

# The International Cancer Congress and Cigarette Smoking

Earlier this year, in London, England, 2,000 scientists from 63 countries attending the 7th International Cancer Congress — an event held every four years — were given the latest data on cancer and smoking by the world's foremost cancer experts. Rothmans Research scientists were also there and have examined the papers submitted along with their own findings.

**T**HE CANADIAN PRESS and smokers from coast to coast have shown widespread interest and a desire for more information on this important subject. The following report is a brief summary of the facts as they stand at this moment:-

1. Rothmans Research Division accepts the *statistical* evidence linking lung cancer with heavy smoking. This is done as a precautionary measure in the interest of smokers.

2. The exact *biological* relationship between smoking and cancer in mankind is still not known and a direct link has not been proved.

3. In research laboratory work, inhalation studies on animals have been largely negative. However, the application of tobacco tar on the skin of certain animals has produced cancer and therefore indicates that tobacco smoke condensate contains carcinogenic substances which are at least active to those animals.

4. The suspected chemicals in tobacco smoke that have produced cancer in animals have been identified. In fractionation studies, the majority of the active carcinogenic agents were located in the fraction which is eluted with carbon tetrachloride from the neutral tar. This fraction represents only 1.7% of total tobacco tar and, when applied in the heavy concentration of 10%, produced 100% cancer on animal skin.

5. Further studies were then conducted to determine whether there was a threshold level at which total tobacco tar would *not* produce cancer on animal skin. It was discovered that there was a dose level at which the development of animal cancer was so small, and the latent period before the formation of tumours so long, that for all material purposes it represented a *threshold* level. This minimum level is about one-third the optimum level.

6. Transposing this data to cigarette smoking, an increasing section of scientific opinion believes that if the tar intake from a single cigarette were reduced to the range of 18 to 20 milligrams (mgs.), there would be a significant reduction in the *possible* risk of lung cancer. Most of the world's cigarettes today yield in the vicinity of 30 mgs. and there are many which exceed 40 mgs.

*N.B. The control at 18-20 mgs. of the tar intake from a single Rothmans King Size cigarette is achieved as follows:-*

- (i) *the use of tobaccos of lower tar content,*
- (ii) *the fitting of an effective filter which reduces further, and in correct proportion, the amount of tar entering the mouth and lungs, and*
- (iii) *the stubbing out of the butt of a cigarette equivalent to about one-third of its total length (for which purpose the extra length of Rothmans King Size is provided).*

*The balance between satisfaction, filtration and ease of draw is constantly checked by scientific instruments.*

7. There are no scientific grounds to justify the reduction of tar in a single cigarette to less than 18-20 mgs., except in the case of very heavy smokers of more than 2 packs (40 cigarettes) a day.

*N.B. To such smokers Rothmans advocates moderation.*

*Reducing the tars in cigarettes to the level of 18-20 mgs. does not*

*affect the pleasure of smoking. Indeed, once people have smoked such cigarettes, they find satisfaction and enjoyment in the cleaner smoke. Below 18-20 mgs., tobacco begins markedly to lose its taste and aroma, and there would be less and less satisfaction as the readings drop.*

8. Unburned tobacco contains no cancer forming agents. They are formed only during combustion. Any plant material sets free cancer forming agents when burned at a high temperature. (If lettuce were smoked, the result would be the same.)

From about the middle of a cigarette length to the butt, the temperature reaches 880°C. ( $\pm 30^\circ\text{C}$ ). When this temperature is reduced below 700°C., the biological activity on the skin of animals is reduced to almost nil.

As a further precautionary measure, research projects on this problem include the search for a chemical to make tobacco burn at a lower temperature.

*N.B. The present straight virginia manufacturing process as used by Rothmans employs no chemicals whatsoever. Nor would any chemicals be used unless a direct biological link (as distinct from a statistical link) makes it necessary to treat tobacco with such a catalyst.*

9. Some statistical studies indicate a higher mortality rate from lung cancer among cigarette smokers than among smokers of cigars and pipes. However, in laboratory experiments, the carcinogenic activity from cigar and pipe smoke was found to be greater than in cigarette smoke, because, burning at a high temperature for a longer time, combustion is more complete in cigars and in pipes.

10. The tobacco-cancer problem is difficult and nebulous. It has brought forth many conflicting theories and evidences. But great knowledge and a better understanding have been gained through research. The controversy is a matter of public interest. The tar contents of the world's leading brands of cigarettes are today under the scrutiny of medical and independent research.

A list of cigarettes, some of which have achieved significant tar reductions of up to 40% in the past year, was tabled at the International Cancer Congress by an eminent cancer expert.

*N.B. The performance of Canadian made Rothmans King Size cigarettes (as previously certified by independent research) showed that:-*

*Rothmans King Size Filter yields from 14.4% to 38.7% less tars than the four other best selling Filter brands in Canada.*

*Rothmans King Size Untipped yields from 26.5% to 34.0% less tars than the three best known plain end brands in Canada.*

**R**OTHMANS Research Division welcomes this opportunity to reiterate its pledge:-

- (1) to continue its policy of all-out research,
- (2) to impart vital information as soon as available, and
- (3) to give smokers of Rothmans cigarettes improvements as soon as they are developed.

In conclusion, as with all the good things of modern living, Rothmans believes that with moderation smoking can remain one of life's simple and safe pleasures.

*This announcement has been issued by*

**ROTHMANS INTERNATIONAL RESEARCH DIVISION**