



Take a Look at Estrogen

by Tom Walter

Tom Walter is a Polio Survivor. Up until a few years ago, 30 years or so on from recovering from Polio, he walked unaided with only a slight limp, working and living a normal life. He didn't even know any other people with Polio. He now has difficulty swallowing and breathing and spends most of his days in a wheelchair or propped up in bed. With his laptop computer he collects and dispenses advice and information on post-polio syndrome. Tom, or TominCal as he is known by his email name, is highly regarded and respected as a source of reliable information by the online post-polio community worldwide. In 1997 he was interviewed by Susan Kelleher of the Orange County Register for an article "Polio strikes back."

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HORMONE THERAPY MAY BE RIGHT FOR WOMEN WITH PPS

Recently I read that nearly half of all post-menopausal women in the United States who are candidates for taking the hormone Estrogen are not doing so. That could be a mistake with long-term consequences for them, and in particular for women with PPS who don't produce Estrogen at all because they've had both ovaries removed or who have a lowered production of Estrogen during and after menopause.

Then a short time later I saw an article in the local "[Orange County Register](#)" newspaper about a study published in the "Annals of Internal Medicine" reporting that only 47 percent of U.S. women doctors surveyed who are post-menopause take Estrogen supplements. Their reasons for taking it were to control hot flashes and other symptoms of menopause, as well as to reduce their risk of heart disease and Alzheimers.

The study went on to say that as more and more doctors themselves take Estrogen they are more and more likely to prescribe the hormone for patients.

Some women fail to take Estrogen alone, or along with other hormones, because of perceived or experienced side effects such as increased vaginal bleeding or dryness, bloating or hot flashes. But these symptoms can often be overcome by adjusting the dose or combination of the many different varieties of hormone replacement therapy now available. Others may feel they are at increased risk for endometrial or breast cancer.

These concerns should certainly be discussed with a personal physician who must be consulted anyway if the decision is made to take the hormones that are available by prescription. But it seems that much of the fear of Estrogen and failure to pursue the therapy can be traced to misinformation, flawed or incomplete clinical studies of the past and "wives tales."

While I don't know of any studies that have been done of Estrogen specifically in PPS women, I think certain inferences can be drawn from information that is available. There are several anecdotal reports from females with PPS that the addition of Estrogen to their regimen has led to decreased pain, an increased feeling of well-being and even improved breathing.

I recall a study from Germany about 10 years ago showing that Estrogen in post-menopausal women greatly reduced the symptoms of carpal tunnel syndrome. (That was of interest to me at the time since I was working with women machine operators and assemblers in manufacturing who were prone to that condition.)

OSTEOPOROSIS

Both men and women who have had residual muscle atrophy or weakness from polio are at increased risk for osteoporosis (thinning of the bones) because of the inability to exercise those muscles and the resultant lack of muscle tension on the bones. And, of course, this risk is increased with the onset of PPS. At advanced stages, osteoporosis can be an extremely painful condition and is often the cause of bones that are easily broken in older women and those with PPS.

In her article of 1994 on the subject, Dr. Daria Trojan, co-head of the PPS clinic at Montreal Neurological Institute stated,

"Currently the most effective treatment for this is Estrogen replacement therapy at menopause. Estrogen therapy is most effective when started early after menopause. Estrogen therapy can prevent early post-menopausal bone loss, can increase bone mass in the spine by 5 percent in women with osteoporosis, and can reduce fractures by 50 percent."

MEMORY AND BRAIN CELLS

Earlier studies have shown that Estrogen Replacement Therapy (ERT) in post-menopausal women may reduce the risk for Alzheimer's disease and help slow the loss of verbal memory.

A new study from the National Institute on Aging (NIA) in the December, 1997, issue of the journal "Neurology" is the first to document the effects of Estrogen on age-related changes in memory over a long period of time and is one of the first documenting an effect on visual memory.

By looking at Estrogen use in 288 women enrolled in the NIA's Baltimore Longitudinal Study of Aging (BLSA) between 1978 and 1994, researchers were able to examine the relationship between Estrogen therapy and short-term visual memory.

The investigators collected information on Estrogen use during visits to the NIA for memory testing as part of the BLSA, one of the largest and longest ongoing studies of aging in existence, and were able to show that women who were on Estrogen during the memory testing period performed better than women who had never received treatment.

Furthermore, some participants who began Estrogen therapy between their regular visits to the NIA were able to maintain stable memory performance whereas women who never took Estrogen showed predicted age-associated decreases in memory over a six-year period, on average.

"Animal studies show that Estrogen can directly influence structural characteristics of neurons in the brain, particularly in regions that are important for new learning," said Susan Resnick, Ph.D, principal

investigator of the study. "These regions are also most vulnerable to neuron loss seen in Alzheimer's disease. Thus, lessening the effects of these changes with ERT holds promise as a drug intervention."

CHOLESTEROL AND HEART ATTACK

Researchers from the National Institutes of Health [reported in the March, 1997, issue](#) of the "[New England Journal of Medicine](#)" that postmenopausal women who took Estrogen for as little as a month were found to have a 50 percent reduction in a substance in the blood called plasminogen-activator inhibitor type 1, or PAI-1.

Levels of PAI-1 go up in postmenopausal women, increasing the blood's tendency to clot. This, in turn, raises the risk of coronary artery obstructions. Because Estrogen reverses this trend, it lessens the tendency to clot and, like taking aspirin, reduces heart disease risk, the authors suggest.

Previous studies have shown that when women take Estrogen pills, it raises HDL (the 'good' cholesterol) and lowers LDL (the 'bad' cholesterol) in their blood.

OSTEOARTHRITIS

". . . new research indicates that Estrogen may play a role in the prevention of osteoarthritis, the most common form of arthritis," said Michael C. Nevitt, PhD. His research results were published in the October 14, 1997, issue of "Archives of Internal Medicine."

Nevitt and colleagues studied hip x-rays for signs of osteoarthritis in 4,366 postmenopausal women age 65 or older and through interviews identified participants who took Estrogen prior to when their x-rays were obtained.

Researchers found that the women who were currently taking Estrogen had nearly a 40 percent lower risk of having any osteoarthritis in the hip compared to women who had never used Estrogen. Their risk of developing moderate to severe disease was even lower, Nevitt said.

In addition, researchers found that current users who had taken Estrogen for 10 years or longer had a greater reduction in the risk of any hip osteoarthritis (43 percent lower risk) compared to users for less than 10 years (25 percent lower risk).

Osteoarthritis is a degenerative joint disease that is characterized by the breakdown of the joint's cartilage -- the part of the joint that cushions bones where they join together. Cartilage breakdown causes bone to rub against bone, resulting in pain and loss of movement. It most commonly affects the elderly in the hands and weight-bearing joints such as the knees, hips, feet and back.

Tom Walter

¹ The article is no longer freely available at the [Orange County Register](#) site. It can be located via their archive section (using search keywords "polio" and "strikes") but access to the complete text requires a small payment.

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