Tobacco In The News!
...the latest news and research...

No-Nicotine Cigarettes -- Quitting Tool or Trap for Fools?

By: Daniel DeNoon - WebMD Medical News

Feb. 15, 2002 -- Coming soon to a store near you: nicotine-free cigarettes. Smoking them is supposed to help you quit smoking.

This isn't the first time that the tobacco industry has come up with this idea. The soon-to-be-renamed Philip Morris Co. Inc. couldn't sell cigarettes made from tobacco treated to remove nicotine. Vector Tobacco Inc. recently began selling the "reduced carcinogen" Omni cigarettes. Now Vector has a new almost-no-nicotine product made from genetically engineered tobacco plants. It's slated for release some time this year.

Why would anybody smoke this high-tar, no-nicotine product -- even if, as advertised, they taste like full-nicotine cigarettes? The idea is that these "no-nics" might satisfy the urge to smoke while at the same time weaning a person from nicotine. Can it work?

That depends on whom you ask. So far, the only researcher to look at how the new tobacco product might help people quit smoking is Jed E. Rose, PhD, a neuroscientist at Duke University in Durham, N.C. Rose has some pretty good credentials -- he's the inventor of the nicotine patch.

"I think it is a very seriously promising approach that needs to be explored," Rose tells WebMD. "A lot of people jump to conclusions based on the presumed motives of the tobacco companies. Whether it works is a scientific issue, not a political one. There is widespread acceptance of the theory that people smoke because they are dependent on nicotine. So if you remove nicotine, it might possibly be a step toward quitting. It needs to be tested and it may or may not work."

Other observers are far less impressed with the idea. One of them is Jeff Wigand, PhD, the former cigarette company executive who revealed what tobacco companies knew about the risks of smoking.

"The way to help smokers to quit is to help them get over their nicotine addiction -- and this is best done with help from people who have the person's heath as their first interest, not a tobacco company," Wigand tells WebMD. "When has a single tobacco company got into the smoking-cessation business? Now we are going to give out cigarettes as a quitting strategy? If smokers need something to hold in their hands, give them a pencil."

Randolph D. Smoak Jr., MD, immediate past president of the American Medical Association, says nicotine-free and reduced-carcinogen cigarettes are just marketing gimmicks.

"A cigarette is nothing but a delivery device for premature death," Smoak says. "No matter how you dress it up or dress it down, it is the same product. If you take away the nicotine, then people are not going to smoke it, because they do not get the nicotine kick. If people are still smoking cigarettes without nicotine -- if they will -- they still are exposed to the carcinogens. To say we will take away the addictive portion is no salvation. To diminish the nicotine is just a false sense of security and hope for people who are addicted and are exposed to carcinogens."

In a study being presented to the Feb. 20-23, 2002, annual meeting of the Society for Research on Nicotine in Tobacco, Rose looked at what happens when smokers use no-nic cigarettes.

Smokers who use low-tar, low-nicotine cigarettes puff harder to get a satisfactory smoke. But Rose found that these same smokers take normal puffs of high-tar, no-nicotine cigarettes. And the no-nics satisfied smokers' craving for cigarettes --

although it didn't keep them from getting the bad mood that's part of nicotine withdrawal.

Rose says that cigarettes give a smoker a quick nicotine "spike." This acts as a reward and makes a smoker want another cigarette. Rose says that no-nic cigarettes don't have that reward -- so smoking them might eventually break the vicious smoking-reward circle.

"Whether those internal cues to keep smoking extinguish over time, that is the big unknown," Rose says. "If it turns out to be a period of weeks, that would be great. If it took years [of smoking no-nic cigarettes], it would not be so great. We just don't know the answer to that question yet."

Rose's study was partially funded by an unrestricted gift to Duke University by Vector. Rose says he's free to use the funds any way he likes, has no limits on what he's able to say about the work, and has no financial interest in Vector.

More Smokers Trying to Quit

by Jennifer Warner - WebMD Medical News
Cessation Attempts Rise Since Introduction of Nicotine Replacement Therapies

Feb. 26, 2002 -- If you make it easier to get over nicotine, more smokers will at least try to quit. That's the message of new research that shows the number of smokers attempting to break the habit has grown to nearly 40% since over-the-counter nicotine replacement therapies were introduced in 1996. And more help may soon be on the way in the form of anti-inflammatory drugs to ease nicotine withdrawal symptoms such as depression and fatigue.

"In the same period that nicotine replacement therapies, such as the nicotine patch or nicotine gum, became available, we see more Americans trying to quit smoking," said study author Saul Shiffman, PhD, professor of psychology at the University of Pittsburgh, in a news release.

Of the 48 million American adults who smoke, about 70% say they would like to quit, but only about 1.2 million do so successfully. The FDA approved the first nicotine replacement in the form of a chewing gum, Nicorette, in 1984. The transdermal (skin) patch, NicoDerm, came in 1991. Both were available only by prescription until 1996, when they were reclassified as over-the-counter products.

The study authors say that reclassification and easier access to nicotine replacement may have prompted a spike in the number of smokers who tried to quit. According to data collected by the U.S. Census bureau from 1992 to 1999, the researchers found the number of adult smokers who reported attempts to quit smoking in the past year rose from 38% in 1993 and 36% in 1996 to 40% in 1999.

GlaxoSmithKline Consumer Healthcare, the marketers of Nicorette and NicoDerm, sponsored the Census analysis.

Another study presented at the same conference suggests anti-inflammatory drugs may be the next wave in treatments to help smokers stick with their decision to quit. For the first time, researchers have shown that smokers who stop smoking cigarettes have symptoms similar to people having an inflammatory response or stimulation of the immune system.

"Our research shows that nicotine withdrawal is a significant physical as well as psychological stressor that impacts multiple systems of the body, including the immune system," said study author Elizabeth Corwin, PhD, assistant professor in the school of nursing at Pennsylvania State University, in a news release.

"If we can relieve some negative symptoms -- including depression -- by reducing the inflammatory response, we may be able to increase the likelihood that heavy or moderate smokers can successfully quit."

Corwin and researchers studied 20 moderate to heavy smokers while they were smoking regularly and 24 hours after they stopped. Analysis of blood samples taken from the smokers after they quit showed that elevated levels of cytokines (substances produced by white blood cells in response to inflammation) along with fatigue predicted which smokers suffered from depression during nicotine withdrawal. Changes in the production of cytokines were also associated with muscle aches and increased appetite after quitting.

"The results support the hypothesis that smokers who stop smoking may experience depression, fatigue, muscle aches and appetite changes for similar biochemical reasons that individuals who have acute or chronic disease do. The same therapies -- anti-inflammatory medications -- may therefore help alleviate these symptoms," said Corwin.

Coming Soon: New Ways to Kick the Smoking Habit

Experts Say Lozenges to Laughing Gas May Soon Arrive, but Proven Methods Are Already Here

By Jeanie Davis

WebMD Medical News

Jan. 23, 2002 -- If you want to kick the habit, whether it's cigarettes, cigars, or chewing tobacco, you don't have to go it alone. The tried-and-true quit-smoking methods -- the patch, nasal spray, gum, and inhaler -- can help get you on the straight-and-narrow. But they're not the only options. Check out these alternatives that are in the pipeline.

Chiming in will be two nicotine-addiction experts: Tom Glynn, PhD, director of cancer science and trends at the American Cancer Society, and Richard Olmstead, PhD, assistant research psychologist at UCLA.

A new nicotine lozenge triples a smoker's quitting efforts and is more effective than other forms of nicotine-replacement therapy, according to researcher Chris Steele, MD, who directs one of Europe's largest quit-smoking clinics in Manchester, England. His most recent study of the nicotine lozenge included more than 1,800 smokers in England and the U.S.

The lozenges are available in Great Britain in 2 mg and 4 mg doses, about the same nicotine dosages as in the gum. They are designed to reduce cravings and withdrawal symptoms and were taken in gradually reduced amounts for 12 weeks.

According to the trial results, which will be published later this year in the *Archives of Internal Medicine*, cigarette cravings were reduced by 23% in the first week. Steele said the lozenge is more effective than the gum because it releases about 25% more nicotine from each dose.

"The early results look positive," Glynn tells WebMD. "It's a form of nicotine medication that people are used to taking. It's similar to nicotine gum, where you can get a fairly quick uptake of nicotine. And it can be delivered on as-needed basis, whereas the patch, while it is very successful, is delivered slowly over a long period of time. Most nicotine-replacement products are similar in that they about double the quit rate."

While Olmstead says the lozenge looks good, he also notes he is skeptical that it will be any better than other nicotine-replacement therapies. "A lot of these things look better coming out of the gate than they are in practice." He's a big fan of the nasal spray and inhaler, which are just as effective but haven't been marketed well, he says. "In fact, the nasal spray looks like it's the most effective, but people sometimes don't like to use it because it causes burning in the nose and

watery eyes."

A new seizure drug known as Topamax -- already used to treat epilepsy -- blocks some nicotine-triggered changes in brain chemistry and may be useful for treating nicotine addiction, says lead author Wynne Schiffer, researcher at the U.S. Department of Energy's Brookhaven National Laboratory in New York.

Brookhaven scientists have been studying the chemistry of drug addiction for nearly two decades. Nicotine addiction research has focused on several brain chemical messengers that are felt to play a role in the pleasure and reward derived from smoking.

Schiffer and colleagues have found that Topamax changes chemicals in the brain that drive the urge to smoke.

"In principal, it has possibilities," says Glynn. While the studies are too preliminary at this point to make recommendations, he says, you have to applaud the development of any new methods to help people stop smoking -- drug treatments or otherwise."

"There may be something to it," Olmstead tells WebMD. "In our lab, we're looking at combining a lot of different drugs, because any one is insufficient to address all the withdrawal-related symptoms people have. We'll probably see in six months to a year whether it works in humans in affecting smoking behavior."

A dose of laughing gas on the day they decide to quit may help smokers successfully kick the habit, according to Jesse H. Haven, MD, at the Anchor Health Center in Naples, Fla. He reported his findings at the 2001 meeting of the American Academy of Family Physicians held in Atlanta. Laughing gas, or nitrous oxide, is the gas used to anesthetize patients undergoing dental work.

Haven's theory: nitrous oxide may help smokers quit by replenishing stores of the brain chemical dopamine, which becomes depleted during drug and alcohol withdrawal.

In a study involving 25 smokers, half were given nitrous oxide and half were given oxygen on the day they planned to quit. None of the smokers took any other kind of smoking cessation treatment. Three days later, those who took nitrous oxide had an 85% overall reduction in number of cigarettes smoked per day. Forty percent of patients were able to completely stop smoking during the three-day period, and 92% said their craving for tobacco had "noticeably decreased." Six months later, "many" of the people who quit completely had remained cigarette free.

"People have tried laughing gas on and off, and to date, there are no good data to suggest it works," Glynn tells WebMD. "That's not to say it doesn't work; we just don't know yet. It's certainly not anything we would encourage people to do, given that there are treatments we know work."

"It's certainly the weakest of the three," says Olmstead. "Besides, such studies have strong potential for placebo effect. People are going to know whether they're feeling the effects of nitrous oxide or not."

Tried-and-True Treatments

"If you're really trying to quit smoking, the most helpful are nicotine replacement products -- gum, patch, inhaler, nasal spray -- plus the anti-depressant Zyban," Glynn says. "Zyban is the only medication recommended by the U.S. Public Health Service. It's also the only one where there are good long-term clinical trial data. There are two other antidepressants that are possible, but there just aren't sufficient data."

Treatment should also include counseling with a health professional, Glynn tells WebMD. "That kind of support helps a lot particularly in terms of avoiding relapse, which we run into regularly with tobacco cessation. Some people try to quit three or four times before they're successful." Research shows that get good counseling along with the drug treatments helps reduce the number of relapses.

FDA urged to regulate 'reduced risk' cigarettes

WASHINGTON (AP) - 12/18/2001 — Health groups filed petitions with the Food and Drug Administration Tuesday urging the agency to regulate tobacco products the activists say are marketed as safer alternatives to regular cigarettes.

The Supreme Court ruled last year the FDA did not have the authority to regulate tobacco products, but the health groups argue the agency can require tobacco companies that make health claims to provide scientific evidence.

If they cannot back up their claims, the FDA could order the companies to pull their ads, the petitioners say.

"Our purpose in filing these petitions is that a number of tobacco companies have tried to take advantage of the Supreme Court decision to make unproven health claims about their products based on the premise FDA wouldn't act," said Matthew Myers, president of the Campaign for Tobacco-Free Kids.

The group filed petitions against Vector Tobacco Ltd. and Brown & Williamson for marketing new brands as reduced risk products. The ads say the cigarettes have less carcinogens than older brands.

"The reality is they have no evidence," Myers said.

Brown & Williamson Spokesman Mark Smith said his company, based in Louisville, does not make health claims about its new Advance Lights cigarette.

"We go out of the way to say there's not enough medical information to know if Advance, with less toxins, will lower health risks," Smith said.

But, by stating that the cigarettes have less toxins, the companies are "definitely appealing to concerns about people's health," said Edward L. Sweda, senior attorney at the Tobacco Control Resource Center at Northeastern University in Boston. "Certainly a very strong case can be made that they are making health claims."

The anti-smoking advocates also argue the Supreme Court decision did not prohibit the FDA from regulating nontraditional products containing nicotine or tobacco.

They filed a petition against R.J. Reynolds Tobacco Holdings Inc. calling for regulation of its Eclipse cigarette. The groups argue Eclipse is not a true cigarette, because it heats tobacco rather than burning it. Therefore, it is a "nicotine-delivery system" that can be regulated as a medical device, the groups argue.

Petitions also were filed against the companies Star Scientific and S.F. Garret for making mint-flavored tobacco lozenges and nicotine water. Both are marketed as products smokers can use in places where cigarettes are banned.

Myers says the gum and water should be regulated as a drug or food. He says the agency's authority to regulate these products is no different from the FDA's ability to regulate smoking cessation products such as nicotine gum.

Other groups that joined the petition effort included the American Cancer Society, American Heart Association, American Legacy Foundation, American Lung Association and American Medical Association.

Secondhand smoke may do damage in 30 minutes

CHICAGO (AP) - 8/13/2001 — Just half an hour of secondhand smoke can impair normal blood flow to the heart, a Japanese study suggests.

The study examined the effects of spending 30 minutes in a hospital's smoking room on 15 nonsmoking men and 15 smokers. The smokers, whose heart arteries already showed damage, were not affected. But in nonsmokers, the result was a reduced ability of heart arteries to dilate, which previous research has suggested may be a precursor to hardening of the arteries.

"This change may be one reason why passive smoking is a risk factor for cardiac disease" and related deaths in nonsmokers, the researchers said in Wednesday's Journal of the American Medical Association.

The study did not examine whether the changes from the one-time exposure to smoke were permanent. Previous research in smokers has found similar changes that may be reversible if smokers quit, said Dr. David Faxon, president of the American Heart Association.

If exposure continues, "gradually, as hardening of the arteries sets in, it's irreversible, " he said. The study "really sort of confirms prior information that we've had about the adverse effects of secondhand smoke," Faxon said.

In the study, Dr. Ryo Otsuka of Osaka City University Medical School and colleagues used blood pressure tests and an imaging technique called echocardiography to examine the effect on heart arteries' ability to dilate. Measurements were taken before and after exposure to secondhand smoke.

The smoke appeared to impair the functioning of the endothelium, a lining of cells in the arteries that helps regulate dilation. Scientists believe coronary artery disease may begin when the endothelium becomes damaged, leaving the arteries prone to blockages or narrowing. Stanton Glantz, a University of California at San Francisco professor of medicine, said the findings add fuel to the debate over secondhand smoke.
"People walking into a smoky restaurant, do they want to be clobbering the ability of the arteries in the heart to get blood to the heart, even if it's just for a little while?" he said.

Seth Moskowitz, spokesman for R.J. Reynolds Tobacco Co., said the study does not change the company's belief that there is no scientific evidence establishing that secondhand smoke is a risk factor for lung cancer, heart disease or any other disease in adult nonsmokers.

Oral Nicotine May Help Smokers Quit

Alan Mozes
Reuters Health

NEW YORK - Researchers are developing what they hope will be an entirely new way for cigarette smokers to kick their tobacco habit -- an oral nicotine solution that can be consumed with a wide range of popular beverages.

"The nicotine is metabolized fairly rapidly, providing a quicker nicotine boost than is provided by a nicotine patch," said Dr. Eric C. Westman of Duke University Medical Center in Durham, North Carolina. "And unlike nicotine gum, which comes in regular, mint and orange flavors, the oral solution can be flavored in almost any way the smoker chooses to flavor it."

Cigarette smoking is the leading preventable cause of death in the US -- directly linked to 435,000 deaths each year.

A preliminary 3-month study conducted by Westman and his colleagues tested the ability of the oral solution to help 25 smokers abstain from smoking. After deciding upon a personal quitting date, the participants were given vials of the solution to self-administer throughout the day -- whenever they felt the urge to smoke.

To each drink consumed the quitters added between 2.5 and 10 milligrams (mg) of the solution. The researchers pointed out that 3 mg of the nicotine solution was equivalent to the amount of nicotine typically inhaled from a single cigarette.

Westman's team noted that, in addition to plain water, the oral solution can be added to both alcoholic and non-alcoholic drinks, including coffee, tea, soda, beer and lemonade.

The investigators found that with minimal behavioral counseling and few side effects, the participants were able to abstain from smoking at the same levels typically achieved by smokers who use currently available cessation tools such as nicotine patches, nicotine gums, lozenges, and nicotine nasal sprays. Only one study participant dropped out of the study.

"The breakthrough is we have found a way to develop the oral nicotine so that it is tasteless, and can be used to relieve craving," Westman told Reuters Health. "The prevailing wisdom was that this couldn't be done -- that the nicotine would be too intolerable and would taste bad and you couldn't get sufficient levels to curb craving. But with this solution, a smoker can control the taste of the nicotine delivery system -- and that is not possible with any other nicotine therapy that we have yet."

Westman suggested that the oral solution also appears to be more convenient to use, working more quickly and with less irritation to the nose and throat than alternative cessation methods. He cautioned, however, that the oral nicotine solution has not yet received Food and Drug Administration approval -- a process taking at least 3 to 5 years -- and is not yet ready for consumer use.

"We have far too few options for the treatment of nicotine dependence," Dr. Scott Leischow, chief of the tobacco control research branch of the National Cancer Institute in Washington, DC, told Reuters Health. "So we definitely support the need for new medications. But this requires a full review, so we can be sure the new medication works and can be safe."

Reuters Health Information

Depression Can Make It Tougher to Stop Smoking

By Mark Moran, MPH - WebMD Medical News

June 20, 2001 -- Smokers with a history of depression may have an especially difficult time kicking the tobacco habit, according to a study in the June 16 issue of *Lance*t. The findings confirm a long-held and distressing suspicion -- that reaching for a cigarette may be an especially toxic way that some depressed individuals self-medicate their symptoms.

"It's self-medication with terrible consequences," says psychiatrist Alexander Glassman, MD, chief of clinical psychopharmacology at New York State Psychiatric Institute and professor of psychiatry at Columbia University College of Physicians and Surgeons, in New York.

But the flip side of the story is more encouraging. Glassman says the sites in the brain where nicotine may be acting to dampen the effects of depression could be targets for new drugs designed to have a similar action -- without the harmful effects of smoking.

"It will result in a new class of antidepressant drugs," he predicts.

In the study, 100 smokers with a history of major depression were enrolled in a two-month smoking-cessation trial. Of those, 76 were followed for six months after completion of the program to see if they had another occurrence of depression. Of 42 people who successfully quit smoking, 13 had an episode of major depression, while only two of the 34 people who continued smoking became depressed.

"The people who continued to smoke got depressed 5% of the time, but the people who stopped smoking got depressed over 30% of the time," Glassman says. "It's a really big difference."

The study grew out of the widely observed phenomena that people with a history of depression are much more likely to smoke than nondepressed people, Glassman says. It was this observation that contributed to the approval of the antidepressant Wellbutrin for use as a smoking-cessation agent, under the new name Zyban.

Now, Glassman says, new studies will be undertaken to determine whether continued use of Zyban will prevent the recurrence of depression in people with a previous history of the illness. Those studies will be funded by the National Institute on Drug Abuse, he says.

Raymond Niaura, MD, who co-wrote an accompanying editorial to the study, calls the findings "striking," and says they are the strongest confirmation yet of what professionals working in smoking-cessation programs have long suspected.

"There are probably even more people at risk of becoming depressed when they try to quit smoking than we had previously thought," says Niaura, professor of psychiatry at Brown University Medical School, in Providence, R.I. "If people with a history of depression try to quit, they are going to have a harder time. They are in a tough place -- they are quitting smoking to improve their health, but at greater risk for depression."

Makers Acknowledge Smoking Dangers

By CATHERINE WILSON, AP Business Writer

MIAMI (AP) - Three of the five cigarette makers fighting the prospect of a potentially crippling punitive-damage award for smokers acknowledged to jurors Tuesday that smoking causes disease, exposing a rift within the industry.

Attorneys for Brown & Williamson and Lorillard promised testimony from their CEOs that would for the first time place their companies on the same side of the issue as Liggett, which accepted the connection between smoking and cancer three years ago.

That leaves Philip Morris and R.J. Reynolds on the other side of an issue that once united a monolithic industry.

The splintered positions were offered in opening statements by tobacco attorneys trying to avoid a multibillion-dollar punitive verdict for 300,000 to 500,000 sick Florida smokers.

The jury already has ruled against the industry twice, saying the companies conspired to produce a deadly product and awarding $12.7 million in compensatory damages to three smokers with cancer.

The cigarette makers want the jury to award no punitive damages, arguing that $254 billion from settlements with the states is enough money to pay for decades of misconduct. The lawsuit seeks $100 billion in damages, but the smokers' attorney did not specify an amount in his opening statements Monday.

On Tuesday, Lorillard attorney Ken Reilly told the jury: ``We agree with the public health authorities and the surgeon general that smoking causes disease. I don't know how more flatly that can be stated.''

Brown & Williamson attorney Gordon Smith followed by saying CEO Nicholas Brookes ``will tell you it is and has been Brown & Williamson's position that smoking causes cancer. There is no confusion about that whatsoever.''

Such blanket acknowledgments do not amount to acceptance of blame, however. If tobacco executives concede smoking causes disease, they generally say it can't be proven in any given smoker because of individual risk factors.

The Reynolds position in the punitive phase was uncertain. Attorney Jim Johnson focused on company finances and did not address the issue of smoking and disease in his initial remarks.

In a deposition May 10, Michael Szymanczyk, CEO of industry-leading Philip Morris, said the company has not adopted the position of public health officials that smoking causes cancer and is addictive even though it displays those messages on its Web site.

Liggett owner Bennett LeBow broke ranks in 1997 by saying smoking causes disease and is addictive.

``Liggett's conduct has served as a model for how a tobacco company should conduct itself in today's world,'' said Liggett attorney Aaron Marks, predicting the company's cigarette business will die in 20 years.

Quitting is difficult but beneficial at any age!

Even at 60, giving up smoking almost completely removes the risk of lung cancer, research has found. People who have not already developed the condition are unlikely to do so after they quit. Professor Julian Peto, of the Cancer Research Institute, told a conference in London that the finding indicated a need for new public health strategies. Currently they focus mainly on dissuading children from starting but fail to encourage adults to quit, he said.

Public health focus...

The Cancer Research Campaign backed the call to focus efforts on persuading adults to give up. The government is due to publish a white paper on public health in the autumn, hich will cover strategies to prevent smoking. Jean King, head of education for the campaign, said: "We have been pressing the government to put more on cessation in its white paper." She said: "People should realise that there are benefits at all ages. "After 10 years the risk of cancer is significantly reduced, and it only takes one year to cut the risk of heart disease." She added that although nicotine was extremely addictive and hence difficult to give up, there were plenty of support bodies to help smokers quit. The finding came as the result of long-term research projects such as the 40-year British Doctors Study. They allow doctors to compare the health of 60-year-olds who stopped smoking at 50 with that of smokers of the same age.

Smoking triggers cancer...

The reason for the advantages of quitting applying at any age could lie in the sequential way lung cancer develops. Tobacco can trigger changes to cells. A series of these changes must occur to trigger lung cancer, so if someone gives up smoking before all of them have taken place, they are unlikely to develop the disease. Professor Peto said: "It has not been until the last year that we could see the full horrors of what smoking does." He said that half of all smokers die as a result of their tobacco use, not a quarter as was previously thought. Other factors that could cause the cancer were a poor diet lacking in fresh fruit or vegetables and prolonged exposure to the sun.

The Only Solution To Smoking Is To Quit

Dec. 22, 2000 (CBS)

It's one of the biggest myths about smoking: "If I just cut back, my health will improve."

No such luck, says a team of Mayo Clinic researchers, led by Dr. Richard Hurt.

"There is no safe lowest level of smoking. The best way is not to smoke at all," Hurt says.

Hurt and his colleagues followed 23 heavy smokers, people like Doug Coen--who inhaled 2 packs a day--and asked them to cut back to 10 or 15 cigarettes a day over a two month period. Then they measured specific chemical markers linked to cancer. One of the markers went down, two stayed the same, and one even went up when smoking was reduced.

"Even though there was a 50 percent reduction in the overall smoking amongst this group, the markers of harm, which are blood tests and urine tests associated with cancer--did not go down," Hurt says.

It wasn't what Doug Coen was hoping to hear. "I guess, deep inside, I was probably hoping that yeah, if I could cut down and it was still good for me I could have the best of both worlds and that, unfortunately, doesn't work out," he says.

Coen had smoked for 30 years and had tried to kick the habit five times. The new study, he says, has motivated him to quit once and for all.

"I know that having even maybe one, two, up to five cigarettes a day is just as harmful as relatively smoking a whole pack or a pack and a half," he says.

That's the message scientists are hoping to convey. Perhaps convincing other heavy smokers to seek the most aggressive treatment to quit.

Tobacco study: Quitting really does lower lung cancer risk

By Michele Dula Baum
CNN.com Health Writer

ATLANTA, Georgia (CNN) -- Every year, more Californians are learning that it's a bad idea to smoke. And a new study from the Centers for Disease Control and Prevention suggests that it's paying off in lower rates of lung cancer.

"This is very exciting," said Dr. David Fleming, deputy director for science and public health at the CDC. "It shows that when the public pays attention and chooses to invest resources in smoking prevention, those efforts pay off -- not only in decreased use of tobacco, but in decreased disease."

Studying data from 1988 through 1997, CDC investigators found that the rate of lung and bronchial cancers fell faster in California than elsewhere in the country. Compared to an overall drop of 2 percent in five other states and three metropolitan areas, research showed a 14 percent decrease in lung cancers among Californians.

"That drop in lung cancer is linked to the fact that cigarette consumption in California has dropped 50 percent," Fleming said. "What we're seeing is the first disease reduction resulting from California's comprehensive tobacco prevention efforts."

In the past 10 years, California has spent some $634 million -- in part funded by a 25-cent increase in cigarette taxes instituted in 1989 -- on tobacco use-reduction efforts. These efforts include an aggressive campaign of public education, clean-indoor laws and community-based support for smoking cessation programs.

In 1999, cigarette consumption in California was measured at about 61 packs per capita. Nationwide, consumption is at nearly 107 packs a person. More recent statistics from the California Department of Health Services show the decline in lung cancers continued beyond the CDC's study period.

From 1997 to 1998, the rate of lung cancer decreased from 60.1 cases to 57.6 cases per 100,000 residents.

"There is no mystery as to why California has witnessed a significant decline in the incidence of lung and bronchus cancers while other regions nationwide have seen little or no change," department director Diana M. Bonta said in a statement. "We must continue these programs in full force to effectively counter the tobacco industry's aggressive marketing of tobacco in California, and help those who use tobacco products to break the chains of their addiction."

About 90 percent of lung cancers are caused by tobacco use, said Fleming.

Another interesting CDC finding is that while lung cancer rates are declining in the nation as a whole, they are increasing among women.

"Lung cancer in women in this country is really epidemic because women started using tobacco later in the 20th century than men did. We're still seeing the results," Fleming said. "In California, rates among women dropped almost 5 percent. But in the rest of the country, they went up 13 percent."

In addition to California, other data studied came from Connecticut, Hawaii, Iowa, New Mexico and Utah, and the cities of Atlanta, Georgia; Detroit, Michigan; and the Seattle-Puget Sound area of Washington.

"California has been a leader in this area," said Fleming. "It shows what can happen when you choose to invest resources in tobacco reduction."

The study "may help other states that have been ambivalent" about anti-smoking education, he said.

Other studies are ongoing concerning the ways tobacco-reduction efforts may have impacted other smoking-related illnesses such as heart disease, Fleming added.

Quit Smoking With More Kick Per Puff?

Researchers have found a new strategy to wean smokers from tobacco: extend the nicotine kick that people get from each cigarette in hopes they'll smoke less.

In a preliminary study, Canadian researchers focused on an enzyme that metabolizes nicotine. By slowing the enzyme action, more nicotine remains in the bloodstream and the pleasure that a smoker gets from a cigarette lasts longer. The result could be that smokers light up less often. Another benefit, according to scientists at the University of Toronto, is that blocking the enzyme also reduces activation of carcinogenic substances in tobacco smoke.

"Smoking is a regulated behavior," says Dr. Edward M. Sellers, lead investigator of a study presented this week at the annual meeting of the American Society for Clinical Pharmacology and Therapeutics. "People will not let their nicotine levels go beyond a certain amount. If they go up momentarily, smokers will take fewer or smaller puffs. That can be the first step to quitting." Now, most smoking cessation methods are aimed at reducing withdrawal symptoms.

Sellers used the psoriasis drug methoxsalen as the enzyme inhibitor in a study with 11 smokers. The drug increased the blood levels of nicotine while reducing how much carbon monoxide was exhaled. Little of the drug entered the bloodstream. However, Sellers warns that methoxsalen has not been approved for use as a smoking cessation aid.

Massage may help smokers resist cravings!

NEW YORK, April 28, 2001 (Reuters Health) -- Individuals who are trying to give up smoking may find relief in massage, which has been shown to improve mood and reduce levels of anxiety and stress hormones.

According to a study in the journal Preventive Medicine, about 25% of American adults smoke cigarettes. Smoking has been linked to increased risks of heart disease, stroke, elevated cholesterol levels, and cancer. While Gallup polls have found that about 75% of smokers would like to quit, smoking cessation programs and medical interventions have had little effect. One reason, say researchers, is the symptoms that accompany withdrawal from nicotine, including anxiety. 'Research suggests that massage therapy reduces anxiety,' explain Dr. Maria Hernandez-Reif and colleagues with the Touch Research Institute at Nova Southeastern University in Ft. Lauderdale, Florida.

Their study included 20 adult smokers between 21 and 45 years old. The ten male and ten female subjects reported smoking an average of 14.5 cigarettes a day, 85% had been smoking for at least five years, and 70% had attempted to quit smoking at least once.

Researchers randomly assigned participants to a self-massage treatment group or a control group. The treatment group were taught to perform a five-minute hand or ear self-massage three times a day during 'cravings' for a month.

Results, based on self-reports, showed that the massage group was less anxious, had fewer withdrawal symptoms and smoked fewer cigarettes than the control group.

'The present findings suggest that self-massage may be an effective adjunct treatment for adults attempting smoking cessation to alleviate smoking-related anxiety, reduce cravings and withdrawal symptoms, improve mood, and reduce the number of cigarettes smoked,' the authors conclude.

The mechanism by which massage works remains unclear, however. Researchers suggest that self-massage may give smokers something to do with their hands and may 'thereby assist in achieving smoking reduction and potentially smoking cessation.'

The authors add that other alternative therapies, including acupuncture and hypnosis, may help to curb cigarette cravings.

SOURCE: Preventive Medicine 1999;28;28-32.

U.S. Smoking Rate Remains Unchanged

November 5, 1999

ATLANTA (AP) — Despite years of anti-smoking campaigns, lawsuits and bans, the smoking rate among American adults has hardly budged during the 1990s — mostly because more and more 18-to-24-year-olds are lighting up.

The Centers for Disease Control and Prevention said Thursday that 24.7 percent of adults smoked in 1997. As a result, the CDC expects to fall far short of its goal of reducing smoking to 15 percent of the adult population by 2000.

"During the 1990s we've made virtually no progress whatsoever," said Michael Eriksen, director of the CDC Office of Smoking and Health. "The fact that we can't get rates below 25 percent really speaks to the addictive power of nicotine."

About 48 million adults smoked cigarettes in 1997, according to a CDC survey that year of more than 35,000 people nationwide. The rate was the same — 24.7 percent — in 1995. It was 25.5 percent in 1990.

Among most adult age groups, smoking rates actually declined from 1990 to 1997, but the percentage of smokers ages 18 to 24 increased during that period, from 24.5 percent to 28.7 percent.

U.S. smoking rates have dropped drastically since 1965, when 44 percent of adults were lighting up. Over the following quarter-century, more health warnings came out, tobacco ads were banned from the airwaves and no-smoking signs appeared in restaurants, offices and airplanes.

However, smoking rates leveled off during the 1990s rather than continuing to drop.

At the same time, public awareness campaigns continued to warn of the dangers of smoking. The patch and nicotine gum went on the market. And states sued tobacco companies to recoup the cost of treating sick smokers.

"The bottom line on this is it just speaks to how tough it is to quit and how addictive tobacco is," Eriksen said.

Philip Morris, the nation's largest tobacco company, had no comment on the CDC report.

Health officials anticipate a drop in smoking rates in 1999 because cigarette makers raised their prices after their $206 billion legal settlement with 46 states.

And there is another sign that the numbers could begin falling — according to the U.S. Department of Agriculture, per capita cigarette consumption declined 15 percent between 1990 and 1997.

Shane Toepher, a 23-year-old student at Georgia State University in Atlanta, said the cost of cigarettes is a major reason he is trying to quit.

"It costs too much money," he said. "Smokers are aware of what's out there — that it's not good for you and it'll kill you. They just don't care."

Anti-smoking advocates said the popularity of cigarettes among young adults is troubling, but it is also the group where further reductions are most likely to occur.

"We're all pretty much agreed that the efforts to prevent youth from smoking, or getting those who have just begun to experiment to put it away, is where we're going to get success," said Joann Schellenbach, spokeswoman for the American Cancer Society.

Vitamin C for Smokers - A Long Shot

HealthNews
From the Publishers of the New England Journal of Medicine

A study showing that injecting chronic smokers with vitamin C helped their arteries widen made headlines when it was published in the July 1 Circulation. But smokers shouldn't think they can pop pills to avoid heart disease.

Cigarette smoke contains chemicals called free radicals, which initiate a chain of artery- damaging events. They make LDL ("bad" cholesterol) stickier and more likely to cause atherosclerosis (clogged arteries). Vitamin C is an antioxidant—a substance that mops up free radicals before they wreak havoc.

In this small all-male study, 10 nonsmokers and 10 long-time smokers (a pack a day for more than 20 years) were first given shots of a chemical that relaxes the lining of the arteries. The result in nonsmokers was wider arteries, but as expected, the smokers' arteries didn't respond well. Then all the men were injected with vitamin C. When researchers tried the chemical again, the smokers' arteries widened much more. But is this a "cure" for smoking-induced atherosclerosis?

"Not by a long shot," says HealthNews associate editor Harry Greene, MD. About one gram of vitamin C was injected directly into the men's arteries; you'd have to swallow a lot of pills to get this amount into your bloodstream, and daily injections aren't very appealing. Also, the widening effect was probably temporary, according to the researchers. And the study only looked at the arm arteries; coronary arteries might react differently.

Increasing your vitamin C intake probably won't help. A large study published in 1993 by Eric Rimm, an assistant professor of epidemiology at the Harvard School of Public Health, found no evidence that high intakes of vitamin C, from pills or food, could reduce smokers' risk of heart disease. His advice: "The best thing for smokers to do is quit."

Benefits Of Quitting Smoking Apparent Years Later

September 1, 1999

NEW YORK (Reuters Health) - While quitting smoking remains the number one means of reducing a smoker's risk for fatal lung cancer, real declines in death risk only appear between 15-20 years after individuals kick the habit, according to new study findings.

"The excess mortality risk associated with smoking can be avoided by never smoking and can be reduced among smokers only by becoming a long-term former smoker," write Dr. James Enstrom and Dr. Clark Heath, Jr. of the University of California, Los Angeles. Their report is published in the September issue of the journal Epidemiology.

The study authors studied the impact of quitting smoking on death rates over the past 40 years in a group of over 118,000 men and women enrolled in the American Cancer Society's Cancer Prevention Study.

The authors hypothesized that the smoking-related death rates of former smokers and never smokers would converge -- that is, become the same -- as a consequence of smoking cessation.

Cigarette smoking rates declined substantially between 1959 and 1994/1999 in the study participants, the report indicates -- from 46% to just 3% for men and from 32% to 2% for women. Even among men and women who smoked at the beginning of the study, there has been "almost total cessation," according to the authors. Only 7% of men and 7% of women who smoked in 1959 still smoked by 1994/1999.

However, quitting did not translate quickly or directly into reduced death rates, the authors report. Even among former smokers, "the death rates for those who had quit for less than 1 and (between) 1-4 years were close to the death rates for current smokers."

In fact, death rates of former smokers only began to match those of never-smokers "after 15-20 years of (smoking) cessation," according to the researchers.

Overall, smoking cessation had little real impact on long-term death rates in the group as a whole. But the researchers point out that most of the ex-smokers in the study group "were long-term smokers who quit after the age of 55 years." These heavy, long-term smokers tended to have much higher death rates compared with the smaller number of smokers who quit earlier in life.

"These results explain why there has not yet been a substantial decline in the lung cancer death rate among older US males as a whole," the researchers say, "and why the lung cancer death rate among US females has risen so much despite a considerable amount of smoking cessation during the past 35 years."

SOURCE: Epidemiology 1999;10:500-512.

Non-smoking group's butt-out campaign on cigarette packs becomes positive

By Smita Deans
Toronto Star Staff Reporter

An anti-smoking campaign that includes encouraging messages on cigarette packs was announced yesterday.

The Canadian Council for Non-Smoking said at a news conference in Toronto the idea behind putting messages on cigarette packs is that behavioural change is most likely and longer-lasting when based on positive rather than negative incentives.

``According to a survey we conducted among smokers, 70 per cent said that they found positive cigarette notices more encouraging to make them stop,'' said Frank Dwyer, president and chief executive officer of the council.

``We feel that the current notices are not sufficient.

``The proposed labels include a toll-free number you can call for help, as 82 per cent of the people we surveyed said that they would call a toll-free number to get help quitting.''

The proposal for new labels on cigarette packages has been sent to the federal health department. Dwyer said he is confident that the change will be accepted and put into force by the end of this year.

More than 40,000 Canadians die every year from smoking-related diseases, a figure that has not changed despite laws passed to reduce smoking.

``I believe that laws do not consider the effect on the smoker,'' Dwyer said. ``They only serve to alienate a majority of smokers who wish to change and need help. We are concerned with the part about helping them.''

Also included in the six-point plan are measures to curb smoking among youth, including an awareness campaign for children aged 8 to 10 that will deal with the benefits of non-smoking.

The council is hoping to work with school boards and parents to implement this program. It is scheduled for fall 2000.

``Every day, 637 young people start smoking. Isn't that a shocking statistic?'' said Maureen Kennedy Baker, the council's executive vice-president.

``That's why we have to take extra measures to ensure that young people are educated about the dangers of smoking.''

The council also plans to reach out to teens from 13 to 16 through television and radio campaigns.

The council expects the campaign will cost a total of $4 million in its first year and $4 million more in subsequent years. It has approached various levels of government to fund these programs.

``As there are about 8.5 million smokers in Canada, it represents about a dollar per smoker,'' Dwyer said.

Other aspects of the plan include day-long seminars for those who want to stop smoking. As well, passengers on airline flights lasting more than two hours will be advised to use a nicotine replacement because of a co-relation the council sees between nicotine withdrawal and air rage.

Smoker's Face -- An Evident Reason To Quit

by Jane E. Brody Women's Health Digest Vol 2, Number 3 (year?)

The doctor could tell the patient had once been an attractive woman. But now, though only in her 50s, her face was etched with wrinkles, her features gaunt-looking with prominent underlying bones and her skin shriveled and gray with purplish blotches. Diagnosis: smoker's face.

Doctor Douglas Model of Eastbourne, England, added this condition to the medical lexicon in 1985 after surveying 116 patients and correctly identifying roughly half of current smokers by their facial features alone.

The distinctive characteristics of smoker's face, which makes people look far older than their years, were present in 46% of the current smokers, 8% of the former smokers, and none of the nonsmokers, irrespective of their age, social class, recent weight fluctuations, and exposure to sunlight.

Dr. Jeffrey B. Smith, a senior resident in dermatology at the University of South Florida in Tampa, recalled this poignant diagnosis in a review of the effects of smoking - related skin conditions: Smoking damages cells and tissues in so many ways that it can have myriad effects on the body.

Wrinkles: "For some patients the threat of wrinkles may be a more powerful motivator to help them stop smoking than the more deadly consequences of smoking," Smith wrote. He explained that, as with skin that is overexposed to sunlight, smoking causes thickening and fragmentation of elastin, the elastic fibers that are long and smooth in healthy skin.

Smoking also depletes the skin's oxygen supply by reducing circulation. It decreases the formation of collagen, the skin's main structural component, and may reduce the water content of the skin, all of which increase wrinkling.

Smoking also interferes with the skin's ability to protect itself against damage by free radicals, highly reactive substances that are omnipresent in tobacco smoke. In women, smoking diminishes the level of circulating estrogen, which in turn fosters dryness and disintegration of skin tissues.

Skin Cancers: Two kinds of skin cancers, the more curable squamous cell carcinomas and the often lethal melanomas, are influenced by smoking. Smith said that although smoking did not cause melanoma, smokers with melanoma were more likely to die of their disease. They are twice as likely to have advanced disease at the time of diagnosis and are more likely to have their cancers spread within two years of diagnosis, probably because smoking impairs the immune system.

As for squamous cell carcinoma, even when exposure to sunlight was taken into account, smokers were found to be at greater risk of developing this cancer. In a study of more than 107,000 nurses, for example, the risk of developing squamous cell carcinoma was 50 per cent greater in smokers than in those who had never smoked. Smokers also tend to get particularly "large, bad" skin cancers, Smith said.

Other Cancers: Cancers of the lip, mouth, penis, anus and vulva are also more common in smokers than nonsmokers. For example, in one study of 903 female cancer patients, 60 percent of those with vulvar and anal cancers and 42 percent of those with cervical and vaginal cancers were smokers as against only 27 percent of comparable women without cancer. Smoking more than 10 cigarettes a day more than doubles a man's risk of developing penile cancer.

Delayed Wound Healing: The problem of slow or incomplete healing of wounds associated with exposure to cigarette smoke was clearly demonstrated in laboratory animals in the 1970s. Then surgeons began reporting on similar problems in patients who smoked: larger scars in women undergoing exploratory abdominal surgery, more complications and skin sloughing after facelifts and a much higher failure rate of skin grafts, for example. The more and the longer patients had smoked, the greater the likelihood of impaired wound healing. Even resuming smoking during an uneventful recovery could lead to adverse effects. Smith linked the slow healing of wounds to known effects of cigarette smoking, which constricts surface blood vessels, reduces the oxygen level in the blood, thickens the blood and impedes the laying down of collagen needed for healing.

Psoriasis and related disease: Studies of both men and women with this unsightly and discomforting skin condition have shown that smokers are about two to three times as likely to develop it as nonsmokers. And the more cigarettes smoked, the greater the risk. Palmoplantar pustulosis, a difficult-to-treat skin condition that resembles psoriasis, occurs only on the palms of the hands and soles of the feet. The skin blisters, then forms a scaly rash. It occurs almost exclusively in smokers and it does not necessarily go away when the patient quits smoking.

Oral lesions: In addition to smoker's face, there is also smoker's palate and smoker's tongue. The tars and heat of tobacco smoke can cause tiny red pimples in the mouth that result from an inflammation of the openings of salivary glands. Smokers also often develop depressions on the surface of the tongue. Potentially more serious, however, are lesions called leucoplakia, which are about six times more common in smokers than in nonsmokers. Although benign, these white patches in the mouth can become cancerous.

Buerger's disease: This blood vessel disease results in poor circulation in the lower legs, causing skin problems like burning, tingling and ulcerations. "It usually occurs in young men who smoke, men in their 30s," Smith said. "But now that women are smoking a lot more, we're seeing it in women too."

Other Skin conditions: Many skin diseases are associated with diabetes, which impairs circulation to the outer reaches of the body. A study of more than 112,000 female nurses followed for 12 years showed that current smokers faced an increased risk of developing noninsulin-dependent diabetes, and that the risk rose with the number of cigarettes smoked each day. Another study of nearly 43,000 male health professionals showed that smoking 25 or more cigarettes a day doubled a man's risk of developing diabetes.

People who smoke are much more likely to develop the bowel disorder Crohn's disease, which can cause "big, ugly-looking ulcerations, most often on the legs, and painful red nodules, usually on the lower legs," Smith said. Another condition more common in smokers is systemic lupus erythematosus, an autoimmune disease that can cause rashes on the face, scalp, hands and elsewhere, ulcerations in the mouth and hair loss."

Quit Smoking For Better Lungs and Longer Life

Reuters Health

NEW YORK -- Scientists in Finland have conducted a study offering more proof that quitting smoking is not only good for your lungs but can lead to a longer life.

"In this study, never smokers, past smokers, those who quit smoking permanently or intermittently lost less of their (lung) function in later adult life than continuous smokers," lead author Dr. Margit Pelkonen of the University of Kuopio in Finland and colleagues report in the September issue of the journal Thorax.

And those with the greatest decline in lung function were most likely to die of any cause, the team found. "Too much emphasis cannot be given to the importance of smoking cessation," the researchers write.

The investigators followed 1,007 Finnish men for 30 years, beginning in 1959. All underwent medical examinations six times during the study period. Exams included a test called forced expiratory volume 0.75 (FEV 0.75), which measures the amount of air a person can expel from their lungs in 0.75 seconds. The men were also surveyed about their smoking habits. The researchers evaluated the death certificates of the men who died during the study.

Men who had never smoked had the smallest decline in lung function, with a FEV 0.75 that declined 46.4 milliliters per year. The men who smoked continuously throughout the study had the largest decline, with a drop of 66.0 milliliters each year. Past quitters, permanent quitters, and intermittent quitters had declines in lung function that fell between the two extremes.

Men who experienced the fastest decline in lung function were the most likely to die during the study.

"An increased decline in pulmonary (lung) function can lead to the development of chronic obstructive pulmonary disease (COPD) and it also seems to be a risk factor for mortality," Pelkonen and colleagues write.

COPD--a lung condition marked by progressive breathing difficulties--affects at least 16 million people and is the fourth leading cause of death in the United States. The risk of COPD and the odds of having an abnormal lung test are much higher in people who smoke cigarettes compared

with people who have never smoked.

SOURCE: Thorax 2001;56:703-707.

Giving Smokers the Time to Quit

HealthNews from the publishers of the *New England Journal of Medicine*

Even for smokers who want to stop, quitting cold turkey is a daunting task that's usually unsuccessful—only about 4 in 100 people who try this method still aren't smoking a year later. To improve your chances of remaining smoke-free, try establishing a strict smoking schedule in the weeks before quitting.

A method called scheduled reduction, described in the June *Journal of Consulting and Clinical Psychology,* works like this: Divide the minutes you are awake each day by the number of cigarettes you ordinarily smoke. The result is the time you wait between cigarettes. The trick is allowing yourself to smoke only on schedule—if you miss your appointed time by more than five minutes, you wait until your next one. The following week, make a new schedule using one third fewer cigarettes, which stretches the time between smokes. Make another one-third reduction during the third week, then quit completely on the fourth.

By following this method, twice as many volunteers were still not smoking a year later, compared to those who quit cold turkey. What's more, they reported far less tension, fatigue, and nicotine withdrawal.

By having a cigarette only at predetermined times, smokers learn to break their associations between cigarettes and mood, stress, or habits like having a cup of coffee, says author Dr. Paul Cinciripini, director of smoking cessation programs at the University of Texas M.D. Anderson Cancer Center. He believes that gradually increasing the interval between cigarettes gives smokers time to try out different strategies that help them learn to cope with their urge to smoke so they aren't overwhelmed when they stop completely.

Since the paper was just published, smokers who want to quit won't be able to find formal programs that incorporate this method for awhile. "Probably not until I write my book. If I ever get the time," Cinciripini added.

Top Researchers Find Genetic Connection To Cigarette Smoking

Certain Gene Found to Influence Why People Start Smoking and Why Some Get Addicted and Others Don't

WASHINGTON - Quitting smoking can be difficult for some and almost impossible for others. The reason -- your genes -- New research has found that a certain gene can make the difference as to whether or not someone will start smoking and then become addicted to the nicotine. In two studies featured in this month's American Psychological Association's journal of Health Psychology, researchers discovered that people carrying a particular version of the dopamine transporter gene (SLC6A3-9) are less likely to start smoking before the age of 16 and are more likely to be able to quit smoking if they start.

In their article, "Evidence Suggesting the Role of Specific Genetic Factors in Cigarette Smoking," psychologist Caryn Lerman, Ph.D., of the Georgetown University Medical Center and her co-authors demonstrated for the first time that a link exists between smoking behavior and the dopamine transporter gene (SLC6A3-9). In their study of 289 smokers and

233 nonsmokers, they found that individuals with an SLC6A3-9 genotype were less likely to be smokers than individuals without that gene. Furthermore, those with that gene started smoking later and were able to quit for longer periods of time than other smokers.

Although many smokers attempt to quit at some point in their lives, only 20 percent actually succeed in quitting, say researchers. In their article, "A Genetic Association for Cigarette Smoking Behavior," Dean H. Hamer, Ph.D., of the National Cancer Institute and colleagues found from examining 1,107 nonsmokers, current smokers and former smokers that the SLC6A3-9 gene was associated with certain personality characteristics that influenced a person's susceptibility of being able to start and stop smoking.

A person with the SLC6A3-9 genotype was found to have lower novelty seeking traits than a person without this genotype, according to the study. And because novelty seeking has been associated with a desire to smoke, said Dr. Hamer, "a low level of novelty seeking could be a predictor of smoking cessation. Indeed, average novelty seeking scores were found to be significantly lower in former smokers than in current smokers. Those with low levels of novelty seeking have an easier time giving up cigarettes than those with high levels of novelty seeking."

"We found that individuals who have the SLC6A3-9 gene were one and a half times more likely to have quit smoking than individuals lacking this gene," said Dr. Hamer. "However," he cautioned that, "the SLC6A3-9 gene is not a strict determinant of the ability to quit smoking, but rather an influence on an individual's general need and responsiveness to external stimuli, of which cigarette smoking is but one example. Hopefully, with more of an understanding of the genetics of cigarette smoking behavior, we can develop more effective, targeted pharmacological and psychoeducational cessation strategies that will take these individual differences into account."

Articles: "Evidence Suggesting the Role of Specific Genetic Factors in Cigarette Smoking," Caryn Lerman, Ph.D., Janet Audrain, Ph.D., and David Main, M.S., Georgetown University Medical Center, Neal R. Boyd, Ph.D., Fox Chase Cancer, Neil E. Caporaso, M.D., Elise D. Bowman, M.S., Benjamin Lockshin, M.D., Peter G. Shields, M.D., National Cancer Institute, Health Psychology, Vol 18, No. 1. "A Genetic Association for Cigarette Smoking Behavior," Dean H. Hamer, Ph.D., Sue Z. Sabol, Ph.D., Mark L. Nelson, Ph.D., Craig Fisher, Ph.D., Lorraine Gunzerath, Ph.D., Cindy L. Brody, M.S., Stella Hu, M.S., and Leo A. Sirota, Ph.D., National Cancer Institute, Benjamin D. Greenberg, M.D., Frank R. Lucas IV, B.S., Jonathan Benjamin, M.D., Dennis L. Murphy, M.D., National Institute of Mental Health, Stephen E. Marcus, Ph.D., National Institute of Dental Research, Health Psychology, Vol 18, No.1.

(Full Text available from the APA Public Affairs Office or at http://www.apa.org/journals/hea.html)

The American Psychological Association (APA), in Washington, DC, is the largest scientific and professional organization representing psychology in the United States and is the world's largest association of psychologists. APA's membership includes more than 155,000 researchers, educators, clinicians, consultants and students. Through its divisions in 50 subfields of psychology and affiliations with 58 state, territorial and Canadian provincial associations, APA works to advance psychology as a science, as a profession and as a means of promoting human welfare.

New Link Between Smoking, Cancer Found

By Richard Woodman

04/09/2002 — LONDON (Reuters) - British researchers said on Tuesday they had identified a possible new mechanism that might explain how smoking can cause breast and bowel cancer as well as lung cancer.

The team, at the Christie Hospital, Manchester, UK, said they had found that smokers have significantly higher levels of insulin-like growth factor (IGF) in their blood than non-smokers.

"We are excited about the findings of this research as they indicate a possible new mechanism to explain the development of some cancers," said research leader Dr. Andrew Renehan.

"This has potential implications for cancer risk assessment and cancer prevention strategies in the future," he added in a statement.

The findings were presented at the British Endocrine Societies' meeting in Harrogate, Yorkshire—Europe's largest annual meeting of hormone specialists.

Renehan said that other research had recently established that IGF is linked to breast and colorectal cancer. This had prompted his team to examine associations between smoking and IGF.

The team looked at cigarette smoking histories in over 400 individuals, aged 55 to 65, attending a bowel cancer screening trial in Manchester. The investigators found that long-term smoking significantly affected levels of IGF and that this was related to length of use and number of cigarettes smoked.

"The findings were dose-related and were statistically significant," he added in a telephone interview. "There was a 20% to 25% difference in IGF levels between the heaviest smokers and the non-smokers."

Asked about the likely biological mechanism, he said it was known that growth factors could encourage cancer cell growth and protect abnormal cells against natural death caused by apoptosis, the "cell suicide" mechanism.

However, he said that a much larger study would be needed to prove that smoking, IGF levels and cancer risk are all linked.

Three studies released last year by British and American researchers suggest that common processes involving insulin signaling control the ageing process in organisms ranging from yeast to quite possibly humans.