or shallow breaths while you **sleep**. Breathing pauses can last from a few seconds to minutes. They may occur 30 times or more an hour. Typically, normal breathing then starts again, sometimes with a loud snort or choking sound.



# Sleep Terror Disorder

- It typically begins with a loud, piercing cry or scream in the night. The child (most cases involve children) may be sitting up, appearing frightened and showing signs of extreme
- arousal—profuse sweating with rapid heartbeat and respiration. The child may start talking incoherently or thrash about wildly but remain asleep.
- These terrifying attacks, called sleep terrors, are more intense than ordinary nightmares.
- Unlike nightmares, sleep terrors tend to occur during the first third of nightly sleep and during deep, non-REM sleep

# Sleep Terror Disorder

- **Sleep terror disorder - A sleep disorder** characterized by recurrent episodes of sleep terror resulting in abrupt awakenings.
- The child (most cases involve children) may be sitting up, appearing frightened and showing signs of extreme
- arousal—profuse sweating with rapid heartbeat and respiration. The child may start talking incoherently or thrash about wildly but remain asleep.
- These terrifying attacks, called sleep terrors, are more intense than ordinary nightmares.
- Unlike nightmares, sleep terrors tend to occur during the first third of nightly sleep and during deep, non- REM sleep

# Sleepwalking Disorder

- **Sleepwalking disorder - A sleep disorder involving repeated episodes of sleepwalking.**
- Sleepwalking disorder is most common in children, affecting between 1% and 5% of children, according to some estimates (APA, 2000).
- Between 10% and 30% of children are believed to have had at least one episode of sleepwalking.
- The prevalence of the disorder among adults is unknown, as are its causes.

# Treatment of Sleep Disorders

- The most common method for treating sleep disorders in the United States is the use of sleep medications.
- However, because of problems associated with these drugs, nonpharmacological treatment approaches, principally cognitive-behavioral therapy, have come to the fore.



# Biological Approaches

- Antianxiety drugs are among the drugs often used to treat insomnia, including the class of antianxiety drugs called benzodiazepines (for example, Valium and Ativan).
- When used for the short-term treatment of insomnia, sleep medications generally reduce the time it takes to get to sleep, increase total length of sleep, and reduce nightly awakenings.
- Sleep medications can also produce chemical dependence if used regularly over time and can lead to tolerance (Pollack, 2004a)

# Psychological Approaches

- Psychological approaches have by and large been limited to treatment of primary insomnia.
- Cognitive-behavioral techniques are short term in emphasis and focus on directly lowering states of physiological arousal, modifying maladaptive sleeping habits, and changing dysfunctional thoughts.
- Cognitive-behavioral therapists typically use a combination of techniques, including stimulus control, establishment of a regular sleep–wake cycle, relaxation training, and rational restructuring.

# Psychological Approaches

- **Stimulus control** involves changing the environment associated with sleeping.
- **Rational restructuring** involves substituting rational alternatives for self-defeating, maladaptive thoughts or beliefs.
- **Cognitive-behavioral therapy (CBT)** has emerged as the treatment of choice for chronic insomnia. CBT yields substantial therapeutic benefits, as measured by both reductions in the time it takes to get to sleep and improved sleep quality.

**THANK YOU**