Brigham and Women's Hospital

Women's Health Study Update

WHS Study of Movement Patterns During the Day: Where are We Now?

n our last newsletter, we announced that the National Institutes of Health had scientifically approved the WHS to conduct a new study on the usual movements we do during the day, measured using a device called an accelerometer, and their relation to health. While it is clear that physical activities such as walking, jogging, biking, swimming, etc. are beneficial to health, it is unclear whether other movements we typically make during the day that are not considered "exercise" e.g., daily activities of living, cleaning, doing laundry, etc. - also benefit health to the same extent. Such movements are difficult to recall; hence, we do not ask you to report them on the usual WHS questionnaires but instead measure these accurately with the accelerometer.

We now have received funding for the study, and begun inviting women to participate. As with all WHS ancillary studies, participation is of course strictly optional. We are very pleased to report that your response has been most enthusiastic, even prompting one participant to write a poem to her accelerometer (see sidebar)! To date, more than 2,500 women have participated. Because we only have a limited number of devices, we will be inviting women on a rolling basis over the next two years.

If you have not yet been contacted for this ancillary study, you will receive an invitation letter with detailed instructions in due course. In brief, you will be asked to wear the accelerometer - a small and lightweight device, measuring about one-and-a-half inches square and less than one inch thick, and weighing less than I oz - on an elastic belt around your hip for 7 days. We ask that you start wearing the device as soon as possible, so that when you have completed the 7 days and returned the accelerometer to the study, we can download your data and re-program the device for the next participant. Remember, we only have a limited number of these devices! Also, do not wait for an "ideal" week, since we are interested in usual movements that women make.

In a subsequent newsletter, once we have collected sufficient data, we will report on the kinds of movements that WHS participants make. We thank you for your contributions to knowledge on how women can keep healthy!

Ode to My Accelerometer

By Susan Aldrich, RN (Barton, VT)

I'm going to miss you my friend. You've been by my side for only a week – not more.

My constant companion, "attached to my hip". I was always checking to see if you'd "flipped"!

You've been called many names as our memory lapsed...

Accelerator, activitarometer, activator, airometer...

We've had lots of laughs when you were around!

The gardens I've turned, strawberries weeded.

A lengthy meeting I had to sit there. Rains brought me in & slowed down my pace.

Then came hurricane Irene – scurrying around to get battened down.
Goodbye my friend "A", hope you get some rest on your next adventure.

WHS to Study Stress and Health

ver the years, we have learned a lot about traditional risk factors for chronic diseases such as high blood pressure and diabetes: however, we have also learned that these risk factors do not entirely predict who will live a long healthy life. As we all know, stress can impact the way we feel and interact in our everyday life, and even affects our long-term health. Research to understand the relationship between stress and chronic illnesses like heart disease and cancer can provide us with a clearer picture of how stress and health are connected, and specific ways we can manage stress in order to improve health.

In recent years, the need to study the effect of stress on health has become even more evident in our current economic climate. Chronic stress may not only

lead to unhealthy behaviors such as smoking or overeating but it may also lead to elevated stress hormones and other physiological changes, such as sleeping problems, that unfavorably affect cardiovascular, metabolic, and immune systems, thus increasing disease burden. However, some studies have not found connections between chronic stress and disease, particularly in women.

To improve our understanding of the impact of stress on health in women, we will be conducting a new study within the Women's Health Study that is designed to help us learn more about day-to-day and sudden challenges as well as potential traumatic experiences faced by women in the United States, and how these challenges impact health. Our new study involves a survey that will ask questions to capture a broad variety of experiences that may contribute to your overall level of stress. Specifically, the survey will ask about the degree to which you find situations in your life to be stressful, and about experiences in your work place, home, and community. Your responses will allow us to examine whether and by what pathways chronic stress influences the health of women. The ultimate goal is to identify strategies including behavioral, policy and drug therapies that might decrease the burden of disease associated with chronic stress.

We will be in touch in 2012 in order to provide more information about participation in this study. Please remember, participation in this new study is completely optional. If you do not wish to participate, this would not affect your status as a valued participant in the Women's Health Study.