



EcoCentre

presents

Are you poisoning yourself?

with

special guest speakers

Dr Greg Emerson

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Human exposure studies show that most of our exposure to pollutants occurs indoors from products that we choose to use.

Most of our exposure to toxins is within our control.

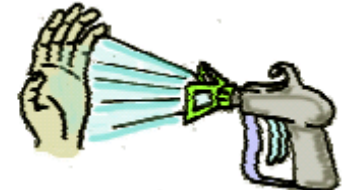
Where do these toxins come from?



Toxins migrate into our bodies by:



Absorption through our skin from toxins in:



- **soap & shampoo**
- **makeup, other cosmetics & personal care products**
- **detergents**
- **cleaning products**
- **pesticides**
- **any other toxic chemicals your skin comes into contact with**

Toxins migrate into our bodies by:



Inhalation of poor quality indoor air contaminated with toxins from;

- **pesticides**
- **cleaning products**
- **air fresheners & fragrances**
- **off gassing from furnishings, paint and building materials**
- **other toxic contaminants**

Toxins migrate into our bodies by:



Ingestion of food and water contaminated with;

- **pesticides**
- **other agricultural chemicals**
- **heavy metals**
- **toxins migrating from plastic food packaging and storage containers**
- **other toxins that enter our food chain and water supply**

Some plastics are so toxic they are banned in the USA

















Sunday Mail
15 March 2009

What is Bisphenol A?

- **Bisphenol A (BPA) is a chemical produced for use in the production of polycarbonate plastics and epoxy resins.**
- **It is made by the condensation of acetone and phenol, catalysed by an acid such as hydrochloric acid (HCl) or a sulfonated polystyrene resin.**
- **Polycarbonate plastics are used for food and drink packaging, e.g., water and infant bottles, compact discs and medical devices. Epoxy resins are used as lacquers to coat metal products such as food cans, bottle tops, and water supply pipes. Some dental sealants and composites may also contribute to BPA exposure.**
- **Bisphenol A (BPA), is an endocrine disruptor which mimics oestrogen.**
- **BPA has been linked to prostate cancer, breast cancer, obesity and neurobehavioral changes.**
- **Its use has now been banned in the USA and Canada.**

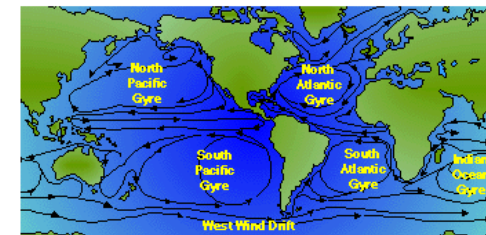
Know your plastics

Plastic and Resin ID Code	Found in	Health Risks	Cautions
Polyethylene terephthalate 	Soft drink, juice and bottled water. Some peanut butter and salad dressing containers	Can leach toxic chemicals such as phthalates, an oestrogen mimic. May leach antimony	<ul style="list-style-type: none"> •Most dangerous when scratched or heated. • Never reuse PET bottles. • Don't leave bottles in hot car 
High density polyethylene 	Opaque milk and water bottles	While all plastics may leach toxins in certain conditions, these are generally considered one of the 'safer plastics'	<ul style="list-style-type: none"> •Discard if damaged •Do not microwave 
Polyvinyl chloride (PVC) 	Pipes, non-food bottles, soft plastic toys	Leaches phthalates (endocrine disruptors) Phthalates may damage the liver, kidneys, lungs and reproductive system	<ul style="list-style-type: none"> •Banned in EU for use in toys and other childrens products •Highly carcinogenic dioxins produced during production and decomposition. 
Low density polyethylene 	various containers, wash bottles, plastic bags	While all plastics may leach toxins in certain conditions, these are generally considered one of the 'safer plastics'.	<ul style="list-style-type: none"> •Discard if damaged •Do not microwave 
Polypropylene 	Yogurt containers, syrup bottles, ketchup bottles, caps, straws, medicine bottles	While all plastics may leach toxins in certain conditions, these are generally considered one of the 'safer plastics'	<ul style="list-style-type: none"> •Discard if damaged •Do not microwave 
Polystyrene 	Toys, food trays	Leaches styrene an oestrogen mimic and possible carcinogen. Long term exposure to low dosage can have neurotoxic & other effects	<ul style="list-style-type: none"> •Avoid •Leaching is increased with acidity eg lemon in tea 
Other (includes polycarbonate) 	Lining of cans, lids of glass jars, baby bottles	Leaches Bisphenol A (BPA) an oestrogen mimic causing breast cancer, obesity and effects on hormonal systems.	<ul style="list-style-type: none"> •Avoid •Banned in USA and Canada 

Environmental Impacts of Plastic

- *It takes large amounts of chemical pollutants to create plastic, as well as significant amounts of fossil fuels.*
- *500 000 tonnes of CO₂ emissions produced annually by water bottles in the U.S.¹*
- *Manufacturing plastics from recycled material reduces the energy input by 70%.²*
- *Australians use more than 1.3 million tonnes of plastic every year, about 71 kg of plastic for every person.²*
- *Around 100 million tonnes of plastic are produced each year, about 10% ends up in the sea. 70% of this sink to the bottom. Studies show 110 litter pieces per km² in the North Sea.³*
- *Plastics degrade very slowly and may persist for hundred or even thousands of years.*
- *The Algalita Marine institute conducted a study of the North Pacific Gyre and discovered that plastic particles of less than 5mm diameter outweighed zooplankton by 6:1.*

1. U.S. EPA
2. Clean up Australia Ltd
3. Greenpeace International



Estimation of plastic (PET) drink bottles disposed of around the world every 5 minutes.



Guidelines for safer use of plastic

- Be aware of the health and environmental issues of plastic
- Avoid using plastics where possible particularly where more durable choices are available
- Reduce your use of plastic - especially disposable items
- Avoid  or use PET bottles only once then recycle
- Avoid  PVC particularly for food and childrens items
- Avoid  polystyrene for food items
- Avoid  polycarbonate
- Reduce your use of canned foods (jar lids also contain BPA).
- When possible opt for glass, porcelain or stainless steel containers, particularly for hot food or liquids.
- Don't microwave plastics, use glass or ceramic containers instead.
- Discard any damaged plastic
- Always recycle, reuse safely, dispose of responsibly

Reduce Environmental Toxins



**Grow some of
your own and
buy organic food**

www.foodconnect.com.au



**Get a water filter,
reverse osmosis will
remove flouride**



**Use non toxic
cosmetic and
personal care
products**

Check the safety of ingredients

www.cosmeticsdatabase.com



**Use only natural
methods of pest
control**



Improve your indoor air quality



Use paint with low VOCs

www.greenpainters.com.au

www.greenpaintshop.com.au



Choose building products and furnishings including floor coverings with low VOCs

www.ecospecifier.org



Use natural substances and microfibre cloths and mops for cleaning



Studies show that indoor plants can remove 50 – 70% of VOC's

Most household toxins can be avoided by making aware and informed choices.

If you would like any further information
about tonight's topics,
you are welcome to contact me
via email

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Thank you