

# Alzheimer's and Pesticides

By Carlos Brens

I did a bit of research and found an abundance of information regarding the link between Alzheimer's (possibly Dementia) and pesticides. While we don't know the exact causes of Alzheimer's, the general consensus is that it is not an idiopathic disease, meaning one that has no known cause. The causes are essentially narrowed down to either inheritance factors (genetics) or environmental triggers or both. The problem is that these are broad factors and we don't yet know the mechanism that triggers the condition with either genetics or environmental risks. However, recent studies have caused at least one scientist to state: "Dr. Patrick Carr says there's clear evidence pesticide exposure at relatively low doses affect brain cells." Consequently, there are very good guesses for making the connection.

One study indicates that about 53% of people who worked with pesticides are more likely to develop Alzheimer's disease. The study adjusted for many demographical factors (age, sex, etc) and the known genetic risk factors to come up with the figure. A Harvard School of Public Health found in 1992 that up to 70% of people exposed to pesticides were likely to develop Parkinson's within the following 10 years. Remember that pesticides are linked to several diseases, many of which have the nervous system in common (Alzheimer's, ALS, Parkinson's, Epilepsy, etc). Pesticides have also been linked to many types of cancers. In the case of Alzheimer's, scientists suggest that pesticides may interfere with the production of acetylcholine, which is an important chemical for the creation and retention of memory. Here are a few facts:

- There are now more than 18,000 pesticides licensed in the U.S., and more than 2 billion pounds are applied each year
- In India, many states are banning soft drinks by Coca-Cola and Pepsi because of pesticide contamination in the water.
- Proliferation and concentration of pesticides affects us the most, since we're at the top of the food chain, as they carried by rains and drainage to the oceans from our farms where fish and mollusks ingest them before they end up on our plates.  
(<http://www.mdsg.umd.edu/programs/gateway/contaminants/toxicrpt/sources/>)

I did not do any investigation of the quantity of pesticides and fertilizers that end up in the ocean to provide an idea of how big a threat that is. One of the articles I read relates that in their exploration of pesticides, they found that tiny grains of pollen floating in the wind carry a load of pesticides with them. So, our exposure is comes from many sources.

If you want to get involved or just find out more information on the subject, here's a great local source (Ojai) of information and links to national organizations that try to stem the use of pesticides and others that offer alternatives we can personally use in our lawns and

gardens: <http://www.pesticidefreeojaivalley.org/index.php>. For almost anything and everything you want to know about pesticides, check out the U.S. Department of Agriculture site at <http://www.epa.gov/oecaagct/tpes.html>.

Sources:

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<http://www.dailymail.co.uk/health/article-399684/Breathing-pesticides-trigger-MS-Parkinsons-disease.html>

<http://slumz.boxden.com/f175/more-indian-states-ban-colas-over-pesticide-row-775308/>