

HEALTHY LIVING

Life style choices, environmental factors, and genetics can cause abnormalities to occur during embryonic development as well as later in life.

Adapted from the North Carolina End-of-Grade COACH— Science book

Your body is made up of trillions of cells. These cells work together in the most efficient way possible to carry out functions that will keep you healthy and alive. However, in order to work properly, your cells need the right nutrients. By understanding how your body functions, you can make active choices that will keep you healthy.

A QUICK LOOK AT THE BODY:

You have many different types of cells. These different cells make up different body systems. Although each system is responsible for a certain task, all systems are dependent on each other to properly function. Four major, very important, body systems include: the nervous system, the digestive system, the circulatory system and the respiratory system.

SYSTEM NAME	MAJOR ORGANS / PARTS INCLUDED	FUNCTION/JOB
Nervous System	Brain, nerves, and sensory body parts (nose, eyes, hands, etc.)	Gathers and responds to information about the environment.
Digestive System	Mouth, esophagus, stomach, intestines	Takes in food and breaks it down into smaller molecules that can be used by cells.
Circulatory System	Heart, bloodstream in veins and arteries	Delivers molecules from the digestive system & respiratory systems via the blood stream to cells, also removes wastes
Respiratory System	Nose, lungs	Takes in oxygen from the air and passes it to the circulatory system.

FOOD CHOICES & BODY HEALTH

The food you eat contains a wide variety of nutrients, some are good for us while others are not. For example, starches (found in potatoes, pasta, and bread) and other sugars (like candy and other sweets) are used for energy. Protein (found in meat, fish, cheese, eggs, beans, milk and other dairy products) is great for building materials in your body. Vitamins and minerals are nutrients that help the body function properly and are found in many vegetables and fruits. Lipids, which include fats and oils, are often combined with other nutrients and can be found in foods like meat and cheese. Foods containing large amounts of lipids, like those fried in butter and oil, can cause adverse, or negative, effects in the body.



Eating an unbalanced diet, or one where too much of a particular nutrient is consumed, can lead to health problems. Often, people eat more starches, sugars and fat than are required by the body. The body, in turn, stores these extra energy sources as fat. This leads to the individual gaining weight which can cause damage to the heart and other health problems.

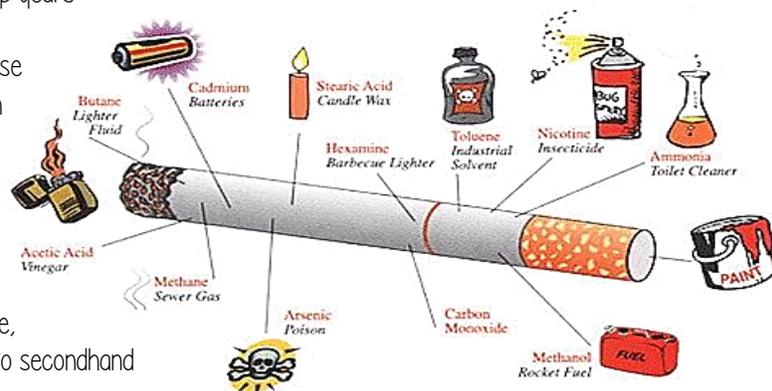
SMOKING, ALCOHOL & DRUGS = DOWNRIGHT DANGEROUS



Human activities such as smoking, consumption of alcohol and the use of drugs lead to a variety of adverse conditions within the human body and interfere with the efficient operation of the systems of the body. Alcohol and other drugs are often abused substances. Such drugs change how the body functions and can lead to addiction. Toxic, or very harmful, substances like tobacco, alcohol and drugs, can be very bad for one's health. While you may think these substances cannot do immediate harm, some effects will show up right away, and others can show up years

later.

SMOKING: Tobacco products contain carcinogens (substances that can cause cancer). Cigarettes, made from tobacco, release smoke that contains carbon monoxide (CO) and tar. The carbon monoxide interferes with the ability of the blood to carry oxygen through the body. The tar affects the lining of the respiratory system, making it very difficult for the body to get rid of dust, pollen, and other substances that are inhaled. Tar and CO can lead to emphysema, a disease that reduces the ability of the lungs to absorb oxygen, as well as lung cancer. It is also important to avoid secondhand smoke, the smoke you inhale from people who are smoking nearby. Those exposed to secondhand



smoke show many of the same long-term effects of those who smoke themselves. Children who smoke are likely to have asthma and respiratory infections.

Tobacco causes the body to absorb nicotine, a type of drug, which causes an increase in heart rate and blood pressure. People who smoke can become addicted to nicotine. An addiction is a physical dependence on a substance that produces very intense cravings, making it difficult to quit the habit.

ALCOHOL & DRUGS: A drug is a substance that causes a change in a person's body or behavior. Some drugs are used in medicines, like Tylenol or other pain relievers, allergy medicines, or health medicines. When used correctly, an individual can benefit. However, if drugs are abused, they can cause serious damage. Abused substances, or drug abuse, is a substance or use of a substance in a way that is not helpful. Using illegal drugs like cocaine and heroin is a form of drug abuse. Using someone else's prescription drugs is also another form of drug abuse.

Many drugs, like marijuana, cocaine, or heroin affect the nervous system. Symptoms can include nervousness, loss of appetite, decreased alertness, poor reflexes (reaction to events) and reduced muscle coordination and control. As with tobacco, continued drug abuse can lead to addiction. Long-term effects can include heart and liver damage, as well as brain damage, which can result in mental confusion and memory loss.

Recall the definition of "drug". Alcohol is a drug. Because it can be purchased by adults, it is often abused. Alcohol affects judgment and mental state, making it very difficult to make fast decisions such as those required to drive a car. When people drink and drive they increase the likelihood of having an accident. Alcohol is involved in almost one-third of deaths caused by car accidents.



Some people feel pressured by friends or classmates to smoke, chew tobacco, drink alcohol or do drugs. Deciding to engage in any of these activities is not a positive choice for your health. Technology and medical advances can help us understand how the human body functions and allow us to make informed decisions regarding our health. Avoiding toxic substances, such as tobacco, and changing dietary habits increases the chance of living longer.

ASSIGNMENT

In NEAT & COMPLETE SENTENCES, answer the following on your OWN sheet of loose-leaf paper.

RECALL

1. What are 4 major body systems?
2. What is an unbalanced diet?
3. When you consume too much of a nutrient, what does your body do with the extra energy sources?
4. What are toxic substances?
5. What are carcinogens (pronounced like kar-sin-uh-juh n)?
6. What is drug abuse? Is alcohol considered a drug — why or why not?
7. What are some long-term effects of drug abuse?
8. Which drug is involved in almost one-third of all deaths caused by car accidents?

ANALYZE & SYNTHESIZE

1. What does the term "adverse" mean in the phrase "adverse conditions within the body"?
2. Using your knowledge of tobacco and smoking, which 2 body systems are highly affected by tobacco products?
3. Recreate this chart on your paper, then use the reading to help you complete it:

Nutrient	Food it can be found in	Job or function
Starches		Provide energy for the body
	Candy and other sweets	
Vitamins & minerals		Overall help the body properly and efficiently function
	Meat, cheese, eggs, beans, milk, etc.	
Lipids		Can provide cushion and support, excess can cause problems.

4. Look at the ifograph — if people continue abusing drugs, what will the "CONSEQUENCES" graph look like in 2015? What are 3 tips you have to decrease the number of deaths per year related to drug abuse?

Abuse of Prescription (Rx) Drugs Affects Young Adults Most

Young adults (age 18 to 25) are the biggest abusers of prescription (Rx) opioid pain relievers, ADHD stimulants, and anti-anxiety drugs. They do it for all kinds of reasons, including to get high, or because they think Rx stimulants will help them study better. But Rx abuse is dangerous: In 2010, almost 3,000 young adults died from prescription drug (mainly opioid) overdoses—more than died from overdoses of any other drug, including heroin and cocaine combined—and many more needed emergency treatment.



PAST YEAR USE



The nonmedical use of prescription drugs is highest among young adults.¹

MOTIVATIONS FOR USE

Most young adults say they use Rx drugs to^{2,3,4}



CONSEQUENCES

3,000 young adults died from Rx drug overdose in 2010—a 250% increase from 1999⁵...



Among young adults, for every death due to Rx drug overdose, there were



17

Treatment Admissions⁶



66

Emergency Room Visits⁷

¹ SAMHSA, NSDUH; ² Rabiner et al 2009; ³ McCabe et al 2007; ⁴ Lord et al 2011; ⁵ CDC Wonder; ⁶ SAMHSA, TEDS; ⁷ SAMHSA, DAWN