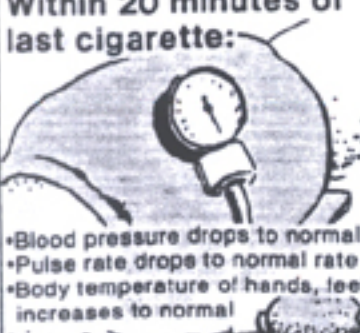
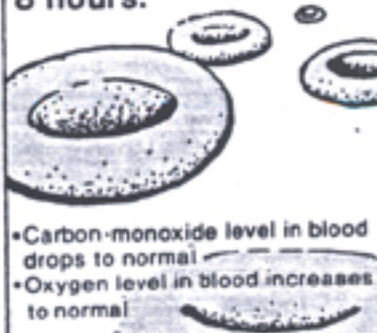
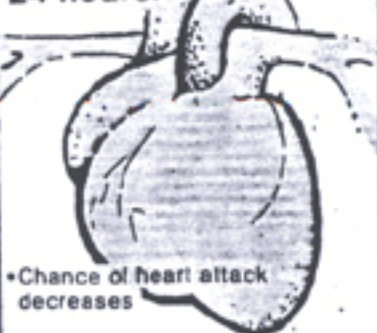
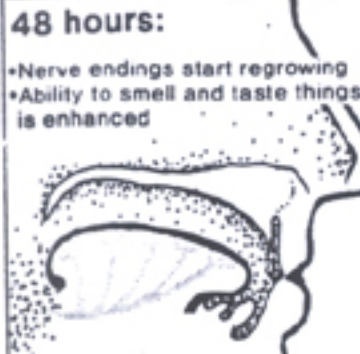
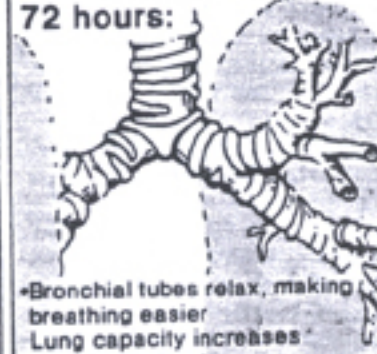
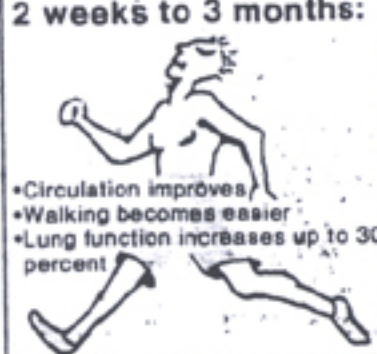
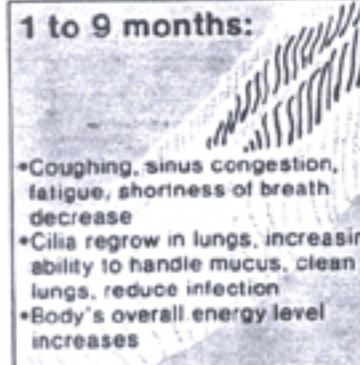
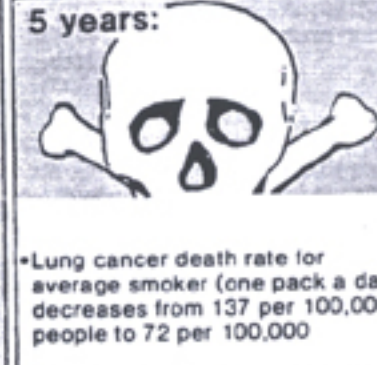
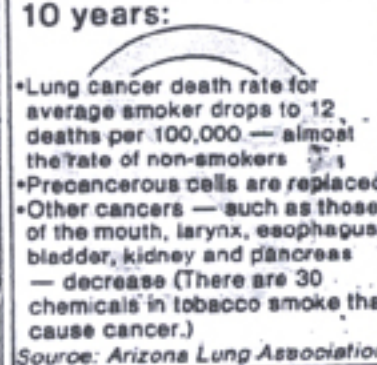


## Smoking: What happens when you quit

<p><b>Within 20 minutes of last cigarette:</b></p>  <ul style="list-style-type: none"> <li>• Blood pressure drops to normal</li> <li>• Pulse rate drops to normal rate</li> <li>• Body temperature of hands, feet increases to normal</li> </ul>	<p><b>8 hours:</b></p>  <ul style="list-style-type: none"> <li>• Carbon-monoxide level in blood drops to normal</li> <li>• Oxygen level in blood increases to normal</li> </ul>	<p><b>24 hours:</b></p>  <ul style="list-style-type: none"> <li>• Chance of heart attack decreases</li> </ul>
<p><b>48 hours:</b></p>  <ul style="list-style-type: none"> <li>• Nerve endings start regrowing</li> <li>• Ability to smell and taste things is enhanced</li> </ul>	<p><b>72 hours:</b></p>  <ul style="list-style-type: none"> <li>• Bronchial tubes relax, making breathing easier</li> <li>• Lung capacity increases</li> </ul>	<p><b>2 weeks to 3 months:</b></p>  <ul style="list-style-type: none"> <li>• Circulation improves</li> <li>• Walking becomes easier</li> <li>• Lung function increases up to 30 percent</li> </ul>
<p><b>1 to 9 months:</b></p>  <ul style="list-style-type: none"> <li>• Coughing, sinus congestion, fatigue, shortness of breath decrease</li> <li>• Cilia regrow in lungs, increasing ability to handle mucus, clean lungs, reduce infection</li> <li>• Body's overall energy level increases</li> </ul>	<p><b>5 years:</b></p>  <ul style="list-style-type: none"> <li>• Lung cancer death rate for average smoker (one pack a day) decreases from 137 per 100,000 people to 72 per 100,000</li> </ul>	<p><b>10 years:</b></p>  <ul style="list-style-type: none"> <li>• Lung cancer death rate for average smoker drops to 12 deaths per 100,000 — almost the rate of non-smokers</li> <li>• Precancerous cells are replaced</li> <li>• Other cancers — such as those of the mouth, larynx, esophagus, bladder, kidney and pancreas — decrease (There are 30 chemicals in tobacco smoke that cause cancer.)</li> </ul> <p>Source: Arizona Lung Association</p>

Maureen Megan Kane/Republic

# Tobacco addiction harder to overcome than heroin or booze, experts believe

By MARY A.M. GINDHART  
Arizona Republic Staff

The 50 million Americans who smoke cigarettes, cigars and pipes are, for the most part, not just loyal customers. They probably are addicted, in every sense of the word, to tobacco, drug-abuse experts say.

"Anyone who believes (quitting smoking) is merely a matter of going to group therapy or having a strong will is ignoring, or is pretty ignorant of, the facts surrounding tobacco addiction," said Dr. Jack Henningfield, an assistant professor at Johns Hopkins University Medical School in

Baltimore and a leading researcher on tobacco.

Indeed, U.S. Surgeon General C. Everett Koop declared earlier this month, for the first time, that nicotine, the drug found in tobacco, is an addictive and dependence-producing drug.

Studies of the health risks from smoking long have painted a picture of death and disease. Scientists have learned that besides being a major cause of lung cancer, smoking is a major cause of many bladder, cervical, esophageal and pancreatic cancers.

But, although most Americans know that smoking can cause

lung cancer, few know that lung cancer is virtually incurable, according to a survey conducted this year by the American Council on Science and Health. Death of cancer of the lung usually comes within only a few months of a diagnosis.

Most of those surveyed by the council also were unaware that heart disease kills more smokers than lung cancer does.

Although the health risks from smoking began to be established by scientists in the 1930s, it was 50 years before the federal gov-

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# Tobacco

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ernment began to conduct research on tobacco use and withdrawal.

The conclusions of these studies, completed in 1984 by the U.S. Department of Health and Human Services, are grim news for the tobacco addict.

"We have some strong evidence that the drug in tobacco (nicotine) may be a more difficult addiction to conquer than either heroin or alcohol," Henningfield said. "To make matters more complex, nicotine now has been proven to be a stress-blocking drug, something we in the medical community had refused to accept.

"The addict has a high return rate to the drug use during periods of high stress, something none of us can escape."

It takes 10 to 15 cigarettes a day to produce a physical dependency on nicotine, which closely resembles a dependency to such stimulants as cocaine and amphetamines, according to Henningfield.

Although conceding that there is evidence that tobacco can harm some people, officials of the private Tobacco Institute in Washington, D.C., disagree that there is conclusive evidence that tobacco is addictive or is a cause of any disease.

"Tobacco is just not the culprit most people would like to contend that it is," said Anne Browder, an assistant to the institute's president. "It is a habit, rather than an addiction. We're not saying (cigarettes) are harmless, but we don't necessarily say they are harmful.

"If tobacco were addicting, there would not be those people who have quit," she said, citing conclusions of the 1984 surgeon general's report

that "tobacco should be considered as an habituation, rather than an addiction," because there is no tendency to increase the dose of nicotine once the user establishes his routine level of smoking.

Although Koop since has declared tobacco addictive, the information will not be included in the warning labels on cigarette packages because of the Tobacco Institute's opposition, according to the *Journal of the American Medical Association*.

The institute fought Koop's effort to include the word "addictive" on the labels because tobacco companies worried that doing so could result in their losing product-liability cases, the *Journal* reported.

The surgeon general's declaration may help pave the way for insurance coverage of the costs of medically supervised withdrawal programs for tobacco users similar to those offered for alcoholics. At present, most insurance companies still say there is no evidence that tobacco is a form of "substance abuse," the catchall term they use for drug and alcohol abuse.

"It wasn't until 1983," Henningfield said, "that we first realized that we had a real addiction problem on our hands. The problem virtually still is ignored, (particularly) by those of us in the medical community who kept believing tobacco withdrawal could not be as serious as smokers said. The evidence quickly is stacking up to prove us wrong."

Although 30 million Americans have given up smoking in the past 20 years, 50 million still smoke. The American Cancer Society says the remaining smokers probably are addicted, which generally is defined as being dependent on a substance, such as drugs or alcohol, with a tendency to increase its use.

However, an addiction can be treated, decreased and eliminated.

"The ability of some to overcome is remarkable," Henningfield said. "Even without help, we have some addicts able to get off the drug. Many take time away from the world so their suffering goes unnoticed by others. This seems to be important in being able to quit 'cold turkey.'"

The first step toward helping the tobacco addict, as with other addicts is "understanding of the beast," he said.

"We need to accept, on a community level, that there is a physically based reason for difficulty during tobacco deprivation," he said. "We know that within just a few hours after the last cigarette, there are real physical changes in brain function and hormonal changes."

He added that these changes result in a significant decrease in the addict's ability to reason, think and concentrate.

A study under way at the National Institute of Drug Abuse, where Henningfield assists with research for the federal Health and Human Services Department, is showing that the strength of the tobacco habit is similar to that for narcotics.

Tobacco-withdrawal symptoms include confusion, depression, lack of ability to concentrate, sleeplessness, anger, argumentativeness, drowsiness, poor concentration, anxiety, irritability, impatience and constipation.

"Believe me, if I employ a tobacco addict, I will give him his place to get his fix until I can be assured he is over the addiction," Henningfield said. "To deprive him is asking for less-effective production. In a life-or-death job, such as a bus driver, I would not deprive him at all."