



# COLORADO ENVIRONMENTAL PESTICIDE EDUCATION PROGRAM

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## **PESTICIDE SENSITIVITY AND HYPERSENSITIVITY**

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This fact sheet describes pesticide sensitivity and hypersensitivity, lists pesticides which cause hypersensitivity, and outlines how to diagnose and live with hypersensitivity.

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## **Pesticide Sensitivity and Hypersensitivity**

One of the areas of potential pesticide hazards not clearly understood is the development of sensitivity or hypersensitivity. Repeated minor exposures to many kinds of products, including pesticides, may sensitize some people to react adversely to a family of chemicals. Common examples of sensitivity include people who have allergic reactions to particular foods, cosmetics, or cleaning substances. It is estimated that 30 percent of the American public is sensitive to something. In some instances, the situation may severely impact one's quality of life or even become life threatening.

### **How are people exposed to pesticides which might result in allergic symptoms?**

Pesticides may be encountered as residues in food, air, and water. People may also be exposed to pesticides used in agriculture, application for pest control at home, at work, at places of business people frequent, applications to roadside right-of-ways to control weeds, and applications of pesticides for public health vector control programs.

### **Why do some people react to pesticides?**

Pesticides are made up of active ingredients and inert or other ingredients. Some people react to the strong odor and irritating effect of the inert ingredients. A pesticide product which causes someone to develop severe, acute respiratory symptoms would be a true hypersensitivity to one of the active ingredients. This can occur with a limited number of specific pesticides, all requiring clinical confirmation. Allergic symptoms tend to last for hours or days while irritant symptoms clear up quickly when the person moves away from the source of exposure.

### **How common is allergy to pesticides?**

Few of the thousands of pesticides used today cause true allergic symptoms. Like cosmetics, pesticides are tested for their allergenic potential prior to marketing.

### **Which pesticides cause allergy?**

Hypersensitivity to pesticides occurs most commonly from organophosphates, carbamates, fungicides, and botanicals.

## **Do pesticide labels carry allergy warnings?**

Pesticide labels carry warnings about known health effects. Most of these deal with toxicity. Some indicate problems that have been reported with either irritation to the skin, eyes, and respiratory tract or true hypersensitivity reactions. It is important to read the label carefully before using the pesticide. Since hypersensitivity can develop from repeated minor exposure, it is recommended that applicators minimize all exposure to these products. This could include the routine wearing of chemical resistant gloves and other protective clothing, even when not required by law, plus proper clean-up/showering following each application.

## **What should a person do who suspects pesticide allergy?**

Persons who suspect allergy should take the pesticide label to their physician for further investigation. The physician and the patient can work out the most likely diagnosis by keeping an accurate history of the time, place, and activity at the onset of symptoms. This will then lead to selective clinical tests for specific agents. Consultation and support of an allergy specialist may be required.



## **How can a pesticide-sensitive person reduce contact with pesticides?**

The [Colorado Department of Agriculture](#) maintains a registry of pesticide-sensitive persons (see Pesticide Fact Sheet [Notification Requirements - Registry of Pesticide Sensitive Persons](#)). The registry is a list of pesticide-sensitive persons who must be notified before any turf or ornamental pesticide application is done on abutting properties.

## **References and Resources**

*Allergy and Pesticides: Ten Questions and Answers*. Division of Public Health and Public Service, Agromedicine Program, Medical University of South Carolina, Charleston, SC, <http://www.musc.edu/oem/pestallr.html>.

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