

I. Carbohydrates, Fats, and Proteins (Section 1) ▾

A. What is Nutrition? ▾

1. **Nutrition** - is the science or study of food and the ways the body uses food. ▾
2. **Nutrients** - are substances in food that provide energy or help form body tissues and are necessary for life and growth. ▾



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B. Energy in Food ▼

1. **Balanced Diet** - To be healthy, you need the right amount of nutrients from each class. ▼
2. **Metabolism** - is the sum of the chemical processes that take place in your body to keep you alive and active. It requires energy from carbohydrates, fats, and proteins. ▼
3. **Calories** – Unit of food energy; 1 Calorie is the amount of energy required to raise the temperature of 1 gram of water 1 degree centigrade. ▼



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a. Amount of Calories in 1 gram: ▼

1) Carbohydrates provide 4 Calories ▼

2) Proteins provide 4 Calories ▼

3) Fats provide 9 Calories ▼

C. Six Classes of Nutrients ▼

1. Carbohydrates ▼
2. Fats ▼
3. Proteins ▼
4. Vitamins ▼
5. Minerals ▼
6. Water ▼



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Section 1 Carbohydrates, Fats, and Proteins

D. Carbohydrates ▼

1. Carbohydrates - are energy-giving nutrients that include sugars, starches, and fiber. ▼

1. Two Classifications of Carbohydrates: ▼

Simple

Glucose a single sugar that circulates in the blood (*blood sugar*); the most important sugar in the body because it provides energy to the body's cells; usually found as a part of the double sugar sucrose or in starch

Fructose a single sugar that is called *fruit sugar*; is sweeter than table sugar; found naturally in fruit and honey; added to many sweetened drinks

Lactose a double sugar made by animals that is also called *milk sugar*; found in dairy products

Sucrose a double sugar refined from sugar beets or sugar cane that we call *table sugar*; found in candies and baked goods and used as a table sweetener

Complex

Starch made of many glucose units linked together; found in foods like potatoes, beans, and grains

Glycogen made in the body; made of many glucose units linked together; stored in the muscle and liver of humans and animals; can be broken down to provide a quick source of glucose

Fiber made of many glucose units linked together; found in fruits and vegetables; cannot be digested by humans; needed for a healthy digestive system

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E. Fats – A class of energy giving nutrient; also the body’s main form of long-term energy storage. ▼

1. The type of fatty acids in each type of fat affects how “good” or “bad” the fat is. ▼

2. Main Types of Saturated Fats: ▼

a. Saturated Fats – Cannot be broken down in the body so it has to collect in the body to be stored. ▼



- 1) Mostly animal fats and processed foods – NOT HEALTHY ▼
- 2) They are usually solid at room temperature. ▼

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3. **Unsaturated fats** – Are usually liquid at room temperature. They come from foods such as oils and fish. ▼
 - a. **Monounsaturated Fat** – plant sources – *HEALTHY IN MODERATION* ▼
 - b. **Polyunsaturated Fats** – plant sources- *HEALTHY IN MODERATION* ▼
4. **Trans Fat** – Made through chemical process of hydrogenation of oils. – *NOT HEALTHY* ▼



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F. Cholesterol - is another type of lipid found in all human and animal tissues. ▼

1. Two Types of Cholesterol:

- a. **High-Density Lipoprotein** (HDL or “good”) →
- b. **Low Density Lipoprotein** (LDL or “bad”) –
Increase risk of coronary heart disease ▼



G. Proteins ▼

1. **Proteins** - are made of amino acids, which are used in building and repairing structures in the body. ▼
2. **Essential amino acids** - are nine amino acids that the body cannot produce on its own. ▼
3. **Nonessential amino acids** – eleven amino acids that can be made by the body. ▼
4. **Complete proteins** - proteins that contain all the essential amino acids. ▼
5. **Incomplete proteins** – lacking one or more of the essential amino acids. ▼



II. Vitamins, Minerals, and Water (Section 2)

A. Vitamins ▼

1. **Vitamins** - are carbon-containing nutrients that are needed in small amounts to maintain health and allow growth. ▼
2. **Fat-soluble vitamins** - dissolve in fat. As a result, they can be stored in fat tissue and remain in the body for a long time (A, D, E, K). ▼



Fat-Soluble Vitamins

Vitamin	Foods that have it	What it does
A	▶ milk; yellow and orange fruits and vegetables; dark-green, leafy vegetables; eggs; cheese; butter	▶ keeps eyes and skin healthy; needed for growth and for strong bones and teeth
D	▶ fish oils, fortified milk, liver, egg yolk, salmon, butter, tuna; produced in the body by exposure of skin to ultraviolet light (UV) in sunlight	▶ promotes absorption of calcium and phosphorus in the intestine; needed for strong bones and teeth
E	▶ vegetable oils, beans, peas, nuts, dark-green vegetables, whole grains	▶ protects cell membranes from damage by reactive oxygen (free radicals)
K	▶ leafy vegetables such as spinach, kale, and broccoli; also produced in the intestine by bacteria	▶ aids in blood clotting

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- 3. Water-soluble Vitamins** – dissolve in water and are not stored in the body very well (B1, B2, B3, B6, B12, Folate, Biotin, C). ▼



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Water-Soluble Vitamins

Vitamin	Foods that have it	What it does
B₁ (Thiamin)	▶ pork, liver, peas, beans, enriched and whole grains and cereals, nuts, seeds	▶ needed to produce energy from carbohydrates; helps the nervous system to function properly
B₂ (Riboflavin)	▶ milk; meat; eggs; whole grains; green, leafy vegetables; dried beans; enriched breads and cereals; pasta	▶ needed to produce energy from carbohydrates and fats; important for growth and healthy skin
B₃ (Niacin)	▶ meat, liver, fish, enriched and whole-grain breads and cereals, peas and beans, seeds	▶ needed to produce energy from carbohydrate, fat, and protein; needed for the nervous system and healthy skin
B₅ (Pantothenic acid)	▶ whole grains, meat, liver, broccoli, eggs, nuts, peas, beans	▶ needed to produce energy from carbohydrate, fat, and protein
B₆ (Pyridoxine)	▶ whole grains; liver; meat; fish; bananas; green, leafy vegetables; peas; beans	▶ needed for protein metabolism, the production of hemoglobin in red blood cells, and for the nervous system
B₁₂ (Cobalamin)	▶ meat, liver, dairy products, eggs	▶ necessary for forming cells (including red blood cells) and for a healthy nervous system
Folate (Folic acid or folacin)	▶ green vegetables, liver, whole and fortified grains, peas, beans, orange juice	▶ needed for forming cells (including red blood cells); helps prevent birth defects
Biotin	▶ liver, yogurt, egg yolk, peas, beans, nuts	▶ necessary for metabolism
C (Ascorbic acid)	▶ citrus fruits, melons, strawberries, green vegetables, peppers	▶ promotes healthy gums and teeth, the healing of wounds, and the absorption of iron; acts as an antioxidant to protect cells from damage

B. Minerals ▼

1. **Minerals** – A solid inorganic substance of natural occurrence. Needed to be taken in small amounts. ▼
2. **Nutrient Deficiency** - is the state of not having enough of a nutrient to maintain good health. ▼



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Some Important Minerals

Mineral	Foods that have it	What it does
Calcium	▶ milk; dairy products; dark-green, leafy vegetables; tofu; legumes; shellfish; bony fish	▶ needed for development and maintenance of bones and teeth, transmission of nerve impulses, muscle contraction, blood clotting
Chromium	▶ meat, dairy products, whole grains, herbs, nuts, seeds	▶ helps regulate blood sugar
Copper	▶ liver, shellfish, peas, beans, nuts, seeds	▶ needed for the production of bone and red blood cells and the absorption of iron
Fluoride	▶ tea, fish, fluoridated toothpaste and water	▶ helps the strengthening of tooth enamel; helps in the prevention of cavities
Iodine	▶ iodized salt, seafood	▶ needed for production of thyroid hormones and normal cell function
Iron	▶ red meat, whole and enriched grains, dark-green vegetables, peas, beans, eggs	▶ necessary for production of hemoglobin
Magnesium	▶ milk; dairy products; green, leafy vegetables; peas; beans	▶ needed for bone growth, metabolism, and muscle contraction
Potassium	▶ meat; poultry; fish; bananas; oranges; dried fruits; potatoes; green, leafy vegetables; peas; beans	▶ needed for maintenance of fluid balance, transmission of nerve impulses, and muscle contraction
Phosphorus	▶ cereals, meats, milk, poultry	▶ needed for bone formation and cell reproduction
Selenium	▶ tuna, other seafood, whole grains, liver, meat, eggs	▶ needed for healthy heart function, antioxidant action, and healthy thyroid function
Sodium	▶ table salt, high-salt meats (ham), processed foods, dairy products, soy sauce	▶ needed for the regulation of water balance in cells and tissues and for transmission of nerve impulses
Sulfur	▶ meat, milk, eggs, nuts, grains	▶ needed for protein metabolism
Zinc	▶ seafood, meat, milk, poultry, eggs	▶ needed for growth and healing and for production of digestive enzymes

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C. Water ▼

1. About 60 percent of your body is water. ▼
2. Water is essential for almost every function that keeps you alive. ▼
3. Recommended amount: Eight 8oz. Glasses each day (64 oz. recommended) ▼



III. Meeting Your Nutritional Needs (Section 3) ▾

- A. Recommended Dietary Allowances (RDA's) – Recommended nutrient intakes that will meet the needs of almost all healthy people. ▾



B. Food Labels: The Nutrition Facts ▼

1. **Serving Size** - Nutrition labels show the size of a single serving. All other values on the label are in reference to this serving size. ▼
2. **Calories** - Nutrition labels list total Calories, the Calories from fat, and the Calories from saturated fat. ▼

Food Labels: The Nutrition Facts (Cont.)

- Daily Values (DVs)** – is the recommended amount that a person should consume in a day. ▼
- The Percentage DV** - tells the amount of the nutrient in a serving relative to the total recommended daily amount for a 2000-Calorie diet. ▼



5. MyPlate: Steps to a Healthier You ▼

a. **MyPlate Food Guidance System** – is a tool that can help you choose what to eat and how much to eat everyday. ▼

b. **MyPlate Dietary Guidelines include:** ▼

- 1) Balancing Calories – Avoid oversized portions ▼
- 2) Foods to Increase – Make half your plate fruits and veggies, whole grains, and low-fat milk ▼
- 3) Foods to Reduce – Foods high in sodium, avoid sugary drinks ▼





10 tips
Nutrition
Education Series

build a healthy meal

10 tips for healthy meals



A healthy meal starts with more vegetables and fruits and smaller portions of protein and grains. Think about how you can adjust the portions on your plate to get more of what you need without too many calories. And don't forget dairy—make it the beverage with your meal or add fat-free or low-fat dairy products to your plate.

1 make half your plate veggies and fruits

Vegetables and fruits are full of nutrients and may help to promote good health. Choose red, orange, and dark-green vegetables such as tomatoes, sweet potatoes, and broccoli.

2 add lean protein

Choose protein foods, such as lean beef and pork, or chicken, turkey, beans, or tofu. Twice a week, make seafood the protein on your plate.



3 include whole grains

Aim to make at least half your grains whole grains. Look for the words "100% whole grain" or "100% whole wheat" on the food label. Whole grains provide more nutrients, like fiber, than refined grains.

4 don't forget the dairy

Pair your meal with a cup of fat-free or low-fat milk. They provide the same amount of calcium and other essential nutrients as whole milk, but less fat and calories. Don't drink milk? Try soy milk (soy beverage) as your beverage or include fat-free or low-fat yogurt in your meal.



5 avoid extra fat

Using heavy gravies or sauces will add fat and calories to otherwise healthy choices. For example, steamed broccoli is great, but avoid topping it with cheese sauce. Try other options, like a sprinkling of low-fat parmesan cheese or a squeeze of lemon.

6 take your time

Savor your food. Eat slowly, enjoy the taste and textures, and pay attention to how you feel. Be mindful. Eating very quickly may cause you to eat too much.

7 use a smaller plate

Use a smaller plate at meals to help with portion control. That way you can finish your entire plate and feel satisfied without overeating.

8 take control of your food

Eat at home more often so you know exactly what you are eating. If you eat out, check and compare the nutrition information. Choose healthier options such as baked instead of fried.

9 try new foods

Keep it interesting by picking out new foods you've never tried before, like mango, lentils, or kale. You may find a new favorite! Trade fun and tasty recipes with friends or find them online.



10 satisfy your sweet tooth in a healthy way

Indulge in a naturally sweet dessert dish—fruit! Serve a fresh fruit cocktail or a fruit parfait made with yogurt. For a hot dessert, bake apples and top with cinnamon.

IV. Choosing a Healthful Diet (Section 4) ▾

A. Simple Steps to a More Healthful Diet

1. **Nutrient Density** - is a measure of the nutrients in a food compared with the energy the food provides. ▾
2. **Junk Food (Discretionary Calories)** – Food with low nutrient density you want to eat in variety, moderation, and balance. ▾



B. Choosing a Vegetarian Diet▼

1. **Vegetarian** - diet is one in which few or no animal products are eaten. ▼
2. **Vegans** - are vegetarians that eat no animal products in any form. ▼



Chapter 7 - Book Review – Nutrition

1. _____ - a diet containing few or no animal foods.
2. _____ - recommended *nutrient intakes* that meet the needs of healthy people.
3. _____ - a class of energy-giving nutrients that includes sugars, starches, and fiber.
4. _____ - a measure of the nutrients in food compared with the energy the food provides.
5. _____ - recommended *daily amount* of a nutrient used on food labels to help people see how a food fits into their diet.
6. _____ - a class of nutrients that contain carbon and are needed in small amounts to maintain health and allow growth.
7. Nutrition - _____

8. Dietary Guidelines for Americans - _____

9. Minerals - _____

10. Protein - _____

11. Fat - _____

12. Carbohydrates - _____

13. Cholesterol - _____

14. Fiber - _____

15. Unsaturated fats _____

16. Calorie - _____

17. Simple Carbohydrates - _____

18. MyPlate - _____

19. Vegan - _____

20. Saturated Fats - _____

Section 1

21. List the 6 classes of nutrients:
- a.
 - b.
 - c.
 - d.
 - e.
 - f.
22. State the two functions (what does it do/purpose) of fat in your diet?
- a.
 - b.
23. State the two functions (what does it do/purpose) of complex carbohydrates.
- a.
 - b.

Section 2

24. List the fat-soluble vitamins:
25. List the water-soluble vitamins:
26. Name **4 types** of nondairy sources of calcium.
- a.
 - b.
 - c.
 - d.
27. Why do you need regular sources of water-soluble vitamins?
28. Osteoporosis is a condition in which bones are thin and porous and can break easily. A person who has osteoporosis is due to a _____ deficiency (what mineral).
29. State three reasons **why** water is important.
- a.
 - b.
 - c.

Section 3

30. State the purpose of food labels.

Section 4

31. How can junk food be incorporated into a healthful diet?

I. What Are Drugs? ▼

A. **Drug** - is any substance that causes a change in a person's physical or psychological state. ▼

B. **Medicines** - are drugs used to cure, prevent, or treat illness or discomfort. ▼

1. Good medicines have the following qualities:

a. Effectiveness ▼

b. Safety ▼

c. Minor side effects ▼

C. **Drugs of Abuse** - are drugs that people take for mind-altering effects that have no medical purpose. ▼



- D.** All drugs are chemicals that come from one of two sources: ▼
- a. **Natural sources** - such as plants, animals, or fungi ▼
 - b. **Laboratories** ▼



II. Types of Medicines ▾

- A. **Prescription** - A written order from a doctor for a specific medicine. ▾

- B. **Over-the-counter (OTC)** - Medicines can be bought without a prescription. ▾



Types of Medicines

Classification	Example	Effect	Availability
Analgesic	▶ acetaminophen	▶ relieves pain	▶ OTC
Antihistamine	▶ diphenhydramine	▶ helps relieve minor allergy symptoms	▶ OTC
Antacid	▶ aluminum hydroxide	▶ neutralizes stomach acid for relief from heartburn	▶ OTC
Antibiotic	▶ amoxicillin	▶ kills bacteria to help cure infections	▶ prescription
Bronchodilator	▶ salmeterol	▶ opens airways to make breathing easier for people with asthma	▶ prescription
Steroid anti-inflammatory	▶ cortisone cream	▶ reduces inflammation and itching of skin	▶ OTC

Types of Medicines

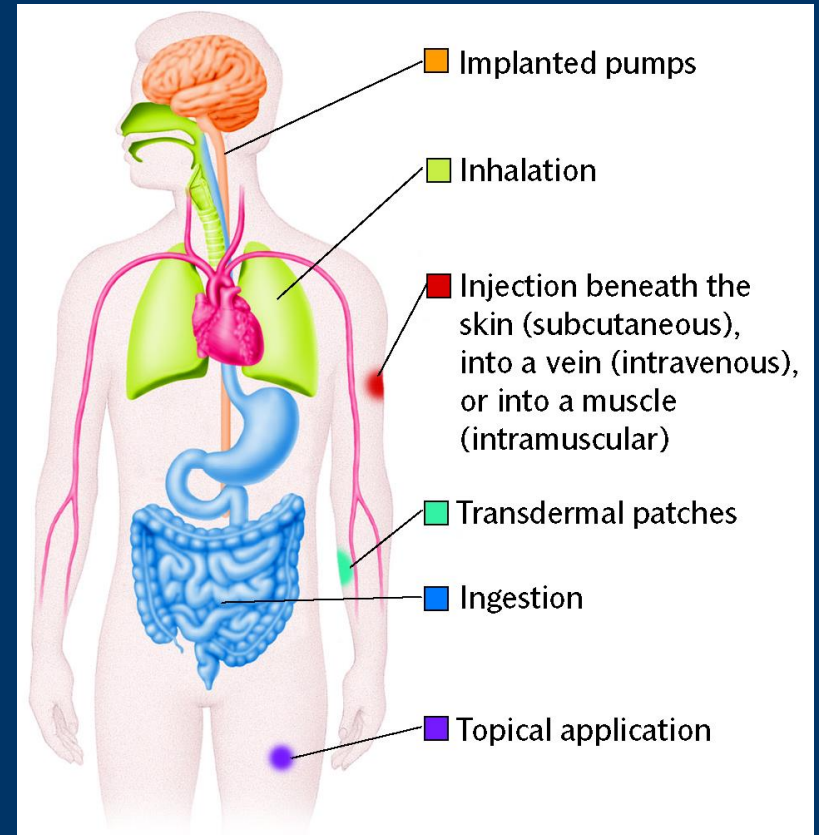
Classification	Example	Effect	Availability
Hormone	▶ insulin	▶ different hormones work differently; insulin lowers blood glucose levels to help treat diabetes	▶ prescription
Stimulant	▶ methylphenidate	▶ increases alertness; methylphenidate helps people with attention deficit hyperactivity disorder (ADHD) to focus their attention	▶ prescription
Antianxiety	▶ alprazolam	▶ helps people who are excessively nervous or panicked to calm down	▶ prescription
Vaccine	▶ meningitis vaccine	▶ prevents infections in people exposed to the infectious bacteria	▶ prescription
Sedative	▶ temazepam	▶ causes sleepiness	▶ prescription

Chapter 9

Section 1 Drugs

C. Drugs can be taken into the body in the following ways: ▼

1. Implanted pumps ▼
2. Inhalation ▼
3. Injection ▼
4. Transdermal patches ▼
5. Ingestion ▼
6. Topical application ▼



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III. Approving Drugs for Medical Use ▼

A. The Food and Drug Administration (FDA) - was created in 1906 to control the safety of food, drugs, and cosmetics in the United States. ▼

1. The FDA uses an approval process for approving whether a drug is safe and effective. ▼

****Approval Process for Medicine:**

1. *Laboratory Testing*
2. *Animal Testing*
3. *Testing on Humans*



IV. Prescription Medicines ▼

A. Prescriptions include the following information: ▼

1. Dosage (how much you should take) ▼
2. When you should take the medicine ▼
3. How often you should take the medicine ▼
4. The length of time you should take the medicine



Chapter 9

Section 2 Drugs as Medicines

V. Over-the-Counter (OTC) Medicines ▼

- A. Most OTC medicines are used for common illnesses, injuries, and disorders. ▼
- B. Herbal remedies and dietary supplements are not regulated by the FDA the same way that drugs are. ▼



How to Read an OTC Label

How to Read an OTC Label

Ingredients

Active ingredients are listed by amount, usually in milligrams (mg) per dose or half dose. Inactive ingredients are also sometimes listed.

Directions

Directions indicate the correct dosage and frequency of dosage for adults and children.

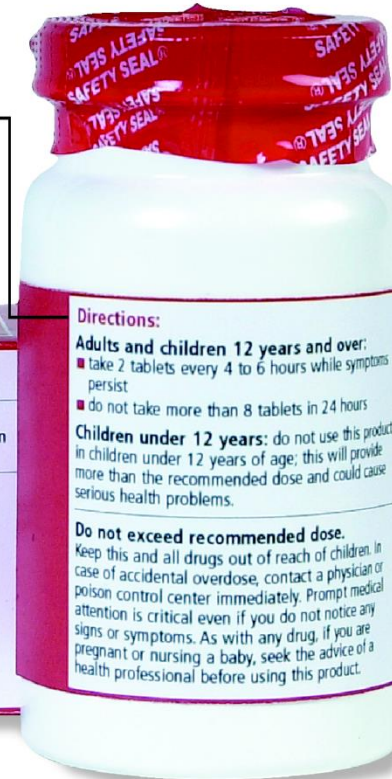
Uses

The list of uses helps you find out if the medicine can relieve your symptoms.

Warnings

The warnings inform you of possible side effects, unfavorable drug interactions, and the likelihood of overdose.

Active ingredient (in each tablet): Acetaminophen 500 mg.....	Purposes: Pain reliever/fever reducer
Uses (for the temporary relief of):	
<ul style="list-style-type: none"> ■ headache ■ backache 	<ul style="list-style-type: none"> ■ muscular aches ■ toothache ■ aches from common cold ■ menstrual cramps ■ arthritis pain ■ fever
Warnings:	
Alcohol warning: If you consume 3 or more alcoholic drinks every day, ask your doctor whether you should take acetaminophen or other pain relievers/fever reducers. Acetaminophen may cause liver damage.	
Do not use:	
<ul style="list-style-type: none"> ■ with any other product containing acetaminophen ■ for more than 10 days for pain unless directed by a doctor ■ for more than 3 days for fever unless directed by a doctor 	
Stop using and ask a doctor if:	
<ul style="list-style-type: none"> ■ symptoms do not improve ■ new symptoms occur 	<ul style="list-style-type: none"> ■ pain or fever persists or gets worse ■ redness or swelling is present



Directions:
Adults and children 12 years and over:
 ■ take 2 tablets every 4 to 6 hours while symptoms persist
 ■ do not take more than 8 tablets in 24 hours
Children under 12 years: do not use this product in children under 12 years of age; this will provide more than the recommended dose and could cause serious health problems.
Do not exceed recommended dose.
 Keep this and all drugs out of reach of children. In case of accidental overdose, contact a physician or poison control center immediately. Prompt medical attention is critical even if you do not notice any signs or symptoms. As with any drug, if you are pregnant or nursing a baby, seek the advice of a health professional before using this product.



VI. Possible Problems with Medicines ▼

A. Allergic reactions - The most serious risks to taking medicines. ▼

1. Anaphylactic Shock – Severe allergic reactions over most of the body which includes: ▼

- a. Itching all over the body ▼
- b. Swelling, especially in the mouth or throat ▼
- c. Wheezing or difficulty breathing ▼
- d. A pounding heart ▼
- e. Fainting and unconsciousness ▼



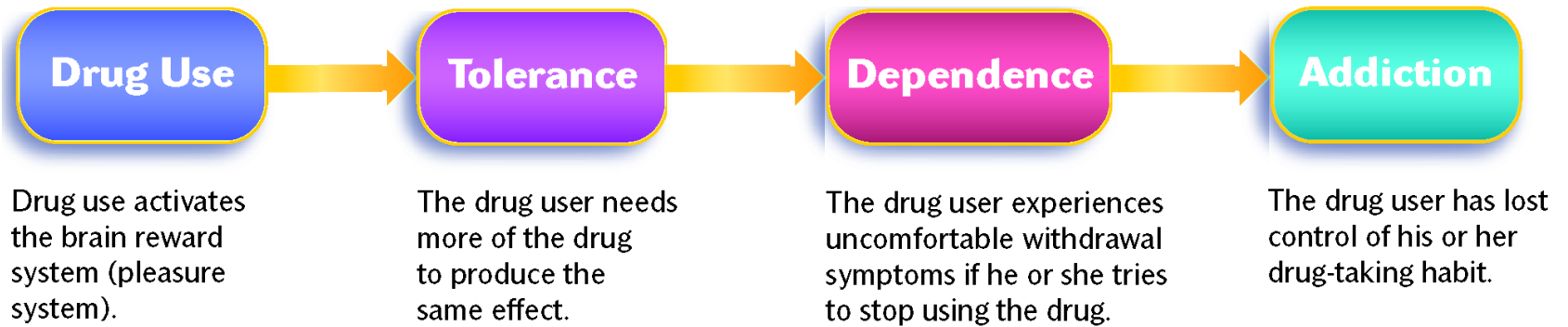
B. Side Effects ▼

C. Drug Interactions - When a drug reacts with another drug, food, or dietary supplement to increase or decrease the effect of one of the substances. ▼



VII. The Path to Addiction

Drug Addiction



IX. Addiction is a Treatable Disease ▼

- A. Most common treatment programs: ▼
 - 1. Counseling – Helps the addict cope with life without the drug ▼
 - a. The sooner treatment is started, the easier it is to do. ▼
 - b. Treatment can be both inpatient and outpatient therapy ▼



Chapter 9 Review – Drugs as Medicine

1. _____ - any effect caused by a drug different from the drug's intended effect.
2. _____ - describes a drug or medicine that affects that brain and changes how a person perceives, thinks, or feels.
3. _____ - a medicine made by a company other than the company that developed the by the original medicine.
4. _____ - a condition in which a person can no longer control his or her drug use.
5. _____ - any drug used to cure, prevent, or treat illness or discomfort.
6. Drug Interaction- _____

7. Stimulant - _____

8. Drug - _____

9. Allergic Reaction - _____

10. Analgesic - _____
11. Prescription - _____

12. Food and Drug Administration - _____

13. **NAME** and **EXPLAIN** the 3 qualities possessed by a good medicine:
 - a.
 - b.
 - c.
14. List the 2 main sources drugs come from:
 - a.
 - b.
15. Name the 6 ways that drugs can be taken into the body:
 - a.
 - b.
 - c.
 - d.
 - e.
 - f.

16. What is the sequence of events in the approval of a medicine for human use?
 - a.
 - b.
 - c.
17. What important information is included on a prescription?
 - a.
 - b.
 - c.
 - d.
18. In choosing an Over-The-Counter medicine; how should you choose one medicine over another?
 - a.
 - b.
 - c.
19. "This is the chemical component that gives medicine its action."
20. How do Herbal remedies and dietary supplements differ from OTC medicines?
21. Problems that can occur as a result of drug use can include the following:
 - a.
 - b.
 - c.
22. Name 4 ways drugs can *affect how the brain works*:
 - a.
 - b.
 - c.
 - d.
23. The path to addiction follows the following sequence?
 - a.
 - b.
 - c.
 - d.

I. Alcohol Affects the Body (Section 1)

A. Alcohol is a Drug (Depressant) ▼

1. **Alcohol** - is the drug found in beer, wine, and liquor that causes intoxication.▼
2. **Intoxication** - includes all the physical and mental changes produced by drinking alcohol.



II. Short-Term Effects of Alcohol ▼

A. Effects on the Body: Alcohol ▼

1. Irritates the mouth, throat, esophagus, and stomach, makes the heart work harder, body lose heat, causes the liver to work harder, and causes dehydration. ▼



B. Effects on the Mind ▼

1. Alcohol slows down the nervous system, drinker loses inhibitions, and loses coordination and judgement. ▼



- C. Blood Alcohol Concentration (BAC) - is the amount of alcohol in a person's blood expressed as a percentage. ▼
1. Alcohol has different effects at different BACs. ▼
 2. Binge drinking - is the act of drinking five or more drinks in one sitting. ▼
 3. Alcohol Poisoning or alcohol overdose – Brain and heart may totally stop working.



Chapter 10

Section 1 Alcohol Affects the Body

Blood Alcohol Concentration (BAC)

Weight	Drinks per hour*	BAC
90 to 110 pounds	1	Male 0.04
		Female 0.05
	3	Male 0.11
		Female 0.14
	5	Male 0.19
		Female 0.23
110 to 130 pounds	1	Male 0.03
		Female 0.04
	3	Male 0.09
		Female 0.11
	5	Male 0.16
		Female 0.19
150 to 170 pounds	1	Male 0.02
		Female 0.03
	3	Male 0.07
		Female 0.09
	5	Male 0.12
		Female 0.14

Effects of alcohol at different blood alcohol concentrations

0.02 slowed reaction time; feeling of relaxation, warmth, and well-being

0.05 feeling of euphoria; loss of inhibitions; decreased judgment

0.10 impaired vision, judgment, reflexes, and coordination; mood swings

0.15 seriously affected coordination; blurred vision; severely impaired speech; difficulty walking and standing; memory problems, mood swings; violent behavior

0.2 blackouts; memory loss; stomach irritation; vomiting

0.25 loss of consciousness; numbness; dangerously slowed breathing

0.3 coma

0.4–0.5 death from alcohol poisoning

*A 12-ounce beer, a 6-ounce glass of wine, and a 1.25-ounce glass of whiskey each qualify as one drink and have the same alcohol content.

Source: National Clearinghouse for Alcohol and Drug Information.

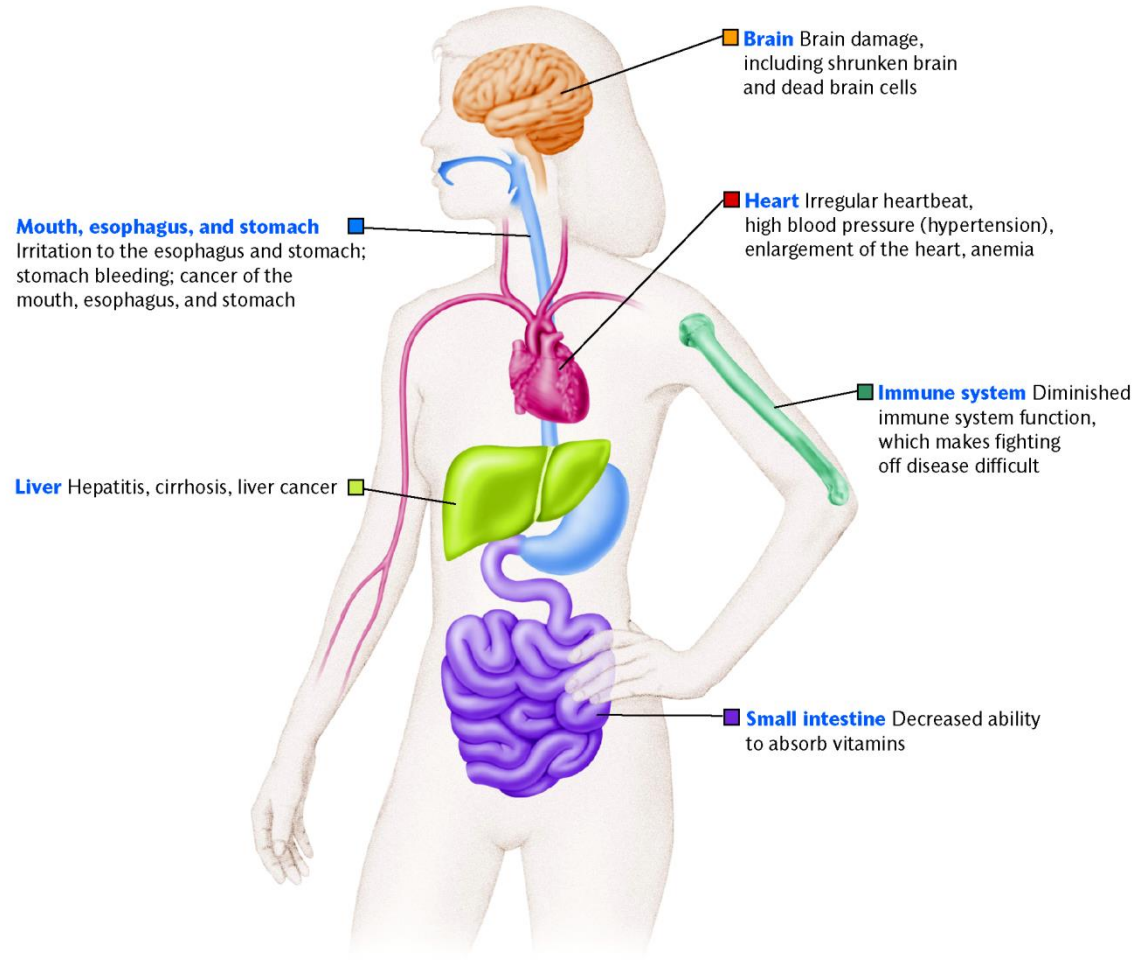
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Long-Term Effects of Alcohol



III. Long-Term Effects of Alcohol

A. **Cirrhosis** - is a disease caused by long-term alcohol use in which healthy liver tissue is replaced with scar tissue. ▼



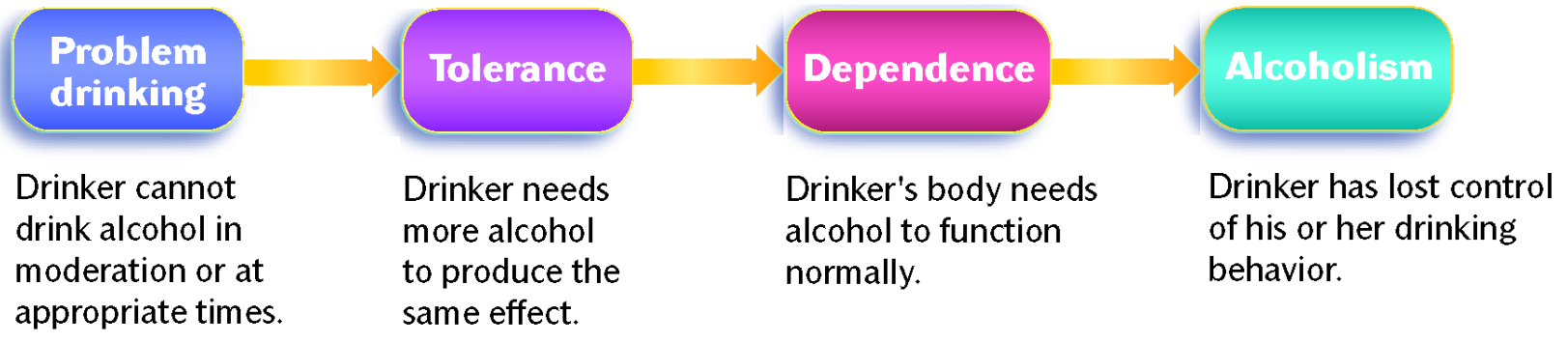
III. What Is Alcoholism? ▾

- A. **Alcohol abuse** - is drinking too much alcohol, drinking it too often, or drinking it at inappropriate times. ▾
- B. **Alcoholism** - is a disease that causes a person to lose control of his or her drinking behavior. ▾
1. Alcoholics are physically and emotionally addicted to alcohol, and suffer painful symptoms when they do not have alcohol. ▾



Alcoholism Develops in Stages ▾

Alcoholism



Effects of Alcohol on the Family ▾

- A. **Enabling** - means helping an addict avoid the negative consequences of his or her behavior. ▾

- B. **Codependency** - is the condition in which a family member or friend sacrifices his or her own needs to meet the needs of an addict. ▾

- C. **Fetal alcohol syndrome (FAS)** - is a set of physical and mental defects that affect a fetus that has been exposed to alcohol because of the mother's alcohol consumption while pregnant.



VI. Alcoholism Can Be Treated ▼

A. There are many treatment options for alcoholics both in-patient and out-patient. ▼

B. Alcoholics Anonymous (AA) - is the most widely used program. It involves a 12-step recovery method and regular meetings. ▲

C. Al-Anon and Alateen - provide treatment and support for people with alcoholics in their family.




VII. Drinking and Driving ▼

A. Alcohol use is illegal for people under 21 ▼

1. Driving Under the Influence: (OVI - Operating a Vehicle Impaired) applies to anyone with a BAC above 0.08. ▼
2. If you are under 21, the legal limit for consumption of alcohol is .02. (even the slightest amount of consumption of alcohol can place you over the legal limit) ▼





*A recent change in Ohio law removed the requirement that a vehicle must be “motorized,” the current acronym that refers to driving under the influence is “OVI” (Operating a Vehicle Impaired).

*It is now a crime in Ohio to operate almost any vehicle while impaired. This includes not only motorized “vehicles,” but also, bicycles, horse drawn carriages and several other types of “vehicles.”

Chapter 10 Review – Alcohol

1. Dementia - _____

2. _____ - operating a vehicle impaired
3. Anemia - _____

4. _____ - helps the family, spouse, and friends of an alcoholic.
5. Hangover - _____

6. _____ - the drug in wine, beer, and liquor that causes intoxication.
7. Cirrhosis - _____

8. _____ - are new laws called that make it illegal for anyone under the age of 21 to drive with any amount of alcohol in his or her system.
9. Alcohol Abuse - _____

10. _____ - the amount of alcohol in a person's blood, expressed as a percentage.
11. Alcoholism - _____

12. _____ - helping the addict overcome the negative effects of his or her behavior.
13. Codependency - _____

14. Fetal Alcohol Syndrome - _____

15. List the 5 short term effects alcohol can have on the body:
 - a.
 - b.
 - c.
 - d.
 - e.

16. List and explain the stages leading to alcoholic

- a.
- b.
- c.
- d.

17. List the 8 warning signs of alcoholism

- a.
- b.
- c.
- d.
- e.
- f.
- g.
- h.

18. Name 3 available treatments for alcoholics and family members of alcoholics:

- a.
- b.
- c.

19. Name the six ways family members suffer due to having an alcoholic in the family.

- a.
- b.
- c.
- d.
- e.
- f.

20. List 4 ways how drinking can put your future at risk:

- a.
- b.
- c.
- d.

21. Identify 2 organizations that are involved in educating people about the dangers of alcohol.

- a.
- b.

I. All Tobacco Products Are Dangerous ▾

A. Addictive – definition of a substance that causes physical dependence. ▾

B. Cigarette smoke contains more than 4,000 chemicals. Of these, at least 40 are carcinogens. ▾

C. Carcinogens - are chemicals or agents that cause cancer. ▾



- D. Tar** - is a sticky, black substance in tobacco smoke. Tar contains the following carcinogens: ▼
1. Cyanide, Formaldehyde, Lead, Vinyl chloride ▼
- E. Carbon Monoxide** - a toxic gas that keeps oxygen from getting into the bloodstream. ▼



- F. Smokeless tobacco products, such as chewing tobacco and snuff (dip), also contain nicotine and tar. ▼
- G. Snuff (inhaled through the nose or placed between the cheek and gum) and chewing tobacco (tobacco placed between the cheek and gum) lead to mouth sores and oral cancer. ▼
- H. Pipe tobacco, cigars, and even herbal cigarettes also contain nicotine and tar, and therefore contain a large number of carcinogens. ▼



II. Nicotine Is Addictive ▾

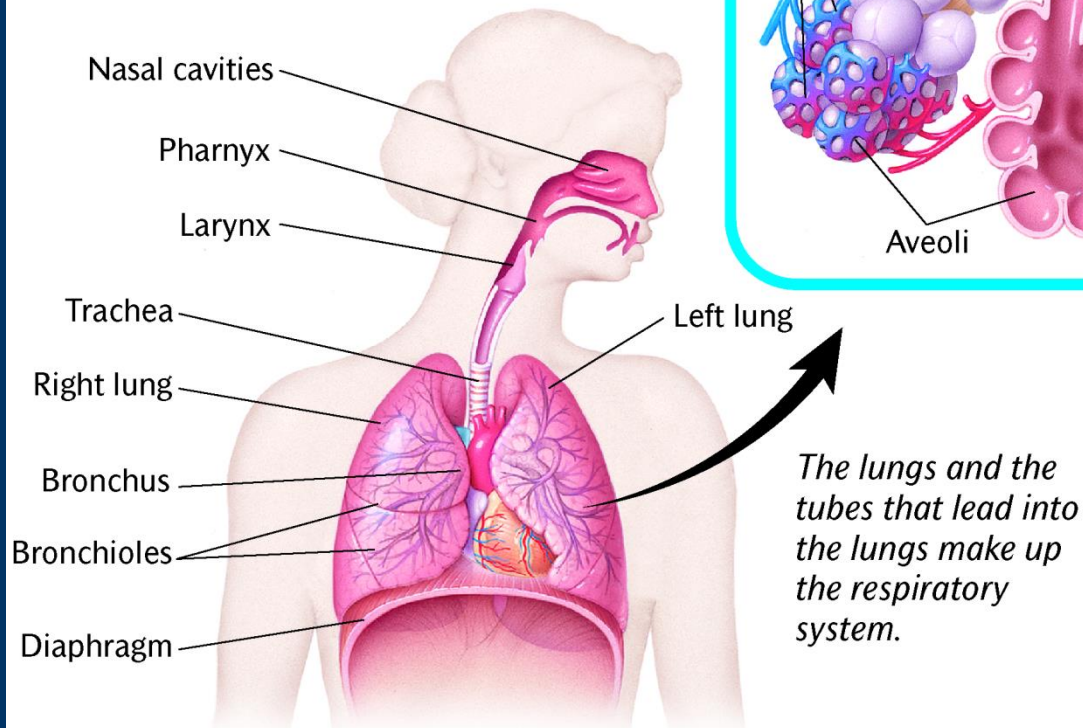
- A. Nicotine – is the highly addictive drug in tobacco products. ▾

- B. Quitting tobacco use is difficult and withdrawal is unpleasant, but the dangerous effects of tobacco are far worse than the trials of quitting. ▾



Organs of the Respiratory System

Lung tissue is made of the clusters of alveoli surrounded by capillaries found at the ends of the bronchioles.



III. Effects of Smoke on Nonsmokers ▼

- A. Sidestream smoke - is the smoke that escapes from the tip of a lit cigarette, cigar, or pipe. This can be as much as half of the total smoke. ▼
- B. Mainstream smoke - is the smoke that is inhaled through a tobacco product and exhaled by the user. ▼
- C. Environmental tobacco smoke (secondhand smoke) - is a combination of mainstream and sidestream smoke.



D. Third Hand Smoke - toxic particles that settle as dust in rooms and on clothing that have been exposed to cigarette smoke.

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Preview 

Main 

IV. After you quit smoking: ▼

- A. Within a half hour, blood pressure and heart rate return to normal. ▼
- B. Within 8 hours, carbon monoxide leaves blood ▼
- C. Within a few days, smell, taste, and breathing improve ▼
- D. Within months, lung health improves, risk of lung cancer, emphysema, and heart disease decrease ▼



Chapter 11 Review – Tobacco

1. Herbal Cigarette- _____

2. _____ - definition of a substance that causes physical dependence.
3. _____ – A form of chewing tobacco placed between the cheek and gum.
4. _____ - a form of tobacco that is inhaled through the nose or placed between the cheek and gum.
5. Carbon Monoxide - _____

6. Chronic Obstructive Pulmonary Disease (COPD) - _____

7. Sidestream Smoke - _____

8. Mainstream Smoke - _____

9. Environmental Tobacco Smoke - _____

10. Emphysema – _____

11. Carcinogen - _____

12. _____ - A sticky, black substance in tobacco smoke that coats the inside of the airways and that contains many carcinogens.
13. Nicotine Replacement Therapy (NRT) - _____

14. Nicotine - _____

15. Name 4 dangerous chemicals found in tobacco smoke:

- a.
- b.
- c.
- d.

16. List 4 carcinogens found in smokeless tobacco products:

- a.
- b.
- c.
- d.

17. Herbal cigarettes contain tobacco despite their names. Other names of herbal cigarettes are:

- a.
- b.
- c.

18. List 7 problems that infants can have if they are born to mothers who smoke.

- a.
- b.
- c.
- d.
- e.
- f.
- g.

19. Identify 5 benefits of living tobacco free.

- a.
- b.
- c.
- d.
- e.

I. Illegal Drug Use Is Dangerous ▼

A. Drug abuse - is the intentional improper or unsafe use of a drug. ▼



B. Teens and Illegal Drug Use ▼

1. Teens have a higher risk of addiction to drugs than adults do because teens' brains are still developing. ▼
2. Drug use or abuse can change the function of the brain. ▼
3. Altering brain development with drug use can lead to a life-long struggle to overcome addiction. ▼



II. Types of Illegal Drugs ▼

- A. There are many types of illegal drugs, but they all have three things in common. ▼
1. They affect the function of the brain. ▼
 2. They are dangerous to your health. ▼
 3. They can result in drug dependence and addiction. ▼



III. Marijuana ▼

- A. Marijuana - is the dried flowers and leaves from the plant *Cannabis sativa*. ▼

- B. Tetrahydrocannabinol (THC) - active chemical in marijuana. ▼

- C. People who use marijuana build up a tolerance, so they need more and more to get high. ▼

- D. Hashish - has the same effects as marijuana, but stronger. ▼



IV. Inhalants ▼

A. Inhalants - are drugs that are inhaled as vapors. ▼

1. Inhalants are a common gateway drug for teens. ▼
2. Commonly abused inhalants include paint thinner, glue, gasoline, marker fluid, propane, butane, and nitrous oxide. ▼
3. Inhalants can damage organs, kill brain cells, and can cause sudden death. ▼



V. Club (Designer) Drugs ▼

- A. Club drugs - also called designer drugs, are drugs designed to resemble other illegal drugs in chemical structure and effect. ▼
- B. Some common club drugs are Ecstasy, GHB, Ketamine, and PCP. ▼



VI. Anabolic Steroids ▼

- A. Anabolic steroids - are synthetic versions of the male hormone testosterone that are used to promote muscle development. ▼
- B. Anabolic steroids have a few legitimate medical uses. ▼
- C. Most people take anabolic steroids illegally and without guidance from a doctor. ▼
- D. Unlike most drugs of abuse, steroids have no immediate psychoactive effect. Their primary effects are on the body. ▼



VII. Stimulants ▼

A. **Stimulants** - are drugs that temporarily increase a person's energy and alertness. ▼

1. Caffeine and nicotine are mild, legal stimulants, although they are addictive. ▼
2. **Amphetamines** - are a group of stimulants produced in laboratories. ▼
3. They are highly addictive. ▼



4. Repeated use can cause severe damage to the body and brain.
5. **Cocaine and crack cocaine** - are stimulants derived from the coca plant. They are also highly addictive. ▼
 - a. **Powder cocaine** causes a rush of energy and feelings of euphoria and happiness.
 - b. **Crack** comes from powdered cocaine mixed with water and ammonia or baking soda and dried into blocks or crystals



VIII. Depressants ▼

- A. Depressants – drugs that cause relaxation and sleepiness. ▼
- B. Depressants have effects similar to the effects of alcohol. They are highly addictive when abused. ▼



IX. Opiates ▼

- A. Opiates - are a group of highly addictive drugs derived from the poppy plant that are used as pain relievers, anesthetics, and sedatives. ▼
- B. Opiates, such as morphine and codeine, can be very effective medicines when used properly in limited amounts. ▼
- C. Opiates reduce pain, relieve diarrhea, suppress coughing, and induce relaxation. ▼



D. Heroin - is a highly addictive drug process from the resin of the poppy plants. ▼

1. Highly addictive chemically altered form of morphine. ▼
2. In its purest form is a fine white powder ▼
3. Usually injected ▼
4. When purchased on the street, the user never knows the strength of the drug. ▼

X. Hallucinogens ▼

A. Hallucinogens - are drugs that distort perceptions and cause a person to see or hear things that are not real. ▼

1. LSD can increase energy, alter mood, and produce strange sensations or hallucinations. The effects of LSD can also be frightening. ▼
2. *There are no known medical usages for hallucinogens.* ▼



XI. Treatment for Drug Addiction ▼

A. Recovering - is the process of learning to live without drugs. ▼

1. Drug treatment approaches include: 12-step programs, outpatient counseling, and inpatient counseling ▼



Chapter 12 Review – Illegal Drugs

1. _____ - a drug that temporarily increases a person's energy level.
2. _____ - a drug that is inhaled as a vapor.
3. _____ - the intentional improper or unsafe use of a drug.
4. _____ - a drug that causes relaxation and sleepiness. Some examples include Rohypnol and DXM.
5. _____ - a drug makes to closely resemble a common illegal drug in chemical structure and effect.
6. Neonatal Abstinence Syndrome - _____

7. Intervention - _____

8. Methadone - _____

9. Recovering - _____

10. Hallucinogen - _____

11. Overdose - _____

12. Ketamine - _____

13. GHB - _____

14. Anabolic Steroids - _____

15. Opiate - _____

16. Name 6 reasons people try illegal drugs:
 - a.
 - b.
 - c.
 - d.
 - e.
 - f.

17. There are many types of illegal drugs. Each type of illegal drug has different effects on the body and brain. Despite the differences in their effects, all illegal drugs have 3 things in common:
- a.
 - b.
 - c.
18. When marijuana is combined with driving; some of its effects are similar to those seen in:
19. Identify 3 dangers of inhalant abuse:
- a.
 - b.
 - c.
20. Repeated use of methamphetamine can eventually cause severe damage to the body. This includes:
- a.
 - b.
 - c.
21. Explain the difference between the effects of powdered cocaine and crack cocaine.
22. List the 3 tips for protecting yourself from Date-Rape Drugs:
- a.
 - b.
 - c.
23. The most frequently used date-rape drug is:
24. Define Heroin and explain why it is so addicting:
25. One of the serious dangers of heroin is (Multiple Choice – circle your choice):
- a. how easy it is to obtain
 - b. that it is highly addictive
 - c. the distorted sense of reality it produces
 - d. it's used as a date-rape drug

I. What Are Lifestyle Diseases? (Section 1) ▼

A. Lifestyle diseases - Diseases that are caused partly by unhealthy behaviors and partly by other factors. ▼

1. Includes: cardiovascular disease, many forms of cancer, and two forms of diabetes. ▼



B. Risk Factors for Lifestyle Diseases ▾

1. Controllable risk factors for lifestyle diseases include: Diet and body weight, daily physical activity, exposure to sun, smoking and alcohol use. ▾
2. Uncontrollable risk factors for lifestyle diseases include: age, gender, ethnicity, and heredity ▾



II. What Are Cardiovascular Diseases? (Section 2) ▾

- A. Cardiovascular diseases (CVDs) - are diseases and disorders that result from progressive damage to the heart and blood vessels. ▾
 1. Cardiovascular diseases are the leading cause of death in the United States.



B. The four main types of cardiovascular diseases are: ▼

1. Strokes - are sudden attacks of weakness or paralysis that occur when a blood vessel in the brain bursts or becomes blocked. ▼

****Video - Stroke**

<https://youtu.be/pcmrgwNCPwM?list=PLg3ImQ1MNtbU5shgHBI7LPuE0u7frfzoA>



2. High blood pressure - can injure blood vessel walls, leading to other cardiovascular diseases. ▼
 - a. Blood pressure - is the force that blood exerts on the walls of a blood vessel. ▼

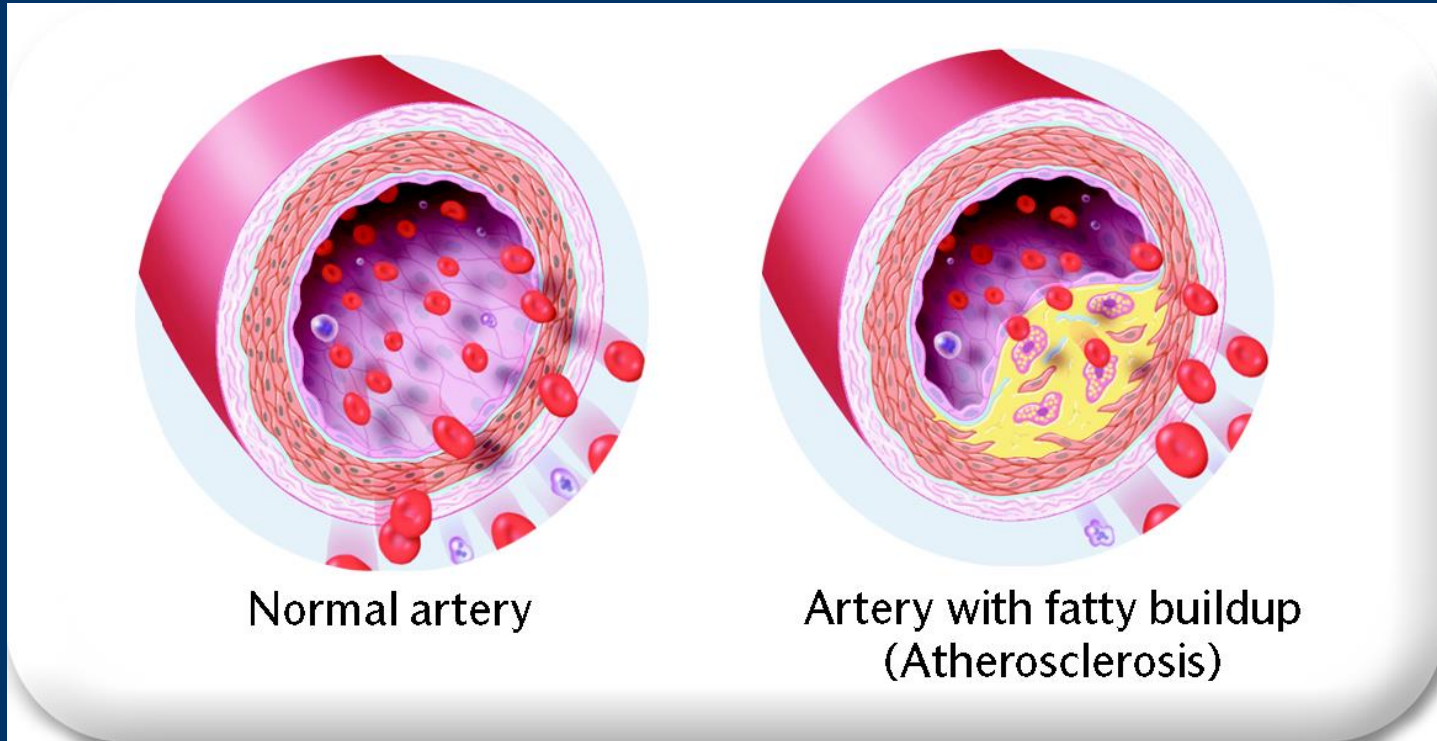
****Video - High Blood Pressure**

<https://youtu.be/diG519dFVNs?list=PLg3ImQ1MNtbU5shgHBI7LPuE0u7frfzoA>

3. Atherosclerosis - is a disease in which fatty materials build up on artery walls. This can block blood flow or release clots that cause strokes or heart attacks. ▼



Atherosclerosis



Normal artery

Artery with fatty buildup
(Atherosclerosis)



4. **Heart Attack** – Is sudden loss of blood flow to the heart muscle. ▼
- a. Heart attacks are often caused by a blockage of the coronary arteries that carry blood into the heart.

Warning Signs of a Heart Attack

- ▶ **Uncomfortable pressure, squeezing, or pain in the center of the chest that lasts for more than a few minutes**
- ▶ **Pain spreading to shoulders, neck, and arms**
- ▶ **Chest discomfort combined with lightheadedness, fainting, sweating, nausea, or shortness of breath**



C. Detecting and Treating Cardiovascular Diseases ▼

1. Checking blood pressure is one way to monitor cardiovascular health and detect CVDs. ▼
 - a. Systolic pressure - The maximum blood pressure when the heart contracts. ▼
 - b. Diastolic pressure - The blood pressure between heart contractions. ▼
 - c. Normal blood pressure is between 80/50 and 130/85. ▼



D. Other methods for detecting CVDs include:

1. Electrocardiograms (EKGs) - Measures the electrical activity of the heart ▼
2. Ultrasound - images of the pumping heart and heart valves ▼
3. Angiography – Injecting dye into the coronary arteries to look for blockages ▼



III. Cancer (Section 3) ▾

A. Cancer – A disease caused by uncontrolled cell growth. ▾

1. Cancer is the second leading cause of death in the United States, after CVDs. ▾

Cancer starts with genetic damage. When the genes that control cell growth are damaged, some cells begin to divide again and again, making tumors. ▾

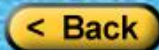
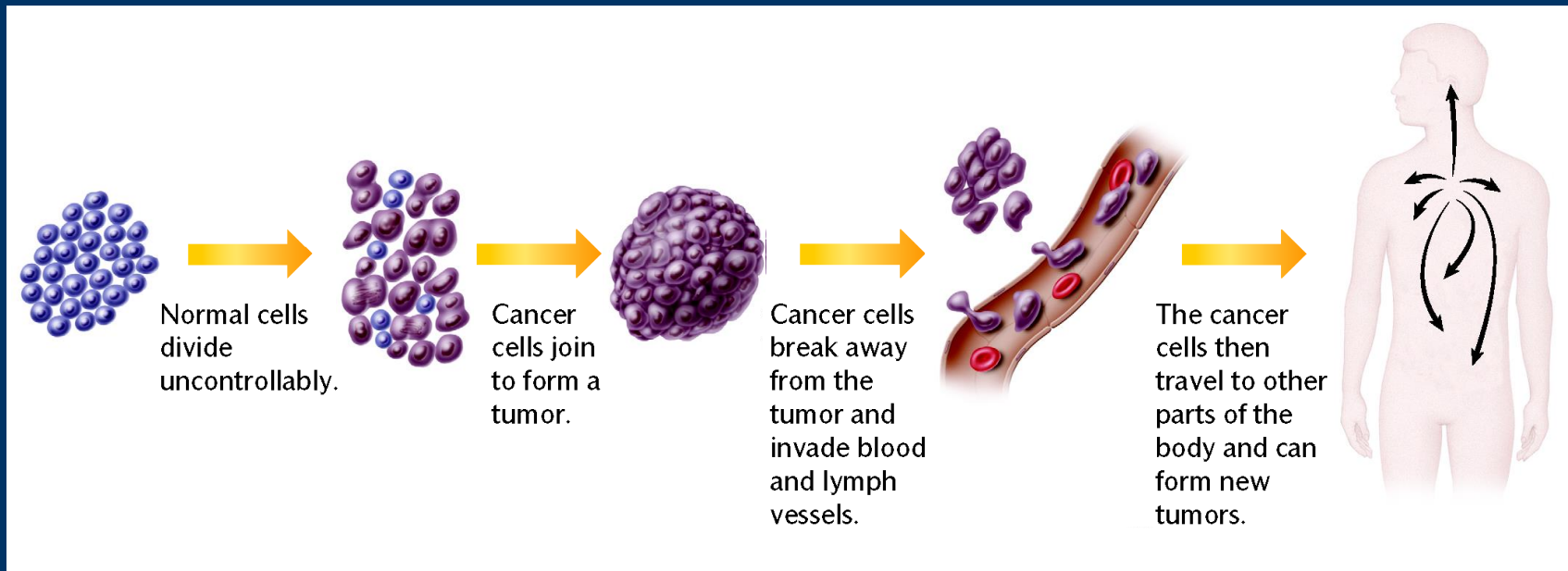


What Is Cancer? ▼

- B. Malignant Tumor - is a mass of cells that invades and destroys normal tissue. ▼
- C. Benign Tumor - is an abnormal but usually harmless cell mass. ▼
- D. Metastasis - is a process in which cancer cells travel to other parts of the body, creating new tumors. ▼



What Is Cancer? ▾



Video - What is Cancer?

https://youtu.be/SGaQ0WwZ_0I?list=PLg3lmQ1MNtbU5shgHB17LPuE0u7frfzoA

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Preview 

Main 

Detecting and Treating Cancer ▼

E. Methods of detecting cancer include: ▼

1. self-exams ▼
2. biopsies (tissue samples) ▼
3. x rays ▼
4. MRI ▼
5. blood and DNA tests



Warning Signs of Cancer

Change in bowel or bladder habits

Asore that doesn't heal

Unusual bleeding or discharge

Thickening or a lump anywhere in the body

Indigestion or difficulty swallowing

Obvious change in a wart or mole

Nagging cough or hoarseness

IV. What Is Diabetes? (Section 4)

- A. Diabetes - is a disorder in which cells are unable to obtain glucose from the blood, resulting in high blood-glucose levels. ▼
1. Insulin - A hormone produced in the pancreas that causes cells to remove glucose from the blood. ▼



B. Main Forms of Diabetes

1. Type 1 Diabetes - the pancreas does not produce enough insulin. ▼

Video - Type 1

<https://youtu.be/b7mLEE2iFsl>

2. Type 2 Diabetes - insulin is produced, but the body's cells fail to respond to the insulin. ▼

Video - Type 2

<https://youtu.be/pO6PWTOchtA>



What Is Diabetes? ▼

- With any kind of diabetes, the body uses fat and protein instead of glucose for energy. This causes a build-up of toxic substances in the blood. ▼
- A **diabetic coma** is a loss of consciousness that happens when there is too much blood sugar and too many toxic substances in the blood.



What Is Diabetes?

Table 2 Types of Diabetes

Type of Diabetes	What is it?	Symptoms	Treatment
Type 1	▶ diabetes resulting from the body's inability to produce insulin	▶ increased thirst, frequent urination, fatigue, weight loss, nausea, abdominal pain, and absence of menstruation in females	▶ diet and insulin
Type 2	▶ diabetes resulting from the inability of the body's cells to respond to insulin	▶ frequent urination, increased thirst, fatigue, weight loss, blurred vision, frequent infections, and slow-healing sores	▶ diet, exercise, and occasionally insulin
Gestational	▶ diabetes that develops during pregnancy	▶ frequent urination, increased thirst, fatigue, weight loss, blurred vision, frequent infections, and slow-healing sores	▶ diet and occasionally insulin

C. Detecting and Treating Diabetes ▼

1. Treatment of type 1 diabetes - involves keeping blood-glucose levels as close to normal as ▼ possible.

* People with type 1 diabetes must check their blood-glucose levels several times a day and must learn to give themselves insulin injections.



2. Treatment of type 2 diabetes - sometimes involves insulin, but more often focuses on frequent exercise and a healthy diet with moderate amounts of sugar.



Chapter 14 Review – Lifestyle Diseases

1. _____ - a disease that is caused partly by unhealthy behaviors and partly by other factors.
2. Diabetic Coma - _____

3. _____ - occurs when a blood vessel in the brain bursts or becomes blocked.
4. High Blood Pressure - _____

5. _____ - build-up of fatty materials on the inner walls of the arteries
6. Insulin - _____

7. Gestational Diabetes - _____

8. _____ - a disease caused by uncontrolled cell growth
9. Heart Attack - _____

10. Atherosclerosis - _____

11. _____ - a risk factor that increases an individual's chances of developing cardiovascular disease.
12. Self-exam - _____

13. Benign Tumor - _____

14. Coronary Arteries - _____

15. Malignant Tumor - _____

16. Name 6 of the many ways Cardiovascular Disease is treated:
- a.
 - b.
 - c.
 - d.
 - e.
 - f.
17. List 6 of the way Cardiovascular Disease can be prevented:
- a.
 - b.
 - c.
 - d.
 - e.
 - f.
18. **List and explain** 4 examples (according to the book) that cause cancer:
- a.
 - b.
 - c.
 - d.
19. Name the “Warning Signs of Cancer”:
- a.
 - b.
 - c.
 - d.
 - e.
 - f.
 - g.
20. **List and explain** the three most common forms of diabetes.
- a.
 - b.
 - c.
21. Explain the common treatment procedures for the following types of diabetes:
- a. Type 1 Diabetes -
 - b. Type 2 Diabetes -
 - c. Gestational Diabetes -