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## *CDC's Third National Report on Human Exposure to Environmental Chemicals*

### **Spotlight on Organophosphate Pesticides**

Organophosphate pesticides account for about half of all insecticides used in the United States today. About 40 of them are registered for use in the United States. Although organophosphate pesticides still are used for controlling insects on many food crops, most residential uses are being phased out in the United States as a result of the Food Quality Protection Act of 1996.

#### **How People Are Exposed to Organophosphate Pesticides**

People can be exposed to organophosphate pesticides by

- Drinking water or eating foods that contain pesticide residues.
  
- Breathing or absorbing organophosphate pesticides through the skin when applying or working with them. Farm workers and people who work with pesticide applicators or who make pesticides may be exposed to greater amounts of these chemicals.

#### **How Organophosphate Pesticides Affect People's Health**

Exposure to large amounts (also called acute exposure) of these pesticides might cause these health problems:

- Weakness, paralysis, muscle twitching, or cramping.
  
- Headache, nausea, dizziness.
  
- Runny nose, drooling, vomiting, diarrhea.
  
- Excessive sweating and tearing of eyes.
  
- Difficulty breathing, tightness in chest.
  
- Irregular heartbeat or an unusually slow heartbeat.

Some people who are exposed over a long time (also called chronic exposure) to smaller amount of these pesticides have complained about feeling tired or weak, irritable or depressed, or experiencing memory loss.

## Levels of Organophosphate Pesticides in the U.S. Population

- For the *Third Report*, scientists tested urine samples from people aged 6-59 years who took part in CDC's national study known as the National Health and Nutrition Examination Survey.
- Information about levels of specific organophosphate pesticides in the U.S. population is available in the *Report* at <http://www.cdc.gov/exposurereport>.

### For More Information

- **Agency for Toxic Substances and Disease Registry**  
Toxicological Profile Information Sheet:  
<http://www.atsdr.cdc.gov/toxpro2.html>  
Public Health Statements:  
<http://www.atsdr.cdc.gov/phshome.html>  
ToxFAQs:  
<http://www.atsdr.cdc.gov/toxfaq.html>
- **U.S. Environmental Protection Agency**  
Recognition and Management of Pesticide Poisonings, 5th Edition, Chapter 6:  
<http://www.epa.gov/pesticides/safety/healthcare/handbook/contents.htm>  
Types of Pesticides:  
<http://www.epa.gov/pesticides/about/types.htm>  
Organophosphate Pesticides in Food-A Primer on Reassessment of Residue Limits:  
<http://www.epa.gov/pesticides/op/primer.htm>
- **Centers for Disease Control and Prevention**  
National Institute for Occupational Safety and Health Pesticide Illness and Injury Surveillance:  
<http://www.cdc.gov/niosh/topics/pesticides/>

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