



# Newsletter

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## Paint the town PINK!

**October** is breast cancer awareness month and by now most of you have probably noticed a few more pink posters, wrist bands and pink ribbons floating around than usual. Even the National Football League players are adorned with pink accents this month! Unfortunately, most of us don't need to see pink bumper stickers in traffic or pink shoes on our favorite running back to remind us of this devastating disease, as its prevalence indicates that most people have known someone with such a diagnosis. Last year, there were an estimated 230,000 new cases of invasive breast cancer in this country and approximately 1 in 8 women in the United States are predicted to develop invasive breast cancer in her lifetime. These numbers are even larger when we include the non-invasive diagnoses.

Awareness is certainly a good idea, but what can we **DO** about this epidemic? Much of the breast cancer awareness campaign focuses on encouraging women to get regular screenings to identify problems early but, as with most cancers, a proactive, preventative approach is best. Identifying risk factors for breast cancer and guiding treatment to reduce these risks is key to true prevention. Because estrogen is a proliferative hormone and causes tissue to grow, a woman's lifetime exposure to estrogens increases her risk of breast cancer, and this includes both endogenous and exogenous sources. Progesterone is the hormone that balances this proliferation caused by the estrogens. Progesterone promotes cellular differentiation and also promotes apoptosis (planned cell senescence) which is anti-neoplastic. When there is a greater influence of estrogen in relation to progesterone or estrogen dominance, there is a greater risk for breast cancer. A salivary hormone test identifies the ratio of progesterone to estradiol (Pg/E2 ratio) in patients and identifies any need for hormone balancing treatments that can work to prevent uncontrolled breast growth that can lead to cancer.

The Pg/E2 ratio involves estradiol (E2) because it is the most biologically active estrogen, however it is only one of the three estrogens found in the human body. Estriol (E3) is much weaker than estradiol or estrone (E1) and because it competes for receptor function with the more potent estrogens, it provides protection against uncontrolled proliferation. Over 50 years ago it was discovered that estriol provided protection against the development of mammary cancers. Though the production of estriol outside of pregnancy is relatively minimal, there is much individual variation in the metabolism of the various estrogens, resulting in varying individual amounts of estriol. By testing patients' estrone, estradiol and estriol levels with the Labrix Comprehensive Plus Panel, evaluation of an additional parameter of breast cancer risk, the Estrogen Quotient (EQ), can be provided.

In addition to evaluating hormonal status and establishing optimal balance, assessing patients' vitamin

D levels is invaluable in the prevention of breast cancer. There are numerous studies relating vitamin D deficiency to increased incidence of breast cancer including one that boldly stated that doses of 3500 iu/day of vitamin D3 would reduce breast cancer risk by 50%! The Labrix BloodDrop Vitamin D test is a simple, convenient and accurate test that utilizes a finger stick collection of blood, performed in office or at home, and provides important information regarding individual status of this cancer protective nutrient.

Join us for an in-depth discussion of the latest information on hormone balancing and breast health at the upcoming Labrix Advanced Workshop, taking place February 1 - 2, 2014 at the Trump International Hotel, Las Vegas, Nevada. Registration is now open and can be found at [www.labrix.com/law](http://www.labrix.com/law).

## Resources

1. Garland CF. Serum 25-hydroxyvitamin D and prevention of breast cancer: pooled analysis. *Anticancer Res.* 2011 Sep;31(9):2939-48.
2. Lee, John MD. *What Your Doctor May Not Tell You About Menopause*. New York: Warner Books, 1996. Print.
3. Lemon HM. Estriol prevention of mammary carcinoma induced by 7,12-dimethylbenzanthracene and procarbazine. *Cancer Res.* 1975;35: 1341-53.
4. [www.cancer.org](http://www.cancer.org) (accessed 10/7/2013)

## Upcoming events

Labrix Advanced Workshop  
February 1-2, 2014  
[Register Here](#)