CHAPTER 11

Overcome Fatigue

One of the most common symptoms during cancer therapy is fatigue. It is a side effect of chemotherapy and radiation but it may persist long after treatment is complete. Fatigue is not unique to cancer. It occurs for people with heart disease, kidney problems, hepatitis or with arthritis as well. Fatigue is also a common symptom in people who are otherwise healthy and have no diagnosed illness.

People describe fatigue in different ways. Some experience it as a feeling of low energy, as being too much effort to move, or feeling drained. Sometimes people describe it as "being lazy" and lacking in motivation. It is different from being sleepy though sometimes people say they are tired.

There are myriad medical conditions that are associated with fatigue. When some of these are treated, like anemia or hypothyroidism, energy level returns. Other conditions are not as easy to relieve, such as a low cardiac output from a serious heart attack or chronic disabling arthritis.

Though many of the other side effects of cancer treatment are preventable or treatable, fatigue has been one of the hardest to help. Anemia can be prevented with erythropoetin, which stimulates the bone marrow or corrected with blood transfusions. Medicines can help the heart or kidneys. When patients complain that they are tired, however, most of the time they are told to be patient and that eventually they will have their energy back.

Waiting passively for energy to return may not be acceptable to you. You may wish to take a more active role in restoring your energy level. This chapter offers ways of approaching the problem of low energy that can help now.

Theories of fatigue

It is relatively easy to understand how diseases of certain organs will cause fatigue. If you are anemic and don't have enough blood to carry oxygen, or if your heart doesn't pump enough blood to supply your body's needs, you won't have enough energy. If your kidneys or liver don't function well and metabolic wastes build up, it is not surprising that you would feel tired. If you are low on thyroid or adrenal hormones which are necessary for maintaining the body's metabolism, you would likewise feel low energy.

Sometimes fatigue is present but is difficult to explain in terms of the conventional medical model. In Chinese medicine fatigue results from a lack or imbalance of "Chi," or vital energy. In order to maintain your energy level, Chi

must flow harmoniously throughout the body. Certain organs have a dominant role in maintaining that flow, notably the liver and the kidney. Diseases are characterized by an excess or deficiency of various kinds of energy, particularly Yin and Yang. (In Chinese medicine, however, the organs are better understood as a group of functions rather than as specific anatomic objects. You can get a better understanding of this medical system and its principles from the book *The Web That Has No Weaver*, by Ted Kaptchuk.)

Whether you describe the phenomenon in terms of a Western or Chinese model, the final pathway of fatigue is in the perception of having low energy. There are many factors that can affect that perception. Optimism or a sense of control tends to increase the sense of energy. Interestingly, research on fatigue in women who were treated for breast cancer showed that fatigue did not depend on the kind of treatment they received but upon their emotional reaction to it. Depression or a negative mood correlated more with fatigue than chemotherapy or radiation!

Energy bank accounts

Though there may be specific reasons for low energy, it is useful to look at fatigue as the result of entire cancer process disrupting your energy "economy." The metaphor of “energy bank accounts” suggests ways you can gain some control over your energy level.

Imagine that energy is like money in a series of bank accounts. You spend energy doing various things and lower your balance by withdrawals from your account. You can bring in energy from different sources and deposit it, raising your balance. You can borrow energy or transfer it from one energy bank account to another. If your balance is low, you may have to go on a budget or you won’t have enough energy to spend on the things you need. If you continue to spend energy and don’t replace it, you create a deficit. If that continues, you may become bankrupt. Fatigue can be considered energy “poverty”.

You have several energy bank accounts. There are accounts for nutritional, physical, emotional, mental, social, recreational and spiritual energy. See Figure 11-1, Energy bank accounts.

[illustration showing, e.g., piles of gold, for each energy account: nutritional, physical, emotional, mental, social, recreational, spiritual.

Figure 11-1. Energy bank accounts

Nutritional energy

Nutritional energy is brought in with deposits of nutritious food. This is the most obvious source of energy. The wrong food, however, acts like a “bounced check” or counterfeit money. It is not credited to your account and may even cost you energy. An example of this would be very greasy or spicy food that causes heartburn or diarrhea.

Certain foods are more valuable than others. Refined sugar is like kindling: it flames for a moment and is quickly burned. Complex carbohydrates, vitamin-rich vegetables and protein last longer and provide more necessary nutrients.

Different circumstances and individual metabolisms require adjustments in food intake. Often it is easier to bring in food energy with frequent small snacks rather than large meals. If you are unintentionally losing weight, you might have to change your diet to include richer foods, at least until the "recession" is over. Similarly, if you have unavoidable loses (i.e., diarrhea or changes in your digestive tract), you may have to take in more food, though the kinds of food will depend upon your exact condition.

Food energy deposited in this account is used for physical activities. These include healing from surgery and rebuilding your body after treatments, too.

Physical energy

You spend energy from your physical energy bank account with all the things you do. Sometimes, however, that energy is wasted doing unnecessary things. If your energy is limited and you are on a tight budget, you may need to avoid or delegate certain activities that are not vital to your needs.

Healing after surgery or repairing the body during chemotherapy or radiotherapy also takes energy. Though nutritional energy is the primary source, most of the energy passes through your physical energy account. Because healing may seem passive, it is easy to underestimate the amount of energy it requires. You should make allowances for healing and repair when preparing your energy budget.

Exercising, whether it is walking, biking, stretching, or tennis, *deposits* physical energy. Physical movement keeps the bank account active. Being physically inactive both deprives you of new deposits and makes it harder for you to draw from your account.

Movements such as yoga, tai chi chuan, or Qi gong help keep Chi (vital energy) moving and distribute it throughout the body. In both Chinese medicine and Ayurveda, the breath is a source of both oxygen and energy. The exercises recommended in those systems emphasize coordinating your breathing with the movements.

Your exercise capacity will vary. Even if you cannot run for five miles you can walk for five minutes several times a day. Regular, moderate exercise maintains a healthy bank account best. Over-exercising actually may cost you more energy in the long run, particularly if you are too tired afterwards.

Emotional energy

Emotional energy bank accounts are frequently low or overdrawn during cancer treatment. Withdrawals are often both frequent and large. Conscious worry, fear, depression, and anxiety all use up energy. There can even be a form of "embezzlement" if these feelings are subconscious and unacknowledged.

In addition to emotional energy that is inevitably used in adjusting to your status as a patient, there may be other withdrawals that either waste energy or at least are not necessary. Worrying about other people's needs or opinions doesn't help you. Let them take care of themselves or at least ask directly if they need your help. They probably can manage well on their own. They may even be worried about you. Reassuring each other can stop the drain on both your accounts.

Emotional energy is deposited when you receive support or caring from others around you. A kind word, a hug, a letter, or even just a smile can change a negative balance to a positive one. Humor and laughter add emotional energy, too.

Because your overall energy economy is so dependent on your emotional state it is important to monitor this account. Some people are unaware of their emotions and may not recognize their account is low. Others may be reluctant to receive emotional "deposits" and either ignore or hide their needs. The fatigue that results from an empty emotional account significantly diminishes your overall quality of life.

A negative balance in your emotional account is often experienced as depression, though not everyone has a depressed mood. Sometimes it is just a lack of interest in doing things, or feeling of lethargy. The section "Brain-fry " which follows discusses this issue more fully.

Mental energy

A positive balance in your mental or intellectual energy account can give you a sense of mental alertness and enthusiasm. Mental and emotional energy accounts overlap somewhat in creating a sense of optimism. You need both to sustain a positive interest in life.

You use mental energy in problem solving. If you have ever tried to do your own income tax return you know how much energy mental work consumes! Making decisions about your treatment, readjusting your schedule to accommodate doctors' visits, and juggling your other responsibilities all consume vast amounts of mental energy.

When your mental energy account is low, it is harder to concentrate and make decisions. Even simple things may seem difficult. You may have to read something several times to understand it. Your memory can deteriorate and you may forget words, names and events.

The lack of mental energy is most obvious when there is a disparity between the amount of energy you need and the amount you have. Often you have some energy in your account, but the problem you're trying to solve is too big. Dividing the problem into its constituent parts corrects this disparity and allows you enough time to replenish your account before the next expenditure.

Bringing in mental energy requires focus and stimulating practice. You need to think about and do one thing at a time. If you try to stuff too much in at once, nothing will pass through. It is like having a narrow slot on a piggy bank.

Mental energy tends to replenish itself if given a chance. Just slowing down helps this process a lot.

There are certain activities that tend to be mentally stimulating. Reading about topics that interest you, talking with certain people, watching movies, or going shopping can all bring in energy. Often hobbies or playing games are a source of energy. Making decisions about what shrub to plant, what color to paint, or what card to play creates energy even though the same process, when applied to your disease, is exhausting.

Social energy

Social interaction is a potential source of both energy expenditures and deposits. Certain situations and people can energize you, leaving you refreshed and excited. Conversely, other situations and people can leave you completely empty, drained of whatever energy you previously had.

Though difficult to measure scientifically, it is easy to feel another person's "vibes." Certain individuals seem to radiate energy as a flower does its fragrance. Being with such people is a ready source of social energy. Close friends and family may also be important sources of social energy. A phone call or going for a walk with them may provide a significant boost when you are low.

Groups of people can also provide an energy-rich environment. Some people are stimulated by game arcades, sports events like baseball or soccer matches, or by shopping malls. Concerts and parties offer more than just the music—there is the shared energy of people having fun.

Social energy is lost when you are with people who themselves are down or are drawing energy from you. Usually this is not intentional. Perhaps you have had the experience of being with someone who is so depressed or negative that you began to feel the same way. Similarly, there are certain environments where there is a palpable sense of gloom even when there is nothing wrong.

The secret to keeping a positive social energy account is to limit the withdrawals and maximize the deposits. You cannot avoid all "negative" people, since some of them may have irreplaceable roles in your life. You can restructure the interaction, however, to limit the drain on your account.

When your energy is low you can limit the amount of time you spend or the topics you discuss with certain people. Some healthcare workers can be pessimistic. You may not be able to make them optimists but you can request they not give you gratuitous information that is not immediately useful.

Similarly, you can improve a social experience by bringing your own support system with you. You can listen to a humor tape or music, or talk with a friend while you're having chemotherapy or in the waiting room.

Recreational energy

The energy to "re-create" yourself comes from various sources. Positive energy comes from having fun, enjoying yourself, and even from remembering enjoyable experiences. Laughter is such a good medicine because it contributes both to your emotional state and helps renew your entire being. It is easy to get lost in the seriousness of treating a life threatening disease and forget that the purpose of the treatment is to restore you to a life worth living.

Many cultures emphasize the serious nature of life. There is often not enough emphasis on playfulness and frivolity. One of the best ways to keep a positive balance in this bank account is to have fun each day. You can make a deposit in your recreational energy account by writing the name of fun activities on cards. These might include things like watching a movie or going shopping, or silly things like popping a sheet of bubble wrap that's used for packing material or drawing mustaches on pictures in magazines. Use your imagination and past experience of what has been fun for you. Whenever you notice your account is low, give yourself a "deposit slip" and do that activity, just for the fun of it.

Being artistically creative also brings in energy. Playing music, sketching, taking photographs, or arranging flowers can allow you to connect with a source of creative energy and happiness. Expressing your feelings with poetry or painting also adds to your energy balance.

Certain environments are particularly nurturing.. Some people may feel enlivened by a walk along a forest path; others may find that watching ocean waves at the beach is best. The essence of the environment is its ability to nurture you. You can have the same experience of re-creation by taking a leisurely tub-bath if you arrange the room so that it feels special to you.

Questions to Ask Yourself Have I had my fun yet today?

Spiritual energy

The spiritual energy bank account is more important to some people than others. It is not necessarily religious, though religion is an important source of spiritual energy for many people. Spiritual energy can also arise from a transcendental source of power such as Nature or the Universe. Regardless of its source, spiritual energy can function as an emergency fund that is available even when other accounts are empty.

You can make deposits of spiritual energy in a variety of ways. Going to church, temple, mosque, or any place of worship can provide a source of energy. Any gathering of like-minded worshipers can be energizing. Spiritual books and tapes likewise provide a boost. Certain source books for each of the world's religions are important, such as Bibles, the Torah and commentaries, various

Sutras, the Koran, etc. Spiritual stories and folk wisdom provide another source of energy.

Certain teachers, pastors, mullah's and other clergy have the ability to help you tap into the wealth of spiritual energy they access. Listening to them is enriching. You may also have friends who possess a spiritual wisdom they are willing to share.

Certain environments and experiences create spiritual energy. Some people can fill themselves by watching a sunset at the beach, examining the perfection of flowers in a garden, or any experience of great beauty. You can also receive spiritual energy by sharing the joy of others, whether it is the happiness of your friend as she receives good news or the total peacefulness of a child asleep.

Spiritual energy is used in dealing with the transcendental questions provoked by life-threatening illness. The uncertainty and fragility of life can become unavoidable when you are fatigued by treatment and wonder if it is worth it. Questions like “why me?” or “what is the meaning of this illness?” or “what will happen if I die?” all require spiritual energy to find an answer.

There is an ongoing effort to make sense out of your disease and its place in your life. This effort uses energy, whether it is done consciously or subconsciously. If your energy is depleted you may feel that life is meaningless or that you lack purpose. This dis-spiritedness can be dangerous, since spiritual energy contributes to the will to live. Just as keeping a positive balance in your emotional account maintains a positive mood, a positive balance in your spiritual account maintains positive efforts to stay alive.

Energy economy

This model of energy bank accounts is valuable because it points out the things you can do to maintain your energy. It calls attention to the areas where you may be wasting energy and can cut your loses. More importantly, it highlights the things you can do to bring in more energy.

Energy in one account can be used in other accounts, just as you would transfer funds from one account to another. If you are physically tired, a transfer of emotional or social energy can revive you. The exception to this is transferring nutritional energy to the emotional account. If you are emotionally empty, filling yourself with food doesn’t solve the deficit, except very briefly.

The following tables are designed to help your prepare an energy budget. They serve as a partial list of potential energy credits and debits. When you are on a tight budget every little bit helps. The lists are not exhaustive but meant to stimulate your own creativity. Write down your ideas for energy resources.

Energy Type	**Credits**	**Debits**
Nutritional energy	A balanced diet including fresh fruits and vegetables; flavorful meals attractively	Sugary foods like donuts or candy; fatty or greasy foods; foods you know will upset

	served	your digestion like milk if you are lactose intolerant or rich foods if you have gall bladder problems
Physical energy	A brisk walk with the dog; bicycling to the store or to work; yoga or Tai Chi Chuan classes; a walking club with neighbors in the morning or co-workers at lunch	Going back to work right after a chemotherapy appointment at 4:30 PM; volunteering to supervise a 3rd grade field trip the day after you complete radiotherapy; cleaning the garage yourself so your teenager can play video-games
Emotional energy	Calling up a college roommate or high school buddy to "catch up" on things; receiving a call or letter from a friend; writing cards to old friends; telling someone how grateful you are for their help; having someone tell you how much they love you	Listening to someone complain who isn't interested in solutions; having someone try to cheer you up by telling you their problems; spending unnecessary time with depressed people
Mental energy	Reading your favorite poems; writing a poem; doing puzzles—crossword, anagrams, brainteasers, jigsaw, etc.; reading a book on a subject you'd like to learn about; taking a class on Italian art history, Japanese woodworking, or Russian literature	Thinking about things you can't change; trying to solve someone else's problems; finishing a book that bores you just because you started it
Social energy	Going to a performance of a school orchestra or theater group and watching the other parents' pride at their children; shopping at a farmer's market early in the morning; listening to first and second grade children playing at recess; playing cards, chess or backgammon with friends; volunteering with a group on a community project;	Spending time with pessimists; going to a really dull party and not leaving early when you have a chance

	spending time with optimists	
Recreational energy	Taking photographs and making a photo-essay or collage; collecting sea shells or making sand sculptures at the beach; walking on a forest path and studying the patterns light makes as it filters through the trees; hanging out at a café-bookstore in the afternoon sipping tea, coffee or hot chocolate	TV channel surfing; sitting through something you don't want to attend; routinely doing what someone else wants when you don't enjoy it
Spiritual energy	Writing down 10 (or 100) important things you have learned in your life; walking slowly through a garden, smelling each flower individually; reading inspirational books and stories; writing a story about yourself that will help inspire someone else	Listening to yourself or other people tell you how bad you are and that you are not loved by God

Questions to Ask Yourself
What is the balance in my energy bank account? Where am I spending energy wastefully? Are there ways I can "invest" my energy more wisely?

Brain-fry

The term "brain-fry" conjures a picture of being overwhelmed, over-stressed and burned out. It evokes an image of trying to do too much, being under pressure for too long, and having no chance to cool off. Brain-fry is not a medical term but it does describe the medical condition of unrelieved stress that stretches your coping capacity.

The model of stress as brain-fry is a simplification of very complex neurochemical events. There is a large body of literature on stress, and its effects on the body, the immune system and the nervous system. There is active research to discover the mechanisms of how stress affects the mind and how neurotransmitters—the chemicals that transfer a signal from one brain cell to another—change in disease and in health. Much of this research is very

technical and difficult to understand even if you are a physician. The model, while based upon this research, is designed to make the events occurring in the brain more understandable. Though the image of brain-fry is not a scientific description of neurochemistry it is easily understood and immediately suggests ways of turning down the fire or insulating yourself from the heat.

Certain kinds of stresses are more likely to cause brain-fry than others. Foremost of these are constant uncertainty, feeling out of control, and facing the possibility of illness or even death. These are particularly likely to cause brain-fry when coupled with the physical effects of an illness and its treatment. These of course, are the exact conditions you face when you're being treated for cancer.

Stress occurs not only with big things but also with a series of little things. It is like the camel whose back is broken by the addition of one more straw. It wasn't really the last straw that broke his back; it was all the others before it. You may be coping with everything else but come unglued at something simple, like being stuck in traffic or having the lab call to tell you they lost your blood sample and want you to come back for another one.

No one is immune from brain-fry, though some people are more vulnerable to it than others. Given enough unrelieved stress over a long enough time, everyone will experience some kind of brain-fry symptoms. If you have had depression or anxiety symptoms in the past you may be more likely to feel the strain. You may be more vulnerable to stress or more sensitive to recognizing the symptoms. As a result of these experiences, however, you may also have developed successful coping mechanisms to deal with it.

How do you know if you have brain-fry?

Recognizing brain-fry is easy. If you are affected, when you hear the word there is an immediate recognition, an "aha" response. There is an intuitive sense that this word is a good description of what you feel like.

If you are not certain, check the symptoms listed below. If it is easy to remember times you have experienced at least five symptoms, it's likely you have at least had brain-fry temporarily. If you have these symptoms commonly, you probably are suffering from it now.

Symptoms of brain-fry include:

- Lack of energy, fatigue, a sense that everything is an effort
- Difficulty concentrating, focusing attention
- Difficulty making decisions, even simple ones
- Poor memory, forgetting appointments, where you left your keys, what you wanted when you went upstairs, etc.
- Lack of creativity and resourcefulness; feeling stuck in old and ineffective patterns

- Variable moods: easily angered, feeling on the verge of tears, irritable, grouchy
- Variable activity: unable to sit still, feeling the need to move around all the time or conversely, feeling immobilized, not wanting to move for hours at a time, wanting to go back to bed
- Unaccountable fear or anxiety, feeling jumpy, "waiting for the second shoe to drop"
- Panic attacks, palpitations, unexplained sweating, feeling dizzy or unsteady all the time
- Worrying excessively and not accepting reassurance
- Feeling shut down, numb, unable to feel or to show emotion even when appropriate
- Problems with sleep: either sleeping too much or difficulty falling or staying asleep
- Problems with appetite: losing your appetite, eating too much, food cravings
- Hypersensitivity to normal body sensations, intolerance of previous symptoms (e.g., joint aches, headaches, etc.) that were accepted before, having your whole body hurt
- Feeling depressed, even to the point of considering suicide or that you'd be better off dead
- Feeling unable to enjoy anything, losing any interest or pleasure in things you have enjoyed before

Questions to Ask Yourself
Do I have brain-fry?

Understanding the brain— simplified version

There are several basic principles that explain how the brain works.

- Different parts of the brain are responsible for different things. The frontal lobes control most intellectual processes like concentration, memory, and decision making. The limbic system is in charge of emotions. There are other parts that are involved with appetite, sleep, alertness or arousal, physical sensations and physical movements. There is no single part of the brain that is in charge of your "energy level." The experience of having energy or being fatigued is the result of the interaction between several areas.

- Brain cells communicate with each other via neurotransmitters, chemicals like serotonin, norepinepherine, dopamine, etc. These chemicals are released by one brain cell, travel across a short space between brain cells called the synapse, and then influence the next cell. A sufficient amount of neurotransmitter is needed to produce a complete signal. Sometimes the neurotransmitters will stimulate the cell, sometimes suppress it. The different chemicals act in different ways depending upon the specific part of the brain and the state of the cell. An "exhausted" cell may not respond the same way a normal one does.

- Even though neurotransmitters are conserved and recycled between cells, they can be used up and the cells become deficient. This occurs with repetitive stress, as the cell's capacity to regenerate the chemicals is insufficient for the demand. When neurotransmitters are low, the activity of the brain cells change. The proteins and enzymes that control the way the brain cell functions become defective and the message transmitted between cells is garbled. For example, if one brain cell was trying to give another the signal for "Mississippi," it might come out as "Miss."

- There are different symptoms of low neurotransmitters, depending upon what part of the brain is affected. If the portion of the brain that controls intellectual activity is low, you might experience difficulty concentrating or making decisions. If the limbic system is affected, you might feel more anxious, depressed, irritable, or moody. You might become so depressed that you become hopeless, and unable to find anything pleasurable. If sleep centers are out of balance you may have difficulty falling asleep, staying asleep, or even difficulty staying awake. If several areas affected, your overall energy level may drop.

- If you replenish the neurotransmitters, the brain regains its equilibrium and corrects the imbalances. The sleep cycle is restored to normal and you awaken more refreshed. Your ability to think clearly and make decisions returns. Anxiety and depression improve. Your sense of energy and optimism come back. In terms of the brain-fry metaphor, the heat is turned down and your brain is no longer cooked.

Brain-fry is not the same as depression

Many of the symptoms of brain-fry are similar to those of depression. Our culture has unfairly stigmatized depression as a moral or mental weakness, something you should "just snap out of." New understandings of the neurochemistry of the mind have debunked this myth. Currently, depression is recognized as a disorder of neurotransmitters. On a genetic basis, some people do not synthesize and maintain normal levels of brain chemicals as well as others. Under unusual—or even common__levels of stressthe amounts of serotonin, norepinephrine or dopamine fall, preventing normal brain function. This produces depression.

Psychiatrists, originally treating patients with a depressed mood, found that other symptoms often accompanied it. It wasn't until the development of new

medicines that affected specific neurotransmitters, however, that it became clear that these other symptoms were common, and occurred without necessarily a depressed mood. The new medicines, SSRI (Selective Serotonin Reuptake Inhibitor) antidepressants, were found to help these symptoms, too.

It is becoming clear that the neurochemical mechanism of depression is similar to the mechanism of chronic stress or brain-fry. There are, of course, some differences. The hallmarks of depression are a depressed mood and the inability to experience pleasure. These probably reflect a predominant effect of neurotransmitter depletion on the centers in which emotions are experienced. Other parts of the brain are affected also, producing the other symptoms of sleep disturbance, appetite changes, difficulty concentrating, etc.

Brain-fry and the immune system

Brain-fry or stress affects other areas of the body, particularly the endocrine and immune systems. The hypothalamus, pituitary and adrenal glands typically suffer the effects of stress most. Levels of adrenal hormones drop, or don't respond to challenges normally.

There is an overlap between the mind and body, which is explored in the field of psychoneuroimmunology. This field of study examines the relationship of the mind, the nervous system and the immune system under various kinds of stress. Different studies have documented the effect of stress on hormone levels and immune function. Common examples of this include irregular menses in young women under the stress of final exams in college and the increased frequency of viral illnesses following unusual stress in both men and women.

The overlap between the brain and the immune system is even more intriguing. There are the same receptors for neurotransmitters on lymphocytes as on brain cells. Furthermore, most of the cells of the brain are glial cells, derivatives of the immune system. Though the exact relationship between the nervous and immune system is not fully understood, it is clear that there is a relationship and that both might be affected by the same events.

The research linking stress, the immune system, and cancer shows mixed results. Some studies link changes to cancer outcomes, others do not. Whether correcting brain-fry will improve your immune system and help cancer treatment is still an open question. At minimum, however, your quality of life can improve, and with it, your will to live.

Treating brain-fry

The basic problem of brain-fry is being mentally overheated—trying to do too much, too fast, without time to recover. The solutions to this problem can be thought of as either turning down the heat (cooling off or getting out of the fire) or insulating yourself (becoming more heat-resistant).

The simplest way to turn down the heat is to decrease the number of stresses in your life and slow down. President Harry Truman's advice is correct: "If you can't stand the heat, get out of the kitchen."

If there are problems that don't need attention now, it may be wise to defer them. If you can delegate some responsibilities to someone else, let them do the worrying. Sometimes, however, there are no practical ways to turn down the fire and you will have to look at ways to cool yourself down in the midst of the flames.

People even before Shakespeare knew that "sleep knits up the ravell'd sleave of care." (Macbeth Act II, sc, 2, ln 33). Restful sleep allows the body and brain to repair itself. During REM or dream sleep the brain cells have a chance to replenish neurotransmitters. Since one of the symptoms of brain-fry is sleep disturbance, getting a good night's rest can be challenging.

Sleep clinics have discovered several important techniques that can help restore normal sleep. Treat yourself as if you were helping a child fall asleep. Establish a ritual with a warm bath, quiet music, or reading a comforting story. Avoid alcohol and caffeine-containing beverages in the evening. Reserve your bed only for sleeping, don't make it an office. If you find that you are awake thinking about things or trying to solve problems, get up and go to another room, so you don't associate your bed with anything but sleep. Go to bed reasonably early, at least before midnight, to accommodate your normal sleep biorhythms.

Exercise can help you as much as sleep in restoring your energy level. This need not be marathon-running levels of exercise, though that does increase neurotransmitters including endorphins; a brisk walk or a moderate bike ride is sufficient. It is probably better not to do vigorous exercise right before bedtime because it can be too stimulating. Gentle stretching before bed, however, is relaxing and conducive to sleep.

Meditation is a very effective way to cool off your mind. There are many forms of meditation and all of them can work. Specific relaxation techniques like tapes or progressive muscle relaxation are commonly used. Dynamic meditations like Yoga or Qi Gong or techniques that focus on the breath or a mantra are popular, too. The best image of how meditation works would be comparing it to cooling down an overheated car. Resting and reading a book is like stopping the car and putting it in park with the engine running. Meditation is more like turning off the engine or getting a tune-up.

There are several ways to become more "heat-resistant." Meditation, including mindfulness practice, can help you discriminate between threats and worries so you can release the worry portion while you concentrate on avoiding threats. Psychological counseling can also be very effective. Prayer and spiritual practices that allow you to feel protected and safe are particularly useful as "insulation."

For some people, or under certain circumstances, medication is the most appropriate solution to brain-fry. Because of the cultural mythology about depression, drugs labeled "anti-depressants" are sometimes viewed with suspicion. Some people think that if they are taking such a drug they will be

considered weak, that they should be able to overcome their symptoms without medication. Other people are reluctant to take medicine for fear of side effects or losing control. Others minimize the problem and don't feel they are sick enough to warrant treatment.

In deciding whether to treat brain-fry with medication it is important to consider the dangers of *not* treating it. Left untreated, fatigue and other symptoms not only diminish your subjective quality of life they interfere with your daily activities and social function. Your immune system may be affected, which conceivably could impair your response to your cancer.

Fatigue is common for years even after treatment stops. It is almost as if fatigue is a conditioned response to the cancer, produced by the treatment, but persisting because of the association with the condition. During treatment for breast cancer with either radiation or chemotherapy, 99% of women experience fatigue; 60% of them rating it as moderate or severe. One third of women continue to be fatigued even a year or more after treatment is complete. The persistence of fatigue is associated with depression (or more accurately, brain-fry) more than with anything else. If fatigue and the symptoms of brain-fry are treated early, you may never develop the conditioned response.

Instead of looking at these medicines as antidepressants, think of them as ways you can "turn down the heat" or insulate yourself from the fire. Even if you are suffering from brain-fry, you may not be depressed. You may simply be "overheated." Using medicines like Prozac, Zoloft, Effexor, Wellbutrin or Celexa for brain-fry may not be approved by the FDA, but if you are burned out, they may be useful. They allow normal levels of neurotransmitters to build up even if the stress doesn't diminish. They can restore your energy level and sense of optimism, enabling you to cope better. You might discover more creative ways of solving problems. It is like being given an insulated mitt to hold the handle of the frying pan: you can get a better grip on your life.

The decision about using medicines to treat brain-fry is a personal one. Not everyone either needs drugs or wants them. The fear of using medicine, however, is unfounded. The fear itself can be a manifestation of the very disease that needs treatment—the sense of being out of control and unable to tolerate even one more thing.

The exhaustion and fatigue of brain-fry merit treatment. If you can reduce your stresses, do so. If you can't change the external events, change the way you perceive them. If these efforts don't help, seriously consider changing your brain chemistry. Not only will the quality of your life get better; you might live longer, too.

Questions to Ask Yourself
What do I need to do to turn down the heat? Would medication help ?