Real help for ADHD

Why Can't My Child Behave?

Why Can't She Cope?
Why Can't He Learn?

Jane Hersey
Introduction by Jay Freed, M.D.

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Why can't she cope?

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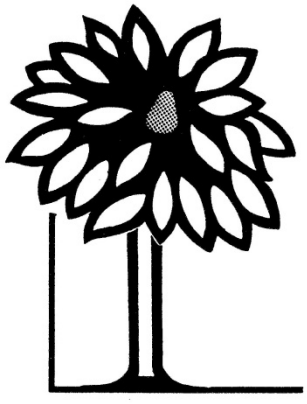

Pear Tree Press, Inc.
Williamsburg, VA

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Fifth Edition
Library of Congress Catalog Card Number: 96-92093
ISBN 0-9511050-8

Printed in the United States of America / August 2014

Hersey, Jane
Why Can't My Child Behave? Why Can't She Cope?
Why Can't He Learn? / Jane Hersey

1. Feingold diet. 2. Attention deficit/hyperactivity disorder.
3. Behavior problems in children. 4. Salicylate sensitivity.
5. Food additives.
618.92

Pear Tree Press, Inc.
Post Office Box 6058
Williamsburg, VA 23188
U.S.A.

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Preface

Dr. Benjamin Feingold dedicated his life to the pursuit of the relationship between what we eat and how we feel and behave afterwards. This is not a medical concern limited to children only. How we perform in school, work and at home is definitely associated with our diet. To believe that there is no correlation is foolhardy. The Feingold Association has made it possible to have a centralized location where one can go to get information, treatment and support.

The most vivid recollection I have of a patient's response occurred when I was working in my office around 12 years ago, when a mother came to see me with the cutest blond-haired, blue-eyed little two year old you have ever seen. Unfortunately her behavior was consistent with that of somebody possessed by the devil. She screamed and shrieked and was full of fright. Her mother described her as always being that way, and mom was at her wits end, crying to me about this situation. After obtaining a history and performing a physical exam I determined that this child's diet may be a strong factor in her adverse behavior so I referred them to the Feingold Association. About six weeks later mom returned with her daughter and both of them gave me hugs and kisses. It was then that I knew for certain that behavior is affected by diet. Since that time I have seen countless examples of behavioral disorders that have been ameliorated by diet.

Those of us who know children who are food sensitive are aware of their many difficulties. They have trouble in school with behavior and learning. They develop self-confidence difficulties and diminished self-esteem. They cause turmoil at home resulting in parental discord and generalized family instability.

In my opinion it is imperative to obtain a medical primary care provider who is empathetic, open minded and accepts the possibility that certain behaviors/psychological problems are related to diet. The use of stimulants in the treatment of these conditions is definitely appropriate when many factors are considered. The age of the patient, the family situation and the potential for compliance are criteria which must be weighed in determining whether a child will benefit from medication or diet. A family must not be willing to accept, without a thorough neurological exam and thorough history, the prescription for medication without all treatment modalities being discussed.

Based upon knowledge that I have regarding research into the value of the Feingold diet, we are approaching the dawn of a new era in the linking of foods, chemicals and behavior! We hope soon to have specific

laboratory tests to determine which patient will respond to diet. This will impose serious scientific validation of Dr. Feingold's theories that are long overdue.

This effort by Jane Hersey for the Feingold Association is a labor of love and commitment. It will touch the heart of those who can relate to children whose lives were in turmoil and then became peaceful. It will give hope to those who are presently pursuing it. I am proud to be able to introduce this manuscript and to have been a part of the Feingold Association for these many years.

Jay Freed, M.D., F.A.A.P.

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Dear Reader,

More than thirty years ago I came upon the answer to the most difficult question I had ever faced: *Why can't my child behave?* This is the book I would have liked to have found.

Thanks to a remarkable doctor and countless volunteers, families of "impossible kids" have found answers. They helped their own children, then formed a nonprofit organization and stayed on to help others. In some cases the volunteers are adults whose parents used these techniques to help them when they were children.

It isn't possible to thank all the individuals who have given so much for three decades and more. There are doctors, researchers, journalists and counselors who have risked ridicule for refusing to see medication as the only solution, who believed the welfare of children came first. There are countless talented volunteers who chose to donate their time when they could have enjoyed the financial benefits of a career.

I hope many of these people who have given their time and caring through the years will read this, and recognize the part they played in bringing help to families in the past as well as in the future.

But the focus of this book is not what has gone before, but what is available now, today, to help you with what is probably the most awful situation you have faced. I speak with such parents (usually a mom) nearly every day. You are tired and discouraged, but determined. Whether you are a successful executive or on public assistance, I hear the same words, the same doubts. Your child's behavior has shaken your confidence as a parent, and those who are supposed to be helping you have shaken your confidence as well.

Your child has probably received labels (from the neighbors as well as from professionals), but labels alone don't fix anything. There are complicated descriptions of behavior problems, and an alphabet of acronyms to go along with them. You may have told yourself that this person is a professional and must know what he/she is talking about, but deep down, it really doesn't make sense. There is blame, there are admonitions, and instructions to add to the many things you are expected to cope with. You may feel that you have been "jumping through hoops," but none of this effort has really made a difference.

This book is intended primarily to help you, but it has other purposes. More than thirty years of work results in a lot of information, and this is a place to store at least some of it. Families who already know how to use diet management will enjoy having a handy reference, interested professionals will have a resource for their clients, and students writing

papers may find it helpful to have the major scientific information in one place.

Although the problems of ADD (attention deficit disorder)/ADHD (attention deficit hyperactivity disorder) appear to be far more prevalent in the United States, there are many families living in other countries with no support group. It is my hope that this book will be a practical guide for them.

Most of the information in this book has appeared over the past thirty-five years in *Pure Facts*, the newsletter of the Feingold Association of the United States. The stories included are real. Nearly all were originally published with full names and photos. Rather than attempt to trace families with whom we have lost contact, and seek permission, I chose to include the stories, using only first names in most cases.

This revised edition incorporates new information that has recently become available. Exciting things are happening in many fields related to diet and behavior. Professionals, working with parents, are finding new ways to help children with autism, seizures, and ADHD. There is the temptation to delay publishing this book for another six months, because even more information might come out. But if you are the parent of a troubled (or troublesome) child, you won't want to wait another day!

This book is not designed to change the mind of any reader who has found the help she needs, but for those who are interested, to share what we have learned as we have helped our children.

PART ONE

Chapter 1 ~ Tell me about your child

- Does your child get upset too easily?
- Does she seem to not hear what you are saying?
- Is his motor stuck on fast forward?
- After you have carefully explained why he cannot do something, and he seems to understand, do you turn your back only to have him repeat the behavior?
- Do you sense that she really can't help the way she behaves?
- Do all the teachers in the school know your child's name?
- Do other children avoid playing with your child?
- Does she have difficulty interacting with children her age?
- Does he always seem to be touching every person and object in his reach?
- Is she fine one minute, and out of control the next?
- Do all the games have to be played his way, with his rules?
- Does she seem to be off in her own little world?
- Can he go from here to there and lose something?
- Is homework lost, forgotten, or mutilated on a regular basis?
- Does he have a hard time understanding subtle cues, like facial expressions?
- Does she laugh too loud, or inappropriately?
- Is he really just like other kids, only much more so?

This is a sampling of some of the symptoms that can be triggered by exposure to chemicals in one's food or environment.

Looking for answers

When you first realize that Dr. Spock wasn't writing about your new baby, you are likely to seek someone who can help you.

If you're lucky, it will be someone who will at least lend a sympathetic ear. For most moms, unfortunately, their queries will bring blame, not

sympathy. Your baby doesn't sleep? Doesn't coo? Doesn't smile and gurgle? What are YOU doing wrong? Eventually, you stop asking and stay home more than you would like, growing more certain each day that you must be the only mother in the world who is having these problems. Chances are you live a just block away from another mom who is saying the same thing to herself.

If you're especially unfortunate, you will be on the receiving end of blame from those who are supposed to be on your side, including your doctor, relatives, and perhaps even your husband.

I knew a lot about parenting before the birth of my first child, Laura. All the books I read gave roughly the same advice: provide lots of support, security, and love; notice the child when he is being good; offer positive rewards; have few rules but be consistent in upholding them; modify behavior through "natural and logical consequences;" nurture the child without pressuring him to fit your image. These are good ideas. No, actually, they're excellent ideas that generally work -- but not for the chemically sensitive child. Techniques that were successful with most of the children I had taught rolled off my daughter as though she was coated with Teflon. Laura was bright and precocious, possessing a great vocabulary and normal hearing, but my attempts to communicate with her were like reasoning with a rock. When I tried to make eye contact, her glances darted all over the room. When I asked her a question, her response -- at those times when she responded at all -- was very good, but had no relation to the question I had asked. At times I felt as though I had fallen down a rabbit hole and now lived in Wonderland.

Of all the sadness such a child brings into your life, I think the worst is that it's so hard to like them. It isn't hard to love them; that's part of the job description. But what saddened me most of all was that I found it so difficult to *like* this little girl I had wanted so much.

Laura was not always distracted and difficult. There were times when she was fine. When she was impossible, I never knew what I had done wrong, and when she was good, it was equally puzzling what I had done right! The only pattern that emerged was that she behaved better when she was sick. A bout with chicken pox produced an uncomfortable but calm and normal child. It never occurred to me that she wasn't eating much when she was sick. I let her choose what she wanted to eat and for about three days her diet was primarily 7UP and granola. It was much later that I understood that she is chemically sensitive, and that food additives were affecting her behavior.

Wishful thinking

Every new step a child takes is viewed hopefully by the parent of a chemically sensitive youngster. "She's *bound* to do better once she gets into school." "Now that he's five, he's sure to settle down." Parents search for the magical solution: a new school or day care, a new neighborhood, new therapist, new doctor, new activity, new parenting course. The list goes on and parents add to their disappointment collection. Some of these changes may be of help, but if the problem rests within the child, the symptoms follow him wherever he goes, and any improvement is still short of the mark.

Your search for answers may have taken you down many roads. Depending on whom you consult, you may have received support or blame. Parents of a chemically sensitive child rarely find what they really need: a professional who is aware of *all* the possible factors that could be triggering the child's difficulties, who will be able to select a method of treatment that is just right for your individual child, and who can recommend the best resource.

Instead, the advice parents receive usually depends much more upon the training of the advisor than on the child's symptoms. This was brought out at a major conference, "Defined Diets and Childhood Hyperactivity" (sponsored by the National Institutes of Health, 1982). There is little reason to believe things have changed since that time. If you take your child to a psychologist he will focus on the psychological aspect of the problem; visit a pediatrician who favors diet and he will refer you to the Feingold Association; see one who favors drugs and he will give you a prescription; an allergist will suggest allergy testing. What parents rarely see is that *they* are actually the ones making the diagnosis when they choose which professional to consult. In the long run, the choice is yours, and this is probably best since nobody knows your child as well as you.

Am I a bad parent?

We take years developing our self-esteem, and by the time we have it in pretty good shape, feeling we are up to almost any challenge, we welcome our little darling into the world. Suddenly, seven pounds of humanity can undo it all.

I've never met you, but I know you are a good parent. Bad parents don't care; they don't read books on children's behavior, don't agonize over their child's problems, and don't go to the ends of the earth in search of answers.

It's easy to be a "good parent" when your baby sleeps, coos, and smiles, or when your toddler draws admiring glances from strangers. The

test of a parent's ability comes from adversity, not from an obedient offspring. You may not feel lucky, but your child is. He will need all the patience and determination you can muster, and when you have turned things around and he fits in with the other children, your neighbors may not understand how hard you worked and how impressive your accomplishment. Your child probably won't understand how much of his success is due to your efforts, but you'll know, and that will be enough.

A century ago, the parents of hyperactive children would have been judged unfortunate; today they are likely to be judged guilty. When my daughter was two months old, the father of an obedient little boy -- who slept on command -- told me I needed to "train her to sleep." She's 44 years old now, and I still haven't figured out what he meant.

For the first four and a half years of my daughter's life, I questioned what was wrong with my parenting. I asked advice from virtually everyone who knew Laura, but they didn't know what to suggest. Then I decided that two well-meaning people, doing their best for four and a half years, couldn't have made *that* many mistakes. Maybe the problem lay with my daughter; maybe there was something wrong with her "chemistry," although I had no idea what that meant.

Is something wrong with my child?

Every parent's worst fear is verified when they see their child behaving in ways they know are abnormal.

By this time I was ready to accept the possibility that my child might not be normal, and even the heavy-duty labels -- emotionally disturbed, or whatever -- would have been a relief of sorts. At least it would have explained things. But there were many times when Laura behaved very normally, and she was clearly precocious: speaking early, teaching herself to read, and sounding out new words by age three-and-a-half. And I could not accept that a child could be emotionally disturbed on just Mondays, Wednesdays and Fridays.

If the year had been 2014 instead of 1974, she probably would have been given the label of "attention deficit disorder." I would have been told that my daughter had a chemical abnormality in her brain, and that it was essential she be given stimulant drugs -- which I would have gladly done. (I would not have considered questioning my doctor.) But in 1974 there was no name for such a child. The closest term was "hyperactive," but that seemed unlikely when I lived with the slowest moving little girl this side of the Mississippi.

"Why Your Child is Hyperactive" - but mine wasn't

Many moms are silent about their agony. Not me. I complained about Laura's difficult behavior to anyone who would listen. When one friend,

who had listened to a lot, handed me a copy of the book, *Why Your Child is Hyperactive*, by Ben F. Feingold, M.D., I read it -- not because I thought it applied to my child, but because I didn't want to seem unappreciative.

The book was very interesting, and some of the information was amazing, but I never recognized Laura's symptoms. My husband, Harry, read it and saw traits he had shown as a child. He also suspected that food additives could be triggering his dreadful headaches, so he began to pay more attention to what he ate.

Dr. Feingold's book describes the work that began with an adult patient's severe case of hives. After considering all the options, he prescribed a diet eliminating aspirin and other substances that contain a chemical similar to acetylsalicylic acid (the name for aspirin). Not only did the hives clear up, the woman's behavior changed from belligerent to normal as long as she avoided certain foods and food additives. At that time, Feingold identified synthetic food dyes, artificial flavorings, and a group of foods -- primarily common fruits -- as likely offenders. A few years later he would add the antioxidant preservatives BHA, BHT and then TBHQ to the list of no-nos.

When Harry was able to identify food additives as the cause of his terrible migraine headaches it was a profound relief for us both. These headaches had started out slowly, and had gradually increased in frequency and severity until reaching the point where he was sick several times a month. At these times, all he could do was lie in a dark room for the three days or so that the attack lasted. He went from doctor to doctor in search of help, but each new doctor simply asked what pain pills he was taking, and handed him a prescription for more. Nobody ever questioned why he got the headaches in the first place.

As the headache-free time lengthened, Harry was able to identify other culprits, and he soon added MSG (monosodium glutamate) and sodium benzoate to the list.

Dabbling with this diet

I sort of used Dr. Feingold's diet with Laura, but the thought of tossing out "perfectly good" food went against the grain. I figured if I followed the diet 50%, I should see a 50% improvement.

There was no noticeable improvement, but that was fine with me. With an impossible five-year-old, a baby, plus a husband who was still sick some of the time, I didn't want to be The Happy Homemaker in some frilly white apron, cooking from scratch.

Then one day when Harry came home from work, he told me about the lunch he had eaten. When he selected a cottage cheese salad, he knew to

discard the bright red cherry, but a little bit of juice from the cherry had colored the cottage cheese pink in one spot. It was just a drop or two, and he figured such a little bit wouldn't hurt, so he ate all of it. About two hours later he could feel the start of a migraine. The pain pills were strong enough to stop the headache, but it made a profound impression on him that such a tiny amount of dye could be so potent.

It made a tremendous impression on me as well. A drop or two! The next day when my daughter came downstairs for breakfast, I was careful to give her only food I believed was "pure." She had some scrambled eggs, bread and butter, and a glass of milk. I did my best with the other meals, keeping things plain and free of obvious synthetic additives.

The following morning Laura's behavior surprised and delighted me. Instead of her attention being in the next county, she was right there, hearing and responding to me. Her eyes didn't dart all over the room, but connected with mine, and her responses were reasonable. She made sense! She behaved normally, and I was amazed. Previously, when I saw normal behavior I didn't know why. Now I had something to go on.

I would later learn that this rapid 24-hour turn-around is very unusual, and that three days to three weeks is the typical response time. I don't know if our quick success was due to good fortune, or if her little body was so delighted to get real food in place of the junk that occupied our pantry that it went into fast forward!

The relief and euphoria were wonderful. We finally understood what had been going on -- and going wrong -- for more than five years. We had not been "additive-free" for more than a few days when the first infraction came our way. It was a warm spring day, and Laura was playing outside. As she passed the window I noticed she was chewing gum. Disaster alert! There could be only one source: our next door neighbor's daughter had a gum ball machine. They had been away when we began the diet, and I was not aware they had returned home, so I hadn't told them about our discovery.

Predictably, in about two hours, Laura's personality transformed from that of a child to a miniature monster. She was enraged at everything/nothing, and appeared to have a severe emotional disturbance. Our efforts to calm her went unheeded, and after it had grown dark outside, she ran out the door, shouting back that she was running away from home. (She didn't run far, fortunately.) By the following day, the effects had mostly worn off, and we resumed our new, rational lifestyle. I made a point to speak with my neighbor, and cautioned her to not give Laura *anything* edible. I doubt she really understood, but she was cooperative. That episode took place in 1975, but I have never forgotten the potential damage from one single colored gumball. I would later learn

that we were exceptionally lucky. Most children would experience a three-day reaction to the same chemicals; for some unfortunate few, the reaction time could last even longer.

The ages and stages of ADD/ADHD

The chemically sensitive infant cries too much and sleeps too little.

He may not want to be held or cuddled, stiffening his little body in response to the affection you offer. Nothing pleases him. This little person dominates your family's life. He screams with the volume turned up to the maximum, stops taking naps long before the parenting books predict, and is difficult to get to sleep at night. He seems to need less sleep than you do!

Your chemically sensitive baby may seem to have difficulty tolerating certain foods, even breast milk, and may be prone to rashes. Perhaps you had advanced notice that your baby would be a handful. Some display overactive behavior even before birth.

Carol Ann

"During the late stages of pregnancy," her dad writes, "this child was active! Sometimes in the evening our entertainment would be to watch her mother's abdomen as the baby went through a series of movements that would be the envy of most gymnasts. At times the movements were so violent that my wife would nearly be thrown out of bed."

Baby blues

Many people are aware of the connection between food additives and childhood hyperactivity, and some understand that behavioral disorders can persist into adulthood. But it is generally not recognized that food additives can produce a wide range of symptoms in people of all ages.

Perhaps the head banging, crib rocking, sleepless, screaming infant attracts less attention than the hyperactive child does because he disrupts the lives of fewer people. Furthermore, it's easy to diagnose the cause as "nervous mother." A woman who has not had a restful night's sleep in several weeks would indeed be nervous.

The previously wonderful baby becomes a terror of a toddler

The contented baby may change dramatically after he begins to eat table food, take vitamins, or discover junk food.

"Mark was such a cheerful little baby until he was about six months old and I introduced solid food. We moved at this time, and I assumed his radical change in behavior was the result of the move. I never suspected it was triggered by the foods and baby vitamins he ingested.

"His record for sleep was 3 hours. A day with my son alternated between loudness, constant motion, and short periods of sleep -- generally one or two hours. By age one he slept through the night, but woke screaming. This was his only form of communication except for one word: 'see.' When we got a puppy, Mark learned to imitate it. Looking back, it's funny to recall that my son spoke two words, one of which was 'woof.' But at the time, my husband and I didn't laugh at that, or at much of anything else, for that matter. I was with this miserably unhappy baby for 24 hours each day. Who would want to baby-sit? There were times when I thought I was cracking up, and I even daydreamed of being institutionalized -- somewhere restful and quiet!

"The few other adults I encountered weren't much help. 'You're spoiling him.' 'He certainly knows how to get his way.' Why was I made to feel so guilty? I turned to my doctor for help and received a sarcastic, 'If he's this bad at two, we'll refer you to a psychiatrist.'

"When Mark was one and a half he got a terrible case of diarrhea. (I didn't realize at the time that it was caused by cow's milk.) This went on for three months, and all the medications my doctor tried were of no help. Another doctor in the group told me to put Mark on a very restricted diet, with only three foods. Gradually the diarrhea stopped, but most astonishing was the dramatic change in Mark's behavior. Gone was the child who behaved as though he was possessed, and my sweet little boy was back. ('See, he outgrew it,' explained a relative.)

"On the Feingold diet, my two-year-old's vocabulary of one word and a bark suddenly became a torrent of words and even some short sentences. Within a week he was naming all of the letters of the alphabet."

Starting school

A tot who can manage fairly well at home may find school to be more than she can handle.

"The day she was born, the nurse warned me she was hyperactive," Lita's mother recalls. "But she was such a bright, lovable baby that we didn't even realize she was hyperactive until she started the Feingold diet at age 4.

"Lita didn't play with toys, didn't watch TV, couldn't sit at the table for a meal, and seldom slept for more than 30 minutes at a time -- even at night. But she was sweet, and I guess we just got accustomed to the level of activity.

"Developmentally, she was slow in most areas, but because she spoke in full sentences by the age of 18 months, we didn't consider the possibility of retardation.

"She had done well at home and on a one-to-one basis with other children, but nursery school brought more frustration than this three-year-old could handle, so we began the search for answers.

"We followed the Feingold Diet to the best of our ability for a week, and then on Saturday I gave her a glass of H------- Punch. It made me think of a dog chasing its own tail. She chased around in circles, with no place to go; her reaction was so extreme we became fully committed to the diet that day."

Kindergarten and thence . . . or, learning to hate school

Typically, the chemically sensitive child is bright and eager to begin school. Kindergarten may be O.K., but the showdown generally comes in first grade.

Your six-year-old approaches first grade with enthusiasm and energy -- too much energy. Still, you hope this experience will be different; maybe the school can offer your child something you were not able to provide.

Now that your child is expected to sit still, listen to directions, stand in line, and finish his work, the problems become too obvious to ignore. He is doing his best but his best isn't good enough; he isn't able to keep up with the class. He begins to hear phrases that will follow him from grade to grade. Typically the child is told, "You're such a bright little boy; you could do it if you really tried." He really is trying, but he still isn't able to meet the expectation for his grade. (If he were in a wheelchair, nobody would say, "If you really tried, you could walk." But when a child is experiencing a chemical reaction, the cause is seldom understood.)

Many mothers (and some fathers) sense that their child really is unable to control his own body, but to outsiders, "all that kid needs is a good spanking." For many children, first grade is the beginning of the ego-shredding experience that will eventually turn them off to school and everything associated with it.

Even more crippling than a child's difficulty with schoolwork are his awkward social skills. He is often clumsy in his interactions with other children. He bumps into them, or pushes his chair into their desks, interrupts, misses the point of a story, laughs too loud or at the wrong time, and doesn't understand how close is too close, or where his space ends and the next person's begins. Social skills deficits are rarely addressed in school, but they are a greater handicap for the child than a D on his report card. The socially awkward child is likely to grow up to be a socially awkward adult.

Chemically sensitive children often have difficulty in the use of either fine muscles or gross muscles. They may write poorly, or be the last to be chosen for a team. In either case, it is one more arena of failure for them.

Well-meaning advice . . .

or, When What You're Doing Doesn't Work, Do it Some More

As your child progresses through school and her self-esteem begins to unravel, problems are added on top of problems, and it becomes hard to recognize the causes.

Teachers, counselors, and other authority figures have told your youngster, in effect: "Do as I say and the problems will be resolved." At first, she does what they say, but things don't get better. Can you blame her for tuning you, and virtually every other adult, out?

Surviving adolescence is tough for any young person, but for the chemically sensitive teen with little reason to feel good about himself or herself, these can be dangerous years. The youngster who enters adolescence with low self-esteem is at high risk for the hazards the teen years bring, plus a lot more. Drugs or alcohol may be a form of self-medication as well as an effort to win peer acceptance. The social consequences of chemical sensitivity are found on the front page of every major newspaper. Even if self-destructive behavior is avoided, the problems can follow the chemically sensitive child into adulthood.

With a monumental amount of support and skill on the part of parents, teachers, counselors and others, some of these teens do manage to get into adulthood in reasonably good emotional and academic shape, but these are the fortunate few.

All grown-up and still hyper

The symptoms change with adulthood, but they don't go away.

"Hyperactive" or chemically sensitive adults tend to be irritable, impatient, distractible, and likely to suffer from numerous physical problems. They may be compulsive, workaholic, or prone to interrupt. There may be many lost jobs and failed relationships. They are also likely to be the parent of an ADHD child.

When the difficult child is not your first

Just because you've raised one or more perfectly contented, well-behaved children, don't think you're likely to escape being blamed for the problems your next child is experiencing.

"By the time she was five, Carolyn had been asked to leave several day care centers. Despite the fact that my older child is a 'model' child, I felt Carolyn's behavior problems were all my fault. I knew nothing but frustration. There were times when I would lock myself in my bedroom

so I wouldn't risk hurting her. Even my training as an educator, with a minor in learning disabilities, didn't help me deal with her problems or with my own distress.

"The pediatrician and psychiatrist wanted to put her on Ritalin, but I couldn't agree to that. I was on tranquilizers, but nothing was strong enough to blunt the sadness of seeing my little girl in such turmoil. She used to roll and roll on the floor in an effort to get rid of some of the frantic energy going through her little body. She was certain that God 'hated' her because he would not let her 'mind.'

"Last year Carolyn and I went to school together. My job was to try and restrain my daughter while the classroom teacher taught the other children. After six months she was asked to leave and try again next year. These days [after removing the additives that were triggering her behavior problems] I work 50 hours a week at my job while Carolyn receives rewards every week for good behavior."

Can a diet help improve your child's behavior?

Mothers often notice that there are times when their child's behavior seems to change after he has eaten. It could be apple juice, or jelly beans, or a bologna sandwich. It could be Halloween candy or birthday cake that seems to set him off.

You may have tried to avoid certain foods or food additives, only to find yourself bewildered as you attempt to sort out the likely trigger.

Perhaps when you go to a fast food restaurant you get her the orange drink to avoid the caffeine in cola. Within an hour of eating there you have a little terror on your hands. (The cola would probably have been a far better choice than the synthetically colored and flavored orange drink.) Have you ever thought your child might be allergic to chocolate since it seems to "turn him on?" (Most chocolate contains synthetic vanilla flavoring, called "vanillin," and this is a much more likely culprit than the caffeine, the chocolate or the sugar.) Did you ever notice, as I did, that after a few days of an illness -- and not eating much -- your child is strangely calm?

The frustrating thing is that you are operating on scant information, and trying to reach your destination with no road map. In order to identify the likely triggers for your child's behavioral outbursts, you need both information and direction, not to mention good advice and lots of support.

The good news is that you don't have to figure out your own test diet; this has already been done. There is a systematic step-by-step technique that will guide you through the process of testing your child's sensitivities. It is surprisingly easy -- kind of like a math quiz that is very easy when

you know the answers! More than three decades of successful experience by thousands of families have resulted in the Feingold Program.

A brief background of the Feingold Program

As early as the 1940s, allergists began to publish reports of patients who were sensitive to tartrazine (Yellow dye No. 5). The medical literature contains many references to symptoms such as hives, asthma and nasal congestion.

Doctors also learned that aspirin and other substances, commonly found in some fruits and vegetables, have a chemical similarity to synthetic yellow dye. (The chemical name for aspirin is acetylsalicylic acid, and from this comes the term "salicylate," used to refer to those substances.)

Physicians later found these chemicals affect children as well as adults, and that they can trigger behavior and learning problems. The doctor who first observed this was Ben F. Feingold, M.D., Chief of Allergy at the Kaiser Permanente Medical Center in San Francisco. Dr. Feingold was both a pediatrician and an allergist, and was a pioneer in the fields of allergy and immunology. In addition to yellow dye and salicylates, he also removed other synthetic food dyes and all artificial flavorings. Dr. Feingold would later expand what he named the "K-P Diet" to exclude the preservatives BHA, BHT and TBHQ. In 1973 he reported the results of his work at the annual conference of the American Medical Association.

His research received widespread publicity, and Random House asked him to write a book parents could use to help their children. The publisher titled the book *Why Your Child is Hyperactive*. As a result of thousands of parents reading this book and using the diet Feingold outlined, volunteer support groups began to spring up around the country; they chose the name "Feingold Associations" to honor the doctor who had made such a difference in their lives. These parent associations began to share information, research brand name foods, and develop programs to make it easier for the new family to successfully use the diet. Since it covers far more than just food, the Association calls it the Feingold Program.

What is the Feingold Program?

First of all, it is a test. For several weeks, you use only foods that are free of synthetic dyes, artificial flavors and three preservatives, as well as a group of foods known as "natural salicylates." All of these acceptable foods are likely to be well tolerated. If this trial results in an improvement in your child's behavior, or in other target symptoms, then the test becomes the treatment. You simply continue to enjoy the foods and the positive change in your child. After a few weeks of success you can

gradually expand the food choices, adding back natural salicylates one at a time, and watching for any return of the old behaviors. The Program is a form of the time-honored allergy elimination diet. The focus, however, is on all the foods that are allowed, not on those removed.

Your Feingold member package

The information needed to test the Program is supplied by the Feingold Association, a non-profit organization located in the United States.

In the U.S., the Association researches foods to determine which brands are free of both the obvious and hidden additives. This is accomplished by sending a detailed questionnaire for each product to the manufacturer, asking about both obvious and hidden additives. If the company representative fills out the form, signs his name, and returns it, the product will be listed in the Association's newsletter, *Pure Facts.* Each time the *Foodlist* is revised, the new brands are added. When a family joins the Association they receive materials that include a *Foodlist*, as well as a *Handbook* with step-by-step guidance, recipes, and online resources. The *Feingold Handbook*, newsletters, and online resources are available for families living outside the US.

The costs are kept as low as possible, thanks to the many hours of donated time from volunteers, and are a fraction of what a family could expect to pay to a commercial facility offering these services – if one existed. [See www.feingold.org for current information about materials, services and fees.]

We've come a long way!

In the 1970s it was difficult to be on the Feingold diet because many foods had to be made from scratch, and eating out was risky. Today, however, Feingold research enables members in the US to shop at supermarkets, use many convenience foods and even eat at fast food restaurants. Many hard-to-find treats are available through mail order companies catering to member families. Feingold *Foodlists* include thousands of acceptable brand name foods and non-food products.

The worst offenders

Dr. Feingold noted that a person could be sensitive or allergic to virtually anything. But he believed that of all the substances to which a person could be sensitive or allergic, there are a few groups which are the most likely offenders for those with behavior and learning problems. These are:

Food dyes (a.k.a. food colors, synthetic colors, artificial colors, "coal tar" dyes, FD&C Yellow No. 5, Red 40, etc.)

Artificial flavorings (including "vanillin" or synthetic vanilla)

Three antioxidant preservatives: **BHA, BHT, TBHQ**

Aspartame (synthetic sweetener) and sucralose (Splenda) are eliminated

Aspirin and medicines that contain aspirin, and a group of foods which contain **"natural salicylates"** -- a naturally occurring chemical which is similar to aspirin.

Natural salicylates are:

Almonds	Coffee	Peaches
Apples	Cucumbers & pickles	Peppers (bell & chili)
Apricots	Currants	Plums & prunes
All berries	Grapes & raisins	Tangerines
Cherries	Nectarines	Tea
Cloves	Oranges	Tomato

also: Oil of Wintergreen (methyl salicylate)
Although many favorite foods are removed during the first weeks of the program (Stage One), there are lots of tasty alternatives:

Non-salicylate fruits allowed:

Avocado	Guava	Melon -- all varieties
Banana	Kiwi	Papaya
Breadfruit	Kumquat	Pear
Coconut	Lemon	Persimmon
Date	Lime	Pineapple -- not fresh
Fig	Loquat	Pomegranate
Grapefruit	Mango	Star fruit

Non-salicylate vegetables allowed:

Artichoke	Collard greens	Peas
Asparagus	Corn	Potatoes
Alfalfa sprouts	Eggplant	Radishes
Bamboo shoots	Kale	Rhubarb
Bean sprouts	Kohlrabi	Rutabaga
Beans - all varieties	Lettuce	Sorrel
Beets	Lentils	Spinach
Broccoli	Mushrooms	Squash
Brussels sprouts	Mustard greens	Sweet potatoes

Cabbage	Okra	Turnips
Carrots	Olives	Turnip greens
Cauliflower	Onions	Water chestnuts
Celery	Parsley	Watercress
Chard	Parsnips	Yams

The period when salicylates are removed is called Stage One.

Most of the materials provided by the Feingold Association are directed at the family on Stage One. There are many techniques for getting around the limitations during this period, but one of the best is to use the program carefully at the start so that you will see results quickly and will be able to reintroduce these salicylates as soon as you wish. The dyes, flavorings, and antioxidants are easily replaced by natural alternatives, and few people mourn their loss. But "natural salicylates" are wholesome foods, and nobody likes to have to give them up, even temporarily.

Those foods not tolerated should be kept out of the diet for a while longer, but might eventually be tolerated.

The period when natural salicylates are reintroduced is called Stage Two.

The Feingold membership materials provide detailed information on salicylates and how to reintroduce them.

Symptoms often helped by diet management

If your child has one or more of the following symptoms they may be triggered by an adverse reaction to food additives or salicylates. Many of these symptoms may also apply to adults.

IMPATIENCE
- Low frustration tolerance
- Demands must be met immediately
- Irritable
- Cries easily or often
- Throws, breaks things

SHORT ATTENTION SPAN
- Easily distracted
- Doesn't finish projects
- Doesn't listen to whole story

Doesn’t follow directions

POOR SLEEP HABITS
- Difficult to get to bed
- Hard to fall asleep
- Restless sleeper
- Has nightmares, bad dreams

MARKED HYPERACTIVITY
- Constant motion
- Runs, does not walk
- Difficulty sitting through meals
- Wiggles legs/hands inappropriately

COMPULSIVE AGGRESSION
- Disruptive at home & school
- Doesn’t respond to discipline
- Doesn’t recognize danger
- Compulsively repeats action
- Unkind to pets
- Fights with other children
- Poor self-control

IMPULSIVITY
- Unpredictable behavior
- Makes inappropriate noises
- Talks too much
- Talks too loudly
- Interrupts
- Bites and picks nails, skin
- Chews on clothing, other objects
- Overreacts to touch, pain, sound, lights

FREQUENT PHYSICAL COMPLAINTS
- Headaches
- Hives
- Stomachaches
- Ear infections
- Bed-wetting
- Daytime wetting

NEURO-MUSCULAR INVOLVEMENT

Accident-prone
Poor muscle coordination
Poor eye-hand coordination
Difficulty writing and drawing
Dyslexia
Speech difficulties
Difficulty with playground activities
Eye-muscle disorder (nystagmus, strabismus)
Tics, some forms of seizures

Most children exhibit some of these characteristics some of the time, but the chemically sensitive child has more of them, and more of the time.

Our kids are like other kids, only more so!

Note: Always consult a physician to rule out illness.

Questions parents ask

Is there some type of test to determine if a diet will help my child's symptoms?

The Feingold Program is a test. If you drank a glass of orange juice each morning at 7:00, and by 8:00 am you had a stomachache, you would probably use your own elimination diet. For a week you might cut out the orange juice, and if the stomachaches disappeared you could be fairly sure that the juice was the culprit. If you wanted to try adding it back to your diet, you could test it out and see if the stomachache returned.

By removing the most likely culprits, you will be able to see if synthetic colors, flavors, certain preservatives, or salicylates are playing a part in your child's problems or in your own health problems.

How soon can I expect to see a change?

There is no way to predict exactly how long it will take, or how much of a change you will notice. For a preschool child who is not on medication, it is typical for parents to notice a significant change in a few days to a week. For a child who was previously on medicine it might take longer. If your child is on medication, try to be patient and not look for fast changes. An extra few weeks in a child's life is not very much considering the potential benefits; and if you do see quick results, that will be a bonus.

How can I be sure that a diet program will help at all?

While there are no guarantees, there is a very high probability that your child will be helped. Volunteer organizations do not even form, let alone persist for decades, unless the volunteers experience positive feedback from their work.

Your likelihood of success depends on many factors, especially how carefully you follow the program and whether your child has additional problems such as food allergies or sensitivities to substances in the environment.

If a family has the current Feingold membership materials, including a *Foodlist* for their area, and follows the program carefully, it is very likely that they will see an improvement. The issue is generally not *if* the program will help, but *how much* help it will provide.

Some families find that their child has additional sensitivities that go beyond the scope of the Feingold Program. Experienced volunteers can often recommend other nonprofit organizations for help in these cases.

Will my child's schoolwork be helped?

There is generally a significant improvement in schoolwork. Eliminating these additives won't teach the child math, but should enable him to pay attention so he can learn what is being taught. Behavior is likely to be the first thing to improve, with academic performance generally showing a more gradual but steady improvement.

My child's symptoms are so severe; how can a simple change in food make a real difference?

A switch from brand A to brand B may seem simple, but removing toxic chemical additives from a child's diet is not a simple matter. Food processing is complex, and it has taken many years for volunteers to become proficient at identifying places where additives can be hidden. What's more, companies continually come up with ways to circumvent the few labeling laws that exist. Often the laws are simply ignored.

Once the dietary changes are made, parents and professionals report even severe symptoms have shown improvement.

Is this program hard to follow?

Replacing the food in your pantry with "Feingold acceptable" is harder than using what's already there, but easier than getting through the day with a child who is aggressive, destructive and rarely sleeps.

Being selective about which foods you buy at a fast food chain is harder than ordering anything you want, but it's easier than handling that dreaded daily phone call from the school.

Using pear juice in place of apple juice (a natural salicylate) might be inconvenient, but so is washing wet sheets every morning.

Chances are, you are already under a lot of stress! This might not be the best time for you to consider making changes in your shopping and food preparation. On the other hand, if changing brands will bring about a calmer, happier household, then the sooner you begin, the sooner you will be able to enjoy the benefits. (By the way, I'm a very lazy cook, and have been happily using the program since 1975.)

Is it expensive?

That depends on the type of food your family likes. My grocery bill went up in some areas and down in others.

Thrifty shoppers already know that the most expensive foods are the highly processed ones. Compare the cost per pound of pre-flavored oatmeal packets (as much as $5/pound!) with scooping a pound of plain rolled oats from the bulk bin (69 cents/pound). I microwave the rolled oats, add a little sweetener or jam and end up with virtually the same breakfast (minus additives) in very little time, but at a fraction of the cost of the "convenience" product.

A major benefit was that once our family got on the Program, and my daughter's ear infections stopped, and my husband's headaches were history, the doctor's bills stopped as well. Doctors are very nice to have around, but I prefer to pay the grocer!

Is this a "health food" diet?

No. There are many health food items that are off limits to the family new to the Feingold Program. Also, the manufacturers of factory foods are making ridiculous health claims about their products. You can add some vitamin C or whole grains to junk, but it's still junk. Don't have blind faith that all of the foods are as healthy as claimed.

You will find lots of food in both supermarkets and health food stores that are acceptable; select those your family likes best. I buy a variety of groceries from both types of stores. My family likes nitrite-free bacon from the health food store, but we prefer the natural rocky road ice cream I buy in the discount grocery store.

Actually, the Feingold Diet is more like a gourmet diet. A gourmet diet would make a chocolate cake with fresh eggs, real butter, quality chocolate and real vanilla extract – just how a Feingold cake would be made. On a health food diet you aren't allowed to have the cake!

Does the Program allow sugar and snack foods?

As you can see from the answers above, the program does not eliminate these, although we encourage families to use sugar in

moderation, and avoid giving sweets when the child has an empty stomach. The Program doesn't tell you *what* to eat; rather it shows you how to find suitable brands of the type of food you like. I compare it to *Consumer's Reports,* which does not tell you whether or not to buy a car, but lets you know about your options.

Do I have to cook "from scratch"?

If you have access to a current *Foodlist* you should be able to use the processed foods that are listed. If you live in an area where there is no food research, you will probably do quite a lot of food preparation during the early days of the Program. You will be able to gradually add in processed foods, watching for any reaction.

This is not as hard as it may sound. Parents tend to learn very quickly and usually do not make the same mistake twice. This book will help you understand more about food processing and where additives may be found, and will give you practical hints for getting around the pitfalls.

Can our family still eat out at restaurants?

A child or adult is likely to be most sensitive during the early weeks of the Program. If you can avoid restaurant food for a few weeks, it will help you see good results more quickly. In the long run, it will be a lot easier.

People who are experienced on the Program can eat out at nearly any restaurant and do well. By carefully avoiding the additives/salicylates in the beginning, many people appear to lose much of their sensitivity. It's been many years since my family began the Program, and we can eat almost anywhere, make educated choices and not experience a reaction.

My child is a very picky eater; how can I get her to accept new foods?

You will probably be able to find natural versions of those few foods she likes, and you may be surprised to find some of her favorites are already on the *Foodlist*. Stay as close as you can to the foods your child enjoys. As she becomes more reasonable, you will probably be able to gradually expand her choices. I encourage parents to cater to the child's food preferences during this time; generally this type of indulgence doesn't need to last too long, and you can gradually tighten things up later.

The most important thing to keep in mind during the early weeks is not to emphasize nutrition, but to have your child accept, and even embrace, the changes that are necessary. (Forfeit the battle to win the war.)

What happens when she's away from home and someone offers her food?

If you present the Program in a positive way and your child experiences the benefits it brings, you probably won't have to be

concerned about this. It has been our experience that once they understand it, most of the children are very determined to stick to their diet. (I know you probably don't believe this. I wouldn't have either!)

How will I know which brands of food are OK to use?

The Feingold Association researches foods and publishes lists of thousands of acceptable brand name products. In many cases, a company makes several products that are acceptable and other varieties that are not. It can be pretty tricky, so follow your *Foodlist* carefully at the beginning.

Since manufacturers change their products frequently, the Association publishes updates in their newsletter -- generally 10 times a year -- and revises the *Foodlist* throughout the year. Please do not use an out-of-date list, since you may end up sabotaging your efforts.

Can't I just read labels and avoid the additives that way?

Much of the effort of our Product Information Committee is spent tracking down additives that are in foods but are not included in the ingredient listing.

If your child is not particularly sensitive, you might be able to see results even though you aren't always using "pure" food. If he is sensitive to small amounts of chemical additives, however, your results could be disappointing.

Any time you can eliminate synthetic colors and flavors, that's great! But please don't confuse this with the Feingold Diet. (It's like Alcoholics Anonymous saying that if you skip the bourbon and vodka, then whiskey and gin are OK.)

What are food additives made from?

You might wish you hadn't asked, but here goes: Food dyes used to be made from coal tar oil (yummy!) but are now synthesized from petroleum. Petroleum is made from crude oil -- the "black gold" which pollutes the oceans when it spills.

Artificial flavorings can be made from virtually anything; there are no rules. A single flavoring might be made from hundreds of different chemicals.

The preservatives BHA, BHT and TBHQ are made from petroleum.

Does the Feingold Program eliminate all additives?

No. Only those found to be the major source of learning/behavior problems are eliminated. A few others are a problem for some, but not all, of our members (MSG, sodium benzoate, nitrites, corn syrup, high

fructose corn syrup, calcium propionate, fluoride and sulfiting agents). They are not removed, but many people choose to avoid them.

The Feingold Diet eliminates aspartame and its related chemicals (Alitame, Neotame, Advantame) and the Association recommends members avoid synthetic sweeteners such as sucralose (Splenda), acesulfame, saccharine and cyclamates. Stevia is acceptable.

If the additives are harmful, why doesn't the government ban them?

This is a long and complex story (spell that "$tory"). Many dyes and other additives have already been banned; it's the stubborn survivors that are causing so many problems.

What about all those pesticides?

Our family was successfully on the Feingold Program for over a decade before we had our first organic carrot. Any time you can use organic food, it's a good idea. Over the years, food has been so corrupted by pesticides, herbicides and genetic modification and it's hard to predict what problems these will cause.

Will my child have to be on this diet for the rest of his life?

As a child gets older and stays away from synthetic chemicals, he tends to develop a tolerance level. But as you become more knowledgeable about food and food additives the question may shift from "Why can't we eat imitation red cherry gelatin?" to "I can just as easily make natural cherry gelatin that tastes terrific; why would I want to eat the other stuff?" Even the very young Feingolders catch on to the fact that the rather disgusting chemicals added to foods enable companies to save money by eliminating real ingredients from their products.

Do doctors recommend the Feingold Program?

We receive many physician referrals, and some of our members are physicians using the Program for their child and/or themselves. Most of these referrals come from doctors who have seen patients successfully use the Diet. Some doctors are interested in the connection between nutrition and behavior/health, but many are not.

Recently, the American Academy of Pediatrics and the American Academy of Family Physicians have recognized the dye/ADHD link.

I've heard that scientific studies show that diet either does not help learning/behavior problems, or that it helps only a tiny fraction of children.

Feingold volunteers have heard this too! If you go back to the early studies and read what the scientists conducting the research originally

reported, you would see a very different conclusion. Although none of the studies were a test of the Feingold Program as it is actually used, and most had serious design flaws and other mistakes, they still yielded very supportive data.

Newer studies have been more carefully designed and have yielded extremely positive results. But such information is not favorable to the many vested interests dealing with foods and food additives and their effects, so this information is not likely to be publicized. That is the topic of another book, too long to address here, but you will find a summary in the last section of this book and at www.feingold.org.

Do I have to put the whole family on the Program?

No, but do you *really* want to have to cook two dinners every night? Why should you do double shopping, have to keep some foods separated, run the risk of using the wrong product for your Feingolder, and make him feel left out? Take a look at the second section of this book that tells you more about food dyes and other additives; then ask yourself if you would want *any* family member to eat them.

When a child is chemically sensitive, at least one parent is also likely to be sensitive, and often the siblings are as well -- though not necessarily to the same degree. We all have the ability to tolerate negative things (stress, germs, polluted air, synthetic food additives) but our tolerance varies. Your Feingolder may be more vulnerable to certain chemicals than the rest of the family, but you can be sure they are having an effect on everyone.

I don't want to wait for my *Foodlist* before I get started. What can I do right now?

The first four days of Feingold

Many families of young children see a significant change in behavior after carefully following the diet for only a few days. Occasionally, an older child or an adult will also have a rapid response. This four-day sample diet is designed to help you, as well as to give an idea of some of the foods permitted, but it represents only a fraction of the items suitable for use on the Program. Although these foods are nutritious, it is not intended that they be the only foods one consumes for a prolonged time.

NON-FOOD ITEMS
Toothpaste: Tom's of Maine* non-fluoride Spearmint or Peppermint
or Fennel, or use baking soda, or just water
Omit vitamins for now
Avoid products containing fragrances

Why Can't My Child Behave?

Avoid products that would result in dyes on the skin

BEVERAGES
Baby food pear juice (available in large bottles)
Pure pineapple juice (dilute it)
Grapefruit juice (sweeten, if you like, with granulated sugar)
Lemonade made from fresh lemons and granulated sugar
Whole milk (not low fat or skimmed)

Shake made with 1/2 cup whole milk, 1/2 cup pineapple juice, 1/2 banana; mix in blender
Water

BREAKFAST
Oatmeal (not instant); sweeten with white or brown sugar, add whole milk
French toast - homemade w/eggs, milk, real 100% maple syrup, or sprinkle with granulated or confectioners' sugar
Eggs (real, not imitation); use butter (not margarine) or coconut oil for cooking (buy organic or natural coconut oil)
Plain Puffed Rice or Puffed Wheat, whole milk, sugar
Toast with real butter or honey

LUNCH
Peanut butter and honey sandwich (or substitute sliced banana for the honey)
Tuna salad sandwich made with Hellmann's* or Best Foods* Mayonnaise (look for water-pack tuna which does not contain "hydrolyzed vegetable protein" and use original versions of mayonnaise, not "low-fat," "fat-free," "low cholesterol," etc.)
Leftover chicken from dinner -- sliced or made into salad; add celery, if you like
Egg salad sandwich, carrot sticks

DINNER
Roast chicken, baked potatoes w/real butter, fresh or frozen plain green vegetable (no sauces); season with salt, butter, black pepper if you like
Broiled fish fillet (can be seasoned with lemon, garlic, and butter), salad or any vegetable except tomato, cucumber and peppers (Dressing made with lemon juice & extra virgin olive oil)
Pork chops (broil or season w/flour and sauté in oil), sweet potato (with butter or mashed with pineapple juice), green vegetable

Ground beef patties (made with plain chopped meat), corn (on the cob or canned or frozen plain), green vegetable
[Note: for food safety, always cook hamburgers well done.]

SNACK, DESSERT IDEAS
Lays Original* potato chips
Fresh pears
Bananas
Any melon
Natural chocolate bar: Guittard*, Newman's Own*, Cloud Nine* or Baker's* Sweet Chocolate Bar, cut up (sold with baking supplies)
Haagan Dazs* vanilla or chocolate ice cream
Popcorn made from plain kernels and cooked with real butter or coconut oil

For breads, see the section of this book on Foods.
**(The above brand name products are acceptable at press time. These brands were listed because they are generally available nationwide. Foodlists contain thousands of other acceptable brands.)*

The focus of the Program is on the many foods you <u>can</u> eat, not on those you cannot. By planning a few meals, with enough foods to get you through the first few days, you will see there really is a nice variety available.

The casual Feingolder: Suppose I just avoid the obvious additives by checking ingredient labels on foods -- would this help?

By all means, avoid things like food dyes and artificial flavorings whenever you can. Any harmful additive you can remove is a good idea. But you will not be able to test the Feingold Diet in this way because you will still be consuming hidden additives. If you do see an improvement in your child as a result of making small changes, that's great! But if you see little or no improvement, please don't conclude that the diet won't work; you probably have a fairly sensitive child, and perhaps one who is also sensitive to natural salicylates or chemicals in the environment.

Our family life is chaotic! My older kids are not easy to please, and my younger child is on a heavy dose of medicine for ADHD. But I don't want to wait till life calms down, as we need help so badly. What would you suggest?

You might want to start by just eliminating the unwanted additives, and not deal with salicylates at the beginning. The good news is that this will make it much easier to implement the diet, but the drawback is that

you may not see as much improvement as you would if you were on a careful Stage One (salicylate-free) diet.

If you are willing to see diet management as a long-range project, and you don't get discouraged if success comes slowly, this is a good approach to take. If your family has been using products with various additives, it may be an easier transition to focus on eliminating them first, and give Stage One a trial later on.

[Note: For a child taking medication on a regular basis, and especially multiple drugs, the Feingold Association may be able to help you find them in an uncolored form. Be sure to rely on your physician's guidance if you plan to phase them out.]

Does the Feingold Program have any risks?

Dr. Feingold used the term "no harm, no risk" and while this is true, there have been a small number of children who seem to have withdrawal symptoms after they stop eating synthetic additives. In a few cases, a child will become worse before he improves, especially if he is taking multiple medicines.

Statistics - what are the chances this diet will help me?

For most children it isn't a cut-and-dried case of "the Program working" or "the Program not working." It's generally a matter of how much help the Program provides, of whether the family needs to go further to get an even better response. We rarely hear from a member who reports that they are not having *any* success.

When he used the diet in the Kaiser clinic, and removed the preservatives BHA and BHT, Dr. Feingold found that his diet helped over 70% of the patients. With the expanded help and information the Association provides, plus all of the natural options now available, we believe this number is much higher. Anyone whose diet goes from processed junk that includes petrochemicals, to a diet of actual food, can expect that there will be many benefits. **In order to function well, humans need to eat food; when they don't, bad things happen.**

The negative reports

Chemicals are profitable, processed foods are very profitable and drugs are incredibly profitable. It's not surprising that Dr. Feingold's work was met with vigorous opposition by the lobbies representing the major chemical, food, and pharmaceutical industries. Many years later, little has changed. But thousands of parents aren't likely to donate their time to promoting a program for so many years unless it is effective.

Feingold: The next generation

This chapter is a tribute to "our kids" who have been following the Feingold Program for a decade or more.

This is a tribute to their parents, as well, particularly the moms who have fought for their children and won. It's also an acknowledgement of those who have fought just as hard, but whose kids would not stay on the diet and didn't make it -- at least as of now. Fortunately, they are in the minority, but we salute these parents as well.

Why did our successful kids make it while others have not? We find that the parent's determination to follow the program is a crucial factor. In the sample stories we proudly present, one or both parents was an active Feingold volunteer and gained much knowledge through their work in the Association.

The Feingold mom learned to speak up for herself by speaking up on her child's behalf. Many times she was called to defy the conventional wisdom because she knew her child better than anyone else -- whether it was a neighbor, teacher, doctor, or mother-in-law. "Her teachers were no help at all," notes one mother. "They thought I was a raving lunatic." Others found professionals who were sympathetic, or at least open-minded, and these parents taught them about the diet.

Through their involvement in the Association, mothers of the children described here gained the confidence to pursue challenging careers they would not otherwise have considered. Whether it was in their Feingold work or in their personal lives, when they saw something askew, they did what was necessary to put it right. Meeting the challenge of caring for their difficult child helped give them a better perspective on what's really important; it enabled them to be better parents for their other children.

The message from the veteran moms to the new members is this: There may be times when you feel like you're at war with the world, including the child you're trying to help. But don't give up; there's too much at stake, and there's a good chance that you are his best hope for the kind of happy endings you read about here.

But first, a word about the illegal drug scene

These Feingold parents expressed gratitude that their children had been spared the disaster of drug abuse.

The common thread seems to be that our youngsters recall how it felt to be out of control, and they don't want to be in that position again. Not only do they resist taking medications of all kinds, they seem to understand that their bodies, which have been sent out of control from a colored lollypop, would be especially vulnerable to the effects of illicit drugs.

Tommy

People who know Tommy today find it very hard to believe he had been a toddler who needed constant attention, was always fussy, crying, and in "perpetual motion." He didn't sleep easily or well and had a chronic problem with rashes.

As a senior in high school he is well liked by everyone who knows him and was nominated for "best dressed," "best smile" and "best looking." An exceptional athlete with excellent motor control, he plays varsity basketball and ice hockey. His teachers like him too, and refer to Tommy as a "class leader."

Like so many Feingold successes, Tom isn't interested in experimenting with drugs. "Having to say 'no' to Hi-C in kindergarten made it easier for him to say no to the bad stuff," his mom observes. "In fact, he went into kindergarten reading labels." Tommy will be starting college in the fall, and his family is glad he won't be far from home. Not only do his parents like having him around, but (the ultimate compliment) even his sisters enjoy him!

David

"On Monday, Wednesday and Friday David took Ritalin. On Tuesday and Thursday he took Dexedrine. And on Saturday and Sunday I took Phenobarbital," recalls his mother.

She remembers how bad it was before her son went on the Feingold diet at age 7. Even after that there were problems until she realized how unusually sensitive he was to salicylates. One year she made his birthday cake with a recipe that called for a small amount of orange juice. After he had eaten a piece, David went outside to play. Cindy found her son pushing a playmate on their swing. David was 'perseverating' -- pushing and pushing, with a glazed look in his eyes. The other child held on for dear life as the swing looped all the way around the frame of the swing set.

Today David is a senior in college, majoring in psychology. He is a computer whiz, and loves working with children. "Kids are attracted to him like a magnet." He hasn't had a problem with drug abuse as have so many people his age. "David avoids all kinds of medicine, and has to be really uncomfortable before he'll even take a Tylenol."

Michael

At age 5, Michael was diagnosed as dyslexic and suffering from visual perception deficits in five areas. He was a terror to live with, and his parents were advised to place him in a school for brain-injured children. Instead, his parents began using the Feingold diet shortly after reading *Why Your Child is Hyperactive.*

Today, Mike is a junior in college. A major in communications/ business/public relations, he is successful -- both socially and scholastically. He copes well with whatever comes his way, enjoys working with people, and is very much in control of his life.

Michael still has an abundance of energy, but channels it productively. He is involved in many sports, and in high school, had a unique technique for winning football games. Before the game, he chewed red bubble gum, which brought on the aggressive, hyper behavior that got touchdowns. Then, he'd wear himself out in the game. "Michael didn't do drugs," his mom noted, "he did red bubble gum."

Andrea

"It all should have gone so smoothly." Andrea's mother recalled. "John and I waited over seven years for our little girl. I was a registered nurse with experience in pediatrics, and an advocate of wholesome foods. Andrea was nursed, and later fed homemade baby food -- I was a real Earth Mother! Why, then, were we worn out by this incredibly strong and active baby who scarcely ever slept?

"Some of my most vivid memories date back to the time Andrea was 18 months old -- like the time she had a bath with dyed, perfumed bubble bath powder and became wild, banging her head against the side of the tub. Or, the small drink of red imitation punch she had at the coffee hour after church, and then she ran around biting people.

"When I put her out in the backyard to play, she'd strip off her diaper and be over the fence in no time. And more than once I saw her at the top of our neighbor's 30-foot tree! Named 'wiggle butt' by the neighbors, she could get out of just about any restraint."

This bright little girl, who spoke in sentences at 21 months, grew to be more and more frustrated. By the time she was two and a half, Andrea's temper tantrums were becoming increasingly frequent -- up to ten a day. Her parents found spanking was totally ineffective and "time-out was a joke."

While they were shopping, Andrea pulled one of her typical disappearances, but her mom delayed the search just long enough to copy down the phone number on a flier advertising a diet for hyperactive children.

The family went on the Feingold diet -- most of the way -- and saw a big improvement in their toddler. But it wasn't until they gave up the unapproved brands of cheese and crackers that they had complete success.

Her parents were astonished to find that a tiny amount of an additive could have a profound effect on their child. Andrea was 4 1/2 when they moved to a new location. She began to have episodes of severe depression,

which were blamed on the move. It turned out that the culprit was the brand of milk they were now using, which had preservatives in the vitamin A fortification.

Now in ninth grade, Andrea has made her family proud of her and of her accomplishments. Last year she won the Scholastic Writing Award for the region of her state. She is making A's in advanced math, is a talented artist and loves dramatics.

Andrea has had to cut back on basketball, soccer and band in order to have time for a new interest -- jazz dancing. She is active in her church youth group and has a busy social life. In addition to her regular classes, she teaches German to elementary aged children and has participated in the writing and filming of several videotapes for her school.

Neighbors may have called Andrea "wiggle butt," but the name her teachers use is "a joy."

Lita

"She stayed on the diet most of the time, but after she had been good for as long as she could, she would decide it was time for a 'holiday.' Then the nightmares (which we now know were actually hallucinations) would begin. Lita was terrified of them and this fear would make her want to get back on the diet. But she just couldn't handle temptation on her own; sometimes I would come into school and eat lunch with her to bolster her will power.

"Another consequence of going off her diet was a change in her school work; Lita was unable to read or write well after she had consumed the forbidden additives. Salicylates also had a severe effect on her schoolwork, and she must still be careful not to overdo them."

Lita has just learned that she has been accepted into the college of her choice. Her ambition is to study law. It may not seem feasible for a high school senior whose reading ability is only at the 8th grade level, but Lita is bright, articulate, and blessed with a great memory. She so successfully uses these talents to compensate that she has been an honor roll student throughout junior high and high school, and is receiving top grades in her honors English course.

Her maturity and ability to interact with others has brought a long list of honors and responsibilities. Lita was chosen as her school's representative by the Hugh O'Brien Youth Foundation -- an organization that identifies future leaders. At 15 she was president of her religious organization's youth chapter, and the group won many awards that year. For several years she represented her class in the school's student government association, is a member of the law club, and was selected to attend the Goucher College mock senate.

Derrik

For Derrik's parents, the hardest part of dealing with their 3 1/2-year-old was his sleeplessness and nightmares. Their day started at 5 am with a toddler who experienced everything with enormous intensity -- whether he was eating, playing, laughing or crying. This went on daily until about midnight. Worn down by the activity, his mom recalls how it felt before their preschooler began the Feingold diet, "When you're in the trenches, you think you'll never make it through."

At 16, both Derrik and his parents are seeing the results of their time and patience with the diet. After trying many sports, Derrik has discovered his remarkable ability as a cyclist. The sport enables him to put his abundant energy to good use, and the rigors of training have instilled remarkable self-discipline.

Derrik's tendency to focus intently on just one thing created problems in school, but in cycling it's been a great advantage. The ultra-healthy diet required for training is not much different from the food he was accustomed to at home. And he stays away from the green sports drinks, which make him physically sick.

Today, Derrik is very healthy, with the endurance necessary to cycle 170 miles in a day.

Chris

"He was always wound tight, all helter skelter, into everything, and he wore everybody out." In addition to dealing with the problems of hyperactivity, Chris has also overcome some of the symptoms of Tourette syndrome. (The Feingold Program successfully addressed the hyper-activity, but did not help Chris' Tourette symptoms; a regimen of vitamins has been effective for that. Diet has helped some children with Tourette syndrome. See part three of this book for details.)

This year Chris will be graduating first in his high school class, a National Merit Commended Scholar with a better than 4.0 average. He is president of the United High School Council for the Fort Worth Independent School District.

In a letter of recommendation to Rice University, the principal of his school called him "one of the most outstanding students I have encountered in my career." He has received an early admission to Rice, but will have to make some hard choices as his interests and abilities cover so many areas: pre-law, international business, journalism and architecture.

Music has been an important part of his life, so it wasn't a surprise that he had the lead in the school's musical this year. What was a surprise was

that the part also required dancing; as a preschooler Chris had been diagnosed as having gross motor disabilities.

His parents believe that his experience in traveling throughout the world with a choir group has enhanced his maturation. He holds down two part-time jobs: lawn care service and working in a gourmet grocery store. Chris especially likes the gourmet food. Having spent most of his life on the Feingold diet, his palate "knows the difference between real food and the synthetic stuff."

Michael

He was a happy, likeable child -- not defiant or hard to live with. But Michael had a great deal of trouble coping with his schoolwork. He became a real charmer, and learned to talk his way out of just about any tight spot.

His parents reluctantly tried Ritalin for a year, but couldn't stand to see their son turned into a "zombie." They learned of the Feingold diet when the support groups were first forming, and fourteen years later are profoundly grateful for the help and moral support they received. This support gave Michael the courage to stick with the diet even back then when there were so few prepared foods allowed.

His mother relates how one day his teacher gave him a cupcake. He wouldn't eat it, but kept it on his desk all day, explaining, "I just want to look at it." Today, at 21, his proud parents note that Michael is as sweet natured as ever. He takes a great deal of pride in himself and in his new career in the Navy.

Mark

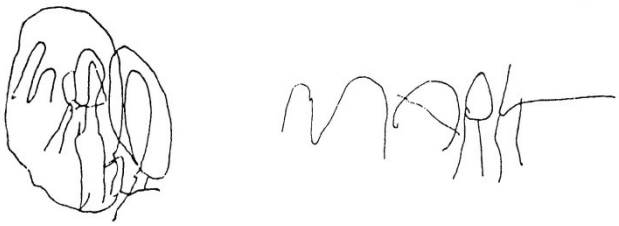
Poor speech, weak motor skills, and very slow to walk -- the doctor told Mark's mother it was because she babied him.

He did not have behavior problems, but was extremely learning disabled and received remedial help for six years. Mark was dyslexic and unable to speak clearly. "I worked with him for years to get him to recognize the alphabet," his mom recalls.

Today Mark knows that his so-called developmental difficulties were triggered by BHA, BHT and salicylates, which brought about severe motion sickness. They affect his balance, hearing, and perception. (He is also very sensitive to mint flavoring.)

It is difficult for anyone to believe that Mark once had any learning problem at all. He is enrolled in advanced classes in high school, earning As and Bs. His teachers have noted he is able to store and retrieve enormous amounts of information. He also writes well. His motor skills are fine, he runs track, is very personable, and is doing well in all areas. "For us, it's a miracle," his mother relates. "But he'd lose it all if he went

off the diet." Mark is aware of this and monitors what he eats. The phrase that best describes Mark is one his mother never expected to hear ten years ago as she sought help for her little boy: today Mark is "perfectly normal."



In the first handwriting sample, Mark tried to write his name just before starting the diet. The second sample was written after he had been on the Feingold Program for 5 days.

Mary Jo's story

Our child appeared normal in every respect as an infant; there seemed to be no problems until he was about two. We began to suspect then that he was perhaps more active than most two-year-olds, but he was such a happy, bright, good-natured little ray of sunshine that we just loved him and accepted him as he was.

We did have to supervise him closely to prevent injuries, and there were still many of them. He was a regular visitor to the emergency room, and his father (a physician) stitched him up a number of times during his early years.

It was not until he was five that we began to suspect that there was something more complex than just "all boy" behavior. He exhibited most of the classical characteristics of hyperkinesis. The one characteristic not evident was a tendency to aggression. He was, in fact, rather submissive to his more dominant older brother, and was gentle and loving to his baby sister. He had lots of friends and was very popular in the neighborhood.

My attempts to get my concerns across to our pediatrician brought forth comments many parents hear in those early years of uneasiness: "He's just all boy, Mother. Let him be. You're over-anxious. Too bad you don't live on a farm where he could roam freely and not be suppressed. He'll outgrow it, etc., etc."

At age seven, when our son was in the second grade, it had become very obvious to everyone that this bright child simply could not concentrate well enough to perform normal tasks at his grade level. He read poorly and could not write. Worst of all, he began to suspect that there was "something wrong" with himself and began to experience terrible frustration at being unable to do what was expected of him. His

happy, outgoing personality began to change a little, and for the first time we saw aggressive tendencies and a real spark of defiance. As the pressure increased, so did this behavior.

At this point I decided to force a showdown with our pediatrician, and Providence took a hand. I had never seen my son more "turned on" than when we arrived at the doctor's office for his exam. He explored every drawer and closet, spilled a jar of tongue blades, walked on his heels when asked to walk on his toes, wiggled and squirmed, hollered into the stethoscope, asked silly questions, and even locked himself in the bathroom accidentally (I think) when asked to produce a urine specimen. The doctor was preparing to take the door off the hinges when he was finally able to unlock it. In general, my seven-year old made a shambles of the examination room and left the pediatrician out of breath and somewhat disheveled. I made no effort to intervene and sat mute while all this went on. When we all got ourselves pulled together the pediatrician said, "(expletive deleted!!) I see what you mean. We have to do something!"

I couldn't resist saying, "Maybe you're just over-anxious. Why don't you move your office to a farm where children could have room to explore and not be suppressed?"

From that point, we obtained a psychological evaluation, and a neurological evaluation. No abnormalities could be found, but it was the consensus of opinion of all concerned that this was an "organically driven" child and a trial on Ritalin was in order.

The next year was terrible for our family. The side effects of the drug were very hard for all of us to endure. I won't dwell on this except to say that I wish I could give this year back to my son and erase it from my memory. It will always be a source of pain to me that we allowed it to take place. But the agony of that year forced me to realize that we had to find another way. I simply could not abandon my son to a lifetime of drugs, and I could not bear to see him suffer from either the frustration of being unable to control his behavior or the side effects of the drug used to control it. It was then that I began to read anything and everything I could get my hands on about hyperactivity and learning disabilities.

As I read, I picked up more and more information about the influence of nutrition and the effects of what we ingest. Eventually, I learned about Dr. Feingold's book and it opened a door of hope for us for which I will be eternally grateful.

Our son, after a few weeks on the diet, was taken off Ritalin and began to function as a calm, in-control, well behaved little boy. He was eight at the time, and he is now twelve. We have worked to remedy his "learning disabilities" which in actuality were only gaps in his knowledge that

occurred while he was unable to function normally in school. We have found that he is indeed capable of learning and achieving. He brings home B's and C's and some A's on his report card, and received satisfactory marks on behavior, citizenship, attitude, work habits, etc. He made the basketball team this year, and won third place in the Science Fair.

But the point is that he is functioning normally in a world where the demands made on him are the same as those made on the other children in our family and on others in his peer group. He is again the happy, outgoing, very gentle, very loving boy who has every reason to look forward to a full and productive life as a contributing member of society. When he was nine years old and things were once again going well in his life, he spontaneously made a poster and gave it to me. He wrote a message on it and decorated it with drawings of sailboats, seagulls, flowers, clouds and nice things. The message was "I am what God meant me to be."

How can we prove that all this happened? What proves to us that it was not just a fluke? Just the result of extra parental attention? Just the result of some variation in his development? We do feel we have proof -- we find that all the gains he has made can be reversed by a dietary infraction. When our son ingests the artificial substances, he reverts within a short time to the old behavior. We see the hyperactivity, the inability to concentrate, irritability and some aggression, and most interesting of all, his handwriting deteriorates markedly. After a period of three or four days this will clear up and he again becomes the calm, controlled boy I described above. We've seen this happen over and over when we've allowed a dietary infraction to occur. He is aware when the change occurs, and will remark to us, "I feel dreamy," or "I know I am getting hyper." Frequently he will complain of headaches when he has ingested a no-no.

One of the things his father finds most interesting is that when his diet is carefully monitored and all is going well, this child who could not concentrate can beat the socks off his Phi Beta dad at chess!

How can I gain my child's cooperation?

*If you're typical of other parents trying out the Feingold Program you probably think, "My child will **never** cooperate."*

But most children do cooperate when the program is presented properly. Consider which approach is best for your family, and this begins by taking a look at your own feelings. When you read over this information, you may be thinking, "I can't believe all the disgusting things that are put in our food; what a rip-off. I'm glad there's a way to eat all the things we love without exposing the family to these additives!" Or,

you may think, “What a chore; I’ll have to do extra shopping to find some of these products; a loaf of bread or a quart of ice cream may cost more; I hate to think of the kids having to give up their multi-colored candies, cereal, etc. Maybe I can just change a few of the brands and get away with it.”

If you see the program in a positive light, this attitude will be conveyed to your family, but if you consider it a deprivation, this will come across too, particularly if your children are older.

Spend some time reviewing your new member information and exploring your own feelings. Think about the trade-off: short-term inconvenience may lead to long-term rewards. Consider that the hardest part of the Feingold program is the first weeks when you’re getting accustomed to changing some of the brands you use. You will soon feel comfortable using the items on the *Foodlist*, and by that time you should be reaping rewards in the form of a much-improved child and calmer family life. If you carefully follow Stage One you might see a noticeable change in just a few days, and this is all you will need to give you the enthusiasm to continue. At that point, the effort required will seem trivial compared to the joy of seeing your child function normally. After having worked so hard at other techniques that were unsuccessful, you may find you welcome the chance to work at something that produces positive results. When selecting the right brand of potato chips, or skipping the spaghetti sauce makes such a difference, it’s a small price to pay.

Substitute, don’t deprive

Identify the things your child may be most reluctant to give up, and find alternatives.

* If he loves the toothpaste pump that exudes red, white and blue paste (a no-no) then substitute a snazzy cartoon character cup or toothbrush, along with one of the OK toothpastes.

* If she enjoys getting gumballs at the supermarket, let her buy one of the vending machine trinkets instead.

* If your family likes cookies made with M&M’s in the dough, go ahead and make the recipe, using Stage One ingredients and the natural alternative -- Sundrops (found in many health food stores).

* If the lollypop from the bank is a treat, keep a naturally colored lollypop in your purse and trade with your child.

The very young child

The younger the child, the more control you are likely to have over her food. It may mean educating your spouse, the relatives, or day care provider, but at least you don't have to deal with school lunches. The younger the child, the easier and more effective the diet is likely to be.

Pre-schoolers

For nursery school snacks, it will probably be best for you to provide them for your youngster. If the staff is not familiar with the Program they may have difficulty understanding why you are concerned about food. People who don't know your child as well as you do may look at the disruptive behaviors and assume that they are deliberate. But if you can bring about a noticeable change, if your pre-schooler changes from the terror of the sandbox to a pleasant child, the staff will have a very strong motive to support your efforts. "Feingold kids" are generally very bright, and once your pre-schooler feels the difference, he will probably be eager to keep himself on the diet.

Elementary school-aged children

The child now moves from the more casual approach of preschool to one that is structured. Your student is expected to stand in line, stay seated, pay attention, complete written work, etc. A teacher who is unfamiliar with some of the problems of chemical sensitivity may view them as lazy or defiant behaviors. Given enough frustrating experiences, a student may eventually become defiant.

Read over some of the stories in this book about children who have been helped by the Feingold program, and share them with your child. This is an excellent way of explaining that abnormal additives can create problems for normal people.

You will need to enlist your child's help as she faces the temptations ahead. School breaks and vacations are good times to begin the program since you have far more control over the food consumed. If you can make this period a fairly pure test of Stage One, you might see results before the break is over. Once she experiences the difference the program can bring about, she will have a good reason to stick with it.

If a major junk food event is coming up, talk with your child about a special toy that can be given in exchange for saying "no" to the unapproved foods. Shortly before Halloween, one mother described how she and her daughter went shopping and bought the doll her little girl had been wanting. They agreed that the doll would stay with Mom until after trick or treating was over, and then the collected candy would be exchanged for it. This worked beautifully. The evening was exciting and fun, and the child gladly handed over the candy for her new toy.

Another family has a system where their youngster can accumulate "credits" for turning down unapproved foods. When he earns a certain number, he gets to spend a small amount of money at one of the dollar stores. Eventually, the reward of just feeling and functioning better will be sufficient.

Junior high and high school

By the time he has reached the teen years, how many people have told your son he "could do it if he really tried?" How many years has he been blamed for something over which he may not have had any control? How many solutions have been tried and failed? It's no wonder both of you are discouraged!

Imagine how you would feel if you found yourself in a graduate class of quantum physics and the authority figures kept telling you, "you're really very bright. If you can't understand this it's just because you're lazy; you're not really trying."

Imagine a job where your boss belittles you in front of your colleagues and no matter how hard you try your work never measures up. Then imagine you have no recourse; you cannot quit and find a different boss any more than your child could quit and find a different teacher. (And imagine what it must be like to be a teacher attempting to work with a child who wears one's patience thin!) In addition to all these negative experiences, add the teen's natural desire to be just like his peers. Where is his self-esteem? (*What* self-esteem?)

You know your child better than anyone else. Maybe a straightforward "let's try it" approach will work; that's fine. Some families find it works best to make a contract. The child agrees to give the program a 100% effort for a set number of weeks and see if he feels/behaves any differently. If he sticks to his part of the bargain, and there is no change, Mom agrees to stop bugging him about what he eats (although she may opt to continue to buy wholesome foods). Or, the reward may be a tangible thing -- whatever fits best with your family's values.

But if you suspect your teenager will see the Feingold program as just one more gimmick that won't work, just one more proof that he's a "misfit," then you may want to take an approach that is very different from what we generally suggest.

Ignore your teen

Take a closer look at the list of symptoms in the first section of this book, especially those that apply to adults. Do you see anything that sounds like symptoms *you* may have? Do you find yourself dealing with any of these: headaches, hives, asthma, impatience, distractibility,

irritability, allergies, sleep disorders, or nasal congestion? Do you find you have difficulty tolerating fragrances, cigarette smoke, new carpeting or auto exhaust fumes? If any of these symptoms sound familiar, you're a candidate for the Feingold Program yourself. On the other hand, if you feel great, and are into exercise and good nutrition, then you're likely to want to incorporate many Feingold ideas into your own healthy lifestyle.

Go through the *Foodlist* and identify the products your family already enjoys. Perhaps the changes won't be as great as you have imagined. When you do the shopping, be sure that only Stage One products come into the house. (Pack the no-no's in a box and seal it, or give them away.) When your teen wonders what's going on you can tell him it's your own health kick -- it won't be the first time your offspring suspects Mom or Dad has really "lost it."

Be liberal about stocking up on the snacks and treats, and this "Feingold thing" may not seem like a bad idea after all. If your teen is a male, he will probably consume enormous amounts of this Stage One fare, and may find he likes it.

The goal is to see if you can notice any improvements even though he may not be following the program 100%. If your youngster is extremely sensitive, you might not see any response. While we generally discourage families from using the program less than 100%, we know that even the poorly designed studies conducted back in the 1970's showed noticeable improvements in many children. If your teen does improve, you have laid the groundwork for him to eventually make the connection. If a partial change in diet doesn't help, then your teen can't say he tried the Feingold diet, and at least you haven't soured him to the whole idea and closed the door to him considering it in the future. (Refer to the section in this book on teens.)

Negative Vibes

Many people are aware that there is such a thing as "diet" to treat behavior or learning problems; they may even have made an attempt to use one and found the experience very frustrating. The problem we encounter is the assumption that there is only one such diet, but this is not the case. Some books tell you to eliminate sugar; others have you do all your shopping in a health food store; some advocate adding vitamins and minerals; others remove foods such as milk and wheat while they toss in some vague advice about not consuming "additives." Some books tell you what menus to serve, and provide recipes, while others give a listing of which additives the authors consider undesirable.

The experienced Feingold member who has successfully used our program, and investigates other options, knows each of these techniques

has validity for some people. But as an initial approach to diet management, they tend to be less comprehensive and more difficult than is necessary. It doesn't matter how good a program is if your child will not cooperate or if you cannot cope with the demands it places on you.

If your doctor is not enthusiastic about the Feingold program, he or she may believe that it is a blend of some of the other approaches named above. Or, he may have read Dr. Feingold's book, *Why Your Child is Hyperactive* and believe the diet is still difficult to follow. He may not realize the wealth of information and help which has been developed since its publication in 1975.

See the Feingold website: www.ADDdiet.com or www.feingold.org for information on the research supporting diet management, or share some of the scientific information in this book with your doctor. (You are welcome to photocopy it.) Also, refer to the section of this book on gaining your doctor's cooperation.

Feingold volunteers have successfully helped the majority of families who have used the Program. Parents and professionals continue to volunteer their time and effort for only one reason. It works.

Candy!

Gaining your child's cooperation is an essential part of the Feingold Program, and this often translates to: candy. If your kids are accustomed to having some of the sweet stuff, this is no time to take it away. If they haven't had much of it, you will still need to know what brands are OK for those times when it's hard to avoid. (For the occasional child who is extremely sensitive to sweets, you'll have to get more creative about treats. For the rest of us, just avoid giving the child candy on an empty stomach.)

How do I actually begin the Program?

If you're the parent of an "impossible" child, and you've come this far, you're a survivor. You'll be able to survive some dietary changes too.

The first thing you'll need is that rare, precious commodity -- a little time to yourself! Read the *Feingold Handbook* for a good overview. Scan your *Foodlist* and see how many of the products are familiar. You may want to highlight all the brand name foods you are already using, as well as any that look appealing to you. (Ignore the unappealing ones. If carrot juice doesn't strike your fancy, it's not something you have to drink; it just means someone asked us to research it. That person may feel the same way about finding beer on the *Foodlist*!)

Explore your pantry

Go through the foods you have on hand, and compare them to the products listed in your Feingold literature. Then, using your *Foodlist* book, make up a shopping list of staples you want to replace. Next, plan some meals for the coming week. You'll find suggestions in your Feingold membership literature, but your best source is your family's preferences.

Born chef or convenience food fancier?

If you are an epicure with no budget to get in your way, and you adore cooking, tomorrow night's dinner could be: crab bisque, Bibb lettuce salad with hearts of palm, Cornish game hens and chestnut stuffing, glazed tiny carrots, asparagus Hollandaise, to be followed by lemon sorbet and chocolate wafers.

But if you're more typical of the Feingold mom, dinner may be a faster, more casual one: grilled cheese sandwich and Stage One supermarket salad, with a scoop of ice cream for dessert. In other words, make life as easy as possible for yourself. Don't invite anyone over for dinner, except perhaps the kid next door.

Your old standbys

See how many family favorites can be adapted to Stage One. Stuffed green peppers, baked in tomato sauce will be difficult to transform into Stage One fare, but you may find the meatloaf won't change that much by leaving out the tablespoon of ketchup and using an approved brand of cereal in place of the brand you now have.

The key to shopping and cooking during the first part of the Feingold Program is to focus on the short term. Come up with five different dinners you think the troops would like. If you can think of seven dinner ideas, so much the better. That way, there will be a different dish each night. What to do when you've reached the end of the week and run out of menus? Go back to number one and start again. Our careful research confirms that no husband ever died from eating baked chicken two times in ten days. As far as the kids are concerned, many mothers believe that taste buds don't actually develop until about age 21. Anyway, kids are notorious for wanting the same foods over and over, so don't waste your sympathy.

What now?

So we've offered reassurance and some words of encouragement, but there are still empty spaces on your legal pad waiting to be filled with something to prepare for dinner. Let's face it, grocery shopping and food preparation is not your thing; you'd rather be doing practically anything else. In that case, let's make it as easy for you as possible.

Begin by tossing out your notion of what "dinner" has to be. Maybe nobody will object to a tuna sandwich and carrot sticks. Vary the tuna salad by adding chopped hard cooked eggs. Or make chicken salad by opening a can of (approved brand) chicken in place of a can of tuna. Stick one of those toothpicks with the frilly colored cellophane into each sandwich and everyone will think they're being treated royally. You may be willing to let the kids eat their hamburgers in front of the TV occasionally. For variety, use French bread slices, tortillas, or pita in place of regular bread.

The sincerest form of flattery

If your offspring love the fish fillet sandwich at the local fast food dive, they might also go for your version made with approved brand fish fillet, lettuce, and approved brand ranch dressing.

Unbreaded fillet of chicken sandwiches can be imitated by marinating fillets/slices of uncooked chicken or turkey in Italian salad dressing. They cook quickly in a frying pan. Or, you can serve them as a main dish, along with thin (fast cooking) noodles. Cook the noodles according to package directions. After the meat is done, remove the fillets from the pan. Add some water to the drippings. Put the cooked noodles into the pan and toss to coat them with the drippings. Add a salad or vegetable for a meal that tastes like it took a lot of work.

Time warps

Who says breakfast can't be eaten at 6:30 p.m.? You might not mind scrambling eggs. Better yet, your spouse may claim immortality from his mushroom omelet and be willing to cook one occasionally. Pancakes, French toast, and (approved brand) frozen waffles are fair game too.

How many diets can you do at one time?

By all means, try to limit it to one! If you don't love to cook, trying to combine Feingold + gourmet is a bad idea. The same is true for Feingold + other diets.

Allergies: If you believe your child has a food allergy, or if you are following the advice of your doctor, you may have no other choice. But otherwise, don't try to combine your Feingold cooking with no-dairy, or no-wheat or no-sugar, gluten-free, etc. Life is already hard enough. Once you get into the swing of Feingold cooking you will be able to consider possible allergies, and making some more changes in the kitchen won't seem overwhelming. For now, your goal is to deal with Stage One.

Cholesterol: Here again, if you can safely put aside your concerns about limiting cholesterol for just a few weeks, do so. Once you have become comfortable with the Feingold routine, it won't seem so hard to make other adjustments. (This is the Voice of Experience speaking here.)

Sugars: We're not saying that sugar is great stuff (that's the job of the confectioner's lobby). We don't even believe that other sweeteners are desirable. But your first job is to convince your child that he won't miss out on too much by cooperating with the Feingold Program. If that means more goodies than you would normally provide, but it succeeds in gaining his cooperation, it's worth losing the battle to win the war. Later, once things are going well, you can cut back on the junk food. Since you will probably be dealing with a far more cooperative child by that time, it may not be so hard.

The other meals

Breakfast is a problem if you are fond of a bowl of colored marshmallows floating in milk. But take a close look at the cereal section of your *Foodlist*. Not only are there some familiar ready-to-eat products, but at least one provides as much sugar as any other kid on the block is getting for breakfast. (When you use sugary cereal, try mixing it with bland varieties. Your dentist will thank you.)

If your young'uns like hot cereal, the problem of breakfast is solved, and if you use a microwave oven to cook them in, your clean-up problems are taken care of too.

There are many varieties of "health food" ready-to-eat cereals, but you'll have to test them out because some taste different than supermarket brands. (Some taste better than mainstream brands, while others taste as good as the box they're packaged in.)

Have you given serious consideration to the old time breakfast fare? Scrambled eggs, French toast, pancakes, waffles, sausage and biscuits? The French toast, pancakes and waffles can be made in quantity and frozen. (As this book goes to press, there are some varieties of name brand frozen waffles in the *Foodlists*.)

- You can't get much quicker than bagels or toast. Spread them with cream cheese or peanut butter (or a combination of the two plus a little honey...good!)
- Melt a slice of cheese on a piece of bread...hot breakfast!
- In place of orange juice, try diluted pineapple or pear juice. (Pear juice is available in large bottles, found in the baby food section of

your supermarkets. It looks and tastes like apple juice.) If your child likes grapefruit juice, that's another choice. If he doesn't like it, can you change his mind by adding some sugar?

- A breakfast shake will feed two regular sized children or one teenager. Pour the following into a blender: 1-cup whole milk, 1-cup pineapple juice, 1 banana. Whirl to blend. Serve and await the compliments. This is a thick stick-to-the-ribs kind of a drink, and contains a good selection of vitamins and protein in a glass.

Forget the five or seven different meal plans we discussed for dinner. With your kids' breakfast all you will need are two or three.

Plan a repertoire for lunches too

Remember, most kids are monotonous by nature, so don't feel guilty if you serve peanut butter sandwiches frequently. Give the impression of variety by cutting the sandwich a different way. A little deception is nothing to be ashamed of if it produces well-nourished children or contributes to maternal mental health.

Check out the recipes provided by the Association, for some more breakfast and lunch ideas.

Juggle the meals to get more variety. There's nothing inherently wrong with a child having macaroni and cheese, or a piece of pot roast at 7:00 am. We know of one child who ate baked beans for breakfast and grew up to be perfectly normal.

Leftovers from last night's dinner can travel to school in your child's lunchbox, and are a treat compared to most school lunches.

Need more help?

Still having trouble thinking of foods that are OK to use on Stage One? Lest you find yourself in a "What's left to eat?" frame of mind, we've listed some of the things that qualify for Stage One; of course, when prepared foods are listed, we are referring to the acceptable brands. Also, let your veggie-hater know that eating spinach is optional. (And notice that we've humanely left off the Brussels sprouts even though they're allowed.)

Artichokes	Barley
Asparagus	Beans
Avocado	Beef
Bagels	Beets
Bamboo shoots	Biscuits
Banana	Bread

Broccoli
Butter
Cabbage
Cake
Candy
Cantaloupe
Carrots
Cashew nuts
Celery
Cereal
Cheese
Chicken
Chinese vegetables
Chips
Chives
Chocolate
Cocoa
Coconut
Cookies
Corn
Cornmeal
Cornstarch
Crabmeat (real)
Crackers
Cream
Cream Cheese
Dates
Eggs
Eggplant
English muffins
Figs
Fish
Flour (white & whole wheat)
Garlic
Gelatin
Grains
Granola
Grapefruit
Hamburger patty
Honey
Honeydew melon
Hot dogs
Ice cream
Jam & jelly
Kiwi
Lamb
Lemon & lime
Lettuce
Lobster
Macaroni
Mango
Mayonnaise
Milk
Molasses
Muffins
Mushrooms
Mustard
Noodles
Oatmeal
Oats
Olives
Olive oil
Onions
Pancakes
Papaya
Pasta
Peanuts
Peanut butter
Pears
Peas
Pecans
Pepper (black, white)
Pie
Pineapple
Pistachio nuts
Pita bread
Pomegranate
Popcorn
Pork
Potatoes
Pretzels
Pudding
Pumpkin

Radishes
Roast beef
Rice
Rice cakes
Rolls
Salad
Salad dressing
Salmon
Salt
Sausage
Scallions
Seafood
Seeds
Sherbet
Shortening
Shrimp
Soda
Sorbets
Soy sauce
Soup
Sour cream
Spinach
Squash
Steak
String beans
Sugar
Sweet potatoes
Syrup
Toast
Tuna
Turkey
Veal
Vegetable oil
Vinegar (white)
Waffles
Walnuts
Water chestnuts
Watercress
Watermelon
Yams
Yeast
Yogurt
Zucchini

Please be sure to refer to the current *Foodlist* for acceptable brand name products. The *Feingold Handbook,* part of the membership package, includes recipes to help you prepare fast, salicylate-free meals, beverages and desserts. Here's a sample.

Dinner in a hurry

"Going Feingold" does not mean you have to give up the convenience you may have enjoyed from boxed dinner mixes. Here are two recipes that are easy, economical, and good tasting. They can be prepared in about 30 minutes or less from ingredients you pick up on your way home.

The shrimp dinner cooks in only one large saucepan, and the stew needs just a saucepan and large frying pan. (I hope you like them; someone's husband ate a lot of experiments so you could have them.)

Shrimp, broccoli & fettuccini Alfredo

This elegant dish may fool your family and friends into thinking you've gone gourmet. It's both easy and economical since it takes only a half-pound of shrimp to make 4 servings. Or you can make it with cooked diced chicken (your own or canned). If you do, skip the instructions on preparing shrimp, and add the chicken after the sauce has been cooked.

1/2 pound raw shrimp (shelled and cleaned)
2 cups broccoli florets (from the salad bar if you like)
8 ounces fettuccini or noodles
1 cup whole milk
1 - 2 Tbsp. cornstarch
1/3 cup grated Parmesan cheese
1/4 tsp. garlic salt
dash pepper
2 Tbsp. butter

1. Fill a large saucepan half full of water and add a tablespoon vegetable oil to prevent the pasta from sticking. Bring the water to a boil over high heat. While the water is heating, assemble the other ingredients and have a colander or large strainer ready.

2. When the water boils, add the pasta and stir it.
Determine how long the pasta will need to cook, and add two minutes to the cooking time since the water will cool down as you add other ingredients. If the pasta takes 12 minutes, for example, set a timer for 14 minutes.

3. Cook the pasta on medium high heat, stirring it occasionally.

Meanwhile, measure the milk into a large measuring cup. Add the cornstarch and blend. (A small whisk works well.) Next, stir in the Parmesan cheese, garlic salt and pepper into the milk mixture.

4. When the timer indicates only 2 minutes left for the pasta to cook, add the broccoli pieces to the boiling water.
One minute before this is finished cooking, add the raw shrimp.
When the time is up, pour the pasta/broccoli/shrimp into a colander and allow the water to drain into the sink. Put the lid from the saucepan over this to keep the food warm while you make the Alfredo sauce.

5. Put the milk mixture, along with the 2 Tbsp. of butter, into the empty saucepan, and stir constantly over medium high heat. (A large whisk is good here.) As soon as the mixture thickens, remove it from the heat.

6. Add the pasta combination back into the saucepan, and gently toss it to coat it with the sauce.

Easy beef stew

This inexpensive meal provides a great way to use up whatever veggies, pasta, or grains you may have in the refrigerator. Choose your family's favorite ingredients, or try this version.

1 pound ground beef
1 cup (raw) macaroni or other pasta
1 can (about 15 ounces) beans - such as pinto, kidney, navy, etc.
1 can mixed vegetables, drained (or use frozen vegetables)
1 cup water
3 Tbsp. cornstarch
3 Tbsp. soy sauce
dash of garlic powder

1. Fill a medium or large saucepan half full of water; add a spoonful of vegetable oil to prevent the macaroni from sticking.

2. While the water heats up, begin cooking the ground beef in a large frying pan, breaking it up.

3. Cook the macaroni as the package directs. (If you use frozen vegetables, add them to the boiling water about three minutes before the macaroni has completed cooking.)

4. While the beef and macaroni are cooking, blend the water, cornstarch, soy sauce and garlic powder in a large measuring cup.

5. Drain the macaroni when it is cooked. Spoon off excess fat from the ground beef.

6. Add the soy sauce mixture to the beef and stir, cooking, until the gravy thickens. Add the macaroni, vegetables, and beans to the meat in the frying pan; stir.

This amount should serve at least six people.

A mom writes:

"For those of you just getting started on the Feingold program, let me share some of my feelings. I was really scared of this 'Feingold thing,' convinced that it would turn my life upside down. But it's all been so incredibly easy, and we really don't eat any differently than we did before.

"It helps that I don't mind cooking, but the big problem is that my work day is so long I have little time to do it during the week. I leave the house at 6:30 each morning, have a one hour commute, and don't return home until about 6:30 in the evening.

"I prepare many things ahead of time, and it's amazing how simple it is to do. One recipe that works very well is to coat chicken pieces with flour and seasonings in the evening. I put this in a baking pan and put it in the refrigerator. The next day when my husband comes home from work all he has to do is turn on the oven and put in the pan.

"Another easy favorite is Shish Kebab. I cut beef into large pieces and marinade it in teriyaki sauce for several hours or overnight. (Combine 1/2 cup soy sauce, 1/4 cup sugar, 2 Tbsp. vegetable oil, 1/4 tsp. ground ginger and a dash of garlic powder.) Then I put the meat on skewers, along with onions, mushrooms, etc. In the warm months we enjoy it over the grill, and other times of the year we use the oven broiler. It cooks quickly and is always a treat.

"On the weekend I cook large quantities of some of our favorites, then put portions in Ziploc bags, and freeze these. This works well for scalloped potatoes. I make a white sauce base, add some cut up mushrooms, add sliced raw potatoes and some onion. I cook this 2/3 of

the way, then cool it somewhat and put portions in the Ziploc bags. Flatten them out and freeze them. The morning I plan to use it, I take one of the bags of potato out of the freezer and let it thaw. When I get home I cook it the rest of the way.

"We rearranged the family room furniture so I can see the TV with my family while I cook in quantity about every three weeks. "If you're new to the Program, hang in there – it's worth it."

Stage One -- keeping a diet diary

It will be much easier to successfully use the program if you keep a diary of all the foods your child eats at the start of the program.

At least once a day, make a brief note of the behaviors you observe. This information can be valuable in the days to come; here's why. If you see uneven behavior -- good times and not-so-good, the diary can help you to pinpoint the likely culprits. On the other hand, if your child does well, then this list of the foods eaten becomes your "safe" foods. If you notice reactions later on, you can always return to this group of foods and be fairly sure you will be able to once again get these good results.

Before long you will probably be comfortable enough with the program that a diary won't be needed. If you later investigate possible food allergies, you may want to once again keep track of what is eaten and any behavioral changes that result.

Another benefit of keeping a diary for a while is that it will help you determine how long it takes for a reaction to occur and how long the reaction is likely to last. For example, if you discover that tomatoes set your child off and the reaction lasts for a day, you may want to plan on the occasional pizza for Friday night. That way your child will be able to run off some of the excess energy, and be back on track for school Monday morning.

PART TWO

Chapter 2 ~ ADDITIVES: What are all those funny things in food?

The answer depends on whom you ask. The manufacturer will tell you they are "flavor enhancers" to make food taste better for you; they are "dough conditioners" to make it feel better in your mouth; they are "freshness preservers" to make sure your food is good to eat.

Critics will describe the same additives as substances that allow a company to use cheaper ingredients to create more profits and more sales, with fewer losses to them, due to food spoilage.

The manufacturer will tell you that additives have been used in foods for thousands of years, that all the chemicals he uses are legally permitted by the Food and Drug Administration, and that many have been subjected to extensive testing.

The critic will tell you what testing really involves, who pays for it, and will describe the "revolving door" between government and industry. This is the common practice of high ranking officials, policy makers, politicians and lawyers switching back and forth between jobs in which they run government agencies, and the companies which are subject to regulation by these agencies. Such switching will bring these individuals remarkable advantage$ each time they make a move.

Critics will also tell you about some very unscientific methods often used in tests, about whistle-blowers who get fired, etc. etc.

Some elected officials have proudly described a partnership relationship between government and industry. But critics warn that the fox has been put in charge of the hen house.

All testing is not flawed; all regulating is not corrupt. In fact, there's a lot about the system that is good; but it's not as perfect as the consumer is led to believe, and for the chemically sensitive individual, the flaws are serious.

High tech eating

Highly processed foods -- made to look and taste like things they're not -- go through many stages of preparation and can acquire undesirable synthetic additives all along the assembly line. Labeling regulations are too lax to include all of the additives used.

The use of additives in food is not new. Adulteration of wine goes back to the ancient civilizations in Greece and Rome, and European laws

as early as the 12th century addressed the penalties for bakers and brewers who tried to increase their profit by adding unsavory ingredients. Iron filings were added to tea, and some enterprising folk collected used tea leaves, treated them with copper salts and graphite, and sold this to the unsuspecting.

Mercury, copper, and lead were used to add coloring to foods, and the unfortunate consumer sometimes didn't survive to complain. Even after the first synthetic dye was created, the earlier coloring agents continued to be used, and the practice was not outlawed in the United States until 1938.

Food colorings

Of all the chemicals added to foods, synthetic dyes are probably the most notorious and have received the most attention.

Synthetic dyes date back to 1856 when the color mauve was first created from coal tar oil. The new hues quickly replaced fruit, vegetable, and mineral colorings that had previously been used.

By the turn of the century approximately 80 different dyes had been developed, and were used indiscriminately in foods. With the passage of the Food and Drug Act in 1906, most of them were banned. Others were created to take their place and in 1907 twenty-four were in use. In the years that have followed all but seven have been discontinued for use in foods, or banned as health hazards.

In 1960 Congress directed the Food and Drug Administration (FDA) to prove the food dyes in use at that time were safe. The agency was given two and a half years to complete the task. Meanwhile, the dyes then in use were given a "provisional" status, permitting their continued use while the testing was carried out. After the allotted time had gone by testing was still not complete, and the provisional use was extended; this extension was repeated over and over for decades!

When a dye is prohibited from use in foods, it does not mean it is banned from use in medicines or cosmetics. If it's unsafe to swallow a dye in food, how can it be acceptable to apply it to the skin or swallow it in the form of medicine?

Today most colorings are created from petroleum (the source for gasoline, kerosene and asphalt) but they are often still referred to as "coal tar dyes."

Today, most food dyes start out in petroleum refineries in China.

"Artificial coloring" -- what does it mean?

It can refer to coloring from natural sources such as turmeric, beet powder and annatto. When beet juice is added to lemonade to make it

pink, the lemonade is artificially colored. Even though the beet juice is a natural product, it is not naturally occurring in lemonade. When a coloring agent of any type has been used, FDA considers the term "natural" to be misleading. Similarly, the carrot juice that farm families used to add to their butter would also be considered an "artificial" coloring.

In the United States coloring agents that are synthetic (petroleum-based) dyes are identified on their label with FD&C numbers; they are eliminated on the Feingold Program.

FDA bans some uses of Red Dye No. 3

From Pure Facts: March 1990. After thirty years of hesitation, the government has begun the process of removing this cancer-causing chemical.

It won't mean the end of bright red lollypops, jelly beans and fluorescent cereal, but the recent decision concerning this notorious dye is certainly a victory for consumers. January 29 was the deadline for the most recent extension permitting certain uses for the dye Erythrosine (Red No. 3). Its continued use has long been allowed despite the fact that it has been shown to cause cancerous thyroid tumors in laboratory animals and thus may not legally be added to foods.

Feingold observers expected yet another "temporary" extension, a process that has been going on since 1962. Instead, the Food & Drug Administration, which had long tried (and failed) to ban this additive, finally succeeded in having it removed from some things. The ruling will prevent the dye from being used in certain foods and in the wax coating on cheese; these represent only about 20% of the uses of the dye. (No products will be recalled and manufacturers will be allowed to use up the stock on hand.)

Curiously, although Red 3 will no longer be permitted to be added to cosmetics and drugs applied to the skin, it may still be added to ingested medicine and some foods. As the threat of a ban became more likely, the industry turned to other dyes. Although there are only seven synthetic colors permitted for use in foods, both the cosmetic and drug industries have many different dyes available to them.

When FDA announced the partial ban on Red 3, it also said it would begin the process of revoking the other uses of this dye. Such action could mean the end of the maraschino cherry in fruit cocktail. This prospect strikes fear into the hearts of fruit growers – those who raise peaches and pears, as well as cherries. Lobbyists claim that marketing tests indicate the removal of the bright red spots of color would result in a 20% decline in the sale of fruit cocktail. Red 3 is the only food dye that will color cherries without bleeding onto the other fruit.

When the possibility of a ban seemed likely last year, California growers enlisted one of their congressmen to block it by tucking language in an appropriations bill instructing FDA not to ban the dye without further study. Such studies would have guaranteed the dyes 4 to 5 years additional use, during which time attempts could be made to weaken the law so it would allow chemicals with "negligible risk" to be retained.

The colorful history of Red No. 3

By 1990, the third year of testing for Red No. 3 had become thirty years.

Three different FDA Commissioners tried – and failed – to have this chemical removed from the food supply. Although Red 3 is not one of the more widely used food dyes, it has received the most attention as a possible trigger for learning and behavior problems. Dr. Herbert Levitan at the University of Maryland, found that the dye disrupted the nervous and muscular systems of test animals (*Science,* vol. 207, 28 March, 1980)

Does FDA mean "Foot Dragging Administration?"

Year after year, the FDA granted additional temporary extensions to the provisionally listed dyes, and by 1985 members of Congress were exasperated. The Committee on Governmental Operations issued a report highly critical of the FDA and its parent agency, the Department of Health and Human Services. The report cites unethical governmental practices and excessive influences of the industry lobbies, particularly the Cosmetic, Toiletries and Fragrances Association and the Certified Color Manufacturers Association.

In January of 1985 the Public Citizen Health Research Group filed suit against FDA for their failure to ban ten dyes, including Red 3, which had been shown to cause cancer in laboratory animals. The Delaney Clause of the Food, Drug and Cosmetic Act states that any food additive known to cause cancer in humans or animals may not be deliberately added to foods. In October of 1987 Public Citizen won their case in the U.S. Court of Appeals. The judge's decision affirmed that FDA was in violation of the law by permitting the continued use of Red 3.

Many years later, bright red maraschino cherries and countless other food products still contain this illegal dye!

Thyroid problems and mood swings

The case against Red 3 (Erythrosine) is based upon findings that it causes thyroid tumors in animals. Beatrice Trum Hunter, a member of the FAUS Advisory Committee, notes the dye is made of an iodine-containing compound. When it is ingested, the iodine is released in a free state. This means it can affect the thyroid system, which in turn can influence mood swings.

Another problem with Red 3 is its high "lipid solubility," or ability to dissolve in fatty tissue. Erythrosine is fairly easily dissolved in the fatty tissues of the body, including the fatty tissues of the brain. This may account for the rapid, severe reactions so many people have to the dye.

When Red 3 goes, where will it go?

What can a manufacturer do with approximately 300,000 pounds of the dye produced yearly? This versatile chemical has other uses. Erythrosine B is registered by the Environmental Protection Agency as a pesticide. Red 3 is not just a dye, added to the compound; it IS the pesticide. A representative at EPA told *Pure Facts* the chemical is an "active larvicide," sprayed on manure piles to kill fly's eggs. In order for the dye to be effective it must be exposed to sunlight.

Some more studies on Red 3

"Consumption of Red No. 3, which has estrogen-like growth stimulatory properties…could be a significant risk factor in human breast carcinogenesis (cancer)." Estrogenic and DNA-damaging activity of Red No. 3 in human breast cancer cells, Dees et al, *Environ Health Perspect* 1997 Apr;105 Suppl 3:625-32

"…the azo additives we examined (including Red No. 3) induced colon DNA damage at a very low dose…" DNA damage induced by red food dyes orally administered to pregnant and male mice. Tsuda et al, *Toxicol Sci* 2001 May;61(1):92-9

Red No. 3 was shown to cause abnormalities and reduced mobility of sperm in mice. A study on the reproductive toxicity of erythrosine in male mice. Abdel et al, *Pharmacol Res* 1997 May;35(5):457-62

Consumers win victory on two dyes

In December 1984, Public Citizen Health Research Group petitioned the Food and Drug Administration (FDA) to ban 10 color additives because of serious safety problems including the risk of cancer.

In a major setback for the Reagan administration, the federal court of appeals handed consumers an important victory by ruling that the FDA violated the law when it approved two color additives (Orange No. 17 and Red No. 19) that cause cancer in animals. The Court unanimously held that the FDA must abide by the Delaney Clause, which prohibits the agency from approving food additives that are animal carcinogens.

The Delaney Clause is the nation's most famous public health law, and the Reagan administration targeted it for extinction shortly after President Reagan took office in January of 1981. Almost immediately, the food industry, with the administration's support, proposed legislation that

would have repealed the Delaney Clause. When Congress refused, the FDA adopted its "de minimis" policy which, loosely translated, meant that the government could ignore the Delaney Clause if it concluded that the risk of cancer was very small. The Court held that this de minimis interpretation was illegal.

FDA gives approval for blue dye

February 1988: Based upon studies of the synthetic dye FD&C Blue No. 2, the Food and Drug Administration concluded that it did not appear to cause cancer in animals. The agency has "permanently listed" this dye for use in foods, drugs and cosmetics.

The dye is manufactured through a chemical process that includes: formaldehyde, aniline, several hydrozides under ammonia pressure, and heating in the presence of sulfuric acid. As with the other FD&C dyes, each batch of Blue No. 2 must be certified to ensure it does not exceed the prescribed limit for impurities. Most of the impurities are in the form of salts and acids, but others include:

Lead – not more than 10 parts per million
Arsenic – not more than 3 parts per million
Mercury – not more than 1 part per million

As a total proportion, the coloring must be no less than 85 percent.

The problem with testing

The testing of Blue 2, as well as other food additives, raises some serious questions:

- The blue dye was tested singly, not in combination with other additives. (A consumer is unlikely to eat only Blue 2. The typical meal in the United States can contain hundreds of chemical additives.)
- The tests of this dye were carried out on animals, since clinical testing with humans is not required for additives, as it is for drugs.
- The manufacturer of the dye is responsible for hiring and paying the laboratory that conducts the testing.
- Food additives are not required to be tested for possible behavioral or learning effects.

The bug-killer in the medicine cabinet

West Coast growers have a formidable foe in the Mediterranean and Mexican varieties of fruit fly, which can quickly destroy crops.

For years the method for dealing with this threat has been aerial spraying of the powerful chemical, malathion, but this pesticide is harmful for humans as well as bugs, and both consumer groups and organic farming advocates have encouraged the development of alternatives. One alternative being studied is to replace the malathion with an equally deadly compound -- a blend of two dyes commonly used in drugs and cosmetics. After a blend of Red dye No. 28 and Yellow 8 are fed to the fruit flies, exposure to sunlight causes the dyes to absorb light. This results in the formation of oxidizing agents in the bug's tissues within the next 12 hours and, in effect, the little critters explode!

Researchers find that the bugs will eat the dye if it is mixed with a sweetener, leading Feingold families to wonder why the growers don't simply buy up the powdered "fruit" drink mixes in the supermarkets, and use them in aerial spraying! Actually, the dyes permitted to be used in foods are different from those being considered as a pesticide by the Department of Agriculture, but Red No. 3, allowed in foods, has long been used as a pesticide. It, too, has a mechanism that is activated when it is exposed to light. [In his book, *Why Your Child is Hyperactive*, Dr. Feingold described the practice of spraying Red 3 on manure piles to kill fly's eggs.]

FD&C dyes and D&C dyes

Dyes that go by the name of "FD&C" are allowed to be used in foods, drugs and cosmetics. Those called "D&C" are permitted only in drugs and cosmetics, and not allowed in foods. Dyes used in drugs and cosmetics are not required to meet safety standards as stringent as those used in foods, since it is assumed that the consumer is exposed to less dye in drugs and cosmetics than in foods.

The experience of Feingold members, as well as thousands of people who suffer reactions to FDA-approved food dyes shows that the definition of "safety" is controversial. Allergists have reported adverse reactions to FD&C Yellow 5 for decades, but this dye is used extensively in products sold in the U.S.

Feingold families would also question the assumption that a chemical dye consumed in small quantities does not need to meet the same standards as those consumed in larger amounts.

Two other issues: unlike foods where there are many choices, consumers often do not have a choice of which medicines they can use; and since medicines are consumed by people whose health is likely to be fragile, the safety requirements should be higher, not lower, than for the general public.

Here is a sample of some of the dyes that can be found in over-the- counter medicines:

- D&C Red 7, D&C Red 22, D&C Red 27, D&C Red 28 (the red dye which kills fruit flies), D&C Red 30, D&C Red 33
- FD&C Blue 1, FD&C Yellow 6, D&C Yellow 10

Dyes that are permitted in foods in the US:

- FD&C Red 3*
- FD&C Red 40
- FD&C Yellow 5
- FD&C Yellow 6
- FD&C Blue 1
- FD&C Blue 2
- FD&C Green 3

*Red 3 is not permitted in certain products since it has been found to cause cancerous tumors in test animals. It is prohibited for use in candies, baking mixes and the waxed coatings used on cheese. It is also not allowed to be used in cosmetics or drugs that are applied to the skin. This dye is still used in many foods, however, including the maraschino cherries in fruit cocktail.

Blue 1 has been found to be toxic to the "mitochondria" (the little energy factories in our cells). In 2003 the FDA cautioned doctors to stop putting the dye in the food of patients being tube-fed because patients were dying – not from their illness, but from the Blue 1! But it is still being added to food especially those designed to appeal to children.

Europe ditches most dyes in food!

Since July of 2010 many of the food and beverages sold in Europe have been free of synthetic dyes.

The European food revolution began in England, prompted to a large degree, by the 2004 and 2007 research led by Professor Jim Stevenson. (This research showed that a modest amount of food dye brought on ADHD symptoms in most children, not just those with a diagnosis.)

Also of significance were the television exposes by celebrity chef Jamie Oliver. Viewers were shocked to learn how bad the food in the country's schools had become. Initially the government resisted making any improvements, despite the fact that most European nations – especially neighboring France – make healthy school food a high priority. But the persistent and charming Jamie gathered widespread public support, shaming the politicians into promising reform.

The press picked up these stories and pushed for the government to get rid of what the Brits like to call the "artificial nasties" in their food. Soon, supermarket chains announced they would no longer use petroleum-based dyes in their own store brand foods and some removed other synthetic additives as well.

The Food Standards Agency (Britain's equivalent of the US Food and Drug Administration) made it clear that manufacturers could either voluntarily remove synthetic dyes, or face regulations requiring it. Multi-national companies soon replaced the petrochemicals with natural dyes for foods sold in Britain, but continue to use the cheaper fake dyes in foods sold in the U.S. Later, the European Union told manufacturers that they would need to put warning labels on foods that use the majority of synthetic dyes. The warning states, "may have an adverse effect on activity and attention in children." Rather than have to warn consumers, food companies are using natural dyes in Europe.

Americans who travel abroad like to stock up on the natural versions of M&Ms, Milky Way, Starburst, Twix and Skittles. Here in the U.S. consumers can find some natural European candies in stores that carry imported products.

Note: There are numerous natural candies available in the U.S., and several online companies that offer many of the hard-to-find candies and natural baking supplies, including bright red, all natural maraschino cherries.

A vibrant natural blue dye is now available from blue-green algae. It will also allow for more vivid shades of natural greens and purples.

Flavorings

There is no way for a consumer to find out what chemical flavorings are actually used in a particular food; the industry has the freedom to use virtually anything and need not declare it on the ingredient label. They are listed in general terms, such as "artificial flavorings."

One of these mystery chemicals that are being hidden under this heading is Neotame, the newer, more potent version of Aspartame.

Most of the chemicals used as flavorings have never undergone any safety testing, such as the ability to cause cancer or birth defects and, like other additives, they are not tested to determine if they can trigger behavioral changes.

Flavorings are used in more than just food. A representative of McCormick & Co. explained, "You can go down almost any aisle in the supermarket and, with the possible exception of produce and mops, anything you pick up will contain a flavor or a fragrance. (The chemicals used as fragrances and flavorings are often interchangeable.) There are

places flavors appear that the average person doesn't even think about. They are even in cigarettes."

Flavor chemists use sophisticated equipment to attempt to duplicate the taste and aroma of the more expensive real foods.

In place of raspberry, they offer:
Vanillin, Ethylvanillin, Alpha-ionone, Maltol, 1-(p-hydroxyphenyl)-3-butanone, Dimethyl sulphide, 2,5-Dimethyl-N-(2-pyrazinyl-pyrrole.

Strawberry is replaced by:
Geraniol, Ethyl methyl phenyl glycidate, 2-Methyl-2-pentenoic acid, Vanillin, Ethyl pelargonate, Isoamyl acetate, Ethyl butyrate, 1-(prop-1-enyl)-3,4,5-trimethoxybenzene.

Vanilla vs. Vanillin

Have you ever wondered why your supermarket carries two such different products? There's that huge bottle of imitation vanilla at a low price, and right next to it is that tiny little bottle with the hefty price tag? The difference seems significant until you think of how little vanilla is called for in a typical recipe -- generally about a teaspoonful.

Actually, the imitation vanilla is probably very overpriced. According to the trade publication, *Food Development*, "Fifty cents worth of vanillin is about equivalent in strength to $35 worth of vanilla. In other words, vanillin is 70 times as flavorful as vanilla on a cost basis..."

Pure vanilla extract and vanilla beans are well tolerated by Feingold members. Imitation or synthetic vanilla -- generally listed as "vanillin" -- is poorly tolerated. Some vanilla extracts contain alcohol, and may have corn syrup, but neither of these is likely to affect the typical Feingolder unless they have an extreme sensitivity to corn syrup.

If a product, such as ice cream, is made with only real vanilla, it can be called "vanilla ice cream." If at least half of the flavoring is from synthetic vanilla it is called "vanilla flavored." Ice cream made with only synthetic vanilla must be labeled "artificially flavored vanilla ice cream."

Imitation vanilla tends to have a more intense flavor and to stand up well under heat, and of course the cost difference is dramatic. Dry powdered products such as pudding and cake mixes lend themselves to the use of powdered synthetic vanilla, and in white cakes and icings, colorless imitation vanilla avoids picking up a slight tint from the brown pure vanilla extract.

Tom Neuhaus, a nutritionist and biochemist, writes, "Vanilla extract, made from dried and aged vanilla beans, is a complicated mixture of many

compounds. It is prepared by percolating alcohol and water over chopped beans for several days.

"Artificial vanilla flavoring is made by mixing vanillin, ethyl vanillin and a few other major components of the vanilla bean's flavor with water, alcohol and **coloring**."

In her classic book *Consumer Beware*, Beatrice Trum Hunter notes: "Other synthetics can also replace real vanilla, notably vanildene, ketone and piperonal, a well-known lice killer."

Vanilla is derived from an orchid, and is cultivated in Mexico, Indonesia, Tahiti, Brazil, and the Malagasy Republic (formerly known as Madagascar). When the vanilla bean ripens and ferments, it develops the characteristic flavor and aroma from the compound known as "vanillin," which occurs naturally in vanilla beans. There are many other naturally occurring chemicals -- about 140 -- present in a ripe vanilla bean, but vanillin is the predominant one. When the name "vanillin" is used on ingredient labels it refers to the imitation flavoring. For practical purposes, the consumer can regard the name "vanillin" to indicate a synthetic chemical.

Because of the wide difference in the price of pure vanilla vs. the synthetic vanillin, there is an incentive for dishonest food processors to attempt to pass off the imitation product as real vanilla extract.

The biggest problem vanillin poses for the chemically sensitive person is that it is so widely used in chocolates. Consumers generally believe that expensive chocolate products use natural flavorings and inexpensive ones use synthetic, but this is not necessarily true. Check out the labels on those very expensive cookies, ice cream bars, and candies. Many contain vanillin. Then look at ingredient labels on bags of inexpensive foil wrapped chocolate holiday novelty candies. Some contain either pure vanilla or do not have any added vanilla at all.

There is no consistent rule on finding natural chocolate. Milk chocolate is more likely to have added vanilla or vanillin, and dark chocolate to be free of it, but there are exceptions. Food processing and marketing is not always logical.

Consumers have been told for many years that there is not enough natural vanilla to meet consumer demand, but the Vanilla Information Bureau in New York disputed this in correspondence to a Feingold volunteer:

"In reply to the statement that there are not enough vanilla beans in the world to meet demand, this is an old excuse from the manufacturers who are cutting costs by the use of artificial vanillin. The truth is that there is a surplus of vanilla in Madagascar (Malagasy), the main source, and that country has the potential to increase its production many, many fold. The

issue is cost. Artificial vanillin is a by-product of pulp paper manufacturing (creosote) and costs a fraction of what real vanilla does."

The Vanilla Information Bureau also states that the artificial vanillin does not have the same chemical makeup as pure vanilla.

Is there really a difference?

The Feingold Program's policy of designating pure vanilla as acceptable and synthetic vanilla (vanillin) as unacceptable has brought criticism. One member wrote:

"My neighbor, who is a chemist, says that pure vanilla and synthetic vanilla are the same. I don't understand how this can be true since my little boy can eat things made with real vanilla, but has a bad reaction to foods with vanillin (synthetic vanilla)."

To get some insight into this, FAUS contacted Ruth Aranow at the Department of Chemistry of Johns Hopkins University. Dr. Aranow wrote: "I agree that the two are chemically identical. However, I doubt whether 'pure' synthetic vanillin exists. Every chemical synthesized contains some of the materials used in the synthesis.

"Just as vanilla extract contains unidentified resins of unknown toxicity and allergenicity, so too do synthetic materials contain unknown materials (i.e., reactants and other products).

"The real problem is that the nature of chemical sensitivity is not understood or even defined. But our ignorance gives us no right to either deny or affirm the existence of chemical sensitivity. There is evidence that the human eye can respond to just a few photons of light. This seems to be an extraordinary sensitivity. Until the nature of chemical sensitivity is better understood, the possibility of extraordinary sensitivity remains.

"So the question arises: If a person appears to 'react' to vanillin but not to vanilla, the sensitivity may be to components used or made in the synthesis."

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Vanilla fragrance from what!?

The recipes for synthetic flavors and synthetic fragrances are sometimes used interchangeably. So we might have a new reason to avoid vanillin (fake vanilla).

Researchers at the Sekisui Chemical Company in Japan have managed to extract an aromatic ingredient from cattle dung. (Yes, you read that correctly; it's not a typo.) The vanillin is expected to be used as a fragrance in shampoo and candles.

The troublesome antioxidants

In his early work, Dr. Feingold did not remove the antioxidant preservatives BHA and BHT. (TBHQ was not then in use.)

Once he eliminated the petroleum-based BHA and BHT, he found that a much greater percentage of patients experienced success.

Beatrice Trum Hunter documented the problems caused by these preservatives in her books, *The Mirage of Safety* and *Consumer Beware*. When pregnant mice were fed BHA and BHT, it affected the brain chemistry of their offspring, resulting in approximately half the normal level of cholinesterase and serotonin. The affected mice weighed less, slept less and fought more than normal controls.

[Source: Fisherman and Cohen, "Chemical Intolerance to BHA and BHT and Vascular Response as an indicator and Monitor of Drug Intolerance." *Annals of Allergy*, Vol. 31, No. 3, March pp. 126-133.]

Human reactions to BHA and BHT vary as much as reactions to synthetic colors and flavors; and Feingold members know only too well that an "incidental" amount of a few parts per million can be sufficient to provoke a reaction, or can accumulate, thus leading to a reaction.

Many other countries either ban or restrict the use of these additives, and the state of California lists BHA as a carcinogen.

The Select Committee of the Federation of American Societies for Experimental Biology has cautioned against the additive; and the International Agency for Research on Cancer of the World Health Organization identifies it as a possible carcinogen.

There are alternatives to BHA, BHT and TBHQ. These include vitamin E and extracts of clove, sage and rosemary.

BHA, BHT, TBHQ and "incidental" additives

The Food and Drug Administration considers small quantities of preservatives such as sulfiting agents, BHA, BHT and TBHQ to be "incidental additives" and does not require they be listed on labels. This means we will continue to experience reactions from the many hidden additives found in vitamins, fats, packaging materials, etc.

Don't be "April Fooled" by the label:

A member writes: "Can you believe a label? Not always. When my local grocery store stopped carrying my favorite brand of yogurt, I carefully inspected the label on the local brand they now stock. The 'Natural Strawberry Low-fat Yogurt' label read OK, so I bought it. Inside the container I found a bright pink yogurt, quite different from my usual brand.

"A quick call to the dairy connected me with a very helpful lady in the lab who assured me that they did not add any colors to the yogurt. Sounds OK, doesn't it?

"Being an experienced Feingold volunteer, I knew I needed to persist, and luckily I did know the right question to ask next: 'Do the strawberries come with artificial color already added?' A check with the lab supervisor found that my hunch was correct.

"The list of ingredients is legally correct. The label stated that the product contained strawberries. There is no requirement that they tell the consumer what may have been added to the strawberries.

"The Feingold Product Information Committee (PIC) looks into these hidden ingredients when they do product research. This incident reinforced for me how important the work of PIC is and how important it is for new members to refer to the *Foodlist* for acceptable brands.

"Unfortunately, a *Foodlist* cannot cover every occasion. The yogurt incident pales in comparison to the lemonade incident our family encountered on our vacation last summer. At a festival we attended there was a booth promoting 'fresh squeezed lemonade.' After being assured that it was freshly squeezed, we ordered some. When the cups were filled with a bright yellow liquid, I quickly asked what made the lemonade so yellow. 'It's the lemons,' replied the vendor. I persisted, but he assured me it was natural lemonade colored by lemons. After I expressed my disbelief, he explained that it was the yellow cup that made it look so yellow. He continued to insist it was natural even while his wife stood behind him shaking her head 'no' and my son was pointing out that the cups were white! "If it doesn't look right, question it, and question again. Don't be 'April Fooled!'"

Be sure to check those labels!

Experienced Feingolders can get complacent about label reading. One member described just such an incident when she brought home a half-gallon of strawberry frozen yogurt. The family had enjoyed the same brand of peach yogurt, which was fine, and used annatto coloring. She forgot to check the ingredient label till she got home and opened it up; the strawberry contains synthetic dye!

Some "little" food additives to consider

In addition to "the big" additives eliminated on the Feingold Program (synthetic colors, synthetic flavors, aspartame, BHA, BHT, and TBHQ), there are the "little" ones. These additives are not prohibited, but are suspected of causing problems for some of our members. They are: corn syrup/sweeteners, MSG, sodium benzoate, nitrites, calcium propionate,

sulfiting agents, fluoride, and smoke flavoring. (Natural smoke flavoring seems to be well tolerated.)

What is corn syrup?

Turning corn kernels into a sweet syrup involves many chemical processes, beginning with two days of soaking in a solution of hot water and sulfur dioxide. Then the components are separated into corn oil, protein and the familiar white powder we call corn starch, which may contain up to 50 parts per million of sulfur dioxide. It may then be further treated to break it down to the sweetener corn syrup.

First marketed in 1902 under the name "glucose," the product was not well received by the public who thought it was made from glue. Changing the name to "corn syrup" transformed its image. Dr. Harvey Wiley (the first Commissioner of what is now the Food and Drug Administration) worked unsuccessfully to ban it from use in foods. Glucose was found to induce diabetes in test cats, and excessive use was said to have a destructive effect on the pancreas.

The ability to tolerate corn syrup (or "corn sweetener") varies with the individual; when possible it's wise to avoid it initially, and then test it out later. Since it is so widely used, avoidance is not always easy.

What is Fructose?

Fructose is the name given to the sugar that appears naturally in fruits. But the fructose that is available commercially is not extracted from fruit, as this would be too expensive.

Sucrose (granulated sugar or table sugar) is generally processed from sugar beets or cane, and it is made up of fructose and glucose. The fructose is extracted from the sugar.

It's hard to know if the reaction some people have to corn syrup and high fructose corn syrup is due to the sulfur and other chemicals used in processing or to the fact that most corn grown in the United States is genetically modified.

High fructose corn syrup

High-fructose corn syrup, widely used as a sweetening agent, is being linked with obesity, liver damage and diabetes.

It is created by treating corn syrup with additional enzymes, making it even sweeter. This means manufacturers can use less and save money, and it has been enthusiastically embraced by the food industry.

Most forms of sugar are converted to glucose, which causes the pancreas to release insulin. The insulin enables the sugar in the blood to be taken into cells where it is used for energy. This is accompanied by an increase in the production of leptin, a hormone that helps regulate appetite

and fat storage. Another reaction to glucose is the reduction of ghrelin, a hormone that signals hunger.

By contrast, high fructose corn syrup (HFCS) does not do any of these things. Instead, fructose is removed and metabolized by the liver and does not cause the release of insulin. The fructose converts to fat! An article published in the April 2004 issue of the *American Journal of Clinical Nutrition* is titled "Consumption of high-fructose corn syrup in beverages may play a role in the epidemic of obesity." The authors note: "The increased use of HFCS in the United States mirrors the rapid increase in obesity….The digestion, absorption, and metabolism of fructose differs from those of glucose."

It can cause the loss of minerals like iron, magnesium and zinc. HFCS interferes with the heart's use of magnesium, copper and chromium. Chromium also is essential in balancing insulin levels, and it is reduced when one consumes fructose, especially when they are combined with other sugars, according to Dr. Richard Anderson of the Human Nutrition Research Center.

The May 2012 issue of *the Journal of Physiology* contained a UCLA study that found similar problems with HFCS. It described how the sweetener slows down the brain's ability to build new connections, which is another way of saying "to think."

HFCS and obesity -- A small study on the link between HFCS and obesity by Yale University's chief of endocrinology, Dr. Robert Sherwin, was published in 2013 in the *Journal of the American Medical Association*. Twenty healthy young adult volunteers drank beverages sweetened with either fructose or glucose while scans monitored the activity in their brains.

When they consumed the drink with fructose, their brains did not register a feeling of fullness, as they did when the drinks were sweetened with glucose. Interestingly, not only did the brain scans indicate they were not satisfied, but the volunteers said that after the fructose drink they felt a desire to continue eating.

Many health advocates are very critical of agave syrup, which is a highly processed form of fructose.

Fatty liver disease -- Professor Brent Tetri of the St. Louis University Liver Center found that fructose, unhealthy fats and MSG are contributing to a troubling rise in the incidence of "non-alcoholic fatty liver disease," especially in the US. This condition can progress to type II diabetes and death, and one in five Americans is at high risk. These food additives are found in large amounts if fast food, junk food and school food.

MSG and the Feingold Program

The Feingold Program does not eliminate MSG, but many are cautious of this additive... and with good reason.

The furor over MSG began with a letter published in the *New England Journal of Medicine* in l968. It was written by a physician who found he experienced pain, weakness, numbing, and heart palpitations shortly after eating Chinese food which contained MSG. The condition was quickly dubbed "Chinese Restaurant Syndrome."

Studies funded by the industry have questioned the Chinese restaurant syndrome and yielded very conflicting results.

MSG and infants

Following the publication of the letter, other physicians reported a wide variety of physical symptoms that they believed could be attributed to this additive. Public pressure soon persuaded manufacturers of baby foods to remove the MSG.

While the Food & Drug Administration (FDA) has never prohibited the use of MSG in baby food, they do recommend that it not be given to children until they are neurologically mature. Diane Nixon, a Feingold volunteer, once contacted the FDA to ask them, "At what age can we consider that a child is neurologically mature?" The FDA said they didn't know.

Nobody knows exactly how MSG works.

Even items found in health food stores often contain MSG in the form of an additive known as "hydrolyzed vegetable protein" (HVP) or "hydrolyzed plant protein," "autolyzed yeast," or just "yeast." According to one industry publication, HVP contains between 9 and l6 percent MSG.

Soups, gravies, and meatless dishes are particularly likely to contain MSG and/or HVP, but the additive can be found in many processed foods.

One brand of Onion Soup is a good example of the confusion caused by the lack of labeling regulations. The front of the package prominently states, "Naturally flavored, NO MSG." But a phone call to the company disclosed that the "natural flavors" listed on the back include HVP.

What Is MSG?

According to the Glutamate Association of the United States, MSG is "the sodium salt of glutamic acid, an amino acid and one of the important components of protein."

"Glutamate is naturally present - in 'bound' form, linked to protein and in 'free' form - in virtually all foods, including meat, fish, poultry, milk (including human milk), and many vegetables."

"Bound" and "free"

The difference between MSG in "bound" or "free" form is the crucial difference, according to food additive expert Beatrice Trum Hunter. In addressing the Feingold Association at its 11th annual Conference, Ms. Hunter explained. "It's true that glutamic acid is found in many foods, but when it's in food, it's always in a bound form. When you eat something like beef, or tomato juice or mushrooms, which have glutamic acid in them, you can handle them since it's bound to those foods.

"It's quite another matter when the glutamic acid is in the form of MSG, because then it's in a free state; in fact, it would be ineffective as a flavor intensifier if it were in a bound state. It has to be in a free state, and this makes all the difference in the world. You get it in your body in a free state, and if you're sensitive to it, you get these reactions."

When researchers want to study obesity they inject newborn mice with MSG, which is known to cause them to become obese!

How is it made?

The effects of this flavor enhancer were first noted over 2,000 years ago when Oriental cooks found that soup stock made from certain seaweeds improved the flavor of other foods.

Today, MSG is most often made from molasses that has been derived from sugar beets or sugar cane. According to George Schwartz, M.D., MSG can be made from far less savory ingredients. In his book *The Essential Update* (which followed his first publication, *In Bad Taste: The MSG Syndrome*) he writes: "...the question has been raised as to whether some of the reactions [to MSG] may, in fact, result from a contaminant within the food-grade monosodium glutamate...MSG can even be produced from a base of motor oil or kerosene."

The many names of MSG

While most people understand MSG sensitivity, many are unaware that the popular product, Accent, is pure monosodium glutamate.

Since the industry considers MSG to be natural, and because the FDA has no regulations regarding the meaning of the word, many products labeled as "natural" contain MSG. *The Essential Update* identifies these foods as possible sources of MSG: broth, natural flavors/flavoring, malt flavoring, high flavored yeast, flavor enhancer, soybean extract, seasonings, textured soy protein, yeast extract.

Physical complaints

In June of 1990 the Health Hazards Evaluation Board of the U.S. Department of Health and Human Services issued a report titled, "MSG