Science Update

WHI has been a frequent topic of news stories over the past year and a half. The findings about estrogen plus progestin, which were released in July 2002, have captivated the public and scientific communities. At times, it may seem that hormones and women’s health is all that WHI is about. However, as you know — particularly those of you participating in other WHI programs—WHI is that and so much more!

WHI scientists are also well aware of the vast scope of experiences and information participants are sharing for the future of women’s health. In fact, many other scientific papers have been published over the last two years based on analyses of the WHI data. This article provides an update on some of those other scientific findings—to which many of you have contributed. These findings further extend our knowledge about women’s health.

Physical Activity in Women
How do activity levels change throughout a woman’s life? Kelly Evenson, PhD, a University of North Carolina epidemiologist, and other WHI investigators studied differences in women’s reports of vigorous physical activity over time. Vigorous activity was defined as strenuous exercise at least three days per week, including aerobics, aerobic dancing, jogging, tennis, and swimming laps. They also assessed whether past activity predicts current activity. This analysis provides important information about the extent to which women actually increase or decrease their physical activity as they get older.

Women in the WHI Observational Study answered questions about their activity levels at ages 18, 35, 50, and present day. The researchers found that women’s current participation in vigorous activity was quite low (13-16%) and did not differ by racial/ethnic group. Not surprisingly, vigorous activity decreased with age for all racial/ethnic groups after age 50. Researchers also found that vigorous activity at 50 years of age was more predictive of current vigorous activity

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than activity at age 18 or 35. These data suggest that establishing and maintaining vigorous physical activities is possible in mid-life, but women may want to think about finding additional help to stay active.

Yogurt Consumption and Lifestyle
For many women, yogurt is a regular part of their diet. Others only eat it occasionally, and some not at all. Is eating yogurt linked to a healthy lifestyle? Yasmin Mossavar-Rahmani, Ph.D., RD, Co-Investigator & Lead Nutritionist at the New York City Clinical Center, and other WHI scientists wanted to answer this question. They examined data from a subset of Observational Study participants; 2,173 were regular yogurt consumers and 1,223 non-consumers. Overall, the entire subset consumed an average of 1.3 cups of yogurt each week—higher than the U.S. average of one cup of yogurt every six weeks, but lower than some other countries. These scientists compared health behaviors of the yogurt consumers to those of the non-consumers and found that the yogurt consumers had more healthy behaviors, such as mammograms, physical activity, and less smoking than non-consumers. Yogurt eaters also reported a healthier diet with more calcium, fiber, vitamins A & D, fruits, and vegetables and less total and saturated fats.

Breast Cancer and Body Weight
Is there a connection between weight and breast cancer risk? Obesity has generally been found to increase risk of breast cancer among postmenopausal women. More recently, scientists have wondered if other weight-related factors, such as the amount of weight gained over one’s lifetime or the way body weight is distributed, might be even more important in predicting this risk. Libby Morimoto, of the Fred Hutchinson Cancer Research Center, and other WHI investigators looked at the relationship between obesity, weight distribution, and weight gain and breast cancer after menopause. They reviewed the initial questions from Observational Study participants who did and did not develop breast cancer over the following two to four years. 1,030 participants did develop breast cancer. The scientists then analyzed some of the weight-related factors that were associated with this disease.

As we now know from the findings released in July 2002, use of estrogen plus progestin can increase a woman’s risk of breast cancer. Because of these findings, Morimoto and colleagues analyzed the data in their study separately for those who used hormone therapy (HT) and those who did not. Among those postmenopausal women who had never used HT, heavier women had 2.5 times greater risk of getting breast cancer than slimmer women. Heavier women were those who had a body mass index (BMI, which is a mathematical ratio of weight to height) greater than 31.1; slimmer women had a BMI less than 23. Breast cancer risk due to obesity in women who never used HT was mostly seen in the younger women.

The amount of weight gained over a woman’s lifetime also predicted risk for women who had never used HT. Women whose BMI increased 9.7 units or more over their lifetime were almost twice as likely to get breast cancer compared to those whose BMI stayed the same or decreased. Weight distribution, the measure of waist to hip circumference, was not related to breast cancer risk in these women.

For women who had used HT, obesity, weight gain, and weight distribution did not appear to affect breast cancer risk.

This study confirms that for women who never used HT, current weight is an important and potentially controllable risk factor in the pre-
vention of postmenopausal breast cancer. There is important work to do in the future to better understand why weight was not shown to be a risk factor for breast cancer in women who had ever used hormones.

More Findings in the Estrogen + Progestin (E+P) Study
WHI investigators have been busy analyzing data from the WHI E+P study in much more detail, taking into account additional health conditions that these participants reported. Their findings, summarized below, were published in 2003.

Effects of Estrogen plus Progestin on Stroke in the Women's Health Initiative
Sylvia Wattenberg-Smoller, PhD, New York Clinical Center Principal Investigator, and other WHI investigators published more detailed information regarding the effects of E+P on stroke. As reported in July 2002, women taking active E+P developed more strokes than did those taking placebo (inactive) pills. Most of these strokes were caused by blood clots in the brain. This is the type of stroke affected by E+P. The less common type of stroke, caused by bleeding into the brain, did not seem to be affected by E+P.

The increased risk of stroke due to E+P was seen in all groups of women studied, including younger women (those closest to the menopausal change) and those with symptoms like hot flashes. The authors discussed several risk factors for stroke that women can control, such as health habits related to smoking, high blood pressure, and diabetes. Further work is being done within WHI to learn more about the ways in which E+P affects cardiovascular health.

E+P Effects on Breast Cancer and Mammograms
Rowan Chlebowski, MD, PhD, Torrance Clinical Center Principal Investigator, and other WHI investigators published more detailed analyses on the risk of breast cancer in women taking E+P. They confirmed the earlier results reported in 2002, that more women taking E+P developed breast cancer than those taking placebo (inactive) pills.

Although the breast cancer tumors in women taking E+P had similar characteristics (looked the same under a microscope) to those in the placebo group, tumors in the E+P group tended to be larger and more advanced (had spread to the lymph nodes or elsewhere in the body). Additional work is needed before we will know if the prognosis (course of recovery) for breast cancer is different for women taking E+P.

In addition, more women in the E+P group had abnormal mammograms compared to the placebo group. An abnormal mammogram is a breast X-ray that indicates additional medical evaluation is needed (most often, a shorter time between mammograms, but sometimes, a breast biopsy or other tests). This difference was seen after only one year in the study—9.4% of mammograms were abnormal for women in the E+P group, compared to 5.4% for women in the placebo group.

Although we have known from other studies that E+P use increases the density of breast tissue seen on mammograms, the increase in abnormal mammograms is important new information.


WHI Puts Participant in the Driver’s Seat

Driving in big-city traffic can be stressful, even for people who do it every day. Imagine living in a rural town and needing to make a trek to a bustling urban area. The commute might take hours and involve bumper-to-bumper traffic and confusing streets. For some WHI participants living in small Arkansas towns, the burden of getting to the Memphis Clinical Center is lifted by a van-driving angel named Norma Bowlin.

Norma, who lives in tiny Paragould, Arkansas, was eager to be part of WHI. “I really wanted to participate,” she says of joining the Dietary and Calcium/Vitamin D studies. “I knew it wouldn’t really help me much, but it will help generations to come. We owe it to our girls, our granddaughters, and the future women of the United States, to have the best health for women.”

As a site manager for BEES (Busyly Enjoying Everyday Seniors), a senior adult program, Norma is certified to drive a 17-passenger van. When she signed up for this study nearly two hours away from her home, she realized that not all women would be comfortable making that drive, so she offered to transport participants in her area. She drives 7 to 12 local women in the BEES van. The Memphis site pays for gas, but Norma’s efforts are voluntary.

The relationships formed through these annual trips are a highlight of participating in WHI for Norma. “I love the friendships I’ve developed,” she reflects. “It’s just a lot of good fellowship. We chat and sometimes we sing, and we usually stop at a restaurant and eat lunch together on the way home.” The day of driving begins about 7:00 a.m. for Norma and she won’t return home until almost 10 hours later. “I don’t mind it,” the 62-year-old says.

When she’s not behind the wheel, Norma manages the BEES program. She plans activities, coordinates weekday lunches, facilitates outings, and serves as the brightest spot in many a senior’s day. Norma’s been working with senior adults for 21 years. “It’s been a blessing. Seniors have so much to offer,” she explains. “They keep their word and they can be depended on. They have so much experience and they’ve had to work for what they have. I love to hear their stories of how they used to make everything from scratch.”

Norma plans to join the ranks of the retired this year so she and her husband of 44 years can spend more time together and pursue their love of traveling. Husband Jim was a high school teacher and basketball and baseball coach for 37 years. Their son and daughter have followed their dad’s footsteps into education, teaching at the secondary and elementary levels. Norma enjoys the company of her four grandchildren, often attending their sports events or taking them on vacations. Norma and Jim also compete in the Senior Olympics.

A self-described “people person,” Norma believes in the power of optimism. “I’ve got arthritis and I’ve had to have a knee replaced, but I don’t let that get me down because there are a lot of people worse off than I am. I can either pity myself or look on the bright side. So I choose to look on the bright side.”

“I tell people all the time, ‘Hey—smile! It can be worse, and if it gets better, we’ll just laugh about it!”
The Calcium and Blood Pressure Connection

"Cut back on your salt" is the advice given to many people with hypertension (high blood pressure). Although this is sound advice as a first step in the treatment of high blood pressure, other lesser known aspects of diet may also affect blood pressure control, or the risk of getting hypertension. Calcium intake is one such part of the diet-blood pressure connection that has been getting research attention.

Evidence that calcium is involved in controlling blood pressure comes from several types of studies. Laboratory studies show that calcium plays a critical role in helping muscles contract. The walls of arteries actually include muscle cells, and calcium may affect the way these vessels function. Low blood calcium levels may cause the muscles in the artery walls to contract, making small vessels smaller. The smaller the opening of the artery, the greater the resistance to blood flow, and this may lead to an increase in blood pressure.

In addition to the laboratory studies, human observational studies have been conducted. In these studies, scientists collect data on the habits of people going about their daily lives and then try to determine what effect those habits have on their health. This type of data also indicates that calcium intake may be related to blood pressure.

One such observational study—the Health Professionals Follow-up Study—asked over 30,000 doctors and other health professionals about their dietary habits and then followed them for four years. At the end of the study, over 1,200 participants reported developing high blood pressure. A low-calcium diet was related to an increased risk of developing hypertension, but only in participants with lower than average weight, not in those who were overweight or normal weight.

Several clinical trials of calcium and blood pressure have also been done. In these studies, one group received a calcium pill and the other group received a placebo. The results of these trials have been mixed, with some studies showing a small drop in blood pressure from taking extra calcium and others showing no effect.

Given the findings to date, a national expert committee on high blood pressure prevention and treatment is not recommending that people increase their calcium intake to control or prevent hypertension. The calcium/vitamin D arm of WHI may shed more light on the link between blood pressure and these supplements. Although the blood pressure/calcium connection still needs more research, there are still many reasons to make sure you get enough calcium in your diet, including to build strong bones.
Did you know that older Americans report an average of more than six calls or letters each week asking for charitable donations? That's more than 300 calls or letters each year! Many charities are legitimate and worthy of your consideration. It feels wonderful to give money to a great charity that's making a difference in the world. However, there are also con artists waiting to prey on your generosity. These criminals don't care about honesty; they want your hard-earned money.

Americans are very kindhearted. According to Independent Sector, a national coalition of nonprofit and philanthropic groups, 89% of households give to charities each year, with an average annual contribution of $1,620. We would not have so many thriving community services without this support. But when dishonest people get involved, they take money away from worthy organizations and put a sense of mistrust into all donors.

Here's how you can protect yourself against charity fraud:

Be an informed donor. Whether you receive a charitable request by mail, telephone, or email, or even if you learn about a charity from a friend or family member, get informed before you give. Learn about the charity and its operations, how it's governed, and how it spends funds. Visit the organization's website or call for more information. Give only after all of your questions are answered and you feel comfortable.

Beware of sound-alike names. Con artists will often use a name similar to a well-known charity as a way to confuse you into giving. Donation requests by fake charities increase around the holidays and after disasters. Be careful to review such requests before giving. You can call the charity directly to be sure it is aware of the request and has authorized the use of its name.

Avoid giving through telemarketers. Be very wary of charities that use telemarketers to ask for donations. These charities often make more money from selling your name and number to other telemarketing companies than from the donations they collect over the phone. On average, only 24% of what you donate as a result of a telemarketing call will actually get to the charity. The telemarketing company making the call gets the rest. Ask if the caller is a paid or volunteer fundraiser.

Understand the tax rules. There's a difference between tax-deductible and tax-exempt. Donations to tax-exempt organizations are not always tax-deductible for you. Check with your tax preparer to be sure, and always get a receipt for a tax-deductible donation.

Pay directly. Pay with a check made out to the charity, not to the fundraiser. Don't give money at your door to a courier or leave it under the mat. Mail it directly or deliver it yourself to the charity.

Refuse high-pressure tactics. Turn down any fundraisers who try to intimidate you or make you feel guilty if you don't give. These are not responsible tactics. Say no and hang up or close the door. Report the problem to your state attorney general's office and file a complaint with your local Better Business Bureau.

Guard your credit card number. Never give your credit card number over the phone unless you placed the call. If you are interested in a cause, ask for information in writing. A legitimate charity will be happy to answer your questions and will mail you more details.
Dear WHI Sisters:

I am very proud to be a member of the Women’s Health Initiative study.

First, I am proud to be part of a study whose aim is the understanding and encouragement of good health for women. I know that we are very complicated organisms and that it will take a long time even to record our similarities and our differences, one from another, in diet and activity and medication. But I have hope for my daughter, my daughters-in-law, and my granddaughter, knowing that they will benefit from the knowledge gained in “our” study. Our collective love for the generations that follow keeps us going.

Second, I am proud of the integrity of the study and of its directors and members. To be part of a double-blind clinical trial is exciting and demanding. Whether you are in a control group or a group undergoing change, you record, you report, and you try to learn. Honesty is a must! To direct such a project requires honesty, too, the exercise of responsibility and yes, love. To have discontinued part of the Hormone Study after five years—when the researchers had thousands of subjects committed to continuing the trial for another three years—required honesty, responsibility and love.

Third, I am proud to have learned so much, at my advanced age! The dozens of interesting and dedicated women I have met, and the devoted staff members, who are so well-informed and well-prepared, have enriched my life. We live in wonderful and perilous times; knowing you all has widened my eyes and given me hope for us and our future.

Emily Maverick
UCLA Women’s Health Initiative Participant

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Emily Maverick, PhD, penned this letter to fellow WHI participants after the Estrogen + Progestin hormone study was stopped. She is actively involved in all parts of the WHI Clinical Trial: Hormone, Dietary, and Calcium/Vitamin D, as well as two substudies on memory and cognitive aging, at the UCLA WHI Clinical Center. “She is a star participant,” according to Clinic Manager Jill Spivak. “I’m very enthusiastic about it,” says Emily of her involvement since 1997. “It’s good science.” Emily taught chemistry at Los Angeles City College for 25 years. Now retired, she continues her work as a chemist at UCLA, deducing the arrangements of atoms in crystals through X-ray crystallography.
Stay In Touch

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