

**QUARTERMASTER FIELD EVALUATION AGENCY
QUARTERMASTER RESEARCH AND ENGINEERING COMMAND
Fort Lee, Virginia**

22 January 1959

Human Consumption of Irradiated Food - Medical Aspects

Is date, of the 591 volunteers examined, there has been no reference from the examination of medical and dental status. United States Army Medical Corps officers have been representing the Office of The Surgeon General at Fort Lee, Virginia, since approximately March 1958 as regards volunteer human feeding studies of irradiated, 6-month room temperature stored, food. The details of these studies may be found under QM FEA, Fort Lee, Virginia, Project Numbers 57029 and 58040, dated 12 March 1958 and 28 October 1958, respectively.

The medical officer's function is to "clear" all irradiated food for human consumption prior to release to the unit kitchen; and to either pass or reject volunteers for irradiated food consumption and post irradiated food consumption, to serve volunteers in the event they are disabled from inception to completion of the test, and to advise the QM FEA on medical aspects of the test situation.

The first of these duties is based on analysis of irradiated food results obtained from small animal inoculation and standardized microbiologic technique for organismal presence shortly prior to food consumption.

Volunteers are required to have physical examinations one - two weeks prior to and six weeks post irradiated food ingestion. These examinations consist primarily of chest, heart, abdomen, and any area of complaint, plus blood pressure, pulse, routine urinalysis, white blood cell count and hemoglobin. It is the duty of the medical officer to approve or disapprove the volunteer on the basis of the results of these examinations. Any volunteer seeking or needing medical attention obtains the same from the medical test officer.

The first of these studies concerned troop preference of irradiated bacon and pork fed to 139 subjects. Of the 1,975 men orientated, there were 302 volunteers. Of these 302, 45 - approximately 15% - were rejected because of physical disabilities, making available 257 volunteers. Of this latter number, 240 were involved in the test; 139 actually eating the food. On the six-week post food ingestion examinations, only 109 subjects were examined. The remaining 30 - approximately 22% - were absent because of TDY, separation, leave, etc.

The second of these studies concerned the troop acceptability of six selected items of irradiated food (chicken stew, chicken parts, shrimp,

carrots, fruit compote, and pineapple jam). Of the 296 subjects examined, 20% were dropped because of physical disabilities, leaving 237 subjects for orientation. There was a 4% reduction in volunteers, leaving 226 for food consumption. On the five-week post food ingestion examination 10 - approximately 4% - volunteers were absent because of reasons stated previously.

To date, of the 598 volunteers examined, there has been no evidence from our examinations to suggest any effects attributable to consumed irradiated food. However, there have been 40 subjects where re-examinations have been considered appropriate, i.e., chest findings, albuminuria, elevated white blood cell counts, and one tender palpable liver, but impossible because of military obligations as above.

In summary, the medical procedure has been briefly outlined for acceptance and non-acceptance of human volunteers for irradiated food ingestion. To date, of 598 volunteers examined, there is no medical evidence from our examinations to indicate any immediate effects attributable to ingestion of irradiated food.

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Captain, MC
Medical Test Officer

FE - Physical Examination

UNITED STATES ARMY
 MEDICAL CENTER
 FORT LEWIS, WASHINGTON

24 January 1957

Test	T O T A L				Return for PE	No Rtn for PE
	Examined	Rejected	Accepted	Eating		
Bacon & Pork	302	45	257*	240* 139*	109	30
Group A	168	25	143	139	130	9
Group B	128	34	94	87	86	1
Totals	598	104	494	365	325	40
Percentage		17.39	82.61	94.33*	89.04	10.96

Characteristics of food items for a restricted response of four prior to food

* 240 of 257 (93.38%) actually involved in test with 139 eating food and 101 serving as controls. Percentage based on 240.

PE - Physical Examination

Examinations were conducted by medical officers. These examinations consisted of history of present illness, general appearance, vital signs, blood pressure, pulse, rectal urinalysis, vision, hearing, and neurological examination. The voluntary nature of the examination was emphasized. Any voluntary refusal to participate in the examination was noted in the medical history.

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