smoking habits of such sick people as typical of the general population?

While cancer research men have been among the severest critics of the cigarettes-cause-cancer studies, a similar controversy has raged among practicing surgeons and cancer specialists.

Some prominent physicians have accepted the new evidence as conclusive. Dr. Alton Ochsner, director of the famous Ochsner Clinic of New Orleans, for example, has categorically stated, "It appears without doubt that the inhalation of cigarette smoke exerts a cancinogenic effect upon lung tissue."

But others reject this view just as vigorously. Surgeon William F. Reinhoff, Jr., of Baltimore, declares, "I have reviewed more than 500 cases of lung cancer that were inoperable, and I have found no relation whatsoever to smoking."

The attacks upon smoking have, of course, not been restricted to the idea that it might cause cancer. Yet, as in the case of the cancer studies, almost all of the other attacks seem to create far more medical controversy than they clear up. Consider, for example, the theory that smoking injures the heart, and the related theory that it intensifies heart disease and accelerates its disastrous course.

As with the cancer theory, there are again grounds for a certain amount of argument.

Some years ago, Drs. Grace Roth, John Mc-Donald and Charles Sheard, of the Mayo Clinic in Rochester, Minnesota, published in the A.M.A. Journal a report on experiments they had conducted upon six normal human subjects. They were able to demonstrate that smoking temporarily speeded the pulse, temporarily raised the blood pressure and temporarily caused a drop in the temperature of the extremities. These facts have been largely confirmed by other researchers.

Antitobacco propagandists made much of this data. Yet precisely the same effects are brought about by a host of other agents and conditions.

A man's pulse rate goes up at the sight of a well-turned ankle. So, too, does blood pressure. If you run 100 yards, or if you get good and angry, your heart will increase its rate of pumping and your blood pressure will mount.

Whether this is good or bad depends, however, entirely upon circumstances. If it increases your breathing rate and helps you run faster, that may be excellent . . . especially if you are being chased by an angry dog. If it throws you into a frothing fit, that is, obviously, very bad.

But logically, it seems extreme to indict the cigarette as a cause of heart disease when its effects on the action of the heart and the blood are so strikingly similar to the effects of so many other of the ordinary conditions of daily life.

Another more recent study, once again published by the A.M.A. Journal, reported upon a far more extensive investigation by a group of doctors from Columbia University's College of Physicians and Surgeons and from New York's Presbyterian Hospital. Drs. Robert L. Levy, James A. L. Mathers, Alex A. Mueller and John L. Nicherson wanted to find out whether smoking was bad for people who already had heart disease.

They tested persons of different ages, some of whom suffered from various heart conditions and some of whom didn't. They tested young people and old. They used both ordinary cigarettes and the denicotinized types.

## FACTS THAT THE TESTS REVEALED

They found, first of all, that cigarettes had widely differing effects on different people—effects that varied without any discernible relation to whether or not the people had heart disease.

Except in a small minority of susceptible persons, they found that smoking cigarettes caused only slight changes in the circulation and did not significantly increase the work demanded of the heart.

Among none of their subjects, including even those with coronary heart disease, did they find that smoking caused any cardiac pain.

Their viewpoint? "Most patients with a cardiac disorder, including those with a disease of the coronary arteries, can smoke moderately without apparent harm. In fact, for many, smoking not only affords pleasure but aids in promoting emotional stability."

That, of course, does not mean that all heart patients should smoke. Dr. Levy and his group were careful to point out that smoking should be forbidden for certain types of heart disease—"congestive heart failure, the acute stages of cardiac infarction and active rheumatic heart disease."

The antismoking propagandists have another major line of attack. Smoking, they tell us, shortens the life-span. The cigarette, they assert, is in actuality what we used to call it jokingly, a "coffin nail." For scientific support they rely mainly upon a twelve-year-old survey by the late Dr. Raymond Pearl, of The Johns Hopkins University.

Dr. Pearl did indeed study a very large group of people—6,813. He reported that two thirds of all his nonsmokers survived past the sixty-year mark. Light smokers did almost as well. Sixtyone per cent survived past sixty. But among heavy smokers only 46 per cent reached sixty.

But many other statisticians find serious flaws in Dr. Pearl's reasoning. He had isolated a single factor from among many which undoubtedly contribute to the slightly earlier death of some smokers, and the slightly longer survival of some non-smokers. But others point out that people who work under high pressure and high tension often smoke heavily, to permit themselves to work