



## Other Food-Mood Connections

**O**ur nutrient program has had satisfying and consistent results, but it will not work as well if your other health habits are physically or psychologically damaging. In addition, though nutritional status is important, there are other factors that can influence your mood and engender depressed feelings, including excess sugar, hypoglycemic reactions to sugar and refined carbohydrates, vegetarianism and food sensitivities or allergies.

### **SUGAR IS NOT SO SWEET**

I don't talk about sugar from any lifelong position of abstinence. I used to live on Hostess Pies, Snickers, Mars Bars, Reese's Peanut Butter Cups, chocolate bridge mix, See's Candies, Swensen's peanut butter chocolate ice cream, and Coca-Cola. I often used to bake five dozen chocolate chip cookies, eat half the batter while they were cooking, and then finish off the cookies in a few days—with a "little" sharing, of course. And while "dieting," I slinked down to the vending machines in the medical school dormitory

basement to get my nightly fix. No wonder I was depressed.

Because of such excesses I am now limited in what I can eat, and probably forever. Even small amounts of sugar can spell trouble for people who are allergic, diabetic, hypoglycemic or yeast-infection prone, but excess sugar can create a real health danger to anyone. Many people are hooked on sugar and, unknowingly, profoundly influenced by it.

Now, what constitutes "excess"? The average American consumes 126.8 pounds yearly, over a third of a pound daily! This consumption is up 11 pounds per year from what it was a decade ago. Sugar constitutes 25 percent of our daily calories, and sweet drinks make up 25 percent of that sugar intake.

Most of us are not aware that our intake is this high, as we are surrounded by hidden as well as overt sugars. If you read labels, you'll notice how omnipresent sugar is (and it isn't even included on all labels). Remember that there are many other names for sugar—corn syrup, corn solids, fructose, sucrose, glucose, dextrose, etc. Try buying a cereal without sugar and you'll likely only be left with a choice of shredded wheat and grape nuts; try buying sugar-free canned or frozen vegetables and you'll be severely limited in your choice; even many already sweet fruit juices are sweetened; note all the loaves of bread with added sugar; the canned beans; the sauces and ketchups—sugar, sugar everywhere. What helps sell sugar and what is particularly alarming is that the taste, as well as the effects, have proven addictive. Even laboratory animals will choose sugared food and water over their non-sweetened counterparts when given the option.

The case seems clear, the evidence overwhelming; sugar is one of the most powerful common foods capable of affecting our minds and our moods. A

twelve-year-old girl was brought to me complaining of severe depression and "attacks" of anger during which she provoked and verbally assaulted her parents, and verbally and physically abused her sister. As time passed, it became clear that this behavior occurred whenever she ate sugar. As long as she refrained from sugar there were no such mood swings or angry attacks. Now she is eighteen years old and has been doing well on a nutrient program. However, she has called me with occasional relapses through our six years of knowing each other. My first question is always about sugar and each relapse turns out to have been precipitated by her returning to her sugar habit. She usually needs a few booster sessions to bolster her discipline and then does well again until the next slip.

Sugar, white flour, alcohol and other refined carbohydrates are nutritionally useless. They provide "empty" calories that can only convert to energy when certain vitamins are present. Those vitamins must be obtained from other more nutritious foods or supplements. If you indulge too many of these empty calories and not enough nutritious foods to help with their metabolism, you will create a depletion of certain vitamins. The empty calories can thus push you into a negative nutritional state.

Here is a dramatic example of an empty-calorie junk food diet and its consequences. A thirty-year-old woman came to me complaining of daily headaches and stomach pain, saying, "My mind is constantly racing. I can't fall asleep because I'm thinking about horrible things that are going to happen. I keep seeing my son in a coffin. My moods are always changing; my poor son having to deal with me, he'd be better off without me." This woman suffered from chronic anxiety interspersed with panic attacks, confusion, restlessness, diffi-

culty concentrating, memory lapses, suicidal thoughts, dizziness, palpitations and tightness in her chest, muscle weakness, pain and cramps, and chronic fatigue.

Here is a three-day sample of her diet at the time:

MONDAY	TUESDAY	WEDNESDAY
1 apple	1 cup of coffee	1 cup of coffee
2 chocolate chip cookies	2 donuts	2 slices of American cheese
3 slices of American cheese	1 hamburger patty	1 chicken pie
1 hamburger on a plain bun	1 Like soda	1 Pepsi Free
French fries	1 slice of American cheese	potato chips
1 Pepsi Free	1 candy bar	2 bean and cheese burritos
1 Like soda	1 Pepsi Free	1 Pepsi Free
1 bowl Rice Krispies with sugar	some "Red Hot" candy	1 Like soda
2 more Pepsi Free's	1 McDonald's McRib with french fries	1 candy bar
1 slice of American cheese	1 Tab	
	1 hot dog and bun	

This type of eating pattern had continued for a long time. Where is her daily protein, her vegetables and fruit? Her diet only consistently contained one of the five basic food groups, grains. No wonder she felt so terrible, and yet was too discouraged to make any lasting changes. She might try to eat healthfully for a few days, then when she didn't notice an immediate, significant improvement, she lapsed into her old habits. It would take a good six months or a year in this

woman's case to make up for or undo ten years of deprivation.

Her diet is hardly unusual. I am often appalled by the lists of food intake which people bring to me. Sometimes I wonder how they can live and move at all. And there is no greater offender than sugar in these harmful diets.

Put simply, sugar is a drug which, besides being addictive, is actually toxic to our systems in large amounts. Vitamins B<sub>1</sub>, B<sub>2</sub> and B<sub>6</sub> are needed to detoxify and metabolize it. Our bodies particularly need vitamin B<sub>1</sub> to metabolize sugar. The more sugar we eat, the less vitamin B<sub>1</sub> we have, and fatigue, depression and other problems follow. The damage and symptoms are directly proportionate to our indulgence and to whether or not we use supplements or get enough B<sub>1</sub> and B complex vitamins some other way. Sugar also leads to depression by increasing the magnesium and calcium excretion in our urine and by decreasing the overall magnesium absorption from our food.

Excess sugar may also contribute to amino acid deficiencies, because research in animals indicates that sugar and amino acids compete for absorption in the intestines. Specifically, the influx of the amino acids tryptophan and phenylalanine are inhibited by sugars. Therefore it may be unwise to eat sugar and protein at the same time. High sugar intake also undermines your immune system: it has been shown to decrease the white blood cell count and to lower resistance to colds, flu and other infections.

## **HYPOGLYCEMIA**

Hypoglycemia is a condition of abnormal sugar metabolism resulting in low blood sugar, which many

experts believe may be brought about in certain susceptible individuals by the ingestion of too much sugar or too many refined carbohydrates.

Is hypoglycemia a hype? Some doctors think so, but I don't. What makes it so controversial? One reason is that, as with most illnesses with multiple yet vague symptoms, doctors tend to get uneasy. The temptation is to pass the symptoms off as obsession, hypochondriasis, a bad marriage. . . . If hypoglycemia had a list of clear-cut, well-defined physical manifestations, it would be more readily accepted and agreed upon as a specific malady in need of treatment. On the other hand, hypoglycemia may have been over-diagnosed, too often passed off as the cause of all sorts of vague symptoms by a public made aware of hypoglycemia.

But we are now discovering that certain mental symptoms and diseases are indeed associated with altered or disturbed glucose (sugar) utilization in the brain. There are computerized brain X ray tests called positron emission tomographic (PET) brain scans which measure glucose utilization in the brain. Depressed patients show an overall reduction in glucose metabolism that is most marked across the front and on the left side of their brains. Since the B vitamins are necessary for sugar utilization and metabolism, could it be that B vitamin deficiencies are actually contributing to this faulty glucose metabolism?

PET brain scans of schizophrenics, depressives and other diagnostic groups have helped to substantiate the effect that low blood sugar or rapidly changing sugar levels have on brain function and thus on emotional states, moods and perceptions. The proper concentration of sugar (glucose) in the proper areas of the brain at the right time is an essential component of good mental and physical health, but eating

more sugar to create sugar in your brain is not the answer and in the long-term can actually create less.

Here's why: sugar rapidly absorbs into your system and your body reacts or overreacts to this with an outpouring of insulin from your pancreas. This causes the level of blood sugar to go down. Fine tuning of the sugar level with just the right amount of insulin can be difficult: if the blood sugar drops too low, the body pours out substances called growth hormone, glucagon, cortisol and adrenaline to push it back up; this can then cause a further release of insulin, and the sequence bounces back and forth until a balance is established.

Your liver, pituitary body, pancreas and adrenal gland are all involved in this process of your body's efforts to achieve blood sugar balance. Problems can develop when they are overworked and taxed by a regularly incoming sugar load or by sporadic excessive sugar. High insulin output can also create major changes in brain chemistry as well as brain swelling.

Sufficient quantities of the proper nutrients can promote proper glandular function and hormone production and otherwise aid in the metabolism of the sugar. Eliminating caffeine also helps to level out your blood sugar.

If you have early morning, or before lunch, or late afternoon fatigue which is relieved by a seeming "pickup" of sugar and you find yourself reaching for candy bars, sodas, or other quick sugar fixes at those times, suspect a problem. *More than 50 percent of patients who go to a doctor complain of fatigue as one of their symptoms. The most common cause is eating sugar.*

The following is a list of symptoms induced by rapidly fluctuating or low blood sugar, that is, by hypoglycemia. Please note that many of these symptoms also occur with depression. Those symptoms

marked with an asterisk more clearly indicate blood sugar problems and help to differentiate the two.

### Symptoms of Blood Sugar Instability

1. Depression
2. Nervousness
3. Irritability, anger, rage attacks
4. Exhaustion
- \*5. Faintness, dizziness
- \*6. Tremor, cold sweats
- \*7. Weak spells, especially between meals
8. Headache, especially in the morning
9. Digestive disturbances
10. Forgetfulness
11. Insomnia
12. Nighttime awakening, inability to return to sleep
13. Constant worrying
14. Unprovoked anxieties
15. Mental confusion
- \*16. Internal trembling
17. Palpitation of the heart
- \*18. Rapid pulse
19. Muscle pains
20. Numbness
21. Social withdrawal
22. Antisocial behavior
23. Indecisiveness
24. Crying spells
25. Lack of sex drive
26. Allergies
- \*27. Uncoordination
- \*28. Leg cramps
29. Lack of concentration
- \*30. Blurred vision
- \*31. Twitching, or jerking of muscles
- \*32. Gasping for breath



- \*33. Itching of skin
- \*34. Feeling like you can't get enough air
- \*35. Staggering
- 36. Sighing and yawning
- 37. Impotence
- \*38. Unconsciousness
- 39. Night terrors
- 40. Nightmares
- 41. Phobias, fears
- 42. Suicidal ideas
- 43. Nervous breakdown
- \*44. Convulsions
- \*45. Craving for sweets
- \*46. Blackouts
- \*47. Light clammy perspiration
- \*48. Fluctuating mood and personality throughout the day
- \*49. Feeling better right after eating and feeling worse two to six hours after eating or upon arising in the morning

If you regularly eat sugar, drink alcohol, have a family history of sugar-associated illnesses, and have at least ten of these symptoms (especially if many are with the asterisk), read *Fighting Depression*, by Harvey Ross, M.D., and proceed with appropriate hypoglycemia testing, in addition to—not in place of—following the program in this book. Refer to the appendix for further information on hypoglycemia.

## VEGETARIANISM

Strict vegetarianism is not without risks. It takes a conscientious person with a fair amount of nutritional sophistication to follow this life style successfully. Those who omit dairy products and eggs are especially vulnerable to long-term difficulties. Vegetarians are particularly prone to develop iron,

vitamin B<sub>12</sub> and amino acid deficiencies. All of these can be associated with low energy and low moods.

Fish, fowl, meats and cottage cheese are the primary single foods supplying balanced amino acids. Most vegetarian foods do not supply such a balance on their own. They must be intelligently combined to provide the nutritional equal to what you would get from a meat and dairy diet. Popular books such as *Diet For a Small Planet*, by Frances Moore Lappé, can help you to ensure a properly balanced amino acid intake.

If you are strictly vegetarian be sure to take supplemental iron and vitamin B<sub>12</sub> as mentioned on page 57, in addition to the basic nutrient program. It would also be wise to get a complete blood count, blood vitamin B<sub>12</sub> level, and blood amino acid analysis every few years.

## ALLERGIES OR SENSITIVITIES

Over the past several years, there has been a lot of controversy about food allergies or sensitivities, how to detect them and whether, in fact, they exist. To me, this is somewhat like refusing to accept the fact that the sun rises daily, whether or not you see it that day. Anyone who has suffered from sensitivities to food will have trouble understanding the medical establishment's disagreement on this issue.

Such allergies not only exist but are increasing. The combination of stress, nutrient deficiencies and exposure to chemicals in food, water and air, as well as recreational drug use and abuse, can alter the immune system and cause overreaction to many substances, including food.

The most common foods producing reactions are wheat, corn, coffee, sugar, yeast, eggs, soy, beef, pork

and milk. Some who have symptoms from alcoholic beverages are reacting to the yeast, corn, grains, hops, grapes and so forth in these drinks.

Acute food allergies may be obvious, but chronic allergies are not so well defined. We are often "addicted" to the foods to which we are reacting negatively. As part of the allergic response, a person may be initially stimulated and may feel better for a while after eating a particular food. The negative symptoms arrive later and, since we don't associate them with the food, we get hooked on this initial stimulatory effect and eat more and more, creating a plethora of confusing symptoms.

The "target organ" is the specific part of the body affected or attacked by the allergy. With emotional symptoms, the target organ is the brain. Why should it be exempt? Why should allergic effects be limited to the skin, with itching and hives, or to the upper respiratory system, with sneezing, hay fever and asthma, or to the gastrointestinal system, with colic, diarrhea and cramps?

Food and chemical allergies can change your emotions and cause low moods and sustained depression. They can create psychological symptoms such as the following:

Depression	Poor work habits	Hyperactivity
Withdrawal	Slurred speech	Restlessness
Listlessness	Stuttering	Confusion
Crying jags	Disorientation	Tension
Mental dullness	Mental lethargy	Silliness
Anxiety	Difficulty concentrating	Stuporousness
Panic attacks	Memory loss	False beliefs
Irritability	Indifference	Delusions
Aggressive behavior	Poor comprehension	Hallucinations
Anger	Excessive daydreaming	Suicidal feelings
Learning disabilities	Negativity	

Moderate and variable allergies can produce fluctuating, unpredictable moods. Often they are bearable because the fluctuating course does give times of relief. Sometimes they are not bearable.

A certain subgroup of allergic people are what are called "universal reactors." They have become allergic to so many substances in the air and the food supply that their life is severe. They may suffer so wide a range of physical and psychological symptoms that they find relief only in isolation units in hospitals or in natural settings far from most of the offending agents.

### **HOW CAN YOU TELL IF YOU ARE REACTING NEGATIVELY TO FOOD?**

Unfortunately, allergy detection can be bewildering and complex, because people's reactions are inconsistent. Whether or not you react at any given time may depend upon how much stress you're experiencing, your total biochemical and nutritional state, and how many other simultaneous inhalant, chemical and food allergies you are exposed to. This is described as the "total allergic load." Eating three foods you are sensitive to may not create a problem, but adding the fourth overwhelms your system and you get symptoms. Or, if you are already reacting to mold and pollen, and then you add the wrong food, you feel worse.

Researchers are constantly working to discover new and better ways to measure adverse reactions to foods and inhalants. Strictly speaking, an allergy involves an immune globulin E (IGE) reaction, an immediate reaction directly linked to the food intake as, for example, blisters following the eating of shellfish or coughing right after eating wheat.

Other adverse reactions to food, mediated by immune globulins G, A and M, are called "sensitivities" and create delayed reactions, with the symptoms occurring anywhere from an hour to three days later. Irritability and muscle tension the day after eating a lot of wheat is an example. If the offending food is eaten daily, producing a gradual buildup and overlap of symptoms, it is particularly difficult to pinpoint the offending agent. Yet the bottom line is the same—unpleasant reactions to certain foods. You can track down your problem by trying a food-mood diary. Keep a list of what you eat, at what times, and of what moods follow and when. If you do this for a while, you may notice the emergence of certain patterns.

Fasting: *under a physician's supervision*, try a program of fasting and drinking only water for a few days. If you feel much better, part of your symptoms are probably reactions to food. Do not fast if you are hypoglycemic or diabetic.

You might try to stop eating all the foods you regularly use and eat other less common foods. Do not repeat any food more often than every fourth day. If you feel better on this program, food reactions were contributing to your symptoms.

Your doctor may wish to try one of a wide range of tests for allergies and sensitivities. Allergy detection tests are rapidly changing. Ask your doctor for the most up-to-date determination available in your area. Some of these tests are listed in the Appendix.

There are traditional allergists, and there is a new medical specialty called clinical ecology. These doctors are devoted to the research and treatment of multiple allergies related to our changing chemical environment and usually employ a different approach from what is considered traditional.

If you have any family history of allergies or can

detect any fluctuating mood changes which seem to connect to food intake, look to food as part of your problem. If your mood states shift a lot, or if you feel better when you don't eat or feel best when fasting, you should be checked for allergies. If you have a depression which hasn't been responsive to usual treatments, suspect allergies.

Allergy sufferers respond well to a balanced hypo-allergenic nutrient-supplement program. They have responded well to tyrosine, partially because it helps to fortify the immune system and perhaps partially because one breakdown product of tyrosine is epinephrine, which has traditionally been used to treat many allergy victims.

If food reactions are influencing your moods, the amino acid program will work best if coupled with a three month abstinence from the offending foods and a gradual reassimilation of the foods into your diet. See the bibliography for books that will be helpful.