AVOIDANCE OF OTHER MAJOR CHEMICALS

1.SMOKE:

A cigarette consists of several substances -- tobacco that has been grown by spraying the crop several times with pesticides, various chemicals that have been added for aroma, freshness, and as preservatives, sugars, the paper, and the glue. Therefore, the cigarette smoke is a very complex substance. Here are suggestions on how to avoid tobacco smoke:

(a)It is suggested that for any allergy treatment to be successful, it is essential that the person involved must stop smoking.

(b)If it is the child, it is strongly recommended that no smoking should be carried out in the house. If the parents wish to smoke, they should go outside the house to smoke. Smoking in another part of the house does not help, either.

(c)The worst thing is when smoking is carried out in the car. Smoking should never be allowed in the car.

(d)The best way to quit smoking is to go "cold turkey". the harder it is for you to quit smoking, stronger is the addiction, and therefore, it is likely to be more significantly involved in causing your problems.

(e)You should ask us for help if you are unable to cope with this problem on your own. smoking is a very important problem among allergy sufferers.

(f)The allergy patient may have to avoid places filled with smoke such as night-clubs, theaters, and bowling alleys.

(g)You may have to post signs in your house, "Thank you for not smoking". These can be obtained from our office or you may make your own. Remove ash trays from your house.

(h)You may have to request your colleagues at work not to smoke around you, especially in meetings.

(i)Patients who are highly sensitive may react to smoke residues carried in the breath or clothing of the smoker. In such situations, other family members may have to quit smoking altogether. There are no health promoting benefits derived from smoking anyway.

2.ORGANIC SOLVENTS:

Organic solvents are widely used in many products that are common in use. The commonly used solvents are rubbing alcohol or ethyl alcohol, benzene, ether, acetone, xylene, toluol, and various petroleum distillates. Usually a solvent can be detected by its odor. The products containing such solvents are:

(a)finger nail polish
(b)finger nail polish remover
(c)shoe polish
(d)hinge looseners
(e)many kitchen cleaners have solvents to remove stubborn fats and oil films
(f)paint removers
(g)adhesives used in model planes and other toy fabrications and repairs.
(h)some adhesives used in laying tile surfaces may require several weeks to evaporate fully. Adhesives containing tars used in laying floors are especially troublesome -- a hazard that is increased in the presence of heating units in the floor or in the ceilings of downstairs rooms.
(i)Duplicating fluids used in copying machines and copied material, xeroxed, dittoed, or copied otherwise.

Testing:All these products can be tested by the sniff test. If found troublesome, these should be avoided.

Substitutes:

1.Fingernail polish & fingernail polish remover:
One may be able to use finger-nail polish or remover outdoors facing in the direction of the wind, keeping the materials as far away from the nose as possible. Use of activated charcoal mask may help. Highly sensitive persons may have to avoid altogether.

2.Shoe polish and hinge looseners:
Olive oil or other tolerated oils can be used as alternates for shoe polish or hinge looseners.

3.Kitchen cleaners:
Refer to chemical substitution table #4, 6, & 30 for alternates to various cleaners.

3.CLEANING FLUIDS AND LIGHTER FLUIDS:

Testing:Many of these products contain petrochemicals and can be tested by the sniff test.

Sources:The sources include:

1.Dry cleaned clothes: Highly sensitive persons may react to volatile hydrocarbon residues from the mere presence of or from wearing or pressing recently cleaned clothing.

2.On-the-floor cleaning of rugs or indoor cleaning of furniture with solvents should be done during a susceptible person's absence and thoroughly evaporated before his return.

3.Home cleaning with solvents should be attempted outdoors only with due regard to the wind direction. The materials should be dry and well aired before they are brought into the house.

4.Storage of all cleaning and lighter fluids should be done outside the living quarters.

5.Since the combustion products used in cigarette and other lighters may precipitate acute attacks in susceptible persons, their presence or use should be barred.

4.REFRIGERANTS AND SPRAY CONTAINERS:

The slow escape of refrigerant gasses from electric refrigerators and air conditioning equipment may cause symptoms in highly susceptible persons. The same compressed gas is the most commonly used propellent in spray containers employed in dispensing insecticides, perfumes, hair sprays, and other cosmetics.

It is hard to detect this slow leak. However, this is sometimes suggested by a gradually decreasing frosted surface, nearly continuously running of machines or by reactions to stored or frozen foods when the same lot of food, prior to freezing or storage, had not reacted. Since many of the chemicals used in pressurized spray cans can themselves cause reactions in their own right, these reactions must be differentiated from those caused by propellent of such devices.

Testing:Store a tolerated food in the refrigerator or freezer open in a dish. Leave it there for 2-3 days. Let it thaw at room temperature if it was stored in the freezer. Do not heat the food. Eat and watch for any reactions.

Substitutes:

1.Pressurized cans and containers should be discarded. All such substances can be purchased in another form if absolutely needed.

2.Refrigerator: Select an electric refrigerator with a minimum of plastic-coated wiring. do not use a self-defrosting type.

For the most sensitive, porcelain or steel refrigerators are the best. These are commercial refrigerators and cannot be found in the home appliance areas of department stores. A word of caution, however: do not get a high-humidity commercial refrigerator. this machine is dripping wet inside, because it is designed to keep dough damp.

If possible, you should not have the motor of the refrigerator in the house. The motor can be installed outside and current piped in using glycol rather than freon. The reason for using glycol is that if you have a leak you will know immediately, because glycol is a liquid. Freon is a gaseous refrigerant which, when leaking, often goes undetected.

If you cannot have a stainless steel or porcelain refrigerator, keep your refrigerator extra cold. It is wise never to keep food without a cover in a refrigerator.

If you must have a refrigerator with a motor in it, you should not have it in the kitchen, but in another room, closed off, with a vent to the outside. Once you begin to be aware of the fact you are reacting to them, you can more easily pinpoint contaminants. You may decide you want an extra refrigerator or an extra freezer in your basement.

5.SPONGE RUBBER:

The odors from sponge rubber are one of the major causes of chronic symptoms. the most common sponge rubber items include:

1. Sponge rubber pillows
2. Rubber mattresses
3. Rubber upholstery
4. Rubber rug pads
5. Rubber seat cushions
6. Rubber insulation of electric blankets
7. Rubber typewriter pads
8. Rubber floor pads
9. Rubber backing of rugs
10. Nose reducing or shock absorbing installations in the home

Symptoms:

1.Highly sensitive patients may experience flushing of face, irritability, sense of stuffiness or absence of available air upon first entering rooms with rubber rug pads, upholstery and rubber tiled floors.

2.Symptoms at night characterized by restlessness, insomnia, night sweats, and/or residual muscle aches and pains, and fatigue often suggest susceptibility to rubber pillows, mattresses, or the rubber insulation of electric blankets.

Testing:

1.For testing, refer to Test Additions, #44.

2.Remove all sponge rubber items and store in a single, tightly closed room for a week. If utility gas and gas appliances are eliminated and after exposures bearing on this problem are controlled, chronic symptoms of the susceptible person are apt to improve during this period of avoidance and are also apt to be induced acutely soon after breathing the air of this room.

6.PLASTICS:

The more flexible and odorous a plastic, the more it contributes to indoor chemical air pollution.

Sources of plastics include:

A.Most frequent offenders:

1.Plastic pillow cases	6.Handbags
2.Plastic mattress cases	7.Garbage bags
3.Upholstery materials & covers	8.Lamps, lamp shades & sockets, ceiling light covers or diffusing gloves over table lights are often plastic.
4.Folding doors	9.Shower curtains
5.Shoe bags	

B.Less common offenders:

1.Plastic brushes	4.Shoes
2.Plastic combs	5.Other articles of clothing
3.Powder cases	6.Plastic air conditioning ducts

C. Rare offenders:

Hard plastic such as Bakelite and cellulose acetate products, vinyl floors and surfaces and Formica table and counter tops are well tolerated. These are only rarely incriminated, except for an occasional reaction to vinyl and Formica as a result of direct skin contact, especially in warm weather. However, Bakelite handles on pots and pans can be major offenders for producing phenol and formaldehyde fumes when heated.

Testing:

1.For testing, refer to "Test Additions", #2.

2.Take soft plastic such as a garbage bag, shoe bags, or handbags, etc., and cut into small pieces. Put in a wide mouth Mason jar and tighten the lid. Put it in the oven for 1/2 hour at 200° F. to fume out. Let it cool to room temperature, open the lid and set 6 inches away for 20 minutes' exposure in a small room with the door shut.

3.If no reaction is noticed with #1 or #2, sleep overnight using plastic pillow cases and plastic mattress cases or use garbage bag or other soft plastic as pillow case.

Tips to Avoid Plastics:

Refer to"Coping With Your Allergies", pages 170-171.

7.INSECTICIDES & PESTICIDES USED IN HOME AND IN AGRICULTURE:

Pesticides are substances that kill pests. They are widely used in agriculture and are commonly used in indoor environments as well. Pesticides are used in or around nearly 91% of all United States households. Since these compounds and their active residues are encountered on foods, in homes, in offices, and other structures, and in water, air and soil, opportunities for multiple exposures exist.

Pesticides are seldom specific in time, place, or target of chemical activity. Many compounds are resistant (and formulated to be resistant) to normal degradation processes, and some can remain chemically active for years. Pesticides and their residue originally applied outdoors may eventually enter indoor environments from among other sources: pets, clothing, and open windows. Pesticides applied to kill one pest may kill or injure other things as well. Generally, inhalation of pesticides produces more serious health effects than does pesticide exposure through skin absorption or from low levels of pesticide ingestion (as occurs with foods). However, an important thing to remember is pesticides entering the body, no matter what route, are capable of producing serious illnesses.

The term pesticide is used in a generic sense to describe a wide variety of toxic substances with a particular end-use application. Insecticides (insect killers) are the predominant form, but other types include acaricides (mite killers), nematocides (worm killers), herbicides &week and brush killers), and rodenticides (rodent

killers). These substances vary in chemical composition and can be used in various forms (powder, dusts, liquids, "bombs", aerosols, slow release strips).

Use of pesticides in and around buildings is prevalent. In California, it is estimated that 92.6% of all households use pesticides, and 82.5% used pesticides inside their homes. chances for multiple pesticide exposures exist since pesticides can be encountered in other indoor environments such as schools, theaters, restaurants, and office -- as well as on pets.

The pesticides become indoor pollutants through several sources. Conscious human activity in using pesticides is one method. This includes application of pesticides by structural pest control operators as well as by others in the near buildings. It also includes items such as moth balls, slow release insecticide strips, and flea collars for pets.

A second source of indoor pesticide pollution can result from the long lasting potency of some previously applied pesticides. Pesticides applied outdoors are often resistant to natural decomposition processes. When used in indoor environments, where they are protected from ultraviolet light degradation and dilution by wind action, they may be even more long lasting. Thus, substances applied may not be known to current occupants over a period of time and be inhaled by building occupants. For instance, in a study by the U.S. Environmental Protection Agency (EPA), chlordane residues were detected inside homes 20 years following application.

A third indoor source through which pesticides reach humans occurs from residues on food.

Pesticides typically encountered in indoor environments comprise a diverse group of substances numbering in the hundreds & include synthetic, organic, inorganic, and botanical compounds. The inorganic compounds include calcium arsenate, copper sulfate, zinc and lead salts, fluorides, and mercury. Naturally occurring organic substances include pyrethrum, rotenone, and nicotine. Whereas inorganic and naturally occurring organic pesticides are still in use today, synthetic organic pesticides are the most important part of the market. The synthetic organic chemicals in use today include chlorinated hydrocarbons, organophosphates, and carbamate compounds. The chlorinated hydrocarbons include Chlordane, Aldrin, Dieldrin, Endirin, Lindane, and DDT. These belong to the petrochemical group. The most deadly poisons are derived from organophosphates and include Parathion, Phosdrin, Diazinon, and Tetraethyl hydrophosphate. The carbamates include Carbaryl and Propoxur. Although the last 2 groups do not belong to the petrochemicals, it appears most appropriate to discuss this problem here as a whole.

DDT and related chlorinated hydrocarbons, being relatively insoluble in water, are usually dispensed in kerosene or other solvents. Whether the deleterious effects of such mixtures in chemically susceptible persons are due to the active principles or the vehicles is often difficult to determine. The exceedingly high degree of susceptibility of many persons to such mixtures containing Lindane, Methoxychlor, DDT, Chlordane, Malathion, or Thiocyanate precludes their use as aerosols indoors. Rugs are often moth proofed by the use of DDT in rug shampoos or storage. Although such residues may be largely removed in cleaning, it should be remembered that some cleaning fluids also contain DDT and that rugs and blankets are usually moth proofed when cleaned, unless otherwise requested.

Toxic insecticides such as Dieldrin, Chlordane, or Pentachlorophenol are often used by professional exterminators for the control of termites and ants. These chemicals should not be used indoors, i.e., in the basements or attics of homes of patients known to be susceptible to other chemical exposures. Once these materials are applied, it is impossible to remove them. The only alternative in certain extreme instances has been for susceptible persons to abandon such homes in order to control their chronic symptoms. The odors of

slowly evaporating moth balls, cakes, and crystals containing Naphthalene, Paradichlorbenzene and similar materials are also major causes of symptoms in these patients.

Aerosol bombs or sprays containing Lindane, Methoxychlor, DDT, chlordane, Malathion, or Thiocyanate should never be used indoors and only with great caution outdoors. For mosquitoes, moths, flies, and other insect pests "Aerosect" aerosol bomb (Pennsylvania Engineering Co., Philadelphia, PA) containing pyrethrum and Rotenone in a base of sesame oil may be used with caution. "Ortho-extra" spray with rotenone and pyrethrum, when mixed with water, is the least harmful spray for ant invasions. For specific pest control, refer to Chapter 25 of "Coping With Your Allergies".

Specific instructions to avoid pesticides:

1.Stop using all kinds of pesticides at home and, if possible, at work.

2.For specific needs, refer to Chapter 25 of "Coping With Your Allergies".

3.Stop using any pesticides in your yard.

4.Fogging near urban areas for insect control is contributing to air contamination of areas that were not generally fouled otherwise. Persons known to be intolerant to various chemical exposures associated with city living often move to suburban country sides for their health, only to be "abated" without warning in the middle of the night! Having retired with the bedroom windows open, a susceptible person's first warning of the presence of the municipally financed mosquito abatement spray rig may be a strangling cough or even an epileptiform seizure. Susceptible persons protect themselves from abatement programs variously. Some have requested the local municipalities to give them advance notice when their area is to be treated so they may choose between fleeing from the region or enclosing themselves in their own homes. Some have moved farther into the country, but this usually fails. Either a new agency is formed in this region, they run into trouble with farmers spraying for week control, or foresters spraying for insect pests. A few have actually returned to the most livable part of the city from which they moved, finding its hazards less disturbing than the current indiscriminate spraying of the country side.

5.Request your neighbors to give you advance notice so that you can take appropriate measures to protect yourself.

6.Even while driving in the country, one may suddenly encounter roadside weed control spraying. the highly susceptible person is well advised to stop, turn around and escape as rapidly as possible. an alternate move is to close the car windows and breathe through your activated carbon filter. Even driving along a recently sprayed roadside or railroad right-of-way or through a country area immediately after spraying for weed or insect control may precipitate reactions.

7.One may have to avoid fresh produce sections of the supermarket because it is frequently sprayed with pesticides.

8.Highly sensitive patients may have to use "organically grown" foods, i.e., chemically less contaminated foods.

Testing for Pesticide Sensitivity:

Many pesticides are very toxic so these should not be tested by inhalation, ingestion, or otherwise. The diagnosis is made by:

1.History of reactions to direct exposures to various pesticides as may occur following their application indoors or outdoors as one may encounter spraying done by the neighbors, municipalities, farmers, or foresters.

2.History of reactions to odors in the fresh produce departments of supermarkets.

3.Reactions to commonly available produce "grocery store" foods, whereas the same foods when organically grown can be eaten with impunity.

4.Patients who are highly susceptible to other facets of chemical environment should especially avoid pesticides.

8. ARTIFICIAL COLORING DYES OR FD&C DYES:

There are many coloring dyes that can be added to cosmetics, drugs, and foods. These dyes are coal tar derivatives. therefore, a person sensitive to phenol or petrochemicals should avoid these dyes. the most common coloring dyes include: Red #3 & #40; Yellow #5 & #6; and Blue #1 & #2.

Although one may be more sensitive to one color than the other, nonetheless, a sensitive person must also avoid all other food colors. One important point to remember is that the actual color of substance does not necessarily represent the actual color added to it. For example, blue color either #1 or #2 added to yellow color #5 or #6 will give rise to green color. Therefore, it is important to know exactly what colors were added. A sensitive person may be able to tolerate the color in the cosmetics applied to the skin but not able to ingest it. Remember -- See the color of the product and read the label. If not sure of the ingredients, may not use the product.

Products Containing Artificial Colors:

1.Drugs.

2.Cosmetics -- for substitutes, refer to "Coping with Your Allergies", chapter 28 or "Do It Yourself Allergy Handbook".

3.Foods -- artificially colored. these include: Creme de Menthe, maraschino cherries, and other colored fruit, Jello and other colored gelatin desserts, mint sauce, colored ice cream, colored sherbet, colored candy, colored cake, cookies, pie frostings and fillings, wieners, bologna, cheese, butter, oleomargarine, oranges, sweet potato, Irish potato, root beer, pop, cola drinks, and certain other soft, imitation drinks. Dyed sweet potatoes may usually be employed if carefully peeled. As a practical point, the common practice of dying the sweet potatoes may usually be detected by noting the presence of dye on the broken ends of the tubers.

Testing for Food Coloring Dyes:

This should be done in the physician's office since the reactions can be severe. This is usually done by sublingual testing. However, if this is not possible, testing may be done at home. Test red, yellow, green, and blue. One drop under the tongue on successive days.

9.ARTIFICIAL SWEETENERS:

Saccharin is a noxious drug and even in comparatively small doses is harmful to the human system. Many allergic reactions are associated with its use.

Saccharin is a coal tar product. Persons sensitive to phenol or petrochemicals should avoid its use. Saccharin is available in liquid, powder, or tablet form. It is extensively used in diet sodas and other foods labeled as low calorie or those promoted as diet aids. The use of all these foods should be stopped.

Testing:

Avoid saccharin for 4-7 days and then add saccharin (powder, liquid, or tablet) to a glass of water to make it sweet enough for you and drink it. Watch for any reactions for the next one hour. If no reaction is noted, take 1/2 glass of water with saccharin and watch for another one hour.

10.FOOD ADDITIVES AND PRESERVATIVES:

The 3,000 food additives with which mankind has had NO biological experience prior to this century may prove innocuous, but prudence and a sense of self-preservation bid us to examine these potential threats to our own and subsequent generations, especially in view of the unexplained occurrence of cardiovascular, carcinogenic and degenerative disease in younger and younger members of our society (W. V. Applegate, M.D.).

With the frequent introduction of new foods and beverages into our diets . . . it is becoming more difficult to establish etiological factors responsible for hypersensitivity reactions. It has now been definitely established that hidden allergens in the form of flavorings, colorings, preservative agents, excipients, anti-oxidants, stabilizers, and emulsifiers cause a wide variety of hypersensitivity reactions. (Stephen D. Lockey, Sr., M.D.)

Food additives are being incriminated as a cause of an astoundingly large number of allergies ... A number of .... allergists have documented the many mental symptoms and behavioral problems caused by food additives and food allergies. If mental illness caused by allergies were recognized more, and emotional factors not always sought to explain mental disturbances, a great deal of time and money could be saved and patients' mental conditions eliminated. There are millions of patients enduring needless suffering. One can only guess at the number of major and minor tragedies that are enacted daily because of misinterpreted symptoms.... (Howard G. Rapaport, M.D.)

Today, many foods are full of these additives and preservatives. These can be found in cereals, cornmeal, meats, canned vegetables, soups, candy, juices, luncheon meats, TV dinners, sausage, ham, hot dogs, and cooking oils. Practically every prepared food has them unless specified. The unfortunate fact is that all these additives and preservatives are available by the pounds to be added to the food ready for human consumption but practically none of these are available for testing purposes. The only practical ways to avoid them are:

1.Read labels.

2.Prepare the foods at home from scratch so that you exactly know the ingredients.

3.Do not eat if you are in doubt.

4.Cooking oils available at grocery stores contain BHA, BHT, but these are not labeled. Obtain cold pressed cooking oils such as made by Haines. These are available at health food stores.

Testing:

The only practical way to test them is to avoid them for a period of 4-12 days and then eating those foods that contain them and only those foods which have proved to be safe by previous testing.

11.FOOD CONTAMINATES:

As opposed to many additives and preservatives that are intentionally added to the food, there are many other chemicals that enter the food supply incidentally. These are referred to as chemical contaminates. both exert important clinical effects. The reactions caused by food additives and contaminants were often confused with the reactions caused by the actual food. This differentiation was made possible only when organically grown (ie, chemically less contaminated) foods were made available for testing purposes. A few examples will explain this as many "grocery" store fruits and vegetables are chemically contaminated even though when these do not contain any additives or preservatives:

a.A grocery store apple is contaminated with pesticides that have been sprayed 15-20 times during its growth period and then it is waxed for better appearance and appeal. Therefore, a reaction occurring on ingestion of a grocery store apple may be due to apple, pesticides, or wax. The only way to diagnose such a problem is by demonstrating such a reaction to the grocery store item where an organically grown apple causes no reaction.

b.A reaction caused by bananas that have been gassed could be from the gas or the bananas.

Diagnosis:

One should suspect the possibility of food contaminants when:

1.A patient shows reactions to multiple fruits belonging to different families. Here, the pesticides are more or less the same.

2.A patient shows reactions to multiple vegetables belonging to multiple families. Here again, the pesticides used are more or less the same.

3.There is a group of lesser susceptible persons who, when avoiding other chemical exposures, may be able to eat commercially available stewed fruit. Since these spray residues are at least partially volatile, this may account for the common observation that stewed fruits seem to be better tolerated by some individuals than the same fruits in the raw state. In keeping with this view is the fact that inhalation of the odors of chemically contaminated stewing fruits and vegetables have precipitated chemical reactions in some, though cooking odors of the same items not so contaminated have been tolerated.

4.Other practices contributing to the spray contamination of foods is the indiscriminate spraying of fruit and vegetable counters in the retail markets. This apparently is done to control fruit flies. susceptible individuals usually start to cough, wheeze, or manifest some other evidence of reaction when in this area of markets. Admittedly, these reactions are difficult to differentiate from those attributable to evaporation of previously applied spray -- solvent mixtures as well as those from the inhalation of deodorants, disinfectants, and cleaners used in the markets. The fact that the majority of such

reactions occur in the vicinity of the produce counters and the fact that spraying of such areas is known to be a common practice suggests this exposure as a predominant one.

Actual diagnosis is made by testing organically grown foods and then testing the commercial form of those foods that caused no reaction. A highly chemically sensitive patient has to test foods in both forms.

One must remember that once a food has been sprayed with these insecticides, there is no known way of removing such spray residues. Since a growing or stored food has a continuous exchange of air between it and its surroundings, the spray ingredients apparently become incorporated into the pulp. Washing, rubbing, peeling, cooking or a combination of these processes do not eliminate the spray residues.

Testing Instructions:

Look at your food allergy testing results.

1.If you have shown reactions to "commercially" available multiple fruits, multiple vegetables, or multiple meats, or if you can tolerate cooked fruits and vegetables, but not in the raw state, or if you have a history of being bothered in the fresh produce sections of the supermarkets, the possibility of food contamination as a cause exists. In the absence of such a history, the possibility of food contaminants as a predominant cause for your illness cannot be excluded. The only definite way to make the diagnosis is to demonstrate reactions to commercially available foods whereas same organic foods do not cause any reactions.

a.Avoid all commercial foods for at least 8-10 days. Use only organically grown foods obtained form a reliable health food store. Some commercially available foods may be tolerated. A list of such foods is given at the end of the section.