# Dogs Produce Methanol

## Experimental animal studies that may apply to humans indicate that methanol is the only alcohol the human body produces

➤ DOGS MAKE methyl alcohol in their bodies and humans probably do too. Scientists have suspected for some time that people naturally produce alcohol, but what kind and how much have never been clear.

Now a team of scientists from South Carolina has provided the answers where dogs are concerned. They believe these results can be applied to humans, perhaps with significant implications for alcoholism research, they reported at the annual Federation of American Societies for Experimental Biology meeting in Atlantic City.

Plans are under way to study several hundred alcoholics under stringent clinical conditions, said Drs. Richard H. Gadsden and F. W. Kinard, professors of chemistry and physiology at the Medical College of South Carolina, Charleston.

Methyl alcohol is a toxin that damages tissues and causes blindness. Unscrupulous moonshiners sometimes add the poison to give more "kick for the dollar."

The best antidote for methanol poisoning is a dose of good whiskey, or straight ethyl alcohol. Ethyl alcohol prompts the body to throw off methanol before it can be changed into tissue-damaging acid, Dr. Gadsden said.

Dr. Gadsden told the scientists that he believed methanol is the only alcohol that people produce. It may be that alcoholics naturally produce more methanol than other people do. If this is so, they could have a basic physiological need for drink. No evidence supports this speculation yet, Dr. Gadsden said, but he and his colleagues intend to compare the methanol production of alcoholics and abstainers. The main problem is a practical one—that of keeping people under controls as stringent as those possible for dogs.

For their research, the scientists used clean air from a high altitude. They also scrubbed the laboratory floor with soap to remove any traces of alcohol. Only after these precautions, could they be sure that the methanol found in the breath of the dogs was actually produced by the animals.

The dogs exhaled one one-millionth of a milligram of methanol for every liter of air they breathed, said Dr. Gadsden. The amount is much smaller than was suspected. Drs. Gadsden and Kinard were assisted in their work by research assistants K. B. H. Risinger and M. G. Hay.

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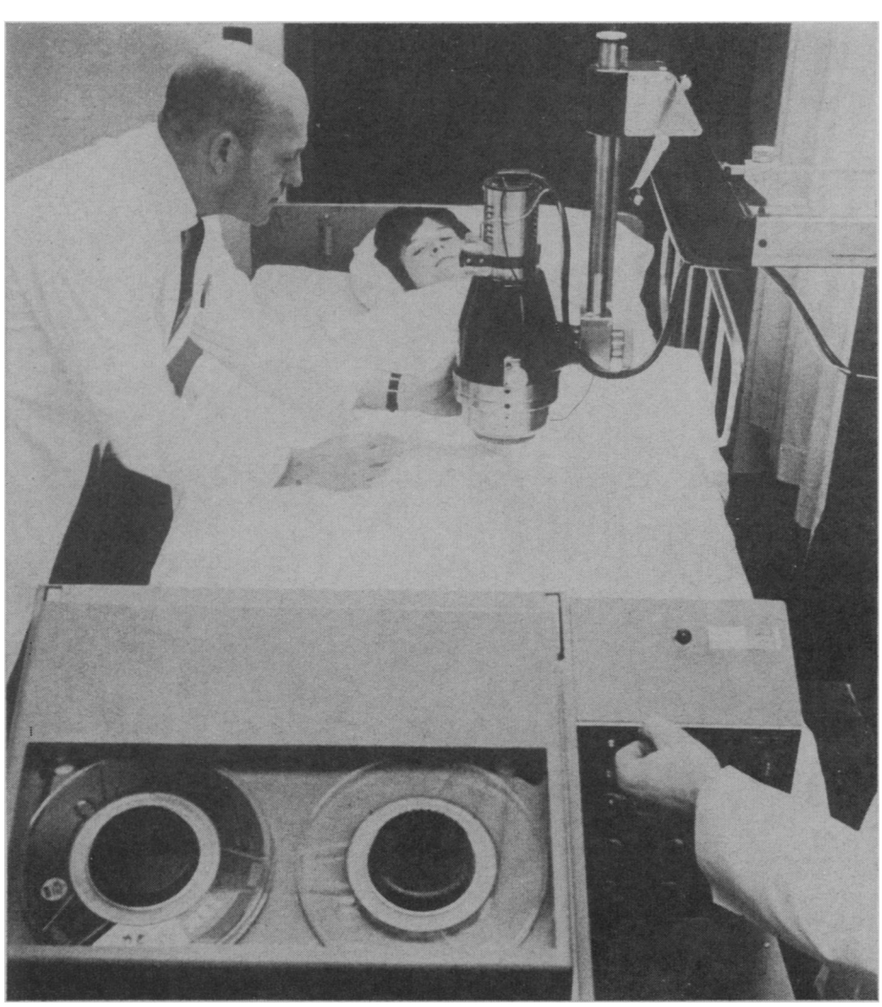

IBM

RADIOISOTOPE SCANNER—Dr. W. Newlon Tauxe of the Mayo Clinic positions the Mayo-IBM radioisotope scanner over a patient to record images painted by a radioactive compound.

RADIOLOGY

## Mayo-IBM System Locates Tumors

➤ EXPERIMENTAL EQUIPMENT and computer programs have been developed to help radiologists locate tumors and malignant tissue in body organs.

Dr. W. Newlon Tauxe of the Mayo Clinic, Rochester, Minn., said the objective of the joint study with the International Business Machines Corporation is to capture and enhance the data obtained from radioisotope scanners of a type used by many hospitals for diagnosis.

Just as a computer was used to improve the pictures of the moon sent back from space probes, similar techniques are giving doctors a clearer view of the images painted by a radioactive compound sent to a body organ under study.

Unlike ordinary scanners, which produce a paper chart or film record, the experimental Mayo-IBM system records all data on magnetic tape for computer processing. On the tape goes a new radiation record every tenth of a second and the exact location at which the reading was made.

In addition to improving the clarity of the picture, computer processing of isotope scanning data is advantageous because the data is available for later research or repeat processing, IBM project leader Donald W. Chaapel said.

With ordinary scanners, if the image is unsatisfactory a second scan, and perhaps a second injection is necessary.

Also, the computer can be programmed to compensate for the rapid decay of newly introduced isotopes which radiologists prefer because they provide high radiation for a short time without endangering the patient.

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