Breast health Article 2

Last month I wrote on the subject of breast health and some of the things which can be done to help prevent breast disease. I'd like to continue with this theme today, with a couple of other things that I feel are important in regards to breast health.

The first of these is to avoid xenoestrogens. Xenoestrogens are part of a group of chemicals that are hormonally active agents. They differ from the phyto-estrogens found in plants and fungi in that they are man-made and their effects are unintended. Xenoestrogens have been introduced into the environment by industrial, agricultural and chemical companies in the last 70 years or so, and their effects on us and wild life which is exposed to them is only just beginning to be investigated in any depth.

Xenoestrogens have been implicated in a variety of medical problems and reproductive issues in humans, fish and animals. Foremost is the concern that they act as false messengers which occupy the receptor sites in estrogen-sensitive tissues like the breast, adding to the estrogen burden of the body. Although they appear to have a similar action to natural estrogen on susceptible cells, their full impact on the body is not known and it is their additive effect which is of most concern. A 2005 study by Belcher and co-workers demonstrated that even very low levels of a xenoestrogen (in this case Bisphenol A), could affect fetal neural signalling more than higher levels, indicating that classical models where dose equals response may not be applicable in susceptible tissue. This research appears to show that the standard assumption that low levels of exposure are safe may not be correct.

Xenoestrogens are found in some sunscreen lotions (4-Methylbenzylidene camphor (4-MBC); many weed killers and insecticides; DDT (which takes a long time to break down); food colouring FD&C red no. 3; industrial surfactants and laboratory detergents; polychlorinated biphenyls which are found in some paints, lubricants, adhesives and electrical oils; parabens which are common preservatives used in cosmetic products, creams and lotions; plasticisers used in soft plastics such as drink bottles and glad wrap; and PVC products.

Even though the jury may still be out in regards to their "safety", my suggestion is that in the case of estrogen-sensitive conditions such as endometriosis and breast disease it is best to avoid these where ever possible, especially in products you use every day.

In my previous article I mentioned briefly the importance of correct estrogen metabolism. This is just another way of saying that estrogen needs to be broken down and excreted from the body efficiently once it has done its job. The primary organs involved in this process are the liver and the bowel.

The liver is actually made up of rows of cells separated by fluid spaces through which blood flows. This system acts as a filter removing dead cells, microorganisms, chemicals, hormones and drugs. After filtration, the liver then detoxifies these substances. Essentially this is a two-step process, known as Phase 1 and Phase 2.

The two phases together are designed to convert fat soluble substances such as hormones, chemicals and drugs into water soluble molecules that can be excreted in the urine and bile. However, the molecules produced during Phase 1 can be either more toxic, less toxic or as toxic as the original substances. As long as Phase 2 is functioning well, the potentially damaging Phase 1 products are quickly converted into harmless

molecules and excreted. In many people though, there is an imbalance between the rate at which their Phase 1 works versus their Phase 2. (It is worth noting here that sluggish liver function will not show up in a liver function test until the liver dysfunction has reached a pathological level).

The main enzyme system responsible for Phase 1 detoxification is known as the Cytochrome P-450 system. This is the enzyme system primarily involved in converting estrogens into either the harmful sort or the helpful sort. Excessive inflammation can change the way this enzyme system works (as I described in the article on endometriosis), and excessive toxic chemicals such as pesticides can disrupt this enzyme system, increasing its activity. If Phase 2 can't keep up with Phase 1, large amounts of damaging free radicals will be produced which will in turn affect the ability of the liver to do its work. This creates a backlog; a little like having 300 people all trying to get on the bus at the same time. Other things which cause an increase in Cytochrome P-450 activity include caffeine, smoking, alcohol, dioxin, organophosphates, paint fumes, solvents and exhaust fumes.

The upshot of this is that if there is an over-stimulation of Phase 1 and a backlog in Phase 2, hormones don't get cleared as efficiently as they should either, and this can contribute to estrogen dominance. Schisandra and Rosemary are the two herbs which can restore the ability of these pathways to work in proper balance. **However, if you are taking any medications, it is essential that you do not use these without the correct advice** as they may increase the rate at which your medications are processed through the liver, affecting their efficacy. Milk thistle works very well to protect the liver from damage, but it does not increase the activity of either Phase 1 or Phase 2. You are welcome to talk to us at the clinic if you want to ensure the correct product and dosage for your needs.

The nutrients that are required for detoxification are water, B1, B5, B6, B12, sulphur, Vitamins A, C and E, alpha lipoic acid and certain amino acids. However, it is important to realize that liver cells are like any other cell in the body – they require other nutrients to produce energy and to repair. This is why a good quality diet containing high levels of vegetables and healthy protein is essential, and why other common nutrient deficiencies such as magnesium, zinc, selenium and iodine should be addressed if present.

Regular bowel habits are essential. This is because a sluggish bowel will result in hormones being re-absorbed from the stool back into the blood stream where they will have to be removed through the liver once more, adding to the backlog. Better liver and bowel function equals better hormone clearance, which reduces the impact of estrogen on estrogen-dominant conditions.

For those of you who missed the previous article - a recap. Wear bras which fit correctly, and never wear them to bed. Avoid aluminium-containing deodorants; use natural ones or ones which use zinc instead. Use a supplement which contains both iodide and iodine. The thyroid uses iodide which is the form found in most supplements, but the breast tissue, prostate and a variety of other body tissues require the iodine form. Because New Zealand has been shown to have a 92% incidence of iodine deficiency ranging from mild to severe, it is important to ensure that both forms are supplemented if you are relying on a supplement rather than getting adequate iodine from food sources. This is

especially the case if there is existing breast or prostate disease, as a supplement containing only iodide will not provide the iodine required by these tissues.

If you have any queries regarding the information in this article or would like to address some health issues of your own, we encourage you to call us on 06 304 8177. The dispensary is open 9.30am – 4pm Tuesday, Thursday, Friday and 10.30am – 4pm Saturday.