

# Asthma drug fights cold too

by CAROLYN HOSKINS

Chewing a candy bar loaded with an asthma drug may in future be a way of protecting yourself from the effects of extreme cold. Researchers at the University of Alberta have been experimenting with the drug aminophylline, currently used to treat asthma, and have found it increases an individual's ability to withstand cold temperatures by as much as 20 per cent.

Not only does the drug cause one's body temperature to stay higher when exposed to cold, thus preventing deadly hypothermia, but also it seems to make the body's heat production systems work more efficiently.

After trying the drug on animals, zoologist Dr. Lawrence Wang and his research associates are beginning to test it on people. Should the human experiments prove successful, it may be possible to incorporate the drug in candy bars or survival foods for military personnel, winter sports

buffs, and others who run the risk of over-exposure to cold.

Mammals, when exposed to severe cold, increase their heat production to counter heat loss so that a constant body temperature can be maintained. Failure to do this leads to hypothermia (decrease in body temperature) and eventual death.

"The crucial question is: what limits an individual's ability to adapt to cold?" says Dr. Wang. His research with rats exposed to temperatures as low as -10 degrees C for two hours and fifteen minutes showed that the body basically didn't have enough of the chemicals necessary to generate heat. Rats that had not eaten for 24 hours before being exposed to cold were most severely affected.

Dr. Wang decided that the main limiting factor was in the enzymes that enable the body to convert food to heat. One of these, a substance called "cyclic AMP", appeared to be the most important. This compound is

known to help the body use stored food substances to generate energy through a complex series of chemical reactions.

Meanwhile, other researchers had discovered that one side effect of aminophylline was an enhancement of the effects of the body's AMP. So Dr. Wang decided to see how aminophylline affected cyclic AMP and cold tolerance in rats.

He found that aminophylline improved the rats' cold tolerance dramatically and prevented hypothermia, whether the rats were well-fed or not. Apparently, the aminophylline enables cyclic AMP to work longer, so that more body fat can be converted to energy to protect the body against heat loss.

Dr. Wang's experiments are now aimed at reproducing these effects in people. Volunteer subjects are being exposed to various severe cold con-

ditions in a climate-controlled room for three hours at a stretch.

By measuring the subjects' body temperature, heart rate, blood pressure, respiration, and metabolic rates, Dr. Wang hopes to create a profile of normal human responses to cold. In addition, blood samples are taken hourly to see what hormonal changes are occurring in the subjects.

Experiments in which some of these subjects were dosed with aminophylline indicate the drug can also protect humans as well as rats from killing cold, and that the mechanism by which it acts is apparently the same.

Dr. Wang feels that once the animal experiments are confirmed in human, it will not be long before aminophylline comes into practical use, perhaps initially in armed forces survival kits.

(Canadian Science News)

## HURONIA CALENDAR

March 8  
Midland Salvation Army women's fellowship, 8 p.m. Come and learn how to macrame.

March 10  
Dance from 9 p.m. in the Coldwater and District Community Centre, music by Michael Duhig, \$4 per person. Proceeds for minor hockey, sponsored by the Coldwater and District Minor Hockey Parents Association.

March 13  
Ladies' coffee hour at 9:45 a.m. in Midland's Alliance Church. Ann Karel will demonstrate how to macrame. Children age seven and up interested in learning how to macrame are also welcome. Nursery provided.

## SCOUTING AROUND

by HARRY BROWN

Bells were ringing, lights were flashing, crowds were cheering for their favourites, and there were a few anxious moments and chewed nails as the 1984 Kub Kar 'Classics' whirled its way to a happy climax for 18 happy Cubs and their fathers, and an exciting day for the rest of the boys who did their best.

The winners of the Kub Kar Rally in the speed category were, in order, Kevin Shaw, First Port McNicoll, Keith Tremblay, First Penetang, Chris Ingram, Sixth Midland, Peter Milley, Second Midland, John Fleming, First Wyevale, and Tim Verlaan, First Elmvale.

In the Design, Boy and Adult class, winners were; Shawn Wilson, First Port McNicoll, Luke Leaman, First Elmvale, Danny Roland, First Midland, Tim Brienne, First Elmvale, Ryan Walsuer, First Port McNicoll, Jacob King, First Lafontaine.

And in the Design Boy Only class, the winners were Steward Young, First Elmvale, Mike Besley, First Midland, Kevin Besley, First Midland, Jason Zoschke, First Midland, Aaron Todd, First Victoria Harbour, and Jason Robitaille, First Penetang.

If you were there to cheer your boys on, great! I hope you were. The event was well set up, the track was fast. It was a warm time inside the Mountainview Mall and the whole venture was carried out with good will from the Mall management (who provided the site, and all the good will). We wish to thank those people who gave their own leisure time to make this a good event for everybody's cubs.

Without mentioning their part in all the events and so embarrassing them, we just tip the Scout hat in salute to Sandy Reynolds, Victor Campbell, Roger Robitaille, Winston Elliott, Doug Blow, Gord Phillips, Peter Ingram, Dave Bisette, Richard Gignac and Miles Melin. To D.C. John Baker, who organized the affair, congratulations!!

Two hundred and fifty people, including 135 boys, participated in this event.

To the person or persons who procured the delicious doughnut (holes or puffs?) from the Baker's Dozen, thank you from the bottom of our hearts (tummies?). That was great too. No kidding, there are fantastic events in South Georgian Bay District. Next is the Skout Skooters on March 11 at Wyebridge Community Centre. Don't think about, be there.

## W.I meet

Vasey Women's Institute will meet at the home of Mrs. Ken Robinson on Tuesday March 13, at 7:30 p.m.

Visitors during the weekend with Mr. and Mrs. Orval Edwards and Greg were Mrs. Lloyd Gratrix of Blind River and Mr. and Mrs. Leonard Edwards and girls of Orangeville.

The Mystery Dinners sponsored by the Vasey United Church are again in process, so it is "Guess Who's Coming to Dinner".

Michelle Barnard of Owen Sound visited on the weekend with Lyle and Greer Painter.

Congratulations to the Victoria Harbour Public School Girls Basketball Team who won the Simcoe County Tournament at M.S.S. on Saturday. Three members of the team are from the Vasey Community. Captain, Karen Graham, Meegan Middleton and Sharon Graham.

Mrs. Olive Edwards has returned home after spending the past month with her son and family, Mr. and Mrs. Lawrence Edwards of Elrose, Sask. Weekend visitors with Mrs. Edwards were Mr. and Mrs. Neil Edwards of Wasaga Beach.

Laurie Graham of Guelph University spent the weekend with her family here.

—Eleanor Edwards  
Carol Graham

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