NATURAL HEALTH
our endocrine system

Are you aware of the havoc endocrine disruptors are having on your health?

O□r En□ocrine S□ste□

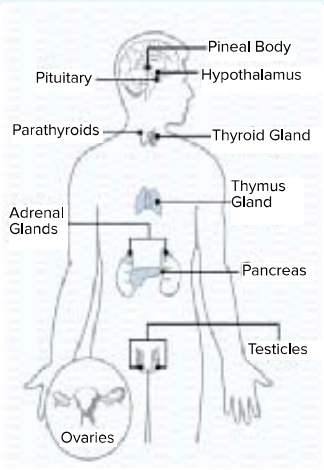
The endocrine system is a collection of glands that regulate important bodily functions such as growth, metabolism & sexual development. The glands produce chemicals called hormones which are released directly into the bloodstream, where they travel to the target organs upon which they act. Each hormone shape is specific to the target cell it affects (a lock and key system) binding to the hormone receptors on the cells.

En□ocrine disr□ptors

What are endocrine disruptors?
Every day we are being exposed to chemicals that are commonly found in our everyday household products, these chemicals are called endocrine disruptors, they have a similar structure to our body's hormones and they can interfere with the body signalling pathways.
They mimic our bodies own hormones. (Brownstein, 2012).

Health Concerns

Exposure to these chemicals has been linked to breast cancer, prostate cancer, worldwide increase in thyroid dysfunction, fertility issues and neurodevelopmental disorders in children and wildlife.



Endocrine Glands and Their Hormone Functions

Adrenal glands. Secrete hormones that influence metabolism, blood chemicals, and body characteristics, influence the nervous system's response to and defence against stress.

Hypothalamus. Activates involuntary body functions such as sleep and appetite.

Ovaries and testicles. Influence female and male characteristics, respectively.

Pancreas. Secretes insulin, which controls the body's blood sugar levels.

Pineal body. Controls daily biological cycles.

Pituitary gland. Produces hormones that have influence over other endocrine glands.

Thymus gland. Plays a role in the body's immune system.

Thyroid gland. Produces hormones that stimulate body heat production, bone growth and metabolism.

Source: AMA's Current Procedural Terminology. Revised 1998 Edition.

Dr. David Brownstein, M.D., one of the foremost American practitioners of conventional as well as holistic medicine says, "I have no doubt that one of the underlying reasons we are seeing such an epidemic of thyroid problems is due to the toxic load of chemicals including endocrine disruptors". (Brownstein, 2011).

A recent report by the United Nations Environment Programme (UNEP) and the World Health Organization (WHO) concluded that many common chemicals are disrupting the human hormone system and could have significant health implications. The report is titled, "State of the Science of Endocrine Disrupting Chemicals". You can download this report by clicking on the following link: http://www.who.int/ceh/publications/endocrine/en/

The study calls for more research on endocrine disrupting chemicals (EDC's). They are found in many common household and industrial products. In fact, there are over 800 known endocrine disrupting chemicals present in our environment and have been detected in human urine on nearly all people tested. There are some strong data sets (e.g. for PCBs, lead and methylmercury) showing that environmentally relevant developmental exposures to these EDCs and potential EDCs have caused cognitive and behavioural deficits in humans. (WHO/UNEP, 2013).

EDC's disrupt the hormonal system. They can cause cancer, birth defects, lower the IQ in infants as well as cause developmental disorders in children. You can see the effect of EDC's on our youth.

Girls are developing secondary sexual characteristics at earlier and earlier ages. Furthermore, young girls are starting to menstruate at a much earlier age compared to 20 years ago. Both early breast development and early onset of menses increases a girl's lifetime risk of developing breast cancer. (Brownstein, 2011).

EDCs have the capacity to interfere with tissue and organ development and function, and therefore they may alter susceptibility to different types of diseases throughout life. This is a global threat that needs to be resolved. (WHO/UNEP, 2013). In New Zealand metabolic disorders are of particular concern - the report highlighted that obesity, diabetes and metabolic syndrome are due to disruption of the energy storage–energy balance endocrine system and thus are potentially sensitive to EDCs.

The most common ways we are exposed to EDC's is through packaging
- BPA
- Triclosan
- Phthalates
- Polybrominated diphenyl ethers and polychlorinated biphenyls (PBDEs) and PCBs)

Bisphenol A (BPA) is a chemical used to produce polycarbonate plastics (this type of plastic is used as it is strong, light and see through). Epoxy resins are also used as an adhesive and can be found in a variety of consumer products such as:
- Baby bottles
- Compact discs (CD's)
- Dental sealants
- Food containers
- Water bottles

BPA's are found in many other products such as floor coverings, enamels, vanish, nail polish and cash register receipts. What can we do about this problem? As highlighted there are over 800 known EDC's in our environment but we can help protect our families by reducing exposure to these chemical s helping to lower the health risks.

If you look closely at most plastic products —including containers —you will find a triangle with a number in the middle. These numbers indicate what the plastic is made of, and whether or not the product is "safe" to recycle. But they will also tell you if the plastics contain endocrine disruptors , such as bisphenol A (BPA), triclosan, and phthalates.

Recycling codes 3 and 7 are more likely to contain phthalates and/or bisphenoyl A. Plastics coded 1, 2 or 5 may be safer. However, there may be other components that are endocrine disrupters.

It is my opinion that it is best to avoid food in a plastic container, if possible. Glass or ceramic containers are much safer. It is also important that you never heat food in a container labelled with a 3 or 7, because it will cause more phthalates to be released. In fact, you should never heat any food in a plastic container.

For more information on how to understand the plastic identification codes in New Zealand and how to recognize the plastics that are hazardous to you as well as tips on cutting down on your plastic use read the following articles:
Plastic Recycling Guide
http://www.recycle.co.nz/edit/ftpuploads/157090999_Plastics%20Recycling%20Guide%20by%20Type.pdf

How to Recognize the Plastics That are Hazardous to You
http://articles.mercola.com/sites/articles/archive/2013/04/11/plastic-use.aspx

As a naturopath I advocate that "fresh & natural is best" you just can't beat homemade wholesome organic foods and beverages. Of course they do take longer to prepare but with some organisation this can be achieved and certainly worth the effort.

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MEET CHEF Kevin Blakeman

A Sustainable Chef who has worked at the Houses of Parliament, England cooking for the Prime Minister and the Queen to name a few.

SEE HIM AT THE GREEN LIVING SHOW AND NZ ORGANIC NATURAL EXPO ON 5TH & 6TH JULY 2014, COOKING UP A STORM!