

GENOVA Volatile Solvents

The Volatile Solvents Profile can help identify a patient's prolonged exposure to the most commonly found volatile solvents that have been shown to cause serious health problems. Volatile solvents have also been termed volatile organic compounds (VOCs).

Why perform volatile solvent exposure testing?

Overexposure or chronic exposure to volatile solvents damages the central nervous system and causes chemical-driven liver and kidney damage. Benzene, in particular, has a severe toxic effect on the haematological system and is a recognized human carcinogen. Other solvents contribute to atrophy of skeletal muscles, loss of coordination, vision problems, and depression of the central nervous system.

A build up of VOCs in indoor environments have been associated with 'sick building syndrome'.

What are volatile solvents?

Volatile solvents are routinely used in industrial processes to manufacture consumer products. A solvent is a liquid or gas used to dissolve a solid, liquid, or gas to create a new solution. Each year, annual production of these solvents numbers in the tens of billions of pounds in the United States.

Air and water pollution are common routes of exposure in both our homes and workplaces. We are also exposed by inhalation or ingestion of car exhaust, paints, glues, adhesives and lacquer thinners. These volatile solvents are used in large numbers to produce items in our homes such as furniture, building materials, paint, shoes, cleaning and degreasing agents, inks, pharmaceuticals, and as additives to gasoline. For those living and working in urban areas, the exposure to this class of compounds goes on twenty-four hours a day.

Solvents are very damaging to bone marrow and have been associated with many of the bone marrow cancers as well as anaemia and thrombocytopenia. They are also associated with immune disorders, including autoimmunity, chronic neurologic problems and infertility.

SYMPTOMS OF EXPOSURE	
Aplatic anaemia	Atrophy of skeletal muscles
B-cell malignancies	Blood dyscrasias
Bone marrow damage	Cancer
Chemical bronchitis	Chromosomal aberrations
Cognitive disorders	Conjunctivitis
Corneal erosion, Keratitis	Dermatitis
Erectile dysfunction	Erythema
Fatigue	Headaches
Haemolysis	Hepatomegaly
Infertility	Irritation of eyes and nose
Irritation of mucous membranes	Skin irritation
Leukaemia	Muscular weakness
Nausea	Paraesthesia
Parkinsonism	Polyneuropathy
Pulmonary oedema	Renal damage

Genova VOLATILE SOLVENTS (blood) [4104]

- ❖ Benzene, Ethylbenzene, Styrene, Toluene, Xylene, Hexane, 2-methylpentane, 3-methylpentane, Iso-octane

Other environmental toxin tests available

- **Genova Phthalates & Parabens Profile (urine) [4101]:** mono-(2-ethyl-5-hydroxyhexyl) phthalate (MEHHP), mono-(2-ethyl-5-oxohexyl) phthalate (MEOHP), mono-2-ethylhexyl phthalate (MEHP), mono-ethyl phthalate (MEtP); Butylparaben, Ethylparaben, Methylparaben, Propylparaben
- **Genova Chlorinated Pesticides (blood) [4102]:** DDE (p,p1), DDT (p,p1), Dieldrin, Heptachlor Epoxide, Hexachlorobenzene (HCB), Mirex, Oxychlordane, Endosulfan Sulfate, Trans-Nonachlor
- **Genova Polychlorinated Biphenyls (PCBs) (blood) [4103]:** PCB 118, PCB 126, PCB 138, PCB 153, PCB 156, PCB 169, PCB 180, PCB 74, PCB 77
- **Genova Organophosphates (urine) [4105]:** Atrazine, Atrazine Mercapturate, Diethyldithiophosphate (DEDTP), Diethylthiophosphate (DETP), Dimethyldithiophosphate (DMDTP), Dimethylthiophosphate (DMTP)
- **Genova Bisphenol A (BPA) (urine) [4106]:** Bisphenol A (BPA), 4-Nonylphenol, Triclosan

How to order a test kit:

To order a test kit simply request the test name or test code on a NutriPATH request form and have the patient phone **NutriPATH Customer Service** on **1300 688 522**.