

REVIEW

A Review of the Fundamentals of Diet

饮食基本原则概述

Una revisión de los aspectos básicos de la alimentación

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WHOLE FOODS

Dietary recommendations should be individualized for each patient, but certain basic principles apply to most people. A healthful diet should include a wide variety of whole, unprocessed foods that are free of additives and, if possible, grown without the use of pesticides, herbicides, and other potentially toxic agricultural chemicals. For people who do not have specific food intolerances, such a diet generally includes liberal amounts of fresh fruits and vegetables, whole grains, nuts, seeds, and legumes. For most people, animal foods such as eggs, fish, chicken, beef, and dairy products can be healthfully consumed in moderation. It is not necessary to consume animal foods to maintain good health. In fact, compared with omnivores, vegetarians have a lower risk of developing a number of chronic diseases. However, vegetarians must carefully plan their diet so as not to develop nutritional deficiencies.

A balanced, whole-foods diet provides the nutrients that are essential for life and good health, including protein, carbohydrates, fat, vitamins, and minerals. In addition, whole foods contain fiber and a wide range of phytochemicals that may have health benefits. These include flavonoids (which enhance tissue integrity), indole-3-carbinol (which may help prevent cancer), lignans (compounds with possible anticancer activity that are present in the fiber component some plants),¹ oligosaccharides (which support the growth of beneficial intestinal bacteria), sterols (which lower serum cholesterol levels), hippuric acid (an antibiotic), and alkylresorcinols (see below). Each new scientific discovery regarding phytochemicals reminds us of the enormous complexity of whole food and of the futility of attempting to duplicate their effects with “nutraceutical” pills and potions.

WHOLE GRAINS

Whole grains contain a wide range of vitamins and minerals, as well as fiber, essential fatty acids, and accessory food factors. Refining of whole wheat to white flour depletes most of the fiber and results in substantial losses of vitamins and minerals (as noted in Tables 1 and 2).² In addition, more than half of the betaine is lost in the refining of whole wheat.³ Betaine lowers homocysteine levels and might be of value for preventing cardiovascular disease.⁴ Whole wheat and some other whole grains (but not their refined counterparts) also contain alkylresorcinols, a class of phenolic lipids that can be incorporated into cell membranes.⁵ In rats, administration of alkylresorcinols increased tissue concentrations of gamma-

Table 1 Losses of Vitamins in the Refining of Flour²

Vitamin	Amount Lost
Thiamine	77%
Riboflavin	80%
Niacin	81%
Vitamin B ₆	72%
Pantothenic acid	50%
Folic acid	67%
Vitamin E	86%
Choline	30%

Table 2 Losses of Minerals in the Refining of Flour²

Mineral	Amount Lost
Magnesium	85%
Potassium	77%
Calcium	60%
Iron	76%
Zinc	78%
Copper	68%
Manganese	86%
Chromium	40%
Selenium	16%
Molybdenum	48%

tocopherol,⁶ a naturally occurring form of vitamin E that appears to have cardioprotective effects. In observational studies, consumption of whole grains (as compared with refined grains) has been associated with reduced risk of cardiovascular disease, stroke, and diabetes, and increased longevity.^{7,8} For these reasons, whole grains are strongly preferable to refined grains.

BEANS AND OTHER LEGUMES

Consumption of beans and other legumes (eg, lentils) has been reported to improve blood glucose regulation and to lower serum cholesterol levels. Beans form a complete protein when combined with grains in a 1:3 ratio (dry weight).

Soy products, in addition to having the beneficial effects mentioned above, have been shown in some, but not all, studies to improve menopausal hot flashes and other menopause-related symptoms. Soy foods have also demonstrated an antihypertensive effect. In addition, soy may help prevent osteoporosis and some types of cancer, although the evidence is conflicting. Some of the effects

of soy appear to be due to its content of isoflavones, which have both estrogenic and anti-estrogenic effects.

On the negative side, soy is a relatively common allergen. In addition, some practitioners have observed that processed soy can be difficult to digest, resulting in various gastrointestinal symptoms. Soy products (particularly isolated soy protein) have been shown to inhibit iron absorption, and soy appears to inhibit the absorption of levothyroxine as well. In one study, treatment with a relatively high dose of soy isoflavones (150 mg/day) for 5 years caused endometrial hyperplasia in 3.9% of women, although no endometrial hyperplasia was seen after 2.5 years.⁹

FRUITS AND VEGETABLES

Fruits and vegetables are rich sources of vitamins, potassium and other minerals, carotenoids, flavonoids, fiber, and phytochemicals. Some vegetables are also good sources of essential fatty acids. Consumption of abundant amounts of fruits and vegetables may be useful for preventing or treating cardiovascular disease, stroke, some cancers, hypertension, osteoporosis, and other diseases.

With regard to specific fruits and vegetables, cruciferous vegetables such as broccoli, Brussels sprouts, cabbage, kale, and cauliflower contain isothiocyanates and indole-3-carbinol, which have demonstrated anticancer effects. In addition, indole-3-carbinol has been reported to be an effective treatment for cervical dysplasia. Onions may inhibit platelet aggregation, increase fibrinolytic activity, and lower blood pressure. Each of these effects would be expected to reduce the risk of cardiovascular disease. Administration of tomato extracts has been shown to inhibit platelet aggregation and to lower blood pressure. In addition, tomatoes are a major food source of lycopene, which may help prevent prostate cancer. Spinach, kale, and other dark green leafy vegetables are good sources of lutein, a carotenoid that may help prevent age-related macular degeneration. However, spinach is also high in oxalate and may therefore be contraindicated in people with calcium oxalate kidney stones. Blueberries are a good source of anthocyanosides, which enhance capillary integrity and play a role in visual function. Cranberries contain compounds that inhibit the binding of pathogenic *Escherichia coli* to uroepithelial cells. Cranberry juice and cranberry extracts have been found to be effective for preventing urinary tract infections. Olives are rich in cardioprotective monounsaturated fatty acids. Olives and extra virgin olive oil (but not refined olive oil) also contain a number of phenolic antioxidants (oleuropein, hydroxytyrosol, vanillic acid, and verbascoside), which may have anti-inflammatory and cardioprotective effects.

NUTS

Nuts are a good source of protein, essential fatty acids, magnesium, and fiber. Consumption of various types of nuts has been shown to lower serum cholesterol levels. In observational studies, eating nuts was associated with a lower incidence of cardiovascular disease. Since

the polyunsaturated fatty acids in nuts can become oxidized to form potentially toxic lipid peroxides, nuts should be stored in an airtight container in the refrigerator. Nuts are best consumed raw and unsalted.

FISH

Fish is a good source of protein, omega-3 fatty acids, and other nutrients. Consumption of fish or fish oil has been found to reduce the incidence of cardiovascular disease. Fish oil has an anti-inflammatory effect and has been shown to be beneficial for the prevention and treatment of a wide range of illnesses. Fish are at the top of the food chain and contain mercury and other toxins. However, the bulk of the evidence suggests that the benefits of moderate fish consumption (such as 2-3 servings a week) outweigh the risks.

MEAT AND POULTRY

Meat and poultry contain substantial amounts of protein and heme iron (particularly red meat), as well as B vitamins, minerals, and carnitine. However, these foods are also high in cholesterol and saturated fat and, being at the top of the food chain, tend to accumulate pesticides and other toxic substances. Cooking meat and poultry at high temperatures results in the production of carcinogens and advanced glycation end products (which may promote the development of cardiovascular disease and other diseases). The available evidence suggests that meat and poultry should be used in moderation and cooked at low temperatures, preferably in the presence of moisture. Meat from animals raised organically, without the use of antibiotics and hormones, is preferable.

EGGS

Eggs are a good source of high-quality protein, lutein, choline, and other nutrients. Although eggs are high in cholesterol, egg consumption has little or no effect on serum cholesterol levels in most people. In observational studies, eating eggs was associated with an increased risk of heart disease in diabetics but not in nondiabetics. Eggs should be cooked in such a way as to minimize the formation of angiotoxic cholesterol oxides (ie, boiling or poaching as opposed to scrambling or frying).

MILK AND DAIRY PRODUCTS

Cow's milk is a good source of protein, calcium, and vitamin D. However, cow's milk is also one of the most common food allergens and, as such, is a frequent etiological or triggering factor in a wide range of illnesses. In addition, cow's milk consumption may play a role in the pathogenesis of type 1 diabetes.

FAT

The available evidence suggests that people should minimize their consumption of *trans* fatty acids. People should also avoid using polyunsaturated fatty acids for frying or high-temperature cooking in order to minimize the formation of potentially toxic lipid peroxides. Saturated fats may not be as harmful as is commonly

believed, although some foods that are high in saturated fat may be atherogenic for reasons largely unrelated to their saturated fat content.

REFINED CARBOHYDRATES

Refined grains should, whenever possible, be replaced by whole grains (eg, whole grain bread instead of white bread and brown rice instead of white rice). Refining of grains removes the nutrient-rich germ portion and the nutrient- and fiber-rich bran portion of the grain. Refined grains, which comprise approximately 30% of the calories in the American diet, contain substantially lower amounts of vitamins, minerals, and fiber than do their unrefined counterparts. In addition, the carbohydrates in refined grains are absorbed relatively rapidly and may therefore lead to less-than-optimal blood glucose control.

REFINED SUGARS

In addition to emphasizing the use of health-promoting foods, it is important for patients to restrict their intake of foods that cause symptoms and promote illness. At the top of the list of undesirable foods is refined sugar, which is most commonly consumed as sucrose and high-fructose corn syrup (HFCS). Nearly 20% of the calories in a typical American diet are derived from added sugars (not including the sugars that occur naturally in fruit, milk, and other foods). This translates, according to one estimate, to an average of about 40 teaspoons of added sugar per person per day,¹⁰ and many people consume much more than that. Since refined sugar contains virtually no vitamins, minerals, or other micronutrients, sugar consumption decreases overall micronutrient intake by an average of almost 20%. In addition, refined sugars are energy-dense (ie, they provide a large number of calories in a small volume) and contain no fiber. Because it takes a relatively large number of calories from energy-dense foods to produce a feeling of fullness, excessive intake of sweets can lead to overeating and obesity.

It is generally agreed that excessive sugar consumption contributes to obesity and tooth decay. However, it is not widely appreciated that high sugar intake or sensitivity to refined sugar is in some cases a major contributing factor to a diverse array of symptoms and conditions, including fatigue, anxiety, depression, migraines, tension headaches, premenstrual syndrome, and candidiasis. Excessive consumption of sucrose and HFCS appears to be an important contributing factor to many of the chronic health problems that are prevalent in Western society. Excessive intake of refined sugar may promote or exacerbate obesity, type 2 diabetes, nonalcoholic fatty liver disease, hypertension, hypertriglyceridemia, cardiovascular disease, kidney stones, chronic diarrhea/irritable bowel syndrome, gallbladder disease, tooth decay, fatigue, anxiety, depression, attention deficit-hyperactivity disorder, migraines, tension headaches, premenstrual syndrome, candidiasis, and other conditions.

CONSUMPTION PATTERNS

Historically, sucrose and other refined sugars were consumed only in small quantities. For example, estimated annual per capita sucrose consumption was 6 lbs to 8 lbs in the 1750s. This increased to about 25 lbs in the 1850s and to 120 lbs in the 1950s.¹¹ Over the past few decades, a significant amount of the sucrose in the Western diet has been replaced by HFCS. As of 1997, mean annual per capita sucrose consumption had decreased to 67 lbs, but mean total intake of these refined sugars combined (sucrose plus HFCS) had increased to 129 lbs or about 40 teaspoons of added sugar per day. That level of intake corresponds to an average of 17-18%¹² to more than 20% of total calories, depending on the method of calculation. Many people consume refined sugar in amounts well above the average.

DYSGLYCEMIA AND DYSINSULINISM

Refined sugar is absorbed rapidly into the bloodstream; a phenomenon the human body was not apparently programmed to handle efficiently. An abrupt rise in blood glucose levels may trigger the pancreas to release an excessive amount of insulin, which can lead to reactive hypoglycemia and a compensatory increase in the levels of blood sugar-raising compounds such as epinephrine and cortisol.¹³ These and other disruptions of homeostatic mechanisms may contribute to the development of some of the symptoms and chronic diseases listed above.

OTHER METABOLIC EFFECTS

Consumption of large amounts of sucrose may cause adverse changes in various cardiovascular disease risk factors, including an increase in serum levels of triglycerides, insulin, and uric acid; a rise in blood pressure; an increase in platelet adhesiveness; and a decrease in HDL-cholesterol levels.^{14,15} Approximately one-third of the population is susceptible to these adverse effects of sucrose, and sucrose sensitivity appears to be clustered in people who have, or are at increased risk of developing, cardiovascular disease.¹⁶ Fructose consumption has been reported to increase triglyceride and uric acid levels and to promote insulin resistance.¹⁷

IMMUNOLOGICAL EFFECTS

Ingestion of 100 g (25 teaspoons) of sucrose, glucose, or fructose by healthy volunteers caused a transient decrease in the capacity of their neutrophils to engulf bacteria.^{18,19} Ingestion of 75 g of glucose by healthy volunteers also transiently decreased measures of cell-mediated immune function.²⁰ These findings raise the possibility that limiting consumption of refined sugar would be useful for preventing or treating infections.

GASTROINTESTINAL EFFECTS

Fructose malabsorption appears to be a common, though underappreciated, cause of diarrhea and other symptoms often attributed to irritable bowel syndrome.

The amount of fructose that can be absorbed as a bolus varies widely among healthy volunteers, from 5 g to more than 50 g.²¹ Glucose enhances fructose absorption, and malabsorption of fructose typically occurs only if more fructose than glucose is present.²² Thus, gastrointestinal symptoms may be more likely to occur with HFCS (which has a fructose-to-glucose ratio of 1.31:1), than with sucrose (which has a 1:1 ratio). However, sucrose consumption has also been reported to cause chronic diarrhea, possibly through a mechanism unrelated to fructose malabsorption.

HYPERFRUCTOSEMIA?

Serum fructose concentrations increase in a dose-dependent manner after ingestion of sucrose or fructose. A 20-oz soft drink, which contains 33 g of fructose, would be expected to increase the fasting serum fructose concentration by approximately four-fold. In healthy volunteers, peak serum fructose levels were 36% to 41% lower after consumption of sucrose (0.5 g/kg and 1.0 g/kg of body weight) than after consumption of equivalent amounts of fructose (0.25 g/kg and 0.5 g/kg, respectively).²³ The blunted rise in serum fructose levels after ingestion of sucrose (as compared with fructose) is probably related to the fact that the fructose portion of sucrose is not available for absorption until sucrose is hydrolyzed by intestinal brush border enzymes. The fructose portion of sucrose is, therefore, presumably absorbed more slowly than fructose ingested as the monosaccharide.

There appears to be no evolutionary precedent for the substantial increase in plasma fructose concentrations that results from eating high-fructose (and, to a somewhat lesser extent, high-sucrose) diets. Fructose is a powerful reducing sugar, and therefore promotes the formation of advanced glycation end products, which may contribute to the aging process and to the pathogenesis of cardiovascular disease and diabetic complications. In rats, ingestion of fructose or sucrose (but not glucose) increased tissue concentrations of advanced glycation end products.²⁴ In addition, hyperfructosemia may deplete hepatic adenosine triphosphate (ATP) levels with potential deleterious consequence both for liver health and general metabolism.

SUCROSE VS HIGH-FRUCTOSE CORN SYRUP

While excessive consumption of all types of refined sugar should be discouraged, a case can be made that HFCS is somewhat more harmful than sucrose. One possible disadvantage of HFCS relative to sucrose is the higher ratio of fructose to glucose in the former. This higher ratio would be expected to produce higher serum fructose concentrations, with potential deleterious consequences as noted above. In addition, the monosaccharides in HFCS are presumably absorbed more rapidly than the sugars in sucrose, which must be hydrolyzed by intestinal sucrase before being absorbed. More rapid absorption of the glucose and fructose in HFCS would produce higher peak serum concentrations of both of these sugars, adversely affecting glycemic control and

potentially disrupting other homeostatic mechanisms.

Of note, rats given fructose in their drinking water (250 g/L) showed signs of accelerated aging, whereas no such effect was seen when the same amount of sucrose was added to the drinking water.²⁵ In addition, increases in the prevalence of obesity, diabetes, and nonalcoholic fatty liver disease over the past few decades have coincided with the partial replacement of sucrose with HFCS in the Western diet.

CAFFEINE

Most adults ingest caffeine every day, primarily in coffee, tea, or cola drinks. Caffeine is often used to increase energy and alertness. In addition, caffeine is present as an adjuvant in some analgesics, because it increases their potency against various types of pain.²⁶

Because caffeine consumption is so widespread, there is a tendency to overlook the fact that it is an addictive²⁷ and potentially toxic drug. While the research has not always been consistent, caffeine consumption has been implicated as a definite or possible contributing factor to reactive hypoglycemia, anxiety, panic attacks, insomnia, hypertension, fibrocystic breast changes, impaired fertility, headaches, cardiac arrhythmias, gastroesophageal reflux disease, and other disorders.

Sensitivity to caffeine differs substantially among different people. For example, individuals with panic disorder and generalized anxiety disorder are especially sensitive to the anxiety-inducing effects of caffeine.^{28,29} Many people do not appear to suffer adverse effects from caffeine, and some observational studies have found that caffeine consumption is associated with a reduced incidence of certain chronic diseases, including gallbladder disease, Parkinson's disease, and type 2 diabetes. Nevertheless, caffeine toxicity or intolerance should be included in the differential diagnosis of the various conditions listed above.

ALCOHOL

Excessive alcohol intake can contribute to a number of disorders, including hepatitis, cirrhosis, cardiomyopathy, depression, dementia, and nutritional deficiencies. It is widely believed that moderate alcohol consumption (such as 1-2 drinks per day) is not harmful for most people and may even reduce the risk of developing cardiovascular disease. The purported cardioprotective effect of alcohol is based primarily on observational studies and is open to debate.

A substantial minority of patients appears to be particularly sensitive to the deleterious effects of alcohol. These patients are often the same ones who experience adverse effects from eating refined sugar. In these patients, consumption of moderate or even small amounts of alcohol may evoke various physical and mental symptoms, trigger reactive hypoglycemia, or aggravate conditions such as hypertension, gastroesophageal reflux, psoriasis, or rosacea. The importance of restricting alcohol intake is assessed on an individual basis.

SALT (SODIUM CHLORIDE)

High salt intake can exacerbate hypertension, edema, and congestive heart failure and may be a risk factor for myocardial hypertrophy (independent of its effect on blood pressure) and kidney stones. By contrast, inadequate salt intake may lead to fatigue, postural hypotension, and insulin resistance. I advise most patients to use salt in moderation; ie, to avoid high-sodium foods and not to add large amounts of salt to food during cooking or at the table. More vigorous sodium restriction is warranted for some patients, such as those with congestive heart failure.

FOOD ADDITIVES AND OTHER CONTAMINANTS

Hundreds of different chemicals are added to modern foods, including coloring and flavoring agents, preservatives, emulsifiers, stabilizers, and thickeners. In addition, pesticides, herbicides, fungicides, plant growth regulators, and other agricultural chemicals have been detected in a wide range of foods. Chemicals such as bisphenol A, phthalates, and tin leach into foods and beverages from storage containers, and traces of antibiotics may be present in the meat and milk of farm animals treated with antibiotics.

Potential consequences of widespread exposure to a multitude of man-made chemicals include allergic reactions, disrupted cellular metabolism, overwhelmed detoxification mechanisms, and impaired immune function. Exposure to various chemicals has been implicated as a contributing factor to certain disorders, including attention deficit-hyperactivity disorder, chronic urticaria, and diabetes. While it is possible in some cases to identify specific symptom-evoking chemicals by means of elimination-and-rechallenge testing, identifying all offending chemicals can be a daunting, if not impossible, task. Therefore, a reasonable strategy would be to avoid as many additives and contaminants as possible. Patients who “clean up” their diets often observe various improvements in their health.

VEGETARIAN DIET

Vegetarian diets are classified according to whether they contain no animal products (vegan) or whether they include dairy products and/or eggs (lacto-vegetarian, ovo-vegetarian, or lacto-ovo-vegetarian). Compared with omnivores, vegetarians have a lower incidence of a number of chronic diseases, including cardiovascular disease, hypertension, gallbladder disease, kidney stones, diabetes, obesity, constipation, and some cancers. Vegetarian diets also contain lower amounts of pesticides and other toxic chemicals than do omnivorous diets, since these chemicals tend to bioaccumulate in animal tissues. However, vegetarian diets may be low in a number of micronutrients, including vitamin B₁₂, iron, vitamin D, zinc, iodine, riboflavin, calcium, and selenium.

In addition, the protein in most plant foods is incomplete, in that it contains insufficient amounts of one or more essential amino acids. Failure to provide adequate amounts of any of the eight essential amino acids limits

the degree to which dietary protein can be utilized. This limitation can be overcome by proper food combining. For example, grains are relatively deficient in lysine but contain abundant amounts of methionine, whereas beans are relatively deficient in methionine but contain abundant amounts of lysine. When grains and beans are eaten together (usually in a 3:1 ratio, dry weight), these foods complement each other to form protein of similar biological value to that of animal protein. It has been suggested that complementary proteins do not have to be eaten at the same meal in order to achieve the benefits of food combining. However, since amino acids that are not utilized are catabolized (presumably in increasing amounts the longer they remain unutilized), it would seem that combining complementary foods at the same meal would produce more efficient protein utilization than would eating these foods at separate meals.

Individuals interested in following a vegetarian diet may benefit from consulting a dietitian or nutritionist in order to ensure that their diet is properly balanced and that they are receiving appropriate nutritional supplements.

FOOD ALLERGY

In my experience and that of numerous other practitioners, hidden food allergy is one of the most common causes of a wide range of symptoms and conditions encountered in a general medical practice. According to one estimate, as much as 60% of the population suffers from undetected food allergy.³⁰ In many cases, successful resolution of chronic health problems that have failed to respond to conventional therapy depends largely on identifying and avoiding allergenic foods. The failure of the conventional medical community to acknowledge the importance (or even the existence) of hidden food allergy is, in my opinion, responsible for millions of unsatisfactory clinical outcomes.

WATER

Chlorine is added to municipal water supplies to kill microorganisms. Chlorine may be atherogenic and carcinogenic. Chlorine can be removed from tap water by a filter or by boiling or adding a pinch of vitamin C crystals to the water. Alternatives to chlorination include ultraviolet irradiation and ozonation.

Mountain spring water bottled in glass or hard plastic may be an ideal choice for drinking water. Such water is often rich in minerals and has generally fewer contaminants than water from underground springs and municipal water (which often contains aluminum). Water filtered by reverse osmosis is not recommended because this process removes minerals, including ultra-trace minerals such as rubidium, lithium, cobalt, and cesium, which are not included in multimineral preparations but which may turn out to have important biological functions.

TEMPERATURE OF FOODS AND BEVERAGES

Evidence from observational studies suggests that consumption of very hot foods and beverages increases the risk of developing esophageal and gastric cancer.

DIETARY BEHAVIORAL FACTORS

Mastication

In our zeal to provide the most advanced, sophisticated recommendations, we sometimes forget to emphasize basic factors such as the importance of chewing food thoroughly. Mastication breaks food down into smaller particle sizes, leading to better digestion and in many cases fewer gastrointestinal symptoms. Chewing food well also stimulates the production of saliva, which contains amylase (a digestive enzyme), substances that protect the gastric and esophageal mucosa (ie, epithelial growth factor, mucin, transforming growth factor alpha, buffering agents, and prostaglandin E₂),³¹ and compounds that help prevent tooth decay (ie, buffering agents, antibacterial compounds, and calcium phosphate-binding proteins). There is truth in Horace Fletcher's statement that "Nature will castigate those who don't masticate."

Eating Breakfast

Several studies have demonstrated the importance of eating breakfast. In an observational study, food consumed in the morning, as compared with food consumed later in the day, was associated with lower total daily energy intake, suggesting that food eaten at breakfast is particularly satiating.³² In addition, eating breakfast has been associated with significant decreases in serum total- and low-density lipoprotein (LDL)-cholesterol levels, increased insulin sensitivity,³³ possible improvement in performance on cognitive tasks,^{34,35} and a lower incidence of gallstones.³⁶

Eating Regularly

In a randomized controlled trial, an irregular meal pattern, as compared with eating regularly, resulted in insulin resistance and higher total- and LDL-cholesterol levels. Thus, eating regularly and not skipping meals may confer health benefits.³⁷

A Note on Food Addiction

While addiction to alcohol and caffeine are widely recognized, it is not well appreciated that many people are addicted to refined sugar and to foods to which they are allergic. I have found that counseling patients about the addictive nature of refined sugar and allergenic foods; about the possibility that they will develop transient withdrawal symptoms (usually lasting 2-3 days); and about my availability day or night should any untoward reactions occur increases their success rate at withdrawing from these substances. Only rarely has anyone telephoned (and never in the middle of the night) regarding withdrawal symptoms.

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