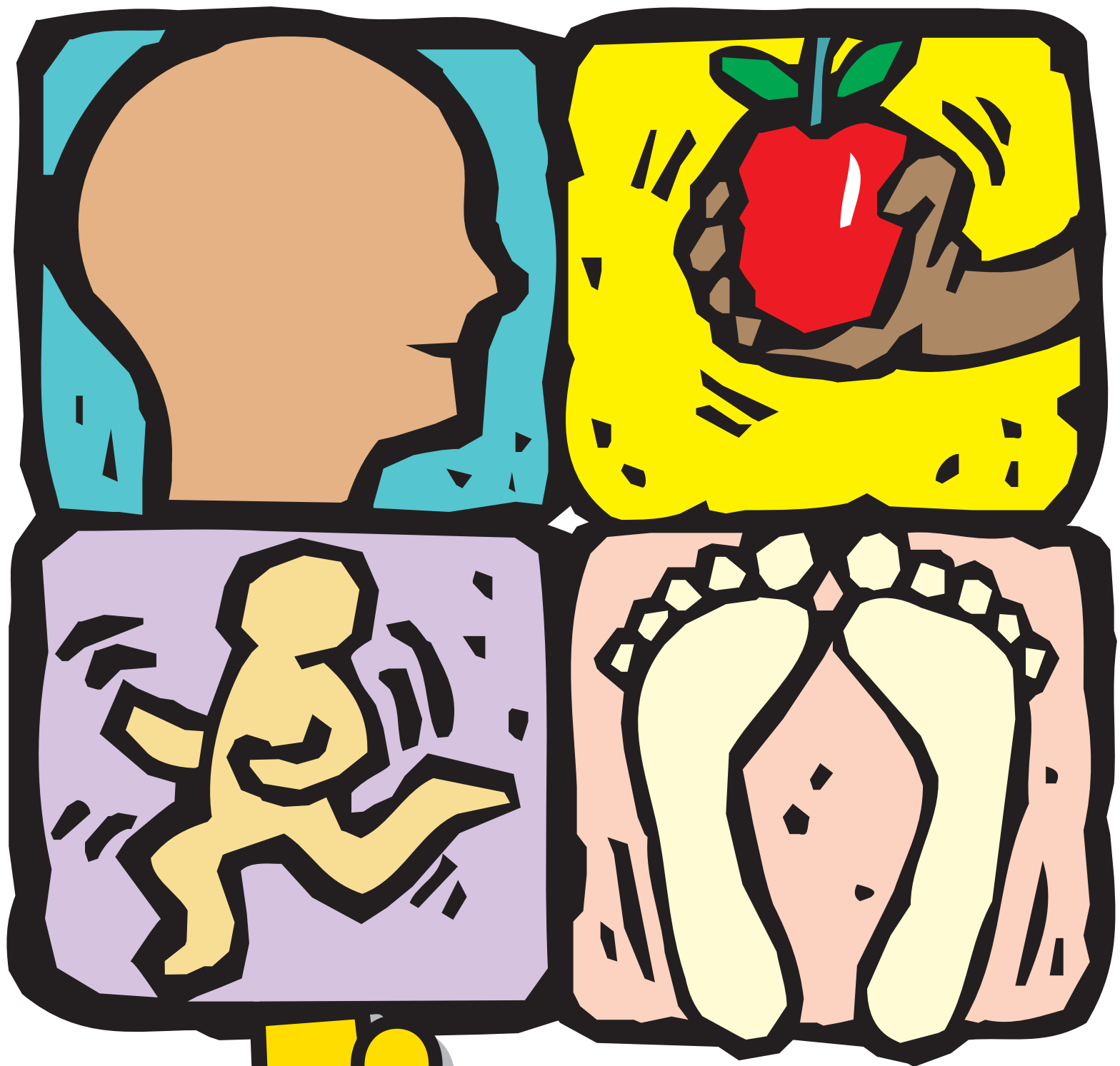


Fitness Head to Toe

Table of Contents

FITNESS Head to Toe

What's so phat about being fit? That depends on what you think is important. If living a long, healthy, and happy life is important to you, then you should work toward being fit. If health and happiness aren't important to you, well, you're trying way too hard to be cool.

It's all about making good choices, and here's what you get when you choose "fit:" Being fit …

- keeps weight under control.
- boosts your energy level.
- improves your self-image.
- increases muscle strength.
- releases tension.
- allows you to sleep better.
- fuels fun with friends and family.

Use this study guide for improving your overall fitness — from head to toe!

Sources

American College of Sports Medicine <www.acsm.org>
American Heart Association <www.justmove.org>
American Lung Association <www.lungsusa.org>
American Medical Association <www.ama-assn.org>
Ask the Dietician <www.dietician.com>
Health 4 Teens <www.health4teens.org>
KidsHealth and The Nemours Foundation <www.KidsHealth.org>
Mayo Clinic Health Oasis <www.mayohealth.org>
Men's Health magazine <www.menshealth.com>
Nutrition for Dummies by Carol Ann Rinzler
Partnership for a Drug-Free America <www.drugfreeamerica.org>
President's Council on Physical Fitness & Sports <www.fitness.gov>
United States Department of Agriculture <www.usda.gov>
University of Missouri-Rolla Student Health Services <www.umr.edu/~umrshs/nutrition/nutrit.html>

YOUR LOGO HERE

Credits

Written by **Bob Rouse**
Designed by **Amicheli J. Salyer**
Artwork by **Nova Development Corp.**

KRP

THE ASSOCIATION OF EDUCATIONAL PUBLISHERS
EdPress
MEMBER 2001-02

Get aHead in the Fitness Race

Staying fit requires a healthy diet and regular physical activity. The choices you make about food and exercise team up to create a you that's either fit or unfit. Let's take it from the top!

Noggin

Whenever you're active outside, it's a good idea to wear a hat. On sunny days, a hat will block the sun's rays from damaging your skin and heating up your head. On cold days, a hat can hold up to 45 percent of your body's heat that would otherwise be lost.

Brain

You've got to get your brain in gear to get fit. Think of activities you enjoy that can boost your body: dancing, rock climbing, tennis — whatever. Just concentrate on moving! Also think about working healthy foods into your diet: tangerines, tomatoes, black beans … you get the idea.

Ear

Listen! Listen to fitness advice from your parents, doctor, coaches, teachers, and friends who know what they're talking about. When it comes to advice about fads and schemes that seem too good to be true, take it with a grain of salt. And like too much salt, bad advice can be unhealthy.

Eye

Look at the many ways that friends and neighbors are staying physically active: jogging, working in the yard, walking the dog, riding bikes, and playing sports. When you see something you'd enjoy doing, dive in! (Did we mention swimming?)

Nose

There's a certain odor that goes along with exercising — sweat. What you smell is the bacteria in sweat. Gross? No. Something to worry about? Not at all. In fact, if you don't work up a sweat when you exercise, you're not working hard enough to do your body good. So sweat away!

Mouth

Don't say a word about other people's bodies until two things happen: 1.) You are the model of fitness, and 2.) You understand all the factors that go into forming a body. Often, weight and body shape are determined by genetics and chemistry, not laziness or eating too much.

Skin

Fitness is reflected in your skin: Exercise and eating right increase the flow of blood and nutrients to the skin and slow the aging process. Smoking, on the other hand, will reverse many of the benefits of exercise and a healthy diet, leaving you looking old — in all the wrong ways.

Chin

Keep your chin up! If you're not satisfied with how you look, remember that your body is a work in progress: The final version isn't ready. Also remember that now is the time to establish good eating and activity habits that will lead you into adulthood. Making good choices now about getting fit can result in a body you're proud to own and operate.

- **Fitness is closely related to overall health. Find examples of news stories, opinion columns, and letters to the editor that deal with health issues. What is the main concern expressed? Do diet and exercise play a role?**
- **Look in the comics of your newspaper and cut out the characters who are physically fit. Also cut out those who are not fit. Attach the characters to a piece of paper and under each, write down the behaviors that might lead to that character's fitness level.**
- **Look at the models in newspaper ads and write three words that describe the women — and the men — in those ads. As a class, list your words on the board and discuss how ads influence our ideas of beauty and body.**

Mouthing Off

Your mouth gets a lot of exercise every day. When you eat breakfast, chomp gum, and talk on the phone, you give the old jaw muscles a good workout. Maybe that's why the strongest muscle in a human's body is the one that connects the jawbone to the skull.

Besides showing off its muscles, though, the mouth plays a more important role in fitness and health. It's the front door for a lot of fitness factors. Open it for an apple and you're ahead of the game. Use it to suck on a cigarette, though, and your body suffers (more on Page 7).

Water World

Water might seem dull, but it can really float your fitness boat.

Not only is water used to digest food and carry waste out of the body, you also need water to help your cells function and to keep you at a

comfortable temperature. If you get stuck on an island, you can live for many days without food, but you won't last long without water.

In fact, it's difficult to make it through the day without water. If you don't drink enough water (six to eight glasses a day), your body will start pulling water from your body's cells and even from your blood. The lack of water, or dehydration, that results can cause headaches, heart problems, and heartburn.

Makes you kind of thirsty, doesn't it? The next time you're tempted to open your mouth for food that's less than healthy, take a big old drink of water instead. Drink it bottled, on ice, or from a water fountain. Fit more water into your life!

Drug Ugly

Drugs such as marijuana and alcohol can also get in the way of getting fit. Besides ruining your health, drugs can mess up your whole life:

Teens who use drugs have:

- ✖ lost friends.
- ✖ flunked out of school.
- ✖ wrecked cars.
- ✖ committed suicide.
- ✖ made serious mistakes about sex.
- ✖ suffered brain damage.

Drugs are never a good choice. To better exercise your right to choose, be choosy about the food you put in your mouth. You'll learn more about food, nutrition, and fitness starting on Page 8.

Bite into Water

Besides being vital for bodily functions, water can also make you feel full. People who are worried about overeating can eat less by choosing foods that have a high water content.

Here are good "wet food" choices:

- ✔ yogurt
- ✔ low-fat milk
- ✔ tuna (canned in water)
- ✔ ham (extra lean)
- ✔ soft pretzel
- ✔ three-bean chili
- ✔ chicken chow mein
- ✔ salsa
- ✔ fat-free mayonnaise
- ✔ ketchup and mustard
- ✔ frozen fudge bar

Not Enough Input

Putting too much junk food in your mouth is unhealthy, but it's also unhealthy to not eat anything. People who become so concerned about their weight that they stop eating have an eating disorder called anorexia. Those who throw up what they eat suffer from bulimia. These disorders can cause serious health and appearance problems and should be treated by a doctor.

Activities

In small groups, make two posters. On one, draw a wide-open mouth and fill it with newspaper words or pictures of things that should go in your mouth. On the other, draw a closed mouth and around it, attach words and pictures of unhealthy things.

Notes:

Shouldering Responsibility

Who gets on you about fitness? Does your mom bug you to eat your veggies? Does your gym teacher want you to run a mile in 12 minutes? Do you have a friend who always pesters you to go hiking or play soccer with her?

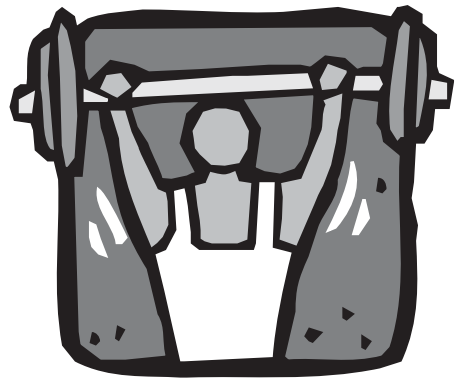
Good! It never hurts to get a little fitness push. But there comes a time when you have to start pushing yourself. Like now. You're old enough to make decisions about eating and exercise that can affect what type of adult you'll be — a cool mover or a couch potato.

A Strong Argument

Strength is a type of fitness measured by how much force you can exert with your muscles. You think of strength when you see a body-builder, but that image keeps many people — especially girls — from exercising to build muscles.

You don't have to be as big as Mark McGwire, though, to get the benefits of strong muscles. Here are strong arguments for building strength:

- You're better able to lift heavy stuff and less likely to hurt yourself doing it.
- You give shape to your body with well-formed muscles.
- You're burning more energy (calories) all the time because muscles burn energy.
- You can do better in sports, games, and everyday activities.



Of course, it's one thing to want well-developed muscles; getting them is another matter. Building muscles happens naturally when you chop wood or lift heavy boxes. You can target muscle development by lifting weights or doing exercises such as curl-ups or push-ups.

Get Muscle-minded

The best way to build muscle strength is to lift weights two or three times a week, usually by working out on weight machines that target different muscle groups. Your doctor might discourage lifting weights until your body matures; be sure to ask.

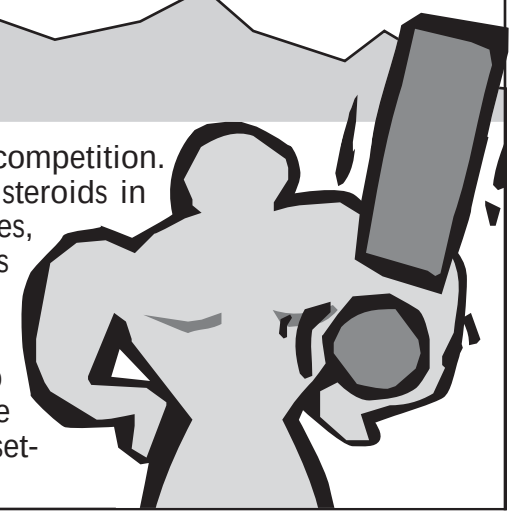
If you need a more organized approach, give your index finger a workout by calling fitness clubs in your area. A good club, or gym, has tons of exercise equipment — treadmills, weight machines, and stationary bicycles — as well as exercise classes and a swimming pool.

Some clubs charge a fee, while other facilities are free or offer reduced rates. The big advantage of belonging to a club is that a workout expert is usually on hand to make sure that you are using the equipment — and your muscles — safely and effectively.

Steering Clear of Steroids

Athletes are always looking for an edge over the competition. Some of them have turned to drugs known as anabolic steroids in hopes of getting bigger, stronger, and faster. Nonathletes, too, might be tempted to bulk up with steroids. But unless they're prescribed by a doctor, steroids are the wrong turn.

While steroids can add to muscle mass, they can also cause acne, violent mood swings, and permanent damage to your body. Taking steroids to get muscles can be like setting yourself on fire to get warm — very dangerous.



- **Look in the newspaper for a photo of someone with a body you admire. How did he or she get to be that way? As a class, discuss which features of fitness and appearance are within our control and which are not.**
- **In small groups, look in the sports section and make a list of every sport mentioned. Next, rank each one according to how much the competitors rely on muscle strength. The more brute strength required, the higher on the list.**
- **How much does your newspaper weigh? Design an exercise that uses newspapers (rolled up, flat, or spread out) to build muscles.**

Notes:

Keep the Beat

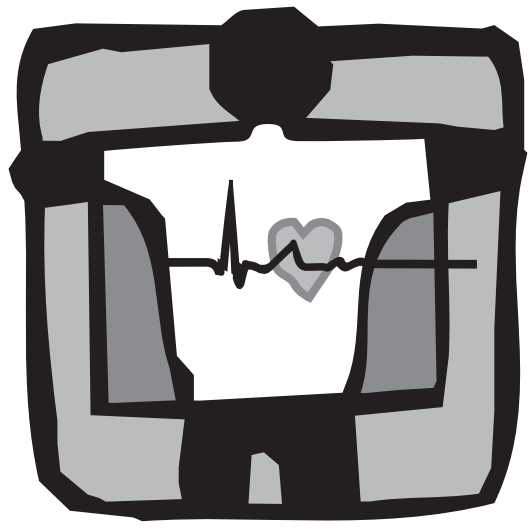
Whether you pump up your body's muscles or not, there's one muscle that you can't neglect — your body's pumper … the old ticker … your heart!

Some people think of the heart as the center of love, but the fist-sized muscle is more than a poster child for Valentine's Day. It pumps blood throughout 60,000 miles of vessels in your body. That's the distance from Miami, Fla., to Seattle, Wash. — 22 times! So what's the connection between fitness and the heart?

Any ticker has only so many ticks to give. In an average person's lifetime, a heart will beat about 2.5 billion times. (Don't worry if you've lost count already.)

During strenuous exercise, your heart might beat four, five, or up to seven times its normal rate to get blood to those muscles you're working. Does that mean you're running out of heartbeats as you're running down the field? Is it healthier to spend your life relaxing on the couch?

Nope, here's why: Just as your leg muscles perform better when they're stronger, your heart muscle can do its job — and use fewer beats doing it — when it is stronger.



You strengthen your heart with exercise, just like you strengthen any other muscle. You'll exert your heart during exercise, but a stronger heart is able to work more efficiently the rest of the time. If you use fewer heartbeats every day, it stands to reason that your heart won't wear out as soon and you'll have more days to live.

This is Heart Work!

As you learned on Page 5, strength is one measure of fitness: It's the ability to work hard in short spurts. Your heart muscle has to work 24/7 for maybe 100 years — not exactly a short spurt.

To strengthen your heart muscle, you need to do aerobic exercise. Aerobic means "with oxygen," and it's the type of exercise that involves a lot of breathing and heart beating — walking fast, swimming, or building a snow fort. There are three keys to building up your heart and lungs:

Frequency — Shoot for getting exercise most every day.

I ntensity — You've got to work up a sweat.

Time — Start at 20 minutes and work up to an hour.

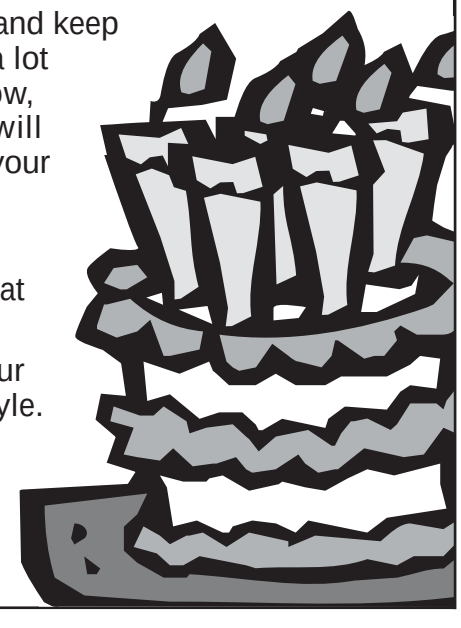
Party Heart-y

You like parties, don't you? If you start exercising now and keep it up — along with a healthy diet — you can be looking at a lot of birthday parties in your future! If you start exercising now, you're more likely to be an active adult. Aerobic activity will reduce the gunk that clogs your blood vessels and lower your risk of heart attack and stroke.

Q: What can ruin your string of birthday parties?

A: Putting things in your body and bloodstream that don't fit: drugs, alcohol, and nicotine.

Not only do these dangerous substances wreck your health sooner or later, they also lead to an unhealthy lifestyle. Making bad choices about pot or other drugs will almost always lead to other bad choices. Choose smart: Party heart-y.



Activities

- **Look in the employment section of the classified ads. Make a list of the jobs that require the most aerobic activity and those that require the least. Discuss how people with inactive jobs can stay fit.**
- **Look at ads for houses and apartments in your area. Which locations promote fitness (walking and exercise opportunities) and which ones might discourage it?**
- **Research books, magazines, and Web sites to find more about how exercise keeps your heart — and you — healthy. Share your findings with the class.**

Notes: _____

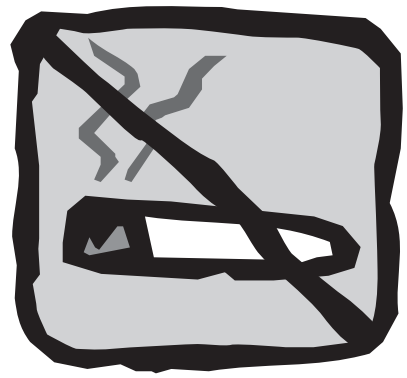
Breathing Made Easy: Don't Smoke!

Does smoking fit into this study guide about fitness? Absolutely. Smoking affects you from head to toe:

- It makes your hair stink.
- It makes your breath stink.
- Smoking causes cancer in the mouth and throat.
- It causes heart disease and stroke.
- Smoking causes lung cancer and other lung diseases.
- It leaves you short of breath and less able to run around, climb stairs, or kick a soccer ball.

Most of this guide gives you suggestions for fitting things such as exercise and healthy food into your life and body. But in a body that's fit, there's no room for smoking.

The link between smoking, disease, and death is strong, and the message that smoking kills is clear. But not



all of your classmates are listening. About 13 percent of middle school students — and 35 percent of high school students — use tobacco. That's fewer than you might think, but it's still too many.

Don't Fool Yourself

We know what goes through people's bodies when they smoke, but what goes through their minds? Often, it's wrong ideas about smoking.

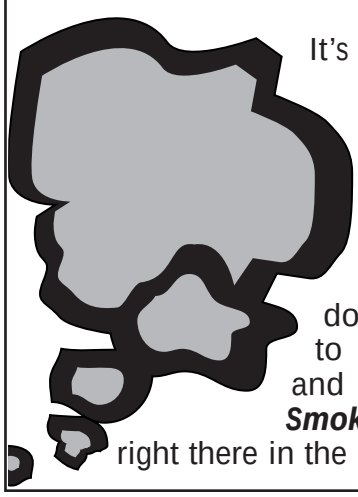
Most young smokers think they can quit whenever they want. They're wrong. Cigarette smoke contains nicotine, a drug that makes addicts out of people who never wanted to get hooked. Most kids who smoke have tried to quit in the last year but couldn't. Most adult smokers became addicted before they turned 18.

Some kids who smoke think they can smoke for a year or two without risking their health. They're dead wrong. Based on the number of people under 18 who smoke, experts predict that some 5 million kids who are alive and smoking today will die early.

A few kids think smokers look cool. Oh yeah? After a few years of smoking, you get what doctors call smoker's face: deep wrinkles and gray skin. In fact, doctors can tell if a person smokes just by looking at them. And that's cool? Bleccch.

We're Not Blowing Smoke

Where do we get all these facts about smoking? Much of them come from the Morbidity and Mortality Weekly Report.



Morbidity? It's a fancy word for the number of people with a disease.

Mortality? That's the number of people who die.

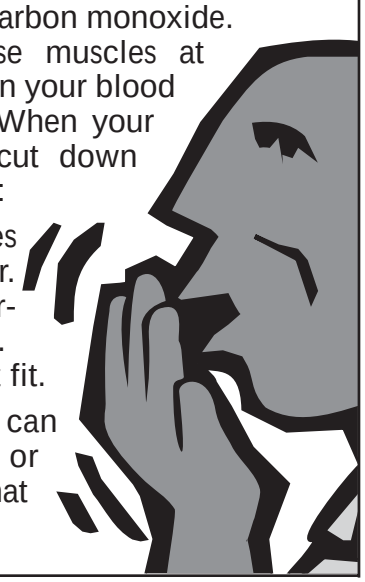
Hmmm. What does smoking have to do with disease and death? Oh yeah: ***Smoking kills you!*** It's right there in the report.

Smoky Blood

When you smoke, your blood gets loaded down with carbon monoxide. That's bad, because muscles at work are counting on your blood to deliver oxygen. When your oxygen supply is cut down because of smoking:

- Your muscles get tired faster.
- You stop exercising sooner.
- You don't get fit.

Besides, who can have fun playing or bicycling with all that coughing, anyway?



Activities

- **Write a letter to the editor that explains your views on smoking in public (restaurants, hospitals, offices, schools, etc.). As a class, discuss the rights of smokers to smoke around nonsmokers.**
- **Health groups create ads to keep kids away from cigarettes. As a class, discuss what works and what doesn't work. Then, design your own full-page newspaper ad to warn students about the dangers of smoking.**

Notes:

Pyramid Pointers

To many people, the pyramids of ancient Egypt are a great mystery. To just as many, it seems, the food guide pyramid is also a big mystery, especially at snack time. Those are the ones who pass up the carrots and tangerines and head for cookies and chips.

Just as Egyptian pyramids were used to preserve the bodies of kings, the food guide pyramid can help you preserve a healthy and fit body. (One big difference: The kings were dead and you are alive.)

Let's take a look at the food guide pyramid, keeping in mind these are suggested servings. Active people need more than inactive folks.

How much of each group?

Depends on total calories a day person needs to consume

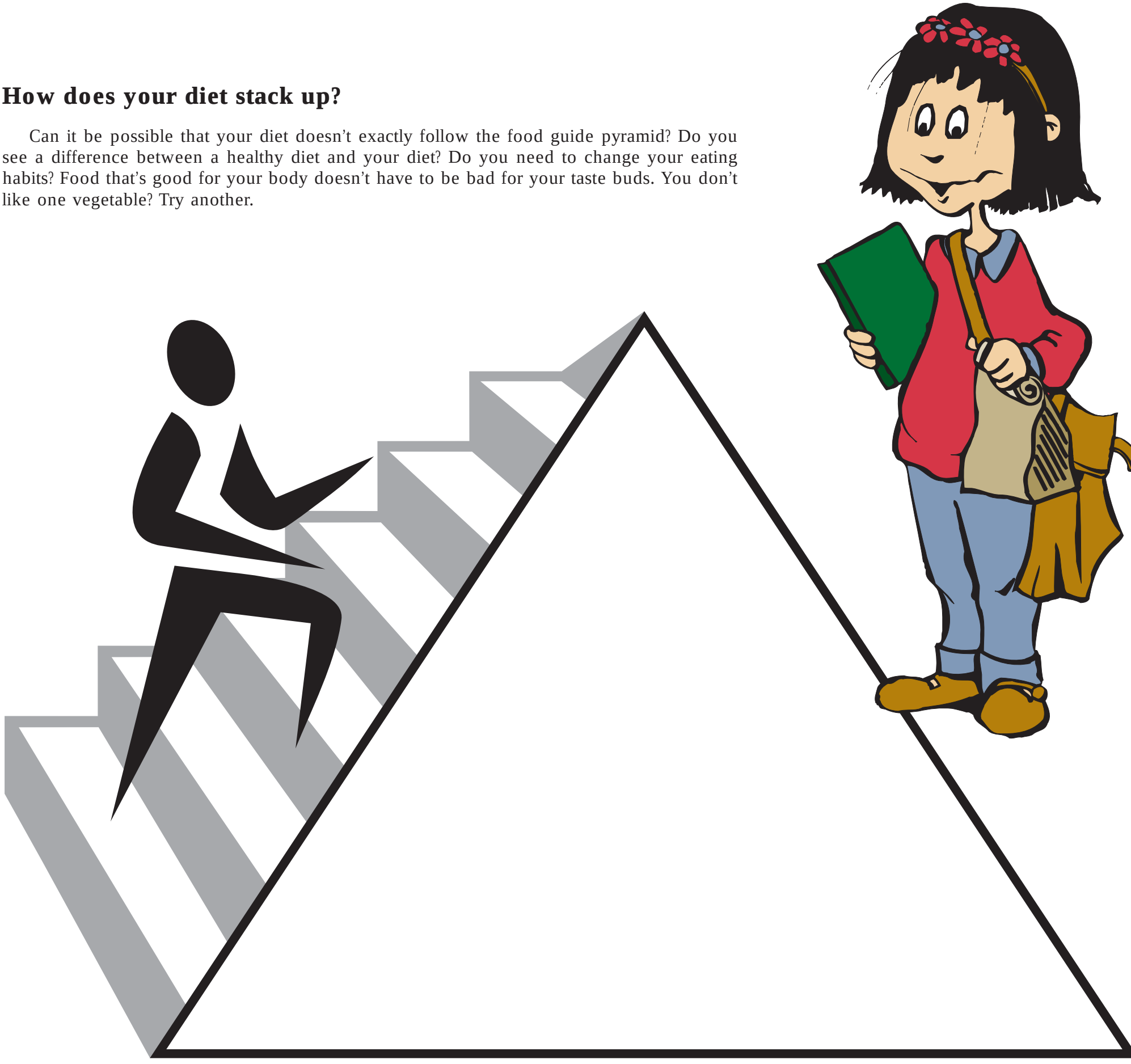
	Grains*	Vegetables	Fruits	Oils	Milk	High-protein foods**
1,000 calories	3 oz. (85 g)	1 cup	1 cup	3 tsp.	2 cups	2 oz. (57 g)
2,000 calories	6 oz. (170 g)	2.5 cups	2 cups	6 tsp.	3 cups	5.5 oz. (720 g)
3,200 calories	10 oz. (280 g)	4 cups	2.5 cups	11 tsp.	3 cups	7 oz. (200 g)

*1 oz. is equivalent to one slice of bread **These are equivalent: 1 oz. (28 g) lean meat, one egg, 1/4 cup cooked beans, 0.5 oz. (14 g) nuts

 Source: U.S. Agriculture Department Graphic: Helen Lee McComas, Lee Hulteng

How does your diet stack up?

Can it be possible that your diet doesn't exactly follow the food guide pyramid? Do you see a difference between a healthy diet and your diet? Do you need to change your eating habits? Food that's good for your body doesn't have to be bad for your taste buds. You don't like one vegetable? Try another.



Whether your diet is fit, fat, or fad, you should know what you eat in a day. In the space above, make your own food pyramid. For each section of the food pyramid, identify several foods that you can live with. Write in the names, cut out pictures from newspaper ads, or smear a little of the actual food on… well, maybe not. Just remember, there's no miracle food, no one food that can give you the same benefits as a diverse and balanced diet.

Vary your vegetables and fruits!

- Eat vegetables and fruits with meals and as snacks
- Tell your parents you want to choose the dinner vegetables or what goes into salad
- Vary the fruits and vegetables you take for lunch
- Help shop for, clean, peel, or cut up fruit and vegetables, with adult supervision
- When shopping, pick a different vegetable and fruit to try
- Use cut-up vegetables and fruits as part of afternoon snacks
- Decorate plates or serving dishes with fruit or vegetable slices
- Top off a bowl of cereal with berries. Make a smiley face with sliced bananas for eyes, raisins for a nose, and an orange slice for a mouth
- Instead of candy, eat raisins or other dried fruits
- Make fruit kabobs using pineapple chunks, bananas, grapes, and berries
- Substitute a juice box (100% juice) in lunches versus soda or other sugar-sweetened beverages
- Choose fruit options, such as sliced apples, mixed fruit cup, or 100% fruit juice that are available in some fast food restaurants.

Check the Label!

You can't always judge a book by its cover, but you can judge a food by its label. The list of ingredients can be confusing, but food labels, or "nutrition facts," found on every food container, give a clearer picture. Here's what to look for:

Serving size is listed in common measurements and metric units. It's the amount of food usually eaten at one time. If you eat more than one serving, multiply every other category by the number of servings (10 containers = 10 servings).

Fat and Cholesterol are shown because many heart-smart people want to limit the amount of each in their diet. Too much of either can increase your risk of heart disease.

Everything else is listed according to its importance in people's food needs. For example, many people must limit salt in their diets, so sodium is listed fairly high on the chart.

Nutrition Facts
Serving Size 1 containe
Amount Per Servi g
Calories 170 Calories from Fat 15

	%DV*
Total Fat 1.5g	3%
Saturated Fat 1g	5%
Cholesterol 10mg	3%
Sodium 80mg	3%
Potassium 260mg	7%
Total Carbohydrate 33g	11%
Sugars 27g	
Protein 5g	11%

Calcium 20% • Riboflavin 10%
Phosphorus 15% • Magnesium 4%
Not a significant source of dietary fiber, vitamin A, vitamin C and iron.
*Percent Daily Values (DV) are based on a 2,000 calorie diet.

Calories and Calories from Fat, like everything else on the label, are based on a diet of 2,000 calories a day. That's more than a young girl needs and less than a linebacker needs. It's helpful to know how fatty a food is when you're trying to limit fat in your diet.

Percent Daily Values tell you how much fat, sodium, etc., you get in a food compared to the daily goal. A food with, say, 30 percent of the vitamin A you need could be called high in that nutrient.

Fast Fat?

A fast-food restaurant can be a real fat fest, but it doesn't have to be that way. Look at two ways to fill up at the local burger palace:

Item	calories	fat grams
Large cheeseburger	530	30
Large fries	540	26
Salad	35	0
Creamy dressing	230	21
Chocolate shake	360	9
TOTAL	**1,695**	**86**

Item	calories	fat grams
Grilled chicken sandwich (hold the mayo)	300	5
Barbecue sauce	10	0
Salad	35	0
Fat-free dressing	50	0
Soft drink (16 oz.)	150	0
Vanilla cone (reduced fat)	150	5
TOTAL	**695**	**10**

You don't have to starve yourself to eat healthy; just make good choices.

- Mayonnaise on a grilled chicken sandwich adds 140 calories and 15 grams of fat.
- Leaving out french fries can leave out loads of fat and calories from your diet.
- Adding cheese to a big burger adds 43 percent more fat grams.

Most restaurants provide nutrition facts, so read up before you eat up!

- **Look in the newspaper for restaurant ads or listings and pick one you have visited. Make two lists of items they serve — one healthy and one not so healthy. As a class, discuss how best to have a healthy meal when eating out.**
- **Using grocery ads, cut out foods for each food group of the pyramid. In small groups, plan a full day of healthy meals and share your menu with the class.**
- **Bring in food cans, boxes, and wrappers with nutrition facts that list calories, fat, nutrients, and other ingredients. As a class, discuss the best way to figure out whether a food is healthy.**
- **Using the "Percent Daily Values" from nutrition facts about a packaged food, calculate the recommended amount of fat, sodium, carbohydrates, and fiber.**
- **Garfield, the cartoon cat, is crazy about lasagna. In small groups, look at other comic strip characters and guess what foods they prefer. Then, write down suggestions for how each character can eat healthier. Share your "menu makeovers" with the rest of the class.**

Learning to Stomach Healthy Food

"You are what you eat." Now there's an interesting phrase. If that were true, how would you introduce yourself?

"Hi, I'm Candy. No, that's not my name. That's what I am. Just ask my mom, Ms. Popcorn. Oh, and here comes Uncle Pizza, just in time for supper."

Maybe if you knew more about the whole food/nutrition thing, you might change your eating habits — and your food identity. On these two pages, read about your body's relationship with the food you eat — or don't eat.

Digestion — having a breakdown

Have you ever wondered how nutritionists can take a plate of lasagna and give you a detailed breakdown of the nutrients and calories?

Well, "breakdown" is the key word here, because nutritionists put a plate of food into a blender and break it down into its smallest chemical components. That's what your digestive system does, too, as food moves from your mouth, down to your stomach and intestines, on to the liver, into your bloodstream, and out of your body.

RDAs — who knew?

RDA stands for Recommended Dietary Allowances, a list of how much protein, vitamins, and minerals we need in our diet.

But look again: The D stands for "dietary" and not "daily," as most people think. That means you don't have to swallow each and every nutrient every day of your life to be healthy. You can just average it out. If a guy doesn't get his 90 milligrams of vitamin C on Thursday, he can make up for it by taking in 180 mg. on Friday (the RDA for girls is 75 mg.).

You probably feel better already, don't you?

Calories — the heat is on

Your body is a machine that needs food energy, which is measured in calories. We say an apple has 100 calories because that's how much energy it provides the body.

You're using calories as you read this. It takes energy to fuel the muscles that work your lungs, heart, and your digestive system. When you get up to sharpen your pencil, you'll need even more energy.

If you never understand the complexities of digestion, at least know this: If you take in more calories than you use, you will gain weight. If you use more calories than you take in, you'll lose weight.

Protein — a powerful nutrient

Your body relies on protein to construct muscles, blood, bones, and every other living cell. Proteins are also important for nearly everything you do. In short, you've got to have it.

You get protein from animal products — meat, fish, and eggs — as well as plants — fruit, grain, veggies, beans, and nuts. Animal proteins can be used more efficiently than proteins from plants.

Fat — a bad fit

Humans need some fat from food for cushioning, warmth, and energy. *Some* fat. Too much fat from meats, french fries, and butter will increase your chance of obesity, heart disease, and diabetes.

When you're a little kid, a doctor usually won't restrict fatty foods as long as you're eating plenty of healthy food, too. But as you grow older, you need less fat: Calories from fat should be no more than 30 percent of all your daily calories.

Fat is made up of fatty acids, which can be "saturated" or "unsaturated." Saturated fats, like butter, are thought to be more harmful to your heart than unsaturated fats, like olive oil.

Carbohydrates — sweet energy

Carbohydrates are sugar compounds that vary in makeup and purpose. Found in table sugar, milk, fruit, breads, and vegetables, most carbohydrates are changed into glucose and used for energy. Because carbohydrates

are so easily converted into glucose, they are the body's first and best source of energy.

Other carbohydrates — found in all plant foods — contain fiber, a type of carbohydrate that is not used for energy but helps move food along during and after digestion. Eating foods rich in fiber will make you feel full — so you eat less — and protect against heart disease.

Vitamins — invigorating letters

Who was in charge of naming vitamins? We've got A, C, D, K … exciting, huh? What did these people name their children?

If vitamins have dull names, they make up for it by doing exciting things in the human body. Vitamins make it possible for the body to grow, heal itself, produce energy, see, feel, reproduce — you name it!

Vitamins are one reason a well-balanced diet is so important, because different foods combine to provide the 13 or so vitamins that are important for a healthy body. (Some vitamins have names longer than one letter, such as niacin, folate, and thiamin.)

Minerals — solid as a rock

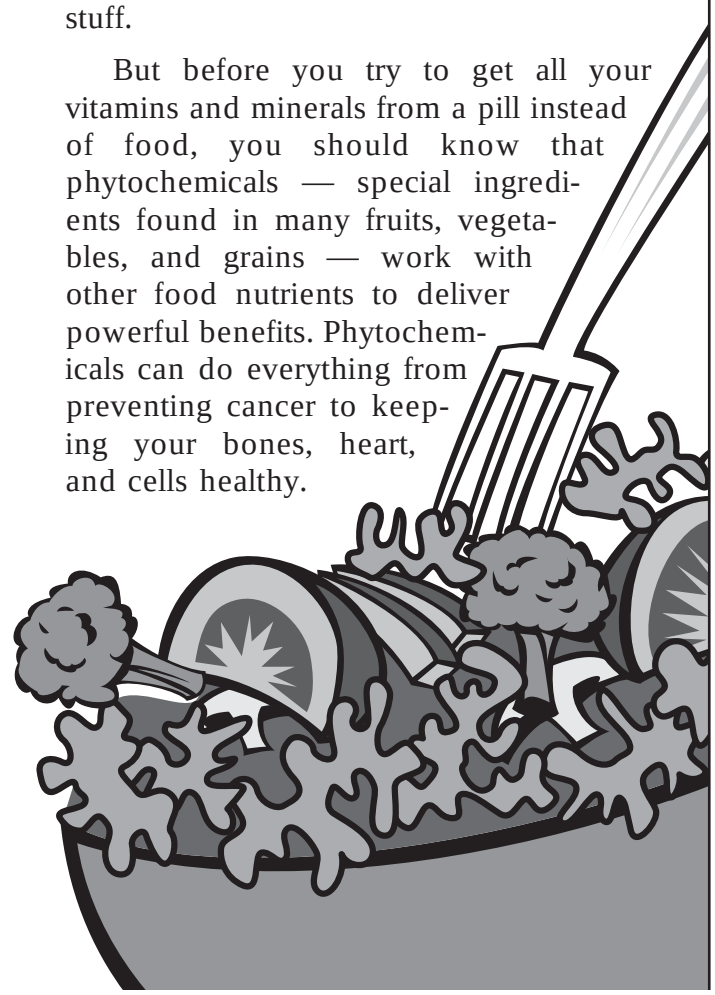
While vitamins are a part of every plant and animal, minerals are found in things like rocks and soil. And like vitamins, minerals are needed for the body to stay alive and well. Luckily, we don't have to munch on rocks to get the minerals we need; they're found in a variety of foods (milk, meat, and more).

You can look on a periodic chart and find minerals, because each is an element — calcium, sodium, phosphorous, magnesium, etc. Some people need more or fewer minerals at different times of their lives. Your doctor will tell you if you need to change your diet.

Supplements — extra, extra! Eat all about it!

Some people don't get enough vitamins and minerals in their diets because of illness or diet choices, and a supplement (extra supply) of one or more nutrients keeps them healthy. Other people take supplements as insurance — just in case they don't eat the foods that contain all the good stuff.

But before you try to get all your vitamins and minerals from a pill instead of food, you should know that phytochemicals — special ingredients found in many fruits, vegetables, and grains — work with other food nutrients to deliver powerful benefits. Phytochemicals can do everything from preventing cancer to keeping your bones, heart, and cells healthy.



- **Get in small groups and create a business that promotes healthy eating. Write a news story describing your new business.**
- **Find an ad for a grocery store and rewrite it to advertise the nutritional value of the foods on sale. If necessary, use books and Web sites to learn more about foods and nutrients.**
- **Look in the classified ads for vehicles that fit the description of all the nutrients listed on pages 12 and 13: powerful proteins, heavy-duty minerals, etc. Share your collection of digestible cars and trucks with the rest of the class.**
- **Invent sports teams using the terms in this unit as team nicknames. Choose whatever sport is most appropriate and design a uniform and logo. Write newspaper headlines for make-believe match ups between teams.**

Get a Leg Up on Exercise

As you reach the end of this study guide, your brain has absorbed a heavy load of information about the benefits of exercise: healthier bones and muscles, less fat, and more energy.

But is your brain sending a message to your legs to get up and get moving? Many kids aren't getting the message.

- Nearly half of all young people between 12 and 21 do not get enough exercise.
- Up to 25 percent of young people say they get no physical activity. None!
- The percentage of overweight kids has doubled in the last 30 years.
- Kids today are 10 percent slower and weaker than kids were in 1980.

In other words, today's moms and dads were more active when they were kids than you and your classmates are. Don't you hate that?

What's the Problem?

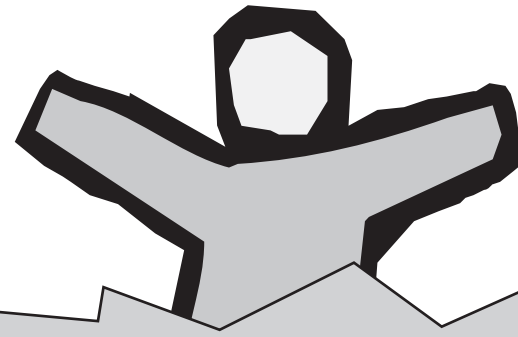
Here are a few reasons that you might ease up on exercise as you get older:

- The biological drive to be active goes down as you grow up. A 4-year-old runs around the house just to be running, but you don't.
- When you're a little kid, you can play any team sport you want. When the competition heats up, though, you might get left out in the cold.
- As you discover the joys of riding around in a car, you might stop using your legs to get places.
- You might decide that "being athletic" just isn't cool.

Those are reasons, but they're not excuses. The problem is, when you give up the bicycle (and soccer, walking, etc.) you start another cycle that's very unhealthy. Inactive kids become inactive adults, a mistake that leads to a higher chance of heart disease, cancer, stroke, and other deadly conditions.

When your main activity is lifting a telephone, remote control, or game pad, your fitness level drops off. Being inactive becomes a habit, and it's hard to get active again when you see that you're out of shape.

So whether you choose to start an exercise program, join a team, or kick around a soccer ball with a buddy, get moving! Use your head, your toe, and everything in between to get fit!

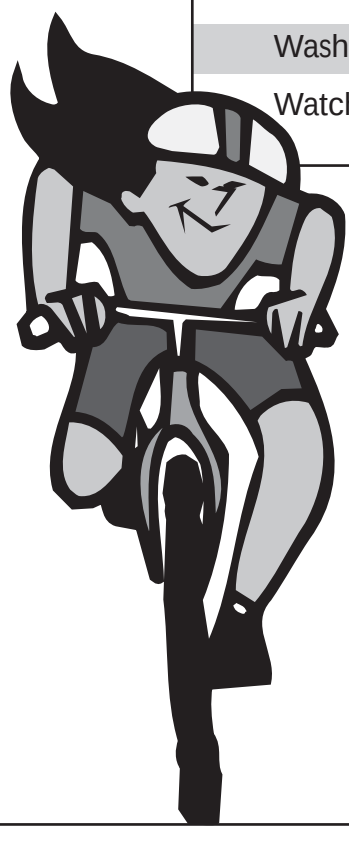


Get Physical!

Getting aerobic exercise is the key to your health and fitness, but not all activity is the same. The American College of Sports Medicine uses a scale to rate the intensity of different activities. The harder you work, the more benefit you get. Here are a few examples:

Activity	Score*
Baseball or softball	5.0
Basketball (playing a game)	8.0
Bicycling (BMX or mountain)	8.5
Dancing (fast)	5.5
Horseback riding (general)	4.0
Making your bed	2.0
Piano playing	2.5
Raking leaves	4.0
Rock climbing	8.0
Running (10-minute mile)	10.0
Shoveling snow	6.0
Swimming laps (slow)	8.0
Walking fast	4.0
Washing cars	4.5
Watching TV	0.9

* Score represents the ratio of work metabolic rate to resting metabolic rate.



- **Check the weather map in the newspaper. Make a list of the best — and worst — places for outdoor exercise. Discuss how weather affects people's physical activity levels.**
- **Look for ads for household products and lawn and garden equipment. Discuss how modern conveniences encourage or discourage physical activity.**
- **Get in small groups and plan a business that will increase fitness in your community. Then plan an ad campaign. Be as creative as you can and share your plans with the class.**

Notes:


FITNESS