

Allergic to London

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Could we all be persuaded that the headaches, fatigue, palpitations, muscle weakness and general inability to cope, afflicting millions of people should be blamed on allergy? The epidemic growth of allergy-fear might be nothing but the latest bout of health hysteria that, in different incarnations, has hit the Western world from century to century.

But now there is a new variant of this phenomenon: multiple chemical sensitivity [MCS], a condition characterized by a similar set of reactions (and, in recent times, frequently also by the close proximity of a solicitor) [MCS is excellently described in *Environmental Medicine in Clinical Practice* by H Anthony, S Birtwistle, K Eaton and J Maberley, Southampton: BSAENM Publications, 1997]. MCS presents considerable regulatory problems to governmental bodies and to employers: the more so since this area of human responsiveness has lacked an academic discipline to represent it.

Are Londoners particularly prone?

Well, first of all there is something that has nothing to do with MCS. It is the widespread pollen allergy to the London plane trees. The pollination period for this is from April to June. also see the 'Pollination Calendar'

Then come the man-made problems. About seventy thousand synthetic chemicals are in regular use here now. Many of these compounds are in

domestic use [D Mage & R Gammage. Evaluation of Changes in Outdoor Air Quality Occurring over the Past Several Decades, in: Gammage R, & Kaye S (eds) 'Indoor Air and Human Health', Lewis: Chelsea, MI, 1985: 10]. Over 200 000 tons of additives are added each year to our foods [M Miller. Danger! Additives at Work, London Food Commission: London, 1985]. As long ago as 1982 75% of the average diet was found to be processed food [ACARD. The Food Industry and Technology, Advisory Council for Applied Research and Development. HMSO: London, 1982]. There is no reason to believe that this has changed significantly. Over 3000 chemicals are added, most of which are xenobiotics. Traditional perfumes used to be made from natural products (spices, flowers, musks, etc) but the majority are now synthesized, and are added to many everyday products, including detergents, polishes and toiletries. Despite the fact that they have been classified and defined in an official publication by the European Commission, almost none of these synthetic aromatic cosmetic products appear to have been tested for toxicological and other effects on humans.

Is there an unrecognized problem?

And what about a hypersensitivity to diesel fumes in London, which all buses, black taxis, lorries and some private cars spew out?

It may be worth speculating about the following observations.

Reactions to medicines may not be to the active principle, but to fillers, preservatives or dyes [J A Caucino, M Armenaka & D L Rosenstreich. Anaphylaxis Associated with a Change in Premarin Dye Formulation, *Ann Allergy*, 1994, 72(1):33-35].

TILT stands for toxicant-induced loss of tolerance [C Miller. Chemical Sensitivity: Symptom, Syndrome or Mechanism for Disease?, *Toxicology*, 1996, 11: 69-86], which in discussions of MCS describes a previously unstated supposition that we may be dealing with an emerging new mechanism of disease. According to this, a two-step process occurs:

an initial exposure event(s) interacts with a susceptible individual, leading to loss of that person's prior, natural tolerance for everyday, low-level chemical inhalants, as well as for foods, drugs, alcohol, and caffeine; thereafter, such common, formerly well-tolerated substances trigger symptoms, thus perpetuating illness.

Accidental exposure to pesticide (whether organochlorines or organophosphates) has frequently appeared to be the event initiating TILT [BSAENM. Evidence of Adverse Effects of Pesticides, *J Nutr Environ Med*, 1995, 5:341-352]. In my own experience, I have found that certain chemicals used by hairdressers initiated TILT.

Sick building syndrome may be initiated by formaldehyde. Clinically, the formaldehyde released from building materials, synthetic fabrics and fabric treatments may be an important incitant in patients with MCS.

I find it important to co-ordinate carefully clinical and historical data with laboratory investigations. For MCS patients, the laboratory test of choice, for me, is the Lymphocyte Chemical Sensitivity Test available from a local lab in London.

