

Experts warn smokers on sugar hazard

THE GOVERNMENT plan to publish a league table of the tar and nicotine content of cigarettes is worrying cancer research experts because it may do other potential health hazard to the smoker—the sugar content of tobacco.

Leading researchers believe that cigarettes with a high sugar content may increase the risk of serious lung disease, even though their tar and nicotine levels are relatively low.

High-sugar cigarettes produce harsh acid smoke, and Dr M. L. Fenner of the Freedom Clinic Hospital in Plymouth, has found that the smoke contains more vapour of the chemical acetaldehyde, which could react with protective chemicals on the surface of the lungs and actually turn them into cancer-inducing elements.

Dr Fenner's experiments show that the speed of these chemical reactions increases with the speed at which the smoke is inhaled.

British cigarettes have the highest sugar content of any in the world. A 10 mg tar, 0.8 mg nicotine cigarette is regarded as a "light" cigarette, whereas most Continental tobacco companies produce cigarettes with a nicotine content of 1.0 mg and a tar content of 17 mg per cigarette compared with 1.0 mg per cent for air-cured varieties.

The theory that high-sugar cigarettes are more harmful seems to be supported by the fact that Britain has the highest lung-cancer death rate in the world. In France, with air-cured tobacco, the death rate is relatively low, with cigarette consumption a third lower than in Britain.

In the United States, where more cigarettes are smoked per head than in Britain, the number of male deaths from lung cancer is only a third more than half those in the country. The mean tobacco consumption is 1.0 mg per cent sugar.

Experts believe that the combination of a high tar and nicotine with a high sugar content is a particularly dangerous combination. But in the United States,

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mainly the same, low-tar cigarettes will simply induce people to smoke more, according to Professor L. A. Ebbott, of the Institute of Cancer Research.

Professor Ebbott's theory is that the cool smoke of high-sugar cigarettes makes them less satisfying to the smoker, since nicotine is more easily absorbed through the mouth and lungs in a gentle alkaline solution, such as that produced by the smoke of low-sugar tobacco.

He also suggests that smokers of air-cured tobacco need to inhale more. In air-cured varieties the nicotine can be absorbed through the membranes in the mouth, without ever reaching the lungs.

If his theory is correct, low-tar cigarettes with the same sugar content as at present, will have increased consumption as smokers try to maintain their present level of nicotine satisfaction.

This, of course, is a leap in cigarette sales. The tobacco manufacturers should be encouraged to manufacture cigarettes of the continental type, which is popular with the tobacco companies, since consumption might fall to the European level.

It would be possible to produce a "healthier" low-tar cigarette

by introducing some alkaline substance into the tobacco, since nicotine is more readily absorbed by the membranes in the mouth and lungs when it is in an alkaline solution. But expensive tests would be required to ensure that no new danger was being introduced at the same time.

As things are, the "safest" cigarette should contain low tar for safety, low sugar for an alkaline smoke, and high nicotine for quick satisfaction. A British cigarette should have a filter tip, since this further reduces the acidity of high-sugar tobacco—although it actually increases the acidity of the air-cured variety.

There is no simple way of choosing the "safest" cigarette. For example, the smoker has a choice between Silk Cut filter—with low tar (15 mg per cigarette) and nicotine (0.8 mg) and High Sugar (16.5 mg)—and Rothmans' King Size filter, with high tar (27 mg) and nicotine (1.2 mg) and a lower sugar content of 15.5 per cent (the tar level, over the years, taken from the British report of September, 1971).

If the only influence on the smoker was to obtain a certain nicotine satisfaction (rather than the desire to smoke a certain number of cigarettes) then Rothmans' King Size would be better than Silk Cut, since more nicotine could be obtained by progressing to the tar and sugar.

But the smoker who switched from Silk Cut to Rothmans' would only gain if he smoked half as many cigarettes to get the same nicotine as he could double his tar and nicotine intake while only marginally reducing his tar intake.

Among cigarettes made from air-cured tobacco, the French Camerons Double Bleu filter has a sugar content of 2.2 per cent, but a high tar level of about 25 mg. The nicotine level is about average at 1.0 mg.

Dr John Dunlop, director-general of ARI (Action on Smoking and Health), says: "The only safe advice is to give up smoking."

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