PRE- AND POST MENSTRUAL SYNDROME

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Premenstrual syndrome (PMS) has become a very well known condition within the last several years. This term is often loosely applied to women who develop physical and emotional changes near or during menstruation. However, it is also common, but less so, for some women to develop various symptoms following their menstruation. For sake of clarity, we will call this the post-menstrual syndrome.

It is now becoming more accepted that abnormalities in the menstrual cycle are usually caused by a hormonal imbalance, primarily between progesterone and estrogen. However, other endocrine glands are also involved, such as the thyroid, adrenals, and pituitary, a matter to be discussed in future issues.

Premenstrual - Impact of Zinc and Copper

Copper is well recognized for its association with estrogen while zinc, on the other hand, is associated with progesterone. HTMA studies have shown that the majority of women who experience premenstrual syndrome show an elevated tissue copper level and/or a markedly low zinc-to-copper ratio. This particular mineral imbalance often indicates a low progesterone-to-estrogen ratio. Women with this condition frequently develop premenstrual problems as estrogen levels will normally rise markedly prior to menstruation. An increase in estrogen levels will exacerbate an existing hormonal imbalance in these women with symptoms similar to those of copper toxicity; frontal headaches, constipation, fatigue, depression, volatility, weight gain, and food cravings. Usually women who have excessively high tissue copper will have heavy and prolonged menstrual flow. Symptoms may vary from individual to individual depending upon the degree of copper toxicity and will subside during or after menstruation since progesterone then begins to rise and counteract the effect of estrogen.

Postmenstrual - Impact of Zinc and Copper

Post-menstrual syndrome is due to opposite factors wherein there may be a high progesterone level relative to estrogen. This translates into an elevated tissue zinc-to-copper ratio. Often these women will feel much better premenstrually when estrogen and copper levels are rising as estrogen will counteract the effects of too much progesterone. However, following menstruation as estrogen levels decrease, they may develop symptoms of anxiety, defensiveness, indecision, agitated depression, and water retention. This type of hormonal imbalance usually results in short and light menstrual flow with extreme breast soreness.

Hormonal Imbalances and Pregnancy

It is not uncommon to find that when some women become pregnant, they feel much better both physically and emotionally. Most likely, these are women who were progesterone dominant relative to estrogen prior to pregnancy. During pregnancy, estrogen levels rise
dramatically reaching their highest point during the last trimester. For these women pregnancy and the resulting increase in estrogen contributes to an improvement in the hormonal imbalance. On the other hand, some women feel worse while pregnant especially if they had high estrogen levels before pregnancy. Too much estrogen and copper are associated with more complications during pregnancy. Women with high tissue copper levels on their HTMA commonly suffer from toxemia of pregnancy, and post-partum depression. Endometriosis is another condition found in women with high tissue copper.

**Conclusion**

As mentioned previously, the tissue zinc-to-copper ratio can be applied to the progesterone-to-estrogen ratio respectively. Those who develop premenstrual symptoms are usually found to have a low zinc-to-copper ratio, which is indicative of a copper excess. Supplementation with zinc and vitamin B6 can aid in reducing the effects of PMS and copper excess. If no improvements are noted with zinc and B6 alone, then magnesium, additional B vitamins, and glandular support may also be needed. Often zinc and B6 will control some of the common symptoms of PMS quite well, especially the frontal headaches. For those with post-menstrual syndrome or a high zinc-to-copper ratio, copper is the nutrient of choice following menstruation.