Greetings!

We live in a world that is massively polluted. Reports of it appear daily in our print and electronic media. And for the most part, only the really glaring examples of it are featured. Most of us think of ourselves as distant and unaffected observers…the really bad pollution happens elsewhere. The fact is we live in a modern, highly industrialized society where the extent and degree of pollution is far greater than in less developed countries.

Our source for this newsletter is Chemical Sensitivity: Principles and Mechanisms, written by William J. Rea, M.D..

Since 1965, four million chemical compounds have been reported in the literature. 6,000 new compounds are being added to this list every year. Of these, 70,000 are currently in commercial production. What’s more, many of these chemicals are deliberately added to your food, and over 700 have been identified in drinking water. Shocking, isn’t it?

In this edition we are going to examine the degree and scope of pollutants in our air, food and water and the environments in which we live. What you are about to learn will likely be at the same time unsettling and enlightening.

The good news is that your body is predisposed to maintain its internal stability through the coordinated response of its organs to any situation or stimulus tending to disturb its normal condition or function. (Homeostasis). The bad news is that each of us has an individual tipping point where the accumulation of pollutant exposure contributions to our body’s total load is so overwhelming that we are severely affected.

The nutritional state you need to maintain good health can be depleted by toxic exposure. Overload of pollutants can increasingly tax your detoxification system, eventually resulting in depletion of nutrients, system/organ malfunction, and susceptibility to illness.

With one life and one body to live it, knowing how you can give it the best of care is essential. We hope to build your awareness, and offer you strategies that will minimize or eliminate your exposure to these pollutants.

Thank you to all for your comments and encouragement regarding our newsletters.  
Sincerely,

Sharon Gwozdek
Sharon Gwozdek, RN, BSN
The National Institute of Environmental Health Sciences (a division of the NIH) defines Multiple Chemical Sensitivity (MCS) as a “chronic, recurring disease caused by a person’s inability to tolerate an environmental chemical or class of foreign chemicals”. MCS has also been described as a group of “sensitivities to extraordinarily low levels of environmental chemicals” appearing “to develop de novo in some individuals following acute or chronic exposure to a wide variety of environmental agents including various pesticides, solvents, drugs, and air contaminants”, including those found in sick buildings.

Environmental medicine specialists claim MCS causes negative health effects in multiple organ systems, respiratory distress, seizures, cognitive dysfunction, heart arrhythmia, nausea, headache, and fatigue. All can result from exposure to levels of common chemicals that are normally deemed as safe.

Much work has been done to further our understanding of chemical sensitivity in the human body. The complex science has defined six basic principles employed in the diagnosis, treatment and prevention of chemical sensitivity. These include:

- Total body load
- Adaptation
- Bipolarity
- Spreading phenomenon
- Switch phenomenon
- Bio-chemical individuality

**Total Body Load**

Total Body Load is the sum of all pollutants to which you are exposed at any given time and over time to which your body must respond in order to maintain its normal condition. (Homeostasis).

Exposures occur via particulates and vapors in the air we breathe, our food, additives to our food, our water and by contact and through our senses.

These exposures can be sudden, massive exposures or ongoing low-level toxic exposures that build up over time.

The sudden, massive exposures are usually the result of a physical trauma caused by a fall or an auto accident, a toxic exposure to pesticides or a massive viral or bacterial infection. Any of these have the potential to be lethal. Sub-lethal ongoing low-level toxic exposure can take the form of any of the common biological, chemical or physical exposures.
POLLUTANTS that can contribute to an individual’s total body load include the following:

<table>
<thead>
<tr>
<th>Biological</th>
<th>Chemical (Organic)</th>
<th>Chemical (Inorganic)</th>
<th>Physical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollens</td>
<td>Petroleum alcohols</td>
<td>Lead</td>
<td>Heat</td>
</tr>
<tr>
<td>Dusts</td>
<td>Pesticides</td>
<td>Ozone</td>
<td>Cold</td>
</tr>
<tr>
<td>Molds</td>
<td>Phenols</td>
<td>Cadmium</td>
<td>Electromechanical radiation</td>
</tr>
<tr>
<td>Foods</td>
<td>Formaldehyde</td>
<td>Aluminum</td>
<td>Light</td>
</tr>
<tr>
<td>Parasites</td>
<td>Etc.</td>
<td>Cyanide</td>
<td>Radon</td>
</tr>
<tr>
<td>Viruses</td>
<td></td>
<td>Heavy metals</td>
<td>Positive and negative ions</td>
</tr>
<tr>
<td>Bacteria</td>
<td></td>
<td>Chlorine</td>
<td>Noise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nitrous oxides</td>
<td>Weather changes</td>
</tr>
</tbody>
</table>

A significant number of these toxic chemicals are lipid or fat soluble and tend to build up in the fatty tissues, most notably cell membranes, throughout the body, increasing the body’s total load. In order to prevent disease, the body must utilize, compartmentalize, or eliminate its total pollutant load.

When your body can no longer handle the accumulation of pollutants due to increases in exposure to any of the aforementioned chemical pollutants, your body becomes intolerant to even small amounts of these agents and manifest symptoms that can be quite debilitating. What’s more, responses to these biochemical pollutants will vary with each individual to the same common exposure.

Diagnosing and treating chemical sensitivity is wholly dependent on reducing total body load.

**Adaptation**

The body constantly strives for normal condition or function in the face of an acute toxic exposure and it can “get used to” these toxins in order to initially overcome them. This is called Adaptation and involves a change in homeostasis induced by exposure to pollutants in the internal or external environment.

Adaptation can occur in any organ or tissue that has been exposed to toxins. Heightened exposure may increase the load in all organs or just one.

Alarm occurs when an individual perceives a causal relationship between any exposure and the development of symptoms of ill health. Such an alarm can be triggered by a mild reaction. If exposure is extended over time, the response will be pathological with changes in tissue.

Masking occurs when the body’s immune, metabolic, and detoxification systems reset to a new level of tolerance in order to accommodate an acute exposure. This stage is pathologic with tissue changes eventually occurring while sapping an individual’s energy.

End organ failure: Over time, adaptation allows the body to accumulate toxic substances. These exposures can eventually lead to depressed function followed by end-organ failure.

Adaptation has been observed in welders, cotton, grain, and wood workers, and nitroglycerin workers and their families.
Bipolarity

A two-part response of the immune and enzyme detoxification and metabolic systems to exposure to a toxic substance is known as Bipolarity.

The first response of bipolarity is a stimulatory/withdrawal reaction following exposure to a toxic substance. The second response is a depressive reaction in which immune and enzyme detoxification and metabolic systems are unable to adequately process their total load thereby leading to pathology. This occurs only in the last stage of Adaptation.

The initial response of bipolarity manifests as a “high” not unlike the stimulatory influence of alcohol, for example. A depressive stage eventually follows when a person returns to an atmosphere free of the alcohol and develops withdrawal headaches, muscle aches, shakiness, and impaired ability to function. It is possible for an individual to seek relief by consuming more alcohol. Such behavior can lead to an addictive phenomenon that exacerbates the consumption of alcohol thereby increasing the body’s total load.

Spreading Phenomenon

Spreading is a secondary response to pollutants that can involve new excitants or new target organs. This occurs when the body has developed increased sensitivity to increasing numbers of biological inhalants, toxic chemicals, and foods at increasingly smaller doses. When this occurs, overload becomes so taxing that even a minute toxic exposure of any substance may be sufficient to trigger a response.

For example, a person’s initial damage may be from a pesticide and then eventually have his disease process triggered by any number of toxic chemicals and foods, such as phenol, formaldehyde, perfume, beef, lettuce, etc.

Switch phenomenon

The switch phenomenon is the changing of pollutant-stimulated responses from one end-organ response to another. This usually occurs acutely, however it may occur over a much longer period of time.

This response occurs following unsuspected or unrecognized pollutant exposures. For example, an individual sprays his home with pesticides and subsequently visits a neurologist with complaints of headaches and a rheumatologist with symptoms of arthritis. He never notices or suspects a connection between his pesticide exposure and the onset of his symptoms of arthritis and fails to disclose his chemical application to the doctor. The result is a misdiagnosis where only the symptom(s) are treated.

The switch phenomenon with its cluster of disparate symptoms, signals a problem that is a part of a larger pattern needing further investigation. Helping your physician understand your environmental activities can help to achieve an accurate diagnosis and curtail a lifelong progression of illness through better diagnosis and treatment.

Bio-chemical Individuality

The last principal necessary to understanding environmental aspects of health and disease and especially chemical sensitivity is that of biochemical individuality. Biochemical individuality of response is an individual’s uniqueness of response to pollutant behavior. This uniqueness depends on the differing quantities of carbohydrates, fats, proteins, enzymes, vitamins, minerals, and immune and enzyme detoxification parameters with which an individual is equipped to handle pollutant insults. These variations determine an individual’s ability to process the noxious substances he encounters.

Summary
While we have barely scratched the surface of this fascinating topic, it is indisputable that man's well-being is a function of his environment and living in polluted surroundings adversely affects one's health. Today, more than ever, it is clear that substances that pollute the earth and pose health risks are many, including biological factors such as inorganic and organic compounds, and physical forces such as heat, cold, weather, cyclic phenomenon, radon, light, sound, and electromagnetic fields.

We hope that you have gained some insight into what causes environmentally triggered diseases.

For a far more detailed understanding, we direct you to Chemical Sensitivity, by William J. Rea, M.D. the book from which most of this newsletter was prepared.

**Fake Blueberries? Don’t Trust All That Goodness!**

Blueberries faked in cereals, muffins, bagels and other food products - Food Investigations

The blueberries found in blueberry bagels, cereals, breads and muffins are REAL blueberries right? Wrong! Award-winning investigative journalist Mike Adams, the Health Ranger, exposes the **deceptive chemical ingredients** and dishonest marketing of “blueberry” products from big-name food and cereal companies. The blueberries, it turns out, are made from artificial colors, hydrogenated oils and liquid sugars.

Follow the link below for the full story!

[http://naturalnews.tv/v.asp?v=7EC06D27B1A945BE85E7DA8483025962](http://naturalnews.tv/v.asp?v=7EC06D27B1A945BE85E7DA8483025962)
Cassie Weber joined our medical team in May 2011. She earned her Associates Degree and LPN designation from the Fayetteville Technical Community College in 2009 during her husband’s service with the U.S. Army. Upon his discharge from the Army, they returned to Arizona. She expects to complete her B.S. Degree in 2012 from the Western Governors' University, an on-line college program for working adults.

While Cassie’s initial work was in a General Medicine setting, her primary interest is specializing in the care, treatment and education of allergy patients. You can expect to find Cassie preparing antigens, conducting testing and educating patients on the ins and outs of managing their treatment protocols. She is a firm believer in patient education and its beneficial impact on patient health and well-being. She is a valued member of our team.

Our Featured Recipe

Coconut Cod
Recipe Courtesy of Sunny Anderson, 2010

INGREDIENTS:
1 - (13.5-ounce) can coconut milk
2 - tablespoons fresh lime juice
2 - tablespoons oil (either grapeseed or coconut)
salt and freshly ground pepper
4 - (6-ounce) cod filets

PREPARATION:
1. Pre-heat oven to 400 degrees F.
2. In a bowl or shallow dish, whisk the coconut milk, lime juice, oil, a nice pinch of salt and few grinds of pepper.
3. Reserve 1 cup of the marinade, add the fish to the bowl with the marinade and refrigerate for 20 minutes.
4. Remove the cod from the refrigerator. Place the cod in a 9 by 11-inch baking dish, discarding the marinade in the bowl.
5. Place in oven and bake for 12 to 14 minutes.
6. Meanwhile, make the sauce. Pour the reserved 1-cup marinade in a small saucepan, over medium heat and simmer until reduced and slightly thickened. About 5 minutes. Spoon some on the plate before placing the cod down on top. Serve warm.

TIME INVOLVED
| Prep Time: | 5 Min. |
| Inactive Prep Time: | 20 Min |
| Cook Time: | 14 Min. |

Bon Appétit!

[continued on next page]
Allergy & Environmental Treatment Center provides quality care to individuals suffering from a variety of debilitating symptoms associated with food, environmental and chemical allergies. We offer state-of-the-art allergy testing and treatment.

In addition, we offer general medicine/primary care services.

Schedule your visit with us today! Call 480-634-2985.