NutriPATH
Integrative Pathology Services

GENOVA
Chlorinated Pesticides

The Chlorinated Pesticides Profile can help identify when a patient has been exposed to certain pesticides and insecticides, and how high a body burden of chlorinated pesticides the patient is carrying. This panel looks at the most commonly found chlorinated pesticides, with reference ranges, that have been documented to cause adverse health problems. Levels are given both in parts per million (PPM) and as lipid-adjusted amounts so the clinician can best estimate the total body burden of these compounds.

Why perform chlorinated pesticide exposure testing?

Chlorinated pesticides have been identified in over 98% of all persons studied, have an affinity for lipid-rich tissues, and are stored in various organs and adipose tissues. These toxins also bioaccumulate in our bodies, increasing our toxic body burden over time, are powerful mitochondrial toxins, and may be the root cause of many chronic illnesses.

Most chlorinated pesticides have been banned for use in the United States; however some of these pesticides and insecticides are still in use around the world. Our biggest routes of pesticide exposure are ingestion through our food from pesticide residue, and our drinking water as the chemicals leech through soil into drinking water reservoirs. These chemicals are also passed to infants through breastfeeding and transplacental transfer.

Direct skin contact with chlorinated pesticides can cause necrosis of skin and gums, itching, swelling, blistering and epidermolysis.

The primary toxic effect of this family of pesticides is at the site of nervous tissue and muscle membranes. These poisons are absorbed across the gut and interfere with nerve impulse transmissions. In humans, this interference normally shows up as chronic neurological problems including mood disorders and difficulties with learning and memory. These poisons have also been shown to cause fatigue, obesity, diabetes, certain cancers, immune dysregulation, allergies, heart disease, and a host of other problems.

SYMPTOMS OF EXPOSURE	
Allergies	Asthma
Cardiovascular disease	Cell-mediated immune deficiency
Cancer	Fatigue
Frequent infections	Hypertension
Learning difficulties	Mood disorders

What are chlorinated pesticides?

Chlorinated pesticides were first placed into widespread agricultural use after World War II and are made up of ringed structures to which numerous chlorine atoms are attached. Of the chlorinated pesticides, DDT is the most well-known.

These pesticides are insoluble in water, persist in soil, bioaccumulate in fatty tissues and also biomagnify through our food chain.

SOURCES OF EXPOSURE	
Consuming contaminated fruits, vegetables, grains, meat, dairy and fish	Drinking contaminated water
Inhaling chemical vapours	Direct skin contact
Contaminated dust, soil and housedust	Bioaccumulation from mother

Genova CHLORINATED PESTICIDES (blood) [4102]

- DDE (p,p1), DDT (p,p1), Dieldrin, Heptachlor Epoxide, Hexachlorobenzene (HCB), Mirex, Oxychlordane, Endosulfan Sulfate, Trans-Nonachlor

Other environmentmental 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 Polychlorinated Biphenyls (PCBs) (blood) [4103]:** PCB 118, PCB 126, PCB 138, PCB 153, PCB 156, PCB 169, PCB 180, PCB 74, PCB 77
- **Genova Volatile Solvents (blood) [4104]:** Benzene, Ethylbenzene, Styrene, Toluene, Xylene, Hexane, 2-methylpentane, 3-methylpentane
- **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**.

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