

SECTION VII

Brain Builders

1. *Tips Regarding Relaxation*

IT IS EXTREMELY important to rest often and even take a short nap every day. Your brain is healing, and you will find that your energy level and thinking skills wane if you push yourself to exhaustion. Your body will not permit long periods without rest. Your goal is to build new connections within the brain, and you must focus on allowing your body to rest and rejuvenate between periods of activity.

During my stroke recovery, I found the three M's to be very useful tools: *Mirrors*, *music*, and *meditation* were part of my home therapy routine. You may not find them listed in other stroke recovery books, but it certainly will not hurt you to add them as additional weapons within your arsenal of recovery. Mirrors and music will help you reassimilate the world around you; meditation may help in pain and stress relief.

- ✿ Mirrors are a very important piece of equipment in your process of recovery. Have several sizes, including a full-length mirror, at your disposal. Look into the bathroom mirror. While keeping your head stationary, look to the left. What do you see? Look to the right. What is reflected in the mirror? Can you name the things you saw while looking straight ahead?
- ✿ Now it's time for facial exercises. Smile as broadly as you can. Pucker your lips as if you are going to kiss someone. Stick your tongue out and move it slowly to the right and left. Close

one eye, then the other. Put your lips together as if you are blotting your lips. Open your mouth as far as possible and then close it. Blow to make your lips flutter. Move your tongue and pouch out one side of your mouth and then the other. Raise one eyebrow and then the other. Slowly try to make individual vowel sounds. Try saying simple words or your name. All these facial exercises are meant to stimulate the development of new brain activity and assist you in reclaiming your vital personality that shows through your face. I practice this technique daily and, over time, it helps me with applying makeup, learning to smile again, learning to move my eyes and head to see missed objects, and improving my self-esteem. Mirrors help me to realize that indeed I am a whole person. We are truly beautiful people.

- ✿ Music is an adaptive aid that has received little attention in formal therapy, but I have found it to be profoundly useful. I have several tapes and compact discs of soothing melodies that I use for relaxation, to help me sleep, and to relieve stress. While in the hospital, I used a tape recorder to play my favorite music to channel my thoughts into the music, instead of racing my brain on overdrive about things I could not control. Music continues to be an integral part of my life. When I listen to music, I focus on the sound. I listen and concentrate on the instruments' crescendos and tempo. Often, I fall asleep to the tune of a soft piano melody, knowing nothing I may be anxious about will change during the night. Tomorrow I will try again.

2. Tips for Alleviating Pain

A **STRANGE PHENOMENON** exists in our brain. Stroke, at least the ischemic type, does not cause pain, which is one reason why stroke warning signs may go unheeded. Pain usually brings us to the emergency room. Most stroke symptoms are painless and last only a few minutes, but can be deadly if not treated immediately. Our brain does not feel pain, yet we feel a headache. Migraines are not stroke

symptoms. Stroke usually affects one side of the body. If stroke affects the thalamic region in our brain, we may experience sensations on the affected side of the body called central nerve pain or thalamic pain. For me, this pain is a constant tingling or icy feeling through my entire affected side, yet I cannot feel textures, water, hot or cold, or scratches, bumps, cuts, or bruises on this side of my body. This phenomenon is caused by incomplete or defective messages that are being sent from the brain to the affected side. If you have this condition, your neurologist may prescribe medication to help manage the discomfort. I choose to use meditation, relaxation techniques, and rest when I experience extreme thalamic pain, as I realize my brain is overworked and tired.

- ✿ Meditation or relaxation exercises play a large part in stroke recovery. Meditation is a form of *biofeedback*. Make sure you have a quiet place with no distractions prior to beginning this exercise. Here's how it works: While resting in bed or relaxing in a chair with your feet up, close your eyes and concentrate on the very top of your head. Relax your scalp. Relax the hair follicles that grow from your scalp. Working down, relax your forehead; all the worry lines seem to melt away. Relax your nose and upper cheeks. Now, relax the muscles of your chin, mouth, jaw, and lips. Work down your body, slowly naming the body part and concentrating on relaxing that particular part until you reach your toes. Don't forget the affected side of your body, even if you cannot feel it relaxing. Relax your shoulders and start with each side separately. Take your time with each body part before progressing to the next. Relax so that you can feel the soft heartbeat of your body pumping rhythmically. Breathe normally, pulling air in through your nostrils and out again. Picture in your mind the blood, rich in nutrients, flowing from your heart to your brain. Picture the brain using the fluid to nourish new areas. Picture the electrical impulses constantly humming within this marvelous human being. Think of your brain healing and nurturing your body. Over the 12 years that I have prac-

ticed this exercise, I can now easily meditate to ease aching muscles and relieve stress, and often I can avoid taking medication for pain. Meditation assists me with the central pain caused by the stroke affecting my thalamus. Pain medication makes me drowsy when I want to be alert. Central nervous pain is always a part of me. Meditation is how I deal with it on a daily basis.

3. Tips for Building New Connections within the Brain—Sensory Input

AFTER A STROKE, I found it very difficult to position myself into a comfortable position in bed, because my stroke-affected side would no longer move to my command. Within a few months, I could flop over onto my affected side, but found it difficult to move back. I felt as if I was falling. I quickly learned that:

- ✿ A large body pillow stationed against my back with a smaller pillow between my knees alleviated this problem.
- ✿ To improve sensory input, I would lie on my affected side for a very short period every night and roll onto my back for relief. Central nerve pain has plagued me since the stroke, and this exercise seemed to exacerbate it during the first few months. But by lengthening the time spent lying on my affected side, I have increased the amount of tolerance between my brain and the affected area. I began to feel new sensations throughout affected body parts. Over time, my body has adjusted, and I do not feel as if I am going to fall when lying on my affected side. Although I continue to be unaware of my affected side when the bedroom light is off, I can move my body into a comfortable sleeping position and shift the affected side more smoothly.
- ✿ You may find that you want to protect your stroke-affected side by holding your affected arm with your unaffected hand. This is good for sensory input. But take it a step further and touch every part of your affected side. Knead your affected



Figure 18. Pressure-sensitive putty is used for hand exercises.

fingers and hand with your unaffected hand when you're watching television or relaxing in a chair. If you wear a brace on your affected arm, feel your affected fingers and try to bend them or wiggle them with your unaffected fingers. Try to move your affected fingers on their own. Even if your affected fingers move a fraction of an inch, that's progress.

- ✿ Touching material of various textures with your affected hand stimulates affected areas in your brain. Lace your unaffected fingers between your affected fingers and place the palm and fingers of your affected hand on various fabrics and surfaces. This may feel very strange at first, but you are rewiring brain pathways as well as becoming aware of spatial fields on your affected side.
- ✿ Figure 18 shows a material called Rainbow Putty, which indicates by color the resistance of the material to your grip.
- ✿ Use a hand exerciser to improve sensation and strength in your affected hand. The Thera-Band® Hand Exerciser is shown in Figure 19.



Figure 19. A hand exerciser.

Aromatherapy is a great way to recondition your sense of smell while you relax. Here are some ideas to assist sensory input in this area.

- ✿ Purchase a small compact disc player that offers different scents on assorted CDs.
- ✿ Use scented oils in a potpourri pot.
- ✿ Simmer in a small amount of water the herbs and flavorings found in your spice rack, like cinnamon sticks, lemon, or vanilla. These scents enhance your sense of well-being.
- ✿ I strongly advise against using candles as a form of aromatherapy when at home, unless you are with another adult who assumes the responsibility of designated candle-snuffer.

4. *Tips for Organization*

As Jonathan Winters said in the movie, *The Russians Are Coming*, “We’ve got to get organized!”

Organization assists our minds in healing. Disarray bombards our senses with overstimulation.

- ✿ Keep a journal of your progress and add important information such as medications and doctors’ phone numbers to the notebook too.
- ✿ An accordion-type file works great for keeping hospital information, therapy center handouts, and information about stroke support groups.
- ✿ A different color accordion file can hold medical bills in order of provider.
- ✿ Keep a communication board or letter board at ready access if you are having aphasic difficulties.
- ✿ You may find it useful to keep a small tape recorder and cassette tape ready, because it is useful for giving short, direct instructions and reminders. Also, with the permission of others, use it to tape conversations for recall when short-term memory is affected.
- ✿ Opening your mail can be accomplished by using a letter opener and stabilizing the letter with your affected elbow or grasping it between your knees. If you cannot grasp the letter in this manner, place the bottom of the letter in a top

- drawer, close the drawer so that the letter is sticking out, and use the letter opener with your unaffected hand.
- ✿ To mail a letter in a mailbox, put the letter on top of the mailbox, or if weather is the weather is bad, hold the letter between your pursed lips or under your affected arm while you open the mailbox. Place your unaffected elbow on the lid to hold it down, and use your unaffected hand to grab the letter and drop it inside the box. Move your unaffected elbow out of the lid by moving your arm down to catch the lid with your hand and fingers. Use your fingers to let go of the mailbox lid. Another way is to quickly pull your elbow up out of the way of the lid.
 - ✿ To fold letters for mailing, stabilize the top of the letter with a book or another handy, heavy object so it won't slide away. With the palm of your hand, roll the bottom one third of the way up. Crease it with the palm of your hand and finish creasing with your fingers. Turn the letter around and do the same procedure to the other side so that it is folded in thirds. Hold the envelope with the open flap toward you between your knees or stabilize it with your affected forearm. Stuff the envelope, wet it lightly with a damp sponge, and close it. Use the self-adhesive type of postage stamps that peel off their backings like stickers and plop one on.

5. Tips for Exercising the Stroke-Affected Side of Your Body

IF NEW THE CONNECTIONS formed within the brain are not continuously stimulated, our affected side will get weaker and our unaffected side will become stronger. Formal therapy is our beginning point, but we must take the techniques learned in rehabilitation back home with us and continue to exercise our stroke-affected areas.

- ✿ Remember good posture. Sit up straight and arch your back every once in a while. Drop your shoulders and stretch your neck so that your head is perfectly erect.

- ✿ Try to put both feet together on the floor when sitting. Then, move one foot out a few inches and try to have the affected foot follow. Now try the opposite side. Don't hook your foot behind the other to move it, but see if you can slide it by moving your knee and lower leg.
- ✿ I practiced an old Laurel and Hardy comedy routine as part of my daily exercise to build eye–hand coordination, fine motor skills, speed, and dexterity during recovery. Pat your thighs, clap your hands, and reach for the ear opposite your affected hand and your nose with your unaffected hand. Your arms should cross at the wrist and forearm. Again, pat your thighs, clap your hands, and reach for your nose with your affected hand and reach for your opposite ear with your unaffected hand. Begin slowly and work to increase your speed over time. Try this exercise your eyes shut, then open.
- ✿ Stand with your affected shoulder against a wall. Spread your feet out for improved balance. Hold onto the back of a sturdy chair with your unaffected side, if necessary. If you are in a wheelchair, position the chair as close to the wall as possible and lock the brakes. Place your affected hand, palm spread if possible, on the wall. Use your fingers to slowly climb your hand up the wall as far as possible. Have a family member place a small pencil mark on the highest point you can reach. Each day, try to reach higher. Move very slowly at first, because this exercise can be difficult. If you have a *frozen shoulder*, a shoulder joint that does not move, formal therapy may be necessary before attempting this exercise.
- ✿ Touch and gently massage your affected side as much and as often as possible. This excites brain neurons to sensation and touch. This gentle effort can assist you in your awareness of your affected side and prevent neglect.
- ✿ Join a local hospital exercise class or call your local stroke support group to inquire about exercise classes for stroke survivors.
- ✿ The American Heart Association/American Stroke Association has an exercise videotape available for stroke survivors. (See the section on *Resources*.)

6. *Tips for Television Program Viewing that Builds Brain Power*

ALTHOUGH MANY MAY people say that being a couch potato is a bad thing, some television programs build and rebuild brainpower.

- ✿ Quiz shows that highlight multiple choice answers are best for playing along. *Jeopardy*, in which you must phrase your answer in the form of a question, may be more difficult. If you know the answer, try saying it aloud. Don't worry about forming a question. Try to say the first thing that pops into your mind. If you're involved in the program, you may not be as self-conscious about speech difficulties. Try to trick your brain into using other avenues for retrieving information. Increased automatic reflexes are part of the stroke recovery process.
- ✿ *Jeopardy*, *Who Wants to Be a Millionaire*, *Family Feud*, and other quiz shows, as well as the programming available on the Public Broadcasting Service (PBS), such as *NOVA*, will not magically turn you into a couch potato. Selective television viewing can, on the contrary, be beneficial toward rejuvenating brainpower.

Television viewing has another benefit for post-stroke that you may have never considered: Advertisers have about 30 seconds of air time to catch viewers' attention in selling their products. Because television advertisements usually occur rapidly and in succession, I have a difficult time remembering them. This results in poor product recognition and decreased spending.

- ✿ If you want to increase your brainpower, try to remember as many advertisements as you can between programming. Turn off the television after watching a few ads and try to recite the products being sold in as many advertisements as you can remember.
- ✿ The caveat to this exercise is that you may have difficulty remembering the original program you were viewing.

Perform either programming retention or advertisement retention by muting the sound.

7. Tips for Using a Computer

COMPUTER USERS SHOULD be aware of both the good and bad news associated with technology use. So, hang onto your mouse and don't press the Delete key until I explain.

- ✿ The good news is that whether you choose an IBM-compatible or Macintosh computer, your world will be open to an easier and faster way of doing many tasks.
- ✿ Software are the programs installed on your computer. These programs may allow you to do things more easily, like keeping track of your household budget or simply typing a letter and saving it for future reference. For a small additional monthly fee, a computer can allow you to surf the Web through access to the Internet.
- ✿ Hardware, such as computer screens and keyboards, can be enlarged or adapted to meet your needs.
- ✿ A computer can allow you to easily keep in touch with family and friends all over the world by accessing the Internet and e-mail.
- ✿ The Internet is usually accessible if you have a home computer, and it provides a wealth of information.
- ✿ Basic computer classes are available through community education classes, business schools, community colleges, and universities.
- ✿ Don't be afraid to play with your computer. Open a software program and experiment with the wonderful opportunities and choices it offers. The best way to learn is by doing.
- ✿ Voice recognition software allows the computer to type the words you say. A microphone headset is included in these software packages. It will take time to train the software to recognize your voice and correctly spell the words you say. But after you familiarize yourself with the program, it may

become a great tool for you.

- ✿ A calculator comes as part of standard software packages for computers. Many types of financial management software are available. Computer programs can keep track of vital financial information and, if you have provided the information, software programs can easily prepare your taxes.
- ✿ The bad news is that working at a computer is usually a solo activity, and it is easy to get so engrossed in doing an activity that you forget there is a real world around you to be explored.
- ✿ A computer needs maintenance and protection against viruses. By using the Internet, it is easy to open and download an unsuspected computer virus that has the potential of making your computer unusable. Don't download anything that is not reviewed by your virus protection software first, and only open e-mail or attachments if you know the sender.

8. Tips for a Home Office

IF YOU ARE ABLE to return to work, check with your employer to see if you can do your work from home and correspond via your home computer. This will not only save travel time, but conserve your energy as well. If you are not able to return to your employment, check with the Department of Vocational and Rehabilitation Services in your area for retraining opportunities.

A home office might be a great way for you to provide volunteer or paid employment. However, check with your neurologist first to find out what adaptive measures she recommends for your work routine. You may find that you tire easily, and your attention span may be limited. A home office provides for short periods of work and the opportunity for comfortable rest too. If you decide to implement a home office, I used the following tips to make work easier after my stroke:

- ✿ Designate a room on the main floor of your home for your office.

- ✿ Install a wide L-shaped desk with plenty of file cabinets and lots of open workspace.
- ✿ Place a desktop computer in the corner of the desk area.
- ✿ Use a comfortable high-back chair.
- ✿ Install mini blinds or other easy accessible window treatments that can be cleaned and operated with one hand.
- ✿ Organize office supplies on a turntable within close reach on your unaffected side.
- ✿ Have a cordless phone nearby, preferably one with a speakerphone and answering system built in.
- ✿ If you use the telephone frequently, use a headset on your telephone system.
- ✿ Type frequently used telephone numbers in a large bold font, print them, place the 8-1/2" by 11" sheet of paper in a picture frame, and hang it directly above your desktop phone.
- ✿ Use stackable bins on wheels to store frequently used paperwork.
- ✿ Use bookshelves to store reference material within easy reach.
- ✿ Make sure computer peripherals, such as printers and scanners, are within easy reach.
- ✿ Other items I have found useful are a tall coffee cup for holding pens, a cassette tape recorder with plenty of batteries and fresh tapes for that sudden burst of enlightenment, self-adhesive preaddressed labels, a Rolodex for business cards, sticky notes, a cassette carousel for computer programs and recording tapes, a fan or central air conditioning, a paper shredder, and a utility drawer.

Here are some ideas for home office jobs you might consider post-stroke:

- ✿ Consultant
- ✿ Newsletter editor
- ✿ Travel agent
- ✿ Secretarial service
- ✿ Marketing and selling handmade items

- ✿ Freelance writing
- ✿ Business planner
- ✿ Web site design
- ✿ Web or Internet research
- ✿ Your expertise and combine it with a new idea for marketing
- ✿ be creative!

In addition to actually working over the Internet, many colleges and universities provide online courses so that you can earn a degree without leaving home.

9. *Tips and Tidbits*

LET'S SAY THAT you were invited to a birthday party at the White House. Yikes! You'll have to bring a present and wrap it too. Don't worry. Go to the nearest Dollar Store, buy a gift, and buy a gift bag and some fancy tissue paper too.

- ✿ Roll the gift in tissue, plop it in a bag, and place another piece of tissue in the bag so that the ends stick out.
- ✿ Another way to get a fancy gift wrapped is to have it gift wrapped at the store you purchase the gift from. It may cost a few dollars, but they do a professional job at wrapping, and you can choose the paper, bow, and gift card.

You just bought a CD of your favorite vocalist and can't open the hermetically sealed disc. Don't fret; you can do it.

- ✿ Place the CD in your kitchen cutting board vise grip. Use a sharp knife to cut the cellophane wrapping across one end and peel it off the rest of the CD. Placing it back in the vise, taped edge up, pry the knife tip under the tape until you can get hold of it to pull it off. Take the CD out of the gripper and lay it flat, with the opening to your unaffected side. Flip it open with your fingers.
- ✿ Or (and this is my all-time favorite), have a store clerk open

the CD for you at the time of purchase. Don't feel obligated to explain your disability; just ask the clerk to open it for you. They're difficult to open for everyone.

If you want to clip coupons out of the newspaper or magazine for your weekly shopping:

- ✿ Use an old card table or a wide empty counter top for a surface. Place a paperweight on the open newspaper to hold it in place. With the scissors slightly open, use the bottom edge of the scissors as forceps to pick up the outer edge of the coupon. Make sure you use your unaffected hand to cut out the coupon. Don't worry if you didn't do it perfectly the first time. This takes practice. The coupon will be accepted even if you cut a little wider than the dotted line indicated.

It's time to tear paper off a paper towel roll or toilet tissue roll. Here's how you can do it one-handed without getting the entire roll spinning out of control.

- ✿ Take the amount you need and then, with the index finger and thumb of your unaffected hand, break the first few perforations of the tissue. Place the back of your fingers against the roll for support and tear the rest off by using the same process, your thumb and index finger.

You want to hang clothes on a clothesline, but can't figure out how to do it without bending, stretching, and having the clothes fall off the line. Let's try an easy way.

- ✿ Get a hamper or wheeled cart to set your clothes basket on so that the basket is about waist level. Place the garment over the clean line. Put a clothespin on it to stabilize the item. Readjust the garment with one clothespin at a time then release the stabilizing clothespin.

10. *Tips for Pet Owners after Stroke*

OWNING A PET is a big responsibility. Animals need daily care too. They require food, fresh water, exercise, frequent veterinarian check-ups and immunizations, grooming, city licensing if necessary, and lots of love.

If you have a pet that has been with your family before your stroke, the animal may be a great comfort to you when you return from the hospital after your stroke. However, there are some issues of pet ownership that you should be aware of after a stroke.

- ✿ If you have a small dog or a cat, be aware that the animal may come up to you on your affected side, where you may not be able to see it. Be extremely careful that your pet does not trip you.
- ✿ Make sure your dog or cat is spayed or neutered.
- ✿ Make sure you know where your pet is before using a walker or cane to move about. Your new equipment may appear to be a plaything to your animal.
- ✿ If you have a bird, make sure the cage is cleaned daily and that the bird has fresh water and the proper type of birdseed. Some people cover the cage at night to quiet their bird for sleep.
- ✿ A well-filtered aquarium, large enough for the number of fish, and a small amount of fish food daily will adequately support the easy maintenance of fish.
- ✿ Your medical risk must be weighed carefully against the risk of owning an animal before getting a pet after your stroke. Will you be able to care for the pet properly? Will the pet interfere with your mobility? Will you be able to pet-proof your home? Does your apartment management accept pets? Who will care for the pet if you are away? Talk with a veterinarian about the care of a particular animal before you bring the new pet home.
- ✿ You are making, or have made, a major commitment to an animal, and the responsibility for his care is up to you and your family.

I had a small dog that was our family pet before and after my stroke. This miniature schnauzer would bark, run, jump, and get excited over the most unusual things. However, this dog would also not leave a bedside when someone was sick. It was as if the dog had taken on a role of “family protector.” The family dog provided me with a great sense of love, familiarity, and belonging when I came home from the hospital after my stroke. Pets also provide you with someone to talk to when you are alone, even if they don’t understand everything you say. Pets love attention, so go ahead and talk; they will respond to your voice inflection.

When I lived independently, I had a cockatiel bird. By teaching the bird to talk, I taught myself to talk as well—one word, or short phrase, repeated over and over again until the bird became accustomed to my tone of voice and was able to repeat the word. However, my cockatiel insisted on talking when I was on the telephone. Apparently, he thought I was talking to him and would screech and prattle until I covered the cage as a signal of quiet time. I owned Kato the cockatiel for 5 or 6 years, all through college. Unconsciously, I’d say, “Be quiet. I’m studying.” And the bird would repeat my constant mantra. The cockatiel bird was a hilarious and somewhat easy pet to care for. I learned to clip wings and talons one-handed. I learned to use a T-bar as a safety perch when the bird flew to inaccessible areas. I learned to care for something other than myself, and this is marvelous therapy.

Now, I have a cat that I’ve had since he was a kitten. The veterinarian and I decided that the kitten be declawed because of my high risk for anticoagulant medications. This is a very volatile issue in cat ownership. In some countries, this procedure is considered illegal. Make sure you discuss this course of action with a well-qualified veterinarian and that your animal is at the proper age and health before arranging for this alteration. The kitten or cat should not be allowed outside once he has been declawed. Kittens and cats are instinctively curious. They will follow you and rub against your leg as a way of marking their owner. However, these natural cat responses could trip you if you are not careful. Learn your cats’ usual behavior, and then be prepared for the unexpected. My cat is

a lap cat. Buddy will jump onto my lap to be petted and brushed. I am prepared for this habit and enjoy his company. Sometimes, I place an old towel across my lap for him to lie on. This prevents the cat's shed fur from adhering to clothing. A pet hair remover brush, lint brush, and frequent vacuuming can also be used to prevent pet shedding and allergic reactions. Special pet shampoos may decrease reactions to pet allergies. By pouring the liquid onto a large sponge and wiping down the cat, the allergies caused by cat fur or dander are lessened. Buddy also wears a small bell on his collar that alerts me when he is near. My cat is never allowed in the kitchen when I am cooking or eating. Food is always stored properly to prevent the cat from investigating kitchen territory. I place a cat treat on the top step of the open basement stairway prior to preparing meals. Buddy goes for the treat, and I gently close the door. After meal-time and dishes are done, Buddy is allowed to come upstairs to join me. He quickly learned that treats are given for his good behavior. Buddy meow at the office door if I've been at the computer too long. He signals me that he wants attention. He is the management telling me it's break time.