Letters to the Editor

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The Armed Forces Institute of Pathology: An Underutilized Repository of Case Material

Founded in 1862 as the Army Medical Museum to collect pathologic and surgical material from soldiers in the Civil War, the Armed Forces Institute of Pathology (AFIP), located at the Walter Reed Army Medical Center in Washington, DC, is one of the world's leading institutes for the study of pathology. The institute staff consists of over 700 US military, Public Health Service, Civil Service, and Department of Veterans Affairs personnel. The AFIP provides services to all military, many federal agencies, and the worldwide civilian medical community.

The institute's major professional activities are consultation, education, and research in pathology. Consultative services are provided through 23 departments specializing in the pathology of all organ systems, plus veterinary pathology, environmental toxicology, legal medicine, and radiology. Education efforts focus on a broad range of opportunities for US and foreign military and civilian personnel. Research efforts include the application of techniques such as electron microscopy, magnetic resonance imaging, molecular biology, and digital imaging processing to study disease processes. The AFIP also houses the National Museum of Health and Medicine.

The repository of the institute accessions and stores material coded by pathologic diagnosis. The repository stores 2.5 million cases accessioned and coded since 1917. The material comprises written records, 50 million microslides, 30 million paraffin tissue blocks, and 12 million preserved wet tissue specimens. Annually, approximately 50 000 new cases are accessioned and coded into the repository. Cases represent both sexes, all races/ethnicities, all ages; and they come from all over the world. Approximately 10 000 of the cases are cancers; 8000 are benign neoplasms, with the balance representing the entire spectrum of human and animal disease.

The AFIP represents an underutilized public health resource. Pathologic specimens stored at the AFIP can be used to identify cases for nested case–control studies (with appropriate controls). Recently, researchers have begun to link cases of cancer diagnosed in military personnel with prediagnostic sera collected during mandatory human immunodeficiency virus (HIV) testing. Breakthroughs in molecular biology and genetics hold the promise of increasing the value of such studies utilizing tissue blocks. The repository can be used to identify cohorts of cases for prospective studies of unusual tumors. Cases collected at the AFIP can be used to serve as a barometer of disease and as part of a public health surveillance system. For example, AFIP pathologists might be the first to note the emergence of new infections or trends in disease progression. The repository is an appropriate location for the storage of pathologic material obtained from multicenter medical and epidemiologic studies. Repository capabilities could be expanded to include storage of frozen tissue and other biologic specimens on a national level with appropriate interest and funding.

Proposals for collaborative research with the AFIP are encouraged. Letters outlining a proposed area of research interest are welcome and may be sent to the author at the address below. □

Michael R. Peterson, DVM, DrPH, MPH

Requests for reprints and proposals for collaborative research should be sent to Michael R. Peterson, DVM, DrPH, MPH, Department of Repository and Research Services, Armed Forces Institute of Pathology, 6825 16th St NW, Washington, DC 20306-6000.

Daily Movement, Adiposity, and Blood Glucose among Older Adults of Middle to Lower Socioeconomic Status

Despite recent public health recommendations affirming the health benefits of regular, moderate-intensity physical activity, Americans remain predominantly sedentary.[1] Moreover, the prevalence of physical inactivity increases with age and is inversely related to income and education level.[2] Therefore, the disease risk attributed to sedentary behavior may be disproportionately high among older adults of lower socioeconomic status relative to their younger, wealthier, and more educated counterparts.

We examined the cross-sectional association between an indirect measure of

accumulated daily activity and blood glucose and adiposity in a community sample of healthy adults at 60 years of age or older who were participating in a health screening program. The study population (n = 425, 75.4 ± 0.4 year) was predominantly White (92%) and female (72%), with 55% reporting an income at or near poverty level[3] and 58% stating that they had completed grammar school or less as their highest level of education.

Accumulated daily physical movement typical of the past month was assessed by a question on the Yale Physical Activity Survey.[4] The body mass index was used as the indicator of overall adiposity. Waist circumference was taken at the narrowest portion of the torso,[5] and it served as the measure of abdominal adiposity. Random blood glucose was assessed by trained allied health personnel via a fingerstick. Simple and adjusted mean differences in the body mass index, waist circumference, and blood glucose between categories of reported hours of daily movement were tested by analysis of variance statistical models.

Unadjusted mean waist circumference and blood glucose levels were significantly lower with higher levels of reported daily movement ($P < .01$). After age, sex, and body mass index were controlled for, daily movement remained a significant correlate of waist circumference ($P < .05$). In addition, daily movement remained significantly associated with blood glucose, independent of age, sex, postprandial state, and waist circumference ($P < .01$) (Table 1)

Our findings suggest that accumulated daily movement has an independent, inverse dose–response relationship with abdominal adiposity. Furthermore, 3 hours or more of daily movement appears to be sufficient in attaining desirable blood glucose levels in a sample of older adults of middle to lower socioeconomic status. These results underscore the public health importance of adopting a lifestyle approach[6] to physical activity in older adulthood. □

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TABLE 1—Adjusted Mean (±SEM) Levels of Abdominal Adiposity and Blood Glucose in 425 Older Adults of Middle to Lower Socioeconomic Status, by Category of Daily Movement

Variable	Daily Movement, hr/day[a]		
	<3 (n = 140)	3–<5 (n = 154)	≥5 (n = 130)
Waist circumference, cm[b]	94 ± 1	93 ± 1	91 ± 1
Glucose, mg/dl[c]	130 ± 6	111 ± 5	111 ± 5

[a]Self-reported on the Yale Physical Activity Survey.
[b]Mean waist circumference adjusted for age, gender, and body mass index. Overall main effect, $P <$ .05; ≥ 5 hr/day vs < 3 hr/day, $P < .05$.
[c]Mean blood glucose adjusted for age, gender, waist circumference, and postprandial state. Overall main effect, $P < .01$; ≥ 3 hrs/day vs < 3 hrs/day, $P < .001$.

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Australia Implements Voluntary Folate Fortification

The May 1995 issue of the Journal featured two articles on folate fortification.[1,2] The first concluded that fortification posed a dilemma between ensuring the safety of the general population and ensuring adequate intakes of folate of the target group. The second demonstrated that fortification offered substantial economic benefits.

These and other issues have been extensively considered by Australia's National Health and Medical Research Council. At the request of Australia's National Food Authority, which has been reviewing food standard A9–Vitamins and Minerals, the Council conducted an investigation of the relationship between folate and neural tube defects and made recommendations on appropriate methods of reducing neural tube defects.

After a thorough investigation—including an analysis of the evidence linking folate to a reduced incidence of neural tube defects, current folate intakes in Australia, potential adverse effects of fortification, the technical and economic implications of fortification and other options for increasing folate intakes (nutrition education, supplementation, and mandatory fortification)—the panel considered that there was sufficient evidence to recommend voluntary fortification of flour, savory biscuits, bread, breakfast cereals, pasta, rice, yeast extracts, and fruit and vegetable juices to 50% of the recommended dietary intake (100 ug folate) per reference quantity of each food in standard A9. The panel also recommended that voluntary fortification be reviewed 3 years after the date of implementation to determine its effectiveness and whether there is a need to consider mandatory fortification.[3]

The panel's recommendations were endorsed at the 117th session of the Council in June 1994 and were referred to the Authority. The Authority incorporated the recommendations, other than those for rice, into standard A9, which was released in June 1995.[4]