Facts to Physicians from The Alton Ochsner Center for the Elimination of Smoking

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The Ochsner Legacy

Working with patients in one-on-one smoking cessation as far back as 1938, Dr. Alton Ochsner was undoubtedly one of, if not the first pioneer in the army of smoking cessation specialists that we see today. Dr. Ochsner's dedication to the cause is apparent in the titles of the three books he wrote in 1954: *Smoking and Cancer, A Doctor's Report* (1); *Smoking and Health* (2); and *Smoking and Your Life* (3). Much earlier in his career, he and his student, the now renowned Dr. Michael DeBakey, wrote the historic "Primary Pulmonary Malignancy: Treatment by Total Pneumonectomy; Analysis of 79 Collected Cases and Presentation of 7 Personal Cases," which first linked smoking to lung cancer (4).

The Ochsner Center for the Elimination of Smoking, part of Ochsner Medical Institutions founded by Dr. Alton Ochsner, was one of the first smoking cessation programs in the country. Over the years we have treated tens of thousands of patients who were interested in stopping their addiction to tobacco (5), a tenacious substance abuse disorder that many patients and their treating physicians find difficult to conquer. We believe our Ochsner program has seen it all, and can offer some important information to the practicing physician while providing information about the ingredients of an effective, comprehensive smoking cessation treatment program.

Methods of Smoking Cessation

From the 1950s through the early 1980s, treatments to stop smoking involved individual counseling, group therapy support, and cognitive-behavioral techniques to achieve cessation. In the 1950s Dr. Alton Ochsner fathered smoking aversion techniques, in which the patient would "over smoke" preceding a quit date, which resulted in one of the strongest behavioral techniques available for achieving abstinence. Millions of smokers stopped using tobacco during this 30-year time frame without the use of nicotine replacement therapies available today, namely, nicotine gum, the nicotine patch, nasal inhalers, nasal sprays, and/or the use of Zyban. Stopping "cold turkey," with or without counseling, worked then and works today. The patient needs to be motivated to stop and committed to the goal of cessation.

Nicotine substitution therapy, in the way of nicotine gum, became available around 1980 and offered a quantum leap in therapy helping smokers abstain from tobacco. The gum allows nicotine to enter the blood stream by way of buccal absorption, and within 30 minutes a peak nicotine plasma concentration is reached. The gum's mode of action leads to an increase in blood nicotine concentration with each piece. The efficacy of nicotine gum has been convincingly shown in many studies (6,7). The major problem experienced with the gum is that the patient experiences peaks and valleys of coverage, which leads to the return of difficult withdrawal symptoms: craving for nicotine, irritability, anger, frustration, anxiety, depression, impaired concentration, restlessness, decreased heart rate, and increased appetite/weight gain (Figure 1).

The nicotine patch became available in 1992, and addressed the problem of nicotine gum's inconsistent dosage. The patch provided a relatively stable delivery and concentration of nicotine to the blood; a major move in progress toward addressing tobacco addiction for many patients.

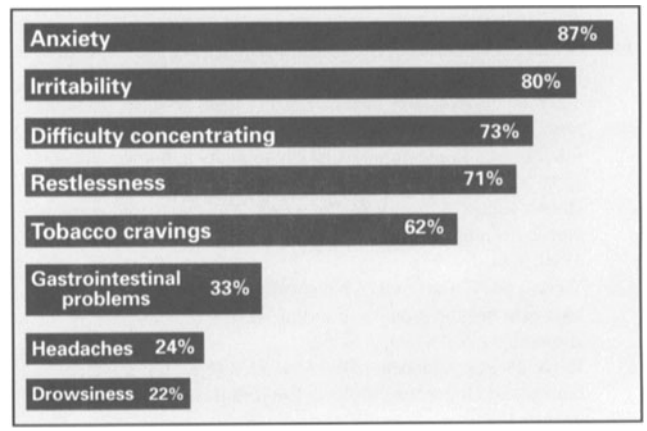

Figure 1. Withdrawal Symptoms.
U.S. Department of Health and Human Services. The Health Consequences of Smoking. Nicotine addiction, a report of the Surgeon General. OHHS Publication no. (CDC) 58-8406, 1988.

Many smokers say that the nicotine withdrawal symptoms "do them in" when they try to stop smoking. The medical professional must acknowledge that withdrawal symptoms are real, can be severe, and can be difficult to cope with. Likewise, the patient must be instructed that nicotine withdrawal symptoms are temporary, usually appearing within 24 hours of smoking cessation and abating within days or weeks.

Physicians and clinicians need to be aware of the advantages and disadvantages of these products over and above the use of cognitive behavioral approaches. The patch has the advantage of being easy to use, eliminates compliance problems, addresses withdrawal more efficiently, provides steady state delivery of nicotine in the blood, and is unobtrusive. The down side of the patch is minor skin irritation, and the fact that the patch reaches "relief blood level status" in hours after placement--in other words, it takes an hour or more before the patch can effectively do its work. If a smoker experiences an urge or craving on awaking in the morning, applying a nicotine patch cannot address his or her withdrawal symptoms, nor are the transdermal administration results significantly better than those found in nicotine gum studies (8).

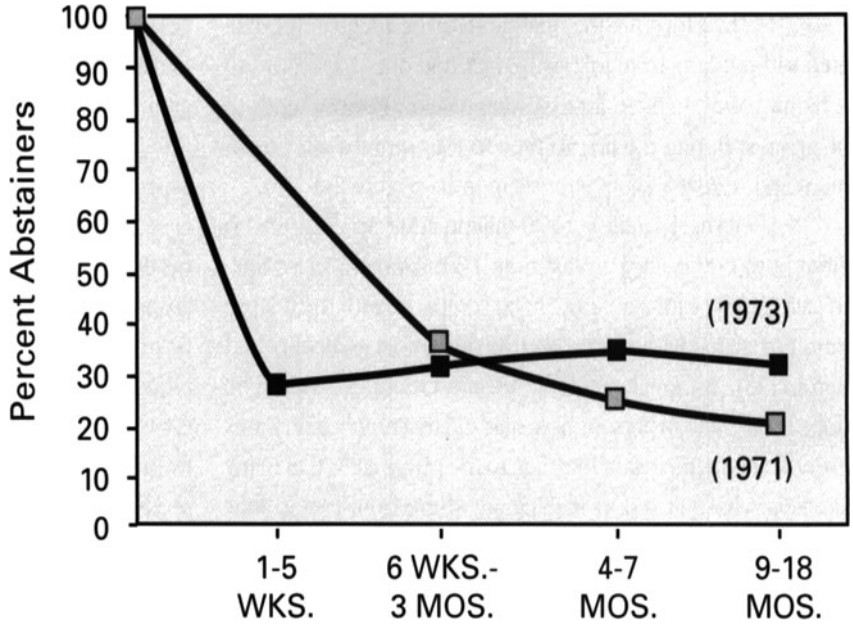

Figure 2. Relapse rates after treatment for smoking. Results of two mutually exclusive evaluations of methods of modifying smoking behavior. (Adapted with permission from: JOURNAL OF CLINICAL PSYCHOLOGY, 30:431, 1974 © John Wiley & Sons, Inc.).

The major advantage of the gum is a smoker's ability to use it and respond to an urge to smoke by temporarily using the gum. The gum begins to work in 10 minutes and has its plateau effect in 20 to 40 minutes. Disadvantages of the gum include occasional oral problems and visibility of use. The success rates of nicotine gum usage range from 15-30% in smoking cessation clinics, doubling the rates of "cold turkey" smoking cessation. Success rates are lower in the typical physician practice compared with those in smoking cessation clinics; however, they are significantly above stop rates for patients who attempt to quit on their own without intervention (9).

The Priority of Fighting Tobacco Addiction

The routine treatment of smokers by physicians has been set as a national health objective for the year 2000. Increasingly, the inquiry into a patient's smoking status is becoming a quality measure for health care plans and the subject of evidence-based clinical guidelines. Importantly, 70% of smokers report that they want to stop smoking and have made at least one self-described serious attempt to quit (10).

As importantly, smokers cite that a physician's advice to quit is an important motivator for their attempting to stop smoking (11). It has become ever more troubling that national surveys show only half of smokers report having ever been advised by their physicians to quit smoking (12). Currently physician practices fall far short of national health objectives in practice guidelines. In particular, patient visits for diagnoses not related to smoking represent important missed opportunities for this intervention. Russell et al have shown that a few minutes of intervention by a medical professional resulted in a 5% smoking cessation success rate at one year, compared with 1% of smokers who quit with no intervention (13). Since one third of smokers die of disease caused by smoking, and based on the assumption that five minutes of a family practitioner's time costs about $10.00 [($10.00 + 2%) x 3], the financial cost of saving a life following five minutes of advice is calculated to be around $1,500 (14).

As public awareness of the dangers of smoking has steadily increased, the percentage of adults who smoke tobacco regularly has declined from the estimated 41.7% of 1965. Currently about one third of our adult population are cigarette smokers and, although methods for attempting to stop smoking have proliferated since the health consequences of smoking became more evident, the long-term maintenance of cessation has remained difficult to achieve. Almost all treatments produce dramatic and immediate post-treatment effects, but relapse in most participants has been the norm.

Therefore, no one treatment can be adequately evaluated without long-term follow-up data, and one-year follow-up is highly recommended for assessing results. Relapse tends to be greatest during the first to thee to four months after treatment and relatively slight after six months (Figure 2).

Of the 17 million to 20 million adult Americans who attempt to quit each year, less than 1.3 million are successful. In fact, relapse with smoking can be compared with the relapse rates associated with such addictive substances as alcohol and heroin (15). Although smoking cessation is not easy, it can be done. Forty million persons have quit and that number increases every year. An important message to the physician is that many smokers who quit report making anywhere from two to four unsuccessful attempts before they succeed, and any quit attempt should be looked at as a learning experience rather than as a failure. The physician and patient both must guard against becoming frustrated, feeling helpless, and giving up. Helping patients quit smoking should be approached in a step-wise fashion, over several years if necessary.

How to Help

How is it possible for the physician to help his or her patients to reach smoking cessation status? Is the use of nicotine replacement therapy, and minimal counseling and education from the physician adequate to result in the tobacco user's stopping smoking? A word to the wise, in this case, may be insufficient. Smoking is a complex, addictive behavior influenced by powerful physical, emotional, and social factors. We do know that smoking cessation involves an active process of learning about the physiologic and psychologic aspects of addiction to nicotine and tobacco products. It is also clear that in most medical practices time is a commodity which needs to be limited and managed for each patient.

Many smoking patients need more input and assistance towards cessation than the physician is able to provide. The greater the smoker's awareness, the more armed he or she is to conquer a habit that is notoriously tough to overcome. Patients referred to comprehensive smoking cessation programs, such as the Ochsner Center for Elimination of Smoking, increase their probability of quitting and remaining off tobacco. The success rate for patients using nicotine replacement therapy who are also receiving ancillary support is often double that for patients using nicotine replacement therapy alone (16,17). Indeed, women, middle-aged persons, more educated persons, persons who have made more quit-smoking attempts, and particularly heavier smokers are more likely to use a cessation program and more likely to successfully quit tobacco.

Multicomponent programs that address the behavioral aspects of smoking have met with relatively high levels of success. The most effective of these multicomponent programs produce nearly universal short-term abstinence with long-term abstinence rates of about 50%. These programs, such as our own at Ochsner, include combinations of various aversion techniques, self-management skills, behavioral counseling, stimulus control, group support, and educational materials (18). The family practice physician, or general practitioner, plants important seeds by encouraging the patient to consider changing their smoking behavior. Unfortunately, this is limited by the amount of time they can spend with the patient. In the smoking cessation program, a comprehensive set of initial, intermediate, and long-term, long-range goals are established which focus exclusively on becoming and staying abstinent.

The Ochsner Method

The Ochsner Center for the Elimination of Smoking works with each patient to understand the reasons the patient is smoking. We assess, with the patient, their commitment and readiness to stop smoking. We consider the patient's prior attempts to quit tobacco and their awareness of the risks of smoking.

Empirical data suggest that the stronger the tobacco used by the patient and the longer that person has smoked that particular brand, the more difficulty the subject will have quitting. Equally important, the more frequently the patient has attempted to quit the use of tobacco in the past, the greater the likelihood that that patient will eventually abstain from tobacco use.

Patients smoke for different reasons and the Horn's test (19) helps us identify target behaviors for individual treatment. National trends suggest that the following percentages constitute the prime motives for smoking:

STIMULATION—10 %.

This type of smoker is stimulated by cigarettes. They help him to wake up in the morning, to organize his energies, and to keep him going. Many smokers report that while smoking they experience a sharpening of intellectual capacity and increased impulse control.

HANDLING (SENSORY MOTOR MANIPULATION)—10 %.

This type of smoker enjoys manipulating a cigarette with his hands and watching the smoke while exhaling, and he or she generally makes a production of lighting the cigarette, holding it, and flicking its ashes.

PLEASURE RELAXATION—15 %.

This smoker gets real, honest pleasure from smoking, especially after dinner or a cocktail. He or she tends to smoke to accentuate or enhance pleasurable feelings accompanying a state of well-being.

CRUTCH (TENSION REDUCTION)—30 %.

This negative-affect type of smoker uses cigarettes for their sedative effect in moments of stress, tension, or discomfort. He uses cigarettes to help cope with problems. Substitutions generally do not help this type of smoker.

CRAVING (PSYCHOLOGIC ADDICTION)—25 %.

This type of smoker feels dependent on tobacco use and alternates between positive and negative feelings regarding smoking. The person is constantly aware when he or she is not smoking and begins craving the next cigarette when he or she puts out the present one.

HABIT—10 %.

The habitual smoker gets little satisfaction from the habit and performs it automatically. This type of smoker may not even be aware he or she has a lighted cigarette. When smoking, there is little awareness of the act of smoking. It is important for this type of person to develop awareness and to understand the pattern of his or her smoking (19).

After identifying the reason or reasons for smoking, a comprehensive program is begun in order to work with the patient on recognizing dangerous situations, events, internal states, or activities that are thought to increase the risk of smoking and relapse. For instance, stress, anxiety, anger, being around other smokers, and drinking alcohol are stimuli frequently associated with tobacco use. Usually over a period of five to six sessions, the Ochsner Center for the Elimination of Smoking works with patients individually or in groups of three to four persons on coping skills to anticipate and avoid situations that may result in relapse. We teach the patient cognitive strategies that will help reduce negative or angry moods, discuss and encourage implementation of life style changes that will reduce stress and improve overall health, and teach cognitive and behavioral techniques that will help distract attention from the smoking urge. In five to six meetings, we provide much basic information about smoking and successful quitting, and discuss the addictive nature of smoking, the time course of withdrawal, and the fact that even a single puff increases the likelihood of full relapse.

Multiple treatment sessions from comprehensive smoking cessation programs increase smoking cessation rates over those produced by one or fewer sessions, with evidence suggesting that four to seven sessions may be the most effective range. The comprehensive program, in addition to nicotine replacement therapy, provides a significantly improved probability that the smoker will achieve abstinence.

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