

# GETTING THE FACTS: ALCOHOL, TOBACCO, AND MARIJUANA

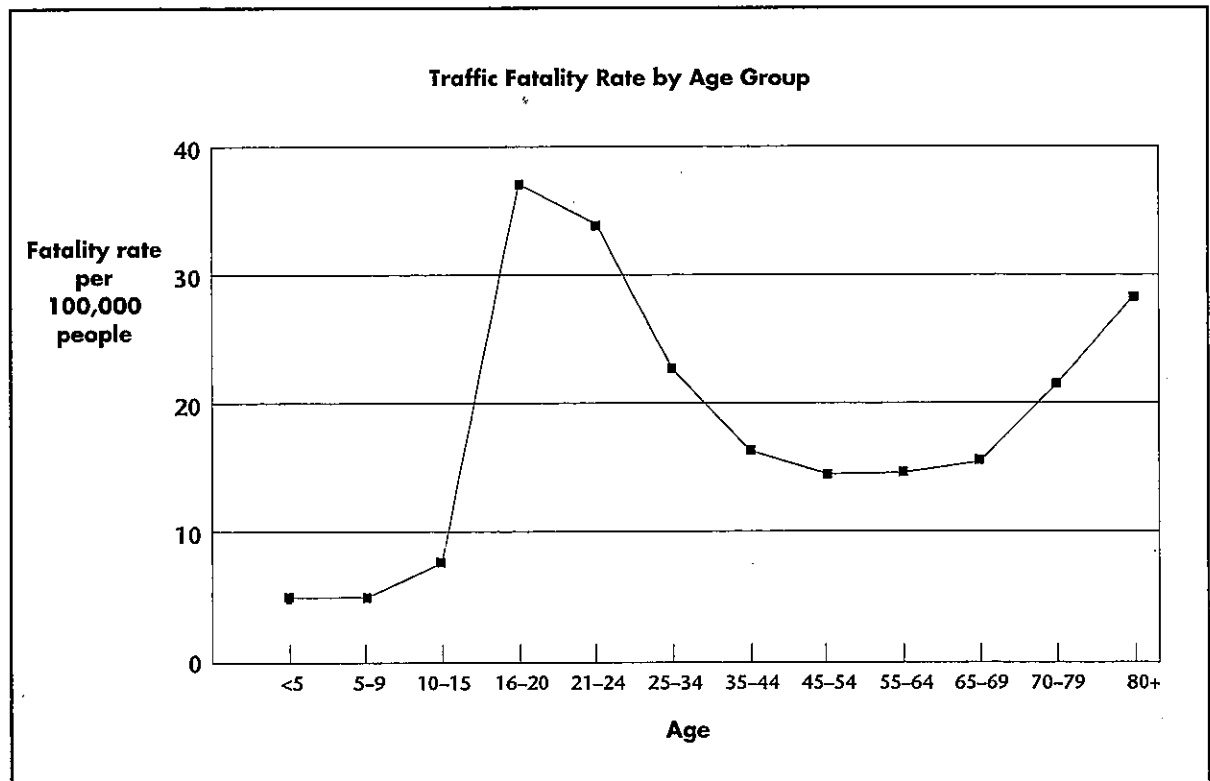
BY PEGGY MANN

I'll do my best in the next few pages to pick out what may be the most important information you should know about cigarettes, alcohol, and pot. But remember, what you'll be reading here is only the tip of a very large—and very dangerous—iceberg.

## ALCOHOL, OTHER DRUGS, AND DRIVING

The fact that this iceberg is dangerous is clearly shown in a U.S. Surgeon General's report on alcohol. Most of the things it has to say are cheerful. Because of giant steps in medicine, the death rate is lower for children up to the age of 14 and for grown-ups over the age of 26 than it was 25 years ago.

But in one age group the death rate has risen: 15- to 24-year-olds. More people in this age group are dying today than were dying 25 years ago. What do you think is the main cause? The Surgeon General's report calls it "driving mixed with substances." What are substances? That's another name for alcohol and other drugs. (The second major reason for deaths in this age group is drug-related suicides and accidents that don't involve driving!)



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Since most of you reading this chapter aren't old enough to have a driver's license, why do I start with the subject of alcohol, other drugs, and driving? Here's why: have you ever ridden in a car driven by a teenager who'd been smoking a joint, or had a few beers, or popped a few pills?

I hope you haven't. But the time may come when someone who is under the influence will say, "Come on. Get in. I'll drive you."

It's not easy to say "No, thanks." But the graph shown here may help you. Do you see how the death rate caused by car crashes shoots up for teenagers? Drivers aren't the only ones killed. Passengers die in these crashes, too.

Some people say, "I'd never ride in a car driven by someone who's been drinking, but I feel safe with a marijuana smoker." You should know that more than 75 research studies have clearly shown that marijuana is just as harmful to a driver's ability to control the car as is alcohol. A driver under the influence of marijuana is dangerous. Many pot smokers also drink, and pot plus alcohol means double trouble.

Half the traffic deaths each year are alcohol-related. The important thing for you to remember is: don't risk being a statistic. Don't worry about insulting the driver. Worry about your own safety, your own life. Phone home and ask for a lift, borrow bus or taxi money, or walk.

Every year thousands of kids your age die in car crashes. Hundreds of thousands are injured. All of us like to think that these things only happen to the other person, not to us. Well, all those kids who were injured or killed in a car crash thought that, too!

Let's look at three substances, starting with one some kids don't consider a drug at all.

## **ALCOHOL**

You already know that a bottle of beer or a glass of wine is a drug. Drugs—at least the kind we're talking about—are mind-altering substances. And alcohol is definitely mind-altering. In fact, that's the reason most kids drink: to alter their minds and get drunk.

On the other hand, most adults do not drink to get drunk. About one-third don't drink alcohol at all, and nearly half of all adults drink only a little—a glass of wine at dinner, a beer during a ball game on TV, a cocktail at a party—but just one. After that they drink a soft drink.

A person who drinks one can of beer gets as much of the drug ethyl alcohol as someone who drinks a glass of wine, a shot of whiskey, or a bottle of wine cooler. All four contain the same amount of ethyl alcohol.

***Alcohol causes more deaths among young people than any other substance.***

(You should know that rubbing alcohol is not at *all* the same as ethyl alcohol. Some people get confused because the name's similar. But rubbing alcohol is a poison. Drinking even a little can make you very sick. Drinking a lot can kill you, but no amount will get you high.)

Here are other important things to remember about alcohol:

- Alcohol causes more deaths among young people than any other substance. It can alter mood, cause changes in the body, and become an addiction. Because growing bodies are more sensitive to the effects of alcohol, young people are at a greater risk than adults for emotional and physical harm.
- People often refer to alcohol as a legal drug. But it is illegal for young people under a certain age, depending on the laws in your state or province. It was made illegal for a sound and simple reason: to protect your health.
- An estimated three million teenagers are problem drinkers. Alcohol causes them problems of all sorts with school, families, friends, and their health. One of the biggest problems is that they just can't stop drinking without special help.
- Some teenagers "chug" beer—drink it down as fast as they can. This is very dangerous. The alcohol builds up in the bloodstream and can kill them.

## **CIGARETTES**

Tobacco claims more lives than any other drug. In the United States, it kills almost 1,200 people a day. I have a paper from Canadian government and health officials that says 35,000 Canadians die each year because of tobacco-related illnesses. The nicotine in tobacco is one of the most addictive drugs known. The U.S. Surgeon General reports that nicotine is as addictive as heroin or cocaine.

About 50 years ago lung cancer among women was almost unheard of. At that same time very few women smoked. Today, women smoke almost as much as men; young women smoke more heavily than young men. The rate of lung cancer among women now almost equals the rate for men. We know of only one clear reason: cigarette smoking.

Lungs are only one of the organs harmed by smoking, and lung cancer is only one of the ways the lungs are harmed. Smoking has also been linked with heart disease. Tobacco products kill more people every year than *any* other drug, including crack/cocaine.

Pretend that a factory opened up next door to your house and its smoke stack blew polluted smoke straight into your bedroom window. You and your family would soon be out picketing. You'd probably have newspapers and TV covering the story. Everyone would be furious at the factory. Your anger and your message would be heard: "Stop polluting my room. It's bad for my health." But who can hear your lungs, your heart, and other organs when they protest pollution from cigarette smoke?

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Even though you won't "hear" the complaints, at least not right away, they're being harmed. The smoke from cigarettes is full of tars and the drug nicotine. With each puff, some of the tars stay in the lungs. A cup a year is left behind in a pack-a-day smoker.

These tars help make cigarette smoking the largest cause of preventable death today. The ads try to make smoking look cool, but medical experts have described it as "slow motion suicide."

A study of 13-to-17-year-olds showed that the cigarette smokers were less athletic than nonsmokers. They read less and got lower grades. They also drank far more alcohol and smoked pot far more than those who did not smoke tobacco. As my 20-year-old daughter summed it up, "More and more kids feel that cigarette smoking is disgusting. And they also feel that being smashed or stoned is tacky and gross."

All of which brings us to. . . .

### **THE PROBLEMS OF POT**

A few people continue to think that marijuana is a harmless substance. Nothing could be further from the truth. There are three main reasons for this:

1. Marijuana contains 421 chemicals. The most dangerous is called *THC*. It harms brain cells, the reproductive system, lungs, and the body's built-in system to fight disease and infections.
2. Sixty-one of the chemicals in marijuana are found only in the *cannabis* plant—the source of pot, hashish, and hash oil. These chemicals, which include *THC*, are called *cannabinoids*. They are unlike chemicals in tobacco and other drugs because they are *lipophilic*. *Lipo* means fat. *Philic* means loving.

Instead of washing out of the body as other chemicals do, the fat-loving cannabinoids seek out the fatty sections of the cells. They collect in the fatty organs. The brain, for example, is one-third fat. The sex organs (the ovaries and testicles) are also very fatty.

Very slowly, the cannabinoids leak back into the bloodstream and leave the body through the urine and feces. One of Canada's pioneer marijuana researchers, Dr. Alexander Jakubovic, has pointed out that the cannabinoids take weeks or longer to clear out of the body. If a person smokes a joint a week, the cannabinoids in the second joint add to those in the first, and the body is never drug-free.

3. What does this collection of cannabinoids do? Marijuana smoke brings more cancer-causing ingredients to the lungs than tobacco. Marijuana also has harmful effects on babies of pot-smoking fathers or mothers.

How does this drug affect the brain? One scientist who has done extensive work on pot and brain cell changes is Dr. Robert Heath of Tulane University Medical School in New Orleans.

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He divided rhesus monkeys into three groups for his experiment. Some were exposed to pot smoke, and some weren't. After six months all exposure to pot smoke was stopped for another six months. Then Dr. Heath examined the brain cells of the monkeys in the three groups. He found that:

1. The monkeys in the first group hadn't been exposed to any pot smoke. Those brain cells were perfectly normal.
2. The second group was exposed to pot smoke equal to half a joint, two days a week, for six months. The brain cells of the monkeys in this group were beginning to show abnormalities.
3. The third group Dr. Heath called "The Heavy Smokers." These monkeys were exposed to pot smoke equal to two joints a day, five days a week, for six months. Almost all of the many hundreds of brain cells the scientist looked at in this group were abnormal. Some were more abnormal than others. For example, most had dark, swollen clots. These clots are usually found only in very old monkeys or humans. But these were all young monkeys.

When Dr. Heath looked at the damage pot had done to the monkeys' brain cells, he began to understand the symptoms he had seen in many of his human patients who were heavy pot smokers. Their memories were bad. They felt people were out to get them. They were often irritable and depressed. They cared less and less about things in their lives that had once interested them: sports, music, their families—everything except smoking pot.

On the next page is a picture of brain cells from a heavy smoker. One cell was exposed to THC; the other was not.

First, look at the picture on the left. It looks like a perfectly normal cell. The little round blobs hold chemical activators of the brain. These chemical activators must be released into the narrow space between nerve cells to help impulses move between nerves. That's how everything we think, feel, or do is passed on in the brain.

Now look at the picture on the right. The little blobs are all clumped together. This makes it harder for them to release their chemical activators, and it slows down the movement of messages in the brain. It may also affect memory.

Dr. Heath realized that the personality changes in his patients who smoked pot heavily could well have been caused by the same brain cell abnormalities. Of course, people aren't monkeys. But monkey cells in the section of the brain Dr. Heath examined are very similar to human brain cells. According to Dr. Heath, it's wishful thinking to hope that what happened to the monkeys' brain cells does not happen in humans.

The good news is that Dr. Heath and others working with "pot personality" patients report that when teenagers cut out pot completely, they seem to get it back together again. Adults also improve. But they often complain that their memory isn't what it was before they began pot smoking.

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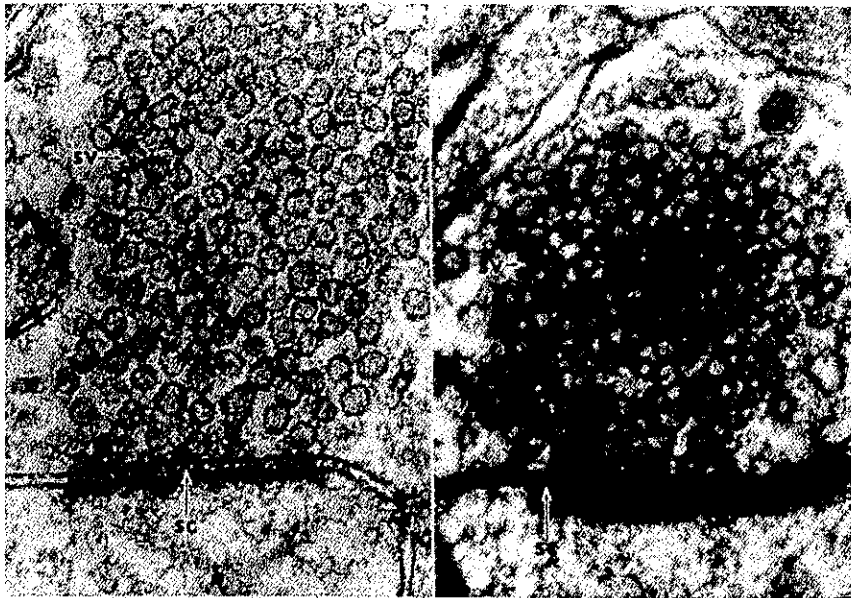
One thing is certain. Pot is extremely harmful in many ways. Some of the ways may not show immediately. But over 6,000 scientific studies clearly reveal that the harm is going on slowly but surely in many organs of the body.

With all these dangers, it's easy to understand why every year fewer and fewer young people use marijuana. Since 1980, the U.S. National High School Senior Survey has shown an 80 percent reduction in the number of students reporting daily marijuana use.

I haven't said a word yet about uppers, downers, and the other illegal drugs, but I can cover them all in one short sentence. None of them will do you any good; all of them will do you harm.

One simple word will make life much easier and healthier for you if you're offered alcohol or other drugs. So I'll end this chapter with it.

"No."



Left: Brain cell from rhesus monkey exposed to pot smoke with the THC removed.

Right: Typical impaired brain cell of monkeys exposed to the same amount of pot smoke with THC.

From *Marijuana Alert*, by Peggy Mann, New York: McGraw-Hill, 1984, p.180.

***One of the best ways to avoid drugs is to avoid people who use drugs.***