MEDICINE

Blackouts Not Damaging

➤ PILOTS who "blacked-out" frequently during dive bombings or other combat flight maneuvers need not worry that they will suffer any lasting damage from the experience. Evidence for this reassurance comes from studies reported by Drs. E. H. Wood, E. H. Lambert and C. F. Code, of the Mayo Aero Medical Unit at the meeting in Atlantic City of the Aero Medical Association.

In the process of developing means of protecting pilots against blackout, many of the personnel of aero medical laboratories repeatedly acted as subjects during tests on the human centrifuge and in aircraft. They often lost vision, that is, had a "blackout," during such tests and sometimes were made unconscious and were out completely.

Up to the present, they have developed no apparent permanent or cumulative effects from these experiences, although they probably have experienced more blackouts than a fighter or dive bomber pilot or test pilot would experience in a lifetime.

Some of those who took part in the tests have undergone more than a thousand 15-second exposures to centrifugal forces ranging from two and one-half to nine times the force of gravity.

Some were exposed to forces of over two and one-half times gravity for a total accumulated time of more than five hours and to forces above six times gravity for more than 40 minutes.

Some had partial or complete blackouts more than 800 times in the three-year period from 1942 to 1945.

The blood pressure at the level of the head was reduced in some of the test personnel, it is estimated, to less than half the normal on more than 300 occasions and to zero on more than 70 occasions.

Although these reductions in blood pressure lasted less than 15 seconds, one person had the experience often enough so that the total accumulated time at which his blood pressure was one-half of normal was more than 50 minutes. For an accumulated time of more than 15 minutes he had the blood pressure in his head reduced to zero.

Science News Letter, June 14, 1947

NUTRITION

Food Likes Important

➤ PILOTS and crews of combat planes want candy, chocolate, cigarettes and chewing gum for flight rations, regardless of what nutritionists think of such a diet. And the fliers want fried eggs for breakfast before taking off on their dangerous missions, even though scientific studies showed that cereal and toast for breakfast raises their ceiling 2000 feet.

These food likes, and their importance, were reported by Dr. David B. Dill, scientific director of the Army Chemical Center's medical division, at the meeting in Atlantic City of the Aero Medical Association.

War dogs in action on Moretai ate, thrived and carried out their missions with great success on an old C ration type of diet, consisting solely of meat and vegetable stew and hash. But soldiers and air men refused these rations after a few days, even when there was nothing else to eat.

Which goes to show, Dr. Dill stressed, that a good ration for a soldier cannot be planned on the basis of feeding experiments with animals in a laboratory.

Quartermaster Corps scientists planning rations for any future wars might well follow the example of "that unsurpassed observer of soldiers in action, Ernie Pyle," Dr. Dill suggested, and get out in the field to see what combat soldiers want to eat.

"A few observations on men under combat conditions may be more valuable," he said, "than hundreds of observations on test subjects who have not been at war or thousands of observations on rats."

Planning civilian diets for good nutrition, he suggested, also will be more successful if made on men at work as well as on rats in the laboratory.

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MEDICINE

Less Proficiency Causes Plane Accidents in Pairs

➤ AIRCRAFT accidents do come in pairs, if not in threes, Dr. Daniel Horn, of the flying safety division of the Field Office of the Air Inspector, Langley Field, reported at the meeting in Atlantic City of the Aero Medical Association.

There is nothing mysterious about the repeated accidents. An accident is followed by a period when the pilot's proficiency is temporarily impaired, it seems from Dr. Horn's studies. These concerned the time interval between successive aircraft accidents for over 9,000 repeater pilots in the AAF.

The study showed that a second accident tends to follow quickly on the heels of the first, whether or not pilot error was involved in the first accident.

The old flying custom of sending a man up again as soon as possible after he has crashed would seem to need revision on the basis of these studies.

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