



// MISSED THE LAST ISSUE?

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Hormonal Imbalance

Proto's story on hormone therapy ("Yes. No. Maybe." Spring 2009)—and much of the medical establishment—misses a central point. The vast majority of estrogen studies have used conjugated equine estrogens (a mixture of estrogens derived from horse urine), which are taken orally and thus metabolized in the liver. They stimulate the metabolic pathways that produce clotting factors in the liver, therefore heightening the risk of blocked arteries and heart attack or stroke. By contrast, European studies of estrogen administered through the skin via a patch have shown no increase in blood clots, so it's possible that much of the increase in heart disease shown with estrogen is simply a result of the drug's delivery mechanism.

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The confusion women face when assessing the benefits and risks of combined hormone replacement therapy (estrogen plus progestin) is exacerbated by the apparent eagerness of the Women's Health Initiative to report only the negative effects of CHRT. What's more, the WHI's findings have been exaggerated by stressing relative risks rather than absolute risks, which make small associations seem more serious than they are. Even if CHRT does increase the risk of breast cancer, the 24% increased relative risk reported by the WHI in 2003 would raise the absolute incidence of breast cancer from 5 in 100 women to 6 in 100 women. Most important, the WHI findings on the alleged increased risks of breast cancer, dementia, stroke and cardiovascular events associated with CHRT administration have not survived repeat analyses.

In fact, the WHI does not even acknowledge that CHRT relieves menopausal symptoms. On the contrary, a 2003 WHI paper reports that "in

postmenopausal women, estrogen plus progestin did not have a clinically meaningful effect on health-related quality of life." The WHI admits that women who reported moderate or severe menopausal symptoms "were discouraged from participating in the study" and, perhaps as a result, "moderate or severe vasomotor symptoms at baseline were present in only 12.7% of study patients." Not surprisingly, among those 12.7% with distressing symptoms, the women given hormones reported significant relief compared with those on placebo. In other words, the women who had never had symptoms reported no relief of symptoms.

Good science requires that we challenge our conclusions, not manipulate data to support them.

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The Admirable Robot

"The Sociable Robot" (Winter 2009) describes in fascinating detail the development of "socially assistive" machines like CosmoBot, which taught a six-year-old with severe autism to imitate movements in a Simple Simon way.

The use of robot caretakers may seem the ultimate form of dehumanization. But, in fact, the robots are ethically sound; what's ethically questionable is the way we use them. Ventilators are a kind of primitive robot carrying out a single repetitive function. When we use them well, we help sick people recover and save lives. When we use them mindlessly (robotically), we flog patients and prolong dying.

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