Section 15.2 Alcohol’s Effects on the Body

Physical and Behavioral Effects

Unlike food, alcohol does not have to be digested in the stomach before it is absorbed into the blood.

- Alcohol gets into a person’s bloodstream within minutes of being consumed.
- Once in the blood, alcohol circulates throughout the body, where it has widespread effects.

Physical and Behavioral Effects

- Intoxication is the state in which a person’s mental and physical abilities are impaired by alcohol or another substance.
- Many negative effects on a drinker’s body and behavior accompany intoxication by alcohol.

Effects on Body Systems

- Cardiovascular System
  - Heart rate and blood pressure increase.
  - More blood flows to the skin’s surface.
  - Core body temperature decreases.

- Excretory System
  - Kidneys increase urine production.
  - Drinker loses more water from body than usual.

- Digestive System
  - Too much alcohol in the stomach may cause vomiting.

- Nervous System
  - Brain activity slows down.
  - Coordination becomes impaired.
  - Sensations and perception become less clear.
  - Reflexes become sluggish.

Effects on Behavior

- As intoxication takes effect, drinkers begin to lose judgment and self-control.
- At the same time, alcohol decreases drinkers’ natural fears.
- A blackout is a period of time that the drinker cannot recall.

Blood Alcohol Concentration

- Blood alcohol concentration (BAC) is the amount of alcohol in a person’s blood, expressed as a percentage.
- The higher a person’s blood alcohol concentration, the more severe the physical and behavioral effects.
- Blood alcohol concentration is a more reliable measure of intoxication than the number of drinks consumed.
Factors Affecting BAC

- **Rate of Consumption** People who have a few drinks in one hour have a higher BAC than people who drink the same amount over several hours.
- **Gender** Males generally will have a lower BAC than females.
- **Body Size** In general, smaller people—by weight and height—feel the effects of alcohol more than larger people.
- **Amount of Food in the Stomach** Drinking on an empty stomach increases the rate of alcohol absorption into the bloodstream.

*One drink is 1.25 oz of 80-proof liquor, 5 oz of wine, or 12 oz of beer.*

After Drinking Ends

- Once a person stops drinking, BAC begins to decrease.
- The intoxicating effects of alcohol slowly diminish, and the person’s reflexes and coordination return to normal.
- Nothing can speed the liver’s ability to break down alcohol.

Hangovers

- **Hangover** is a term used to describe the aftereffects of drinking too much alcohol.
  - Symptoms of a hangover include:
    - nausea
    - upset stomach
    - headache
    - sensitivity to noise

Life-Threatening Effects

- The short-term effects of intoxication can put a drinker at serious risk.
- Intoxication increases the risk of death from:
  - motor vehicle crashes
  - alcohol overdose
  - interactions of alcohol with other drugs

Motor Vehicle Crashes

- Alcohol is involved in about 40 percent of fatal motor vehicle crashes.
- **Driving While Intoxicated** A driver over age 21 caught driving with a BAC that exceeds the legal limit of 0.08 is charged with driving while intoxicated (DWI).
- **Zero Tolerance Laws** There is no acceptable BAC for underage drivers. The penalties for underage drivers may be more strict than those for other drivers.
Section 15.2 Alcohol’s Effects on the Body

**Overdose**
- Taking an excessive amount of a drug that leads to coma or death is called an **overdose**.
- Alcohol overdose, also called alcohol poisoning, can cause the heart and breathing to stop.
- **Binge drinking** is the consumption of excessive amounts of alcohol at one sitting.

Section 15.2 Alcohol’s Effects on the Body

**Interactions With Other Drugs**
- Alcohol is a depressant drug.
- When a person drinks alcohol and takes another depressant, the combination can cause drastic changes in the body.
- In extreme cases, combining alcohol and other depressants leads to coma or death.

Section 15.2 Alcohol’s Effects on the Body

**Warning Signs of Alcohol Poisoning**
- Cold, clammy, pale, or bluish skin
- Slow or irregular respiration
- Vomiting while “sleeping”
- Cannot be wakened (unconscious)