

Pain Management

Biopsychosocial Approaches to the Treatment of Chronic Pain

Presented by Patty Hennigan, Ph.D.

The Scope of the Problem of Pain

- Most common reason for medical appointments
- Accounts for more than 80% of all physician visits
- Over \$70 billion/year in healthcare costs and lost productivity
- Despite medical advances, the incidence of chronic pain is increasing
- Advanced surgical techniques and use of strong analgesics has not resulted in reduced complaints of pain by patients

The Complex Nature of Pain

- Pain is an unpleasant sensory and emotional experience arising from actual or potential tissue damage or described in terms of such damage (IASP, 1979)
- Pain is no longer viewed as a purely sensory stimulus, but rather as a complex perceptual experience
- Cognitive, affective and behavioral factors influence how a person perceives pain and reacts to pain
- Chronic Pain is a Chronic Illness

Predicting Chronic Pain

(Gatchel, 1986)

- Four psychosocial factors predicting chronic pain
 - Reported more intense pain and more disability
 - Scored high on Scale 3 of MMPI which measures a person's sensitivity to bodily sensations, as well as a tendency to deny emotional or interpersonal difficulties
 - Received Worker's Comp or involved in personal injury case
 - Were more likely to be women

Pre-morbid Psychosocial Risk Factors for Poor Adjustment to Chronic Pain

(Adler, Zlot, Humey & Minder, 1989; Schoffeman, Anderson, Hines, Smith & White, 1992)

- Parents verbally or physically abusive of each other
- Childhood physical or sexual abuse or emotional neglect
- Alcohol or drug abuse in one or both caregivers
- Abandonment (loss of primary caregiver)
- A child who deflected abuse from one parent to the other onto him or herself
- Parents who suffered from pain or illness
- An ill parent of the same sex as patient
- Pain of patient and parent in the same location
- More surgeries in adulthood
- Disturbance in interpersonal relationships
- Disturbance in work life

Subtypes of Chronic Pain Patients

- **Dysfunctional** patients report high levels of pain and psychological distress, feel they have little control over their lives and are extremely inactive.
- **Interpersonally distressed** patients feel they have little social support and report that significant others don't take their pain seriously.
- **Adaptive copers** report far less pain and social distress than people in the other two groups and continue to function at a relatively high level.

A Conceptual Model of the Transition from Acute to Chronic Pain (Lea & Febiger, 1991)

Pain
(hurt=harm)

Stage I
Initial Psychological
Distress
(Fear, anxiety, worry)

Stage II
Development/Exacerbation
of Psych Problems
(Depression, anxiety,
substance abuse, anger)

Stage III
Acceptance of sick role and
consolidation of abnormal
illness behavior (or
positive adjustment and
maintenance of life)

Comorbidities between Chronic Pain and Psychiatric Disorders (Fishbain, 1999)

Psychiatric Disorder	Prevalence with Chronic Pain Patients
Affective Disorders (depression)	10-100%
Alcohol and other drug dependence	3.2-18.9%
Somatoform Disorders	1-97%
Anxiety Disorders	7-62.5%
Psychotic Disorders	0-15.1%
Malingering	0-22%

Psychological Theories Relevant to the Treatment of Pain

- Psychoanalytic Perspectives
- Cognitive-Behavioral Perspectives

Psychoanalytic Perspectives

- Defense
- Pain Proneness
- Cryptotrauma (hidden trauma)
- Ergomania (workaholics)
- Pathological Self-reliance

Psychodynamic Themes in the Experience of Chronic Pain

- There is no single pain prone personality type
- Early identification with ill or disabled family members
- Childhood physical and sexual abuse
- Anger, helplessness, depression and loss
- Pain as affect (suffering)
- Alexithymia
- Pain as punishment (self or others)

Behavioral Perspectives

- Role of Operant Conditioning and Learning Theory
- Pain Behavior
- Positive Reinforcement
- Negative Reinforcement or escape/avoidance conditioning
- Punishment

Cognitive Perspectives

- Maladaptive pain related beliefs
- Maladaptive pain attributions
- Expectations of Pain
- Self-efficacy
- Cognitive Distortions

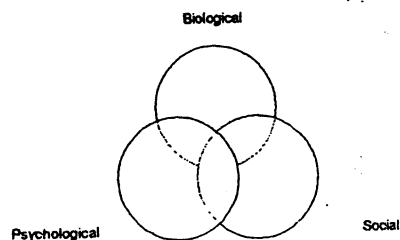
Take Home Point

- Be alert to psychodynamic and cognitive-behavioral factors, as well as cultural, spiritual/existential and contextual factors (family, marriage, work, relationship with Dr. and insurance) which may be contributing to poor adjustment.

Conceptual Foundations for Treatment

- It's not all in your head
- Biopsychosocial Nature of Chronic Pain
- Chronic Pain vs. Chronic Pain Syndrome
- Self Management vs. Medical Management
- Vicious Cycles

The Biopsychosocial Model



Limitations of the Biomedical Model

- Most appropriate for acute pain
- Emphasizes peripheral nociception
- Focus is on physical disease mechanisms
- Reliance on medical management approaches

Psychosocial Sequelae of Pain

- General activity level reduced
- Social and recreational activities reduced
- Relationships with family members altered
- Change in income
- Self esteem decreased
- Depression, anxiety, anger
- Re-surfacing of old emotional or behavioral problems
- Substance use

Chronic Pain vs. Chronic Pain Syndrome

- | | |
|---|--|
| <ul style="list-style-type: none"> • Chronic Pain • Pain • Hurt does not equal harm • Effective Management of Emotions • Physical Fitness • Self Reliance • Social Involvement • Satisfying relationships • Vocational Readjustment | <ul style="list-style-type: none"> • Chronic Pain Syndrome • Pain • Hurt = Harm • Problems with anxiety, anger, depression • Inactivity • Dependency • Social Isolation • Relationship Problems • Vocational Dysfunction |
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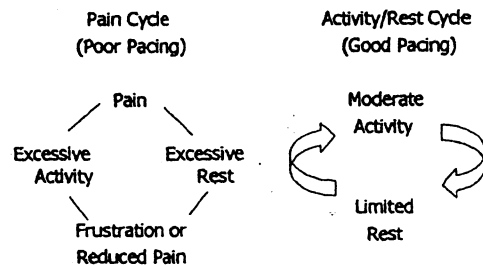
The Self Management Model

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| <ul style="list-style-type: none"> ■ Self Management ■ Person ■ Active Participant ■ In Control of Life/Future ■ Responsibility for Health ■ Self Reliant ■ Lifestyle Change | <ul style="list-style-type: none"> ■ Medical Management ■ Patient ■ Passive Recipient ■ Drs./others in control ■ Drs./others responsible ■ Dependent ■ Medications/Surgery |
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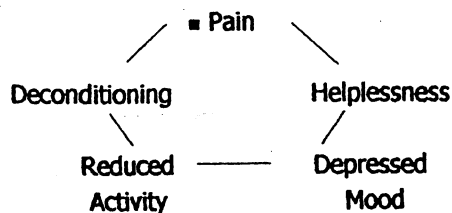
Vicious Cycles

- The Pain or Poor Pacing Cycle
- The Depression Cycle
- The Anxiety Cycle

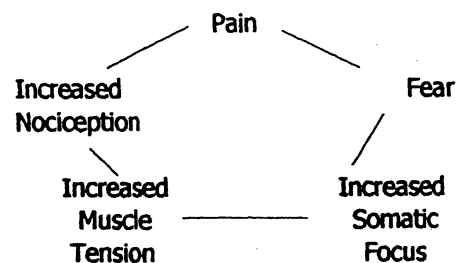
The Pacing Cycles



Pain/Depression Cycle



Pain/Anxiety Cycle



Pain Management Coping Skills

Relaxation

- Reduces muscle tension, anxiety, anger, and the stress response in general. Encourage daily practice rather than cue controlled relaxation
- Techniques:
 - Breathing exercises
 - Progressive muscle relaxation
 - Stretching
 - Meditation
 - Prayer
 - Mental Imagery/Visualization

Coping and Management Skills

■ Managing negative and irrational cognitions

(Self-monitoring, Identification, Cognitive Restructuring)

- I can't stand the pain
- I have no control over the amount of pain I feel
- I'm no good to my family
- I've done something to deserve this punishment
- The doctors could cure me if they really wanted to
- No one cares about me

Coping and Management Skills

■ Communication

- Practice assertive communication and active listening
- Poor communication = Increased Stress = Increased Pain
- Poor communication adversely affects relationships with family and providers
- Impacts muscle tension
- Increases negative emotions

Coping and Management Skills

■ Activity, Fitness and Exercise

- Deconditioning
- Fear/avoidance
- Baby Steps
- Activity Pacing
- Encourage consultation with PT

Coping and Management Skills

- Sleep Management
- Heat, Cold, Massage, Tens unit
- Acupuncture
- Appropriate Use of Medication
- Focus of Attention and Distraction
- Management of Anxiety and Depression
- Biopsychosocial orientation to pain
- Biofeedback
- Hypnosis

Screening questions for Chronic Pain Patients

- How is your pain affecting your functioning at home and work? How are you coping with it?
- What makes the pain worse and how can you minimize those factors? What makes the pain better?
- How are your spirits holding up? Are you discouraged, depressed?
- How is your energy? Sleep? Interest in things? Concentration? Irritability? Are you down on yourself? Feeling guilty?
- Are you ever so down on things that you think life is not worth living?

Management of Chronic Pain Patients

- Respond to pain complaints with a thorough history and PE. Make sure that adequate evaluation of the pain has been done. Ask the patient keep a pain diary.
- Unless the patient is clearly a drug seeker, believe the patient's report of pain.
- Rule out psychiatric illness (consider psych consult)
- Support and reassure the patient. Convey optimism but do not promise cure.

Management of Chronic Pain Patients

- Consider topical treatments and PT because of their intrinsic value, safety and symbolic value as indicators that the physical reality of pain is recognized
- Tricyclic antidepressants and SSRIs have proven beneficial in some studies
- In general, avoid benzodiazepines. Use narcotics when necessary in the context of an overall treatment plan and pain contract.

Management of Chronic Pain Patients

- If patients are functional and on a stable opioid regimen, it is reasonable to continue the regimen
- Consider referral to the Chronic Pain and Addiction Medicine Clinic (Dr. Saffier)
- Consider referral to Pain Management Support Group, Acupuncture, and Stress Management and Relaxation Classes
- In office visits, reinforce the skills in pain management that are taught in groups

Management of Chronic Pain Patients

- Assure the patient of your continued availability and schedule regular visits so that access to medical care does not require the development of new symptoms
- Do not tell the patient that symptoms are entirely psychological, but point out that emotional factors worsen physical distress and attempt to get the patient to discuss life problems
- Praise evidence of coping with the demands of daily life despite illness and discomfort

Management of Chronic Pain Patients

- A strong relationship between patient and primary care MD can assist in long term management.
- **Final Point**
- Effective treatment of pain requires an understanding of how physical, psychological and social factors affect the experience of pain.

■ The End

Managing Pain Before It Manages You

Revised Edition

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Foreword by Herbert Benson, MD



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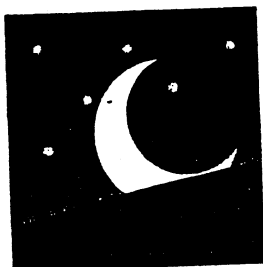
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Chapter 4



The Body–Mind Connection

Chapter 3 has explored how your mind can affect your body. Now let's take a look at how your body can affect your mind. When you are in pain, you may tend to do the following:

- Ignore all sensation from the neck down or label all sensation as painful.
- Stop moving your body parts except when it's absolutely necessary.
- Withdraw from social interactions.
- Push yourself physically by using denial of your condition.

These attitudes and behaviors need to be challenged because they can contribute either to increased fear of activity or to excessive activity; can predispose you to decreases in muscle strength and endurance; and can sometimes even result in reinjury. They can also lead to social isolation, loneliness, and depression. One patient, John, has described all of this well in the following story.

I used to get up in the morning with the challenge of doing things as usual, in spite of my pain. Maybe today would be different. Sure, the pain was my issue, but I was also getting subtle and not-so-subtle messages from my family and friends: "It used to be so much fun when you could do this. . . . Remember when you could do

(cont.)

that? . . . When are you going back to work? It might get your mind off your problems."

I felt it was impossible to explain. No one understood. Even I had a difficult time understanding why my back continued to spasm with the least amount of activity. I was terrified of doing things for fear of making the pain worse; yet, at the same time, I was ashamed because I couldn't even keep up with the laundry. How could I ever drive a truck again—the only thing I knew how to do for a living? So each day I would push myself through the odd jobs at home and collapse at the end of the day, with the pain worse than ever.

So what did I accomplish? I became more irritable, depressed, and withdrawn. I felt trapped and alone. My children tiptoed past me as I lay on the couch, and my wife and I constantly bickered. One day I found her sobbing. She told me that she felt she had lost her best friend and husband to the pain. I made the decision there and then to seek help, and found this program.

By contrast, your body can become a resource for you, instead of something frightening that has to be ignored or pushed into submission. It can provide you with important cues and indicators on how to pace yourself and plan your activities, so that you can engage in more activities with less pain. In addition, when you learn to listen to your body, not only can you become more genuinely aware of when you are in pain—you can also actually use your body to change your mood and sensations. Finally, you can begin to engage in pleasurable activities as a means of becoming more involved with life again. This chapter will show you how to do all these things.

Increasing Activities

Pain can prevent you from moving comfortably. It can make work and pleasurable activities more difficult, if not downright impossible. Through keeping your diary, you may be starting to see how your pain is influenced by your activities and your activities altered by your pain. Keeping active while in pain requires consideration of three factors:

- Pacing
- Adaptation
- Delegation

Pacing is about conserving your energy over the long haul and not letting the stress of pain and overactivity decrease it. Instead of "sprinting" through an activity, you "walk." Instead of working harder, you work smarter. This approach can serve two pur-

poses. One, you are more likely to get a task done, and two, you can get it done without necessarily increasing your pain and suffering. The processes that trigger increases in pain, such as fatigue and spasm, may be reduced by pacing activities, because the body isn't pushed to exhaustion. Pushing yourself to the point of exhaustion can increase tension, inflammation, and nerve irritation. Pacing has to do with observing that certain positions (such as sitting or standing) or certain activities (such as vacuuming or combing your hair) may increase your pain. For example, becoming aware of how long you can stand before your pain goes from a "4" to a "6" (on the 0-10 scale, ranging from 0 = no pain to 10 = severe pain) can give you an idea of how long you can stand to do the dishes before you sit and pay your bills. You then note how long you are sitting before the pain goes back down to "4." Once you have the idea, you can alternate sitting with standing activities, get more accomplished, and not increase your pain and exhaustion. It's recommended that you use a timer or other cueing device so that the temptation to pay one more bill or do one more dish is limited. Let's take a look at John's usual day before starting this program and his usual day now, as an example.

Then		Now	
9 A.M.	Get up Pain sensation = 6 Emotional response = 7	7 A.M.	Get up Pain sensation = 5 Emotional response = 3
9:30 A.M.	Breakfast	7:30 A.M.	Stretching, relaxation technique
10:30 A.M.	Do the dishes, watch TV	8:30 A.M.	Shower, get dressed
11 A.M.	Lie down	9 A.M.	Get bills together to pay
1 P.M.	Get up and eat lunch	9:15 A.M.	Wash dishes for 10 minutes
1:30 P.M.	Work on the car (Pain = 7)	9:25 A.M.	Pay bills for 15 minutes
3:00 P.M.	Pick up children	9:40 A.M.	Bring laundry down in four small bundles
4:30 P.M.	Eat dinner	10 A.M.	Log on Internet for support group
5:00 P.M.	Watch TV	10:20 A.M.	Start wash in washing machine
7:00 P.M.	Go to bed Pain sensation = 8 Emotional response = 7	11 A.M.	Finish bills
		11:30 A.M.	Finish dishes
		Noon	Eat lunch
		12:30 P.M.	Put wet clothes in dryer
		1:00 P.M.	Peel vegetables for dinner
		1:45 P.M.	Take dry clothes out of dryer
		2:15 P.M.	Fold clothes while sitting
		3 P.M.	Pick up children at school
		3:15-6 P.M.	Watch soccer game
		6:15 P.M.	Set table

(cont.)

Then	Now
	6:30 PM. Eat dinner
	7:00 PM. Stretches
	7:30 PM. Help children with homework
	9:00 PM. Read bedtime story
	9:30 PM. Hot shower and bed
	Pain sensation = 5
	Emotional response = 3

Adaptation is about finding new ways to accomplish old tasks or using devices to help do routine activities. For example, there is no rule that dishes need to be done in the sink or the clothes folded while standing if standing is too painful. Sitting while using a dishpan at the kitchen table or folding clothes is quite all right! Putting a bench in the shower stall or bathtub can let you sit and scrub, using shoes with Velcro clasps and putting large handle grips on stirring spoons and pens are all devices to make your life more comfortable. Such devices and ideas can be obtained from your local hospital's occupational therapy department and by sharing ideas with participants in local pain support groups or on the Internet.

Delegation is another way of conserving your energy. It's like job sharing. "If you carry the laundry upstairs, I'll fold it." "If you get the bills together, I'll pay them."

"You clean the bathrooms, I'll pick up the living room." Entertain by hosting potlucks—everyone brings a dish. Tell them that if they volunteer to wash or dry dishes, they don't have to prepare anything! Can't do a certain task? Ask a friend. They may have something you can do for them in return—and don't forget to pace!

Pacing, adaptation, and delegation allow you the most flexibility while acknowledging that your pain is real but can be incorporated into your life.

Dealing with Difficulties in Changing the Way You Do Your Activities

You may, of course, be able to think of any number of reasons for not pacing yourself or altering your routines:

"I don't do enough as it is. How can I take a break?"

"I have to do things like everyone else, or at least like my mother [or father] did."

"I'm too busy to take a break. What will my family do?"

"I can't ask for help, understanding, or a change in schedule."

"My pain is always the same no matter what I do."

It may be difficult for you to take the lead in deciding what you can and cannot do (instead of living up to others' expectations). As this book states repeatedly, however, it is

absolutely essential that *you* take control. No one else can judge what you are able or not able to do.

The following story shows why it's so important to examine what you do and why you do it.

A woman was busy fixing a Sunday pot roast. She cut off the ends of the roast in her preparation. Her daughter watched as she did this and asked why she cut the ends off the roast.

"Well," she said after some contemplation, "that's how my mother used to prepare it. Let's call Grammy and ask her."

She called her mother and asked, "Why do you cut the ends off a pot roast?"

Her mother replied, "Hmmm. . . I guess I never thought about it before because my mother, your grandmother, always did it."

Curious now as to what the answer might be, the woman called her grandmother to solve this culinary mystery. In response to the inquiry from her granddaughter, the grandmother laughed and laughed. "I used to cut off the ends of the pot roast because it was always too big to fit into the tiny roasting pan that fit in my little oven of 50 years ago!"

By examining what you do, you can decide what you want to keep and what you want to discard—like the ends of a pot roast. I recommend that once you have determined what *you need* (as opposed to what others expect) by way of pacing your activities as outlined above, you should notify those around you. Other people will generally be supportive of alterations in your routines if they are advised of the reasons and the intent. They certainly will respond to your being in a better mood and in less discomfort.

Martha decided that she could stand to do dishes at the sink for only five minutes before she needed to sit down. She arranged to use her oven timer to cue her when the five minutes were up. She also arranged to have some stationery and her address book on the kitchen table, so that she could catch up on correspondence; she would do this for 10 minutes while she sat and "rested." At first the other members of her family did not understand. Some wondered why she was "goofing off" in this way; others kept trying to finish the dishes for her when they saw her sit down. Martha was able to tell them that this was what she needed to do for herself, and reminded them (and herself) that there was no rule limiting dishwashing to any specific period of time. She felt better about accomplishing this task by herself, and because of her pacing she experienced no increase in pain. With this success, she was able to determine the time and positioning requirements for the other tasks she wanted to accomplish.

Working Outside the Home

If you are still working outside the home or contemplating return to work, it is important to stick to a routine that includes taking care of yourself. Regular sleep hours, exercise, good nutrition, and stress management are important for general health, as well as for maintaining a work capacity, when you have chronic pain. Returning to work can mean confronting the fears of reinjury or increased pain or the unknowns of working while in pain. Strategies covered in future chapters will address these challenges. In addition, this may be the opportunity to consider self-employment ideas so that the maximum flexibility can be assured for your workday pacing.

Many people complain that pacing themselves at home is all well and good, but at work, "it's impossible!" Actually, the same ideas can be applied in the workplace environment, but doing so may take a little more brainstorming or creative problem solving. For one thing, there are external time pressures at work; for another, pacing yourself in the workplace may involve synchronizing your efforts with the work of other people. I generally recommend that once you identify the various work tasks and their time and positioning requirements, you should create a flow chart or diagram of how you can perform these tasks throughout the day using the pacing routine. This should include alternating between sitting and standing tasks, as well as between tasks you can do individually and those that involve other people.

Using a Post-it® Note to describe each task and its time and positioning requirements, and then moving the notes around on a large piece of paper, may help you with organizing your day.

Other strategies can include setting the timer on the computer and doing a minute of stretching every hour, or bringing a cot to lie on while listening at board or staff meetings. Or you may need to work with an occupational therapist to determine job modifications or the need for adaptive equipment. Again, letting those around you know that you have specific needs and that certain approaches work best for you allows you to assert choice. It also gives the clear message that you do not require being rescued and that the situation is under control. For the many people around you who are at a loss as to what to do and would like to help, the guidelines you give them can enable them to help you and work with you more effectively.

Common Problems When Becoming Active

If you find yourself needing hours or a whole day to recover in between activities, you have probably not stopped an activity soon enough and just need to practice responding earlier to increases in tightness, fatigue, and pain. Your pain diary will help you fine-tune your pain sensation awareness, as will some exercises described later in this chapter.

If you find yourself experiencing delays in pain increases—for example, you clean out the garage one day without excessive pain, but the next day you ache all over even more—then you are probably experiencing the effects of "deconditioning." Deconditioning is a combination of decreased muscle strength and endurance that occurs as a

result of not having a regular exercise routine. This is a common problem for patients with chronic pain. A regular exercise/conditioning program may be of great value in such circumstances, as it will allow you to increase your endurance and limit muscle fatigue. Such a program may involve walking, swimming, using a stationary bicycle or treadmill, or practicing tai chi or yoga (see "Aerobic Exercise," below). The choice, of course, depends on where you are having pain and what your physical limitations are.

Remember, too, that your level of pain may not *necessarily* correlate with your ability to function. Many people are able to increase their activity and functional level without necessarily increasing their pain. Once you go through the soreness and tightness that are normal and expectable consequences of starting an exercise or activity routine, you may find yourself more active but in no more pain than you were before. Again, the sensation-labeling exercises described later in the chapter may help you to discriminate between these normal feelings and pain that serves as a danger signal. The value in considering all of this is that you may be able to become more active in spite of the pain and without fear of doing harm, which inhibits many of the activities of people experiencing chronic pain.

Time Management

In order to pace, adapt, and delegate effectively, it's important to take a look at all that you do during the course of a day. That way you can see exactly how much time you spend on certain activities. Putting a routine schedule into your life can make you feel useful again. Getting up and going to bed at the same time also helps establish a natural body rhythm. Having your day planned can help you accomplish your tasks and insures that pacing is not an afterthought. You may also find it very helpful to prepare a backup plan in advance for managing those inevitable flare-up days (see Chapter 10). Even if you can't work outside the home, consider volunteering. You can apply the pacing activities here to help you be successful and reap the good feelings associated with helping others.

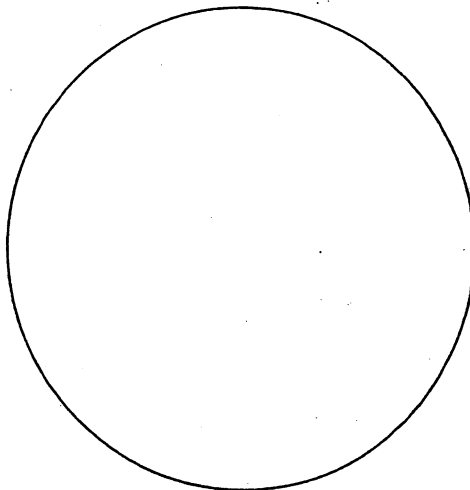
The Time Pie

An exercise that is helpful in determining what you do during a day is to draw a pie chart (or "time pie"). Break up your 24-hour day into the time periods your different activities require. That is, identify each activity as a wedge in the time pie. For example, you may have wedges for sleeping, working on the job, meeting with friends, talking on the phone, reading, watching TV, doing housework, playing with the kids, and so on. This is a nice way to graphically display what really takes place each day—something most people rarely think about. If each day of your week is different, then make seven time pies; if your weekdays are different from your weekends, make two time pies—one for weekdays and one for weekends. Draw your pie(s) in the space provided on the following page.

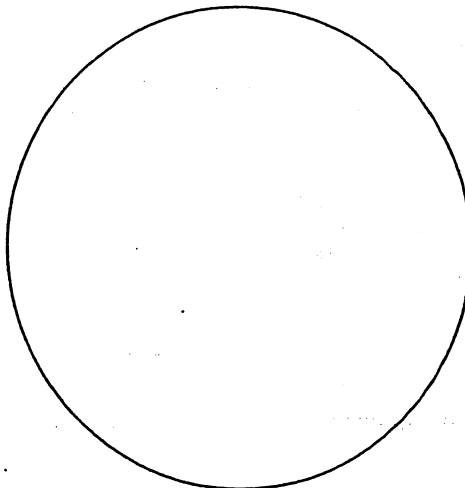
Now draw a pie that you would find more acceptable, given your pain level and what you are learning. Ask yourself the following questions, and write down your answers:

1. How many hours of my day are devoted to meeting others' needs? _____
2. Do all of these activities really need my involvement? _____
3. What activities can I share with or assign to the person or persons who are currently requiring my time? _____
4. What activities that I am not currently pursuing would I like to add to (or put back into) my routine? _____
5. What steps can I take to make my present pie into a more acceptable pie? _____

Use this space to draw your time pies—both your current one(s) and your ideal one:



Current



Future

True Confessions: Choosing Your Activities Consciously

Most people derive their sense of personal worth from the things they do. Therefore, it is important to realize how you define yourself through your activities, because this will affect your choices in regard to activity planning and time management. For example, you may find it very difficult not to do all the tasks for your family. I'll never forget one patient who complained about how she had to get up early every morning to pack lunches for her children. When I inquired about their ages, thinking that if they were teenagers they might be old enough to pack their own lunches, she replied, "Oh, they're 26 and 28 years old!" Although altruism is ennobling, it's not healthy for you or for others if you do your helping mindlessly or with secret bitterness. Helping mindlessly can contribute to hurting yourself through overdoing, and doing for others because you feel you "have to" rather than because you "want to" can create resentment and feelings of being used and abused.

Another point you may wish to consider is that pain can be used as an excuse not to do things people don't want to do, as well as something that prevents them from doing the things they do want to do. Pain can also be used to control others and elicit attention that people might not otherwise get. Sometimes people in chronic pain feel guilty when they become aware of such behaviors in themselves. I find that such behaviors are usually unconscious and are the result of pain's effectiveness as a means of both obtaining attention and avoiding undesirable obligations. Understanding how you incorporate your pain experience into your life can help you choose which behaviors you may want to explore further or avoid.

You really do have choices. This is your opportunity to explore a new you. It's okay to say "no." It's okay to say "yes." For now, it's enough that you make all of your choices conscious. If you choose to continue a certain activity or behavior, do it with your commitment and *your* choice: Own it.

Listening to Your Body

As noted at the beginning of this chapter, your body can be the source of important cues. By becoming aware of your body's messages, you can avoid potential problems and even soothe yourself. This section presents a series of exercises in learning to listen to your body. Read through the exercises once, then try them.

The following exercises will help you do or learn the following:

- Gently stretch your muscles.
- Gently move your limbs through their range of motion.
- Isolate muscle tension.
- Relabel sensations.
- Use breathing to release tension.
- Develop body awareness.
- Allow yourself to experience the pleasant, energizing feelings associated with simple exercise.

If your muscles are not stretched and your limbs do not go through their range of motion, then your stiffness, tightness, and tension will increase, especially upon rising in the morning. If you limit your "exercise" to the movement involved in your daily chores, you will be likely to overextend tight muscles. Doing slow, purposeful exercises, such as the ones explained here, will help minimize injury.

If any of the following movements increases your pain, you can modify the movement so that a gentle stretch is obtained with no increase in pain. If you are unable to stretch a limb gently, then skip it (or imagine yourself doing the stretch in your mind) and go on to the next limb.

Labeling Sensations in Your Legs

1. Sit comfortably in a chair.
2. Point your right foot in front of you and lift it off the ground. Keep breathing slowly and regularly. How would you describe the sensation you feel? Tightness, stretching, burning, aching? (Avoid using the word "pain" or "it hurts"; these terms are too vague. Learning to describe the sensation more accurately may give you clues as to its cause and effect, which may lead to more specific remedies.) Also, where exactly do you feel these sensations? Front of lower leg, across the top of the foot, around the knee?
3. Now, as you point your right foot, become aware of the tension you may have placed in your left leg, arms, or face as you create the stretch. Make sure that only the right leg is tense, and relax the other parts of your body. Keep breathing slowly and regularly.
4. Take a deep breath. On the out-breath, release the tension in your right leg, letting the foot rest once again on the floor.
5. Close your eyes. How does your right leg feel compared with the left leg? Warm, tingling, tired, vibrant?
6. Now point your left foot in front of you and lift it off the ground. Make sure you don't get your arms or face involved in creating the tension, and keep breathing regularly. What sensations do you feel? Tightness, stretching, burning, aching?
7. Take a deep breath. On the out-breath, release the tension in your left leg, letting the foot rest once again on the floor.
8. Close your eyes and compare how your right and left legs feel now.

Labeling Sensations in Your Arms

While exercising your arms, make sure that your legs and face are not involved in the tension. And, once again, be sure to keep breathing slowly and regularly.

1. Make a fist with your right hand and hold your right arm out in front of you. How would you describe the sensations you feel? Where do you feel them?
2. Take a deep breath. On the out-breath, relax your fist and let the tension go. How does your right arm feel compared with the left one?

3. Now make a fist with your left hand and hold your left arm out in front of you. What sensations do you feel? Where do you feel them?
4. Take a deep breath. On the out-breath, relax your fist and let the tension go. How does your left arm feel compared with the right one?

Labeling Sensations in Your Shoulders

Like the other exercises, this exercise should be done slowly, accompanied by nice deep breaths.

1. Put the fingertips from both hands on their respective shoulders.
2. Raise your elbows out from your sides, and rotate the elbows as if you are drawing circles in the air.
3. Move your elbows in circles with each breath, so that each complete circle takes one slow breath. Make sure that the tension is only in your shoulders and upper back.
4. Draw circles in one direction five times, then draw circles in the other direction five times.
5. Take a deep breath. On the out-breath, let your hands fall gently back into your lap.
6. Close your eyes and see whether you can distinguish any sensation (tired, achy, vibrant, burning?) in your upper back, shoulders, and neck.

Labeling Sensations in Your Face

As in the previous exercises, breathing is very important; however, it may be a bit more difficult in this case because of the facial movements involved.

1. Imagine that you have just bitten into a lemon, and wrinkle your face.
2. Feel the tension in your face, and check to see whether the rest of your body is relaxed.
3. Keep breathing slowly and regularly. (This may be hard to do through a wrinkled nose!)
4. Take a deep breath. On the out-breath, relax your face.
5. Close your eyes. Now check out your whole body by doing a "body sweep." That is, use your mind like a flashlight and shine it on each part of your body that you have just stretched. Release any residual tension by breathing into the tense area and breathing out the tension. How do you feel?

Rating Your Pain

The following exercise will help you to translate physical sensation into numbers. You may find this especially helpful if you have had any difficulty in giving your pain a numerical rating in your pain diary.

Use a scale of 0 to 10 when making a fist, with 0 being the loosest fist and 10 being

the tightest fist. When you get to the end of these instructions, do the exercise before you continue.

1. Make a number 5 fist. How would you describe the sensations you feel? Where do you feel them?
2. Relax the fist.
3. Now make a number 2 fist. What sensations do you feel? Where do you feel them? What makes the number 2 fist different from the number 5 fist?
4. Relax the fist.
5. Now make a number 9 fist. What sensations do you feel? Where do you feel them? What makes the number 9 fist different from the number 5 fist?
6. Relax the fist.

Be sure to try this exercise before you read on.

The following are some comments made by patients who did this exercise:

"Sensation is relative, and so is pain."

"A number 2 pain is more tolerable than a number 5 pain, but even a number 5 pain is tolerable compared to a number 9 pain."

"A number 2 pain is more localized, with the pain spreading away from the original painful area as the rating goes higher. . . . The higher the number given the pain, the more dysfunction is associated with it, both physically and emotionally."

A lot of the spreading of pain has to do with the additional tension or breath holding that takes place in response to pain—as in the first breath-focusing exercise in Chapter 3 (the fist-breath exercise). The pain sensation becomes the focal point of attention, which in turn increases the awareness, which increases the distress, which increases the tension, and so on and on. Instead, you can take a deep breath and breathe out slowly.

Apply this to your own pain rating. See whether you can discern the subtleties of what you once thought to be only one sensation but may in fact be many. Once you develop an awareness of the tension that may be resulting from holding your breath or breathing shallowly, as well as of the normal sensations of tightness and "good hurts" that are part of beginning an exercise routine, you will be in a much better position to do activities and exercises safely. (Continued practice with an RR technique will also help fine-tune this skill.) If all you can do on a regular basis are these simple sensation-labeling exercises, they will help keep your muscles, bones, and joints healthy.

Using Your Body to Change Your Mood

Patients sometimes confide in me that they no longer tell their friends or family members when they are having a bad day. These are the same people sitting in front of me

with their shoulders sagging and brows tense. They grimace as they frequently change positions, and they sigh a lot. Who's kidding whom?

People communicate in many ways that have nothing to do with their words, and you are no exception. These subtle behaviors are definite communications with the outside world, and sometimes the outside world is listening. But sometimes being subtle and less than direct allows those around you to ignore what they feel powerless to change, or to interpret your actions or behaviors incorrectly. People judge by appearances, and most people cannot imagine living with chronic pain. Giving mixed messages with your body and your words causes more confusion for you and for those watching you. When you assume certain body postures and facial expressions such as the ones just described, you may be reinforcing negative emotions and making your situation even worse than it already is.

Try this simple exercise:

1. Raise your eyebrows and show your teeth.
2. Hold this posture for 30 seconds. What kinds of thoughts pass through your mind? (Ignore the ones that say you must look goofy.)
3. Relax.
4. Now bring your eyebrows together and clench your jaw and fists. What are you thinking now?

The first expression is usually associated with happiness, and the second one with anger and rage. How did you feel? Psychologist Paul Ekman and his colleagues (see "Supplementary Reading") have demonstrated that assuming these facial expressions is associated with the mood-specific physiological changes of sadness, happiness, and anger. When you get more of your body involved in creating these expressions, the emotional connection is even greater.

Now for the final exercise in this chapter. This may be a bit uncomfortable for you, but it is important and helps you get in touch with your body-mind connection. If the first position is too difficult, try it in bed rather than in a chair, and assume a "fetal" position—knees to chest, head down toward chest.

1. Sit in a chair.
2. Bend your head down, hunch your shoulders, cross your arms in front of you, and cross your legs.
3. Close your eyes for one minute. What do you *feel* emotionally? Do not use the word "pain," and stick to descriptions of emotions, not descriptions of physical sensations.
4. Relax.
5. Now stand up and place your feet apart, approximately the width of your hips.
6. Keep your shoulders back, your head high, your face to the front, and your arms down with the palms facing forward.
7. Close your eyes. What do you *feel* now?

The first position is associated with a wide range of feelings, such as the following:

- Sadness
- Fear
- Defenselessness
- Need for safety
- Need for security

The second position is usually associated with these feelings:

- Empowerment
- Being exposed
- Sense of control
- Positive attitude

Clearly, just like your pain perceptions, the wide range of responses to body posture reflects complex body-mind language that you have automatically learned over the years. This is why people will sometimes experience strong emotional reactions during massage therapy or certain physical therapy procedures. This muscular imprinting of emotions and old habits is also the principle behind various movement therapies, Feldenkrais and Alexander techniques in particular.

When you are feeling sad, try to change your facial expression and body posture to ones associated with joy and happiness. See how difficult it is to continue feeling sad. Or, if you're committed to suffering for the moment, exaggerate your suffering expression and posture even more. Don't forget to add a few moans. If you do this consciously, you may be surprised at the results. Misery loves company, even if it's your own.

Aerobic Exercise

Aerobic exercise at least three times a week can help improve your general health, particularly your heart and lung function. It can also help with weight control. Aerobic exercise ("aerobic" means literally "requires oxygen") elevates heart rate through sustained movements of the body at moderate intensity. Activities such as brisk walking, swimming, and stationary bicycling are considered aerobic exercise. There is a long list of diseases associated with a sedentary lifestyle—for example, heart disease, obesity, and osteoporosis. The risk of developing these disorders can be reduced by regular aerobic exercise. Just because you're in pain doesn't mean you need to neglect your overall health and well-being. (Quite the contrary, in fact.)

Physiatrist James Rainville and others have found that pain perception and the ability to engage in certain activities are not always matched (particularly in patients with low back pain), probably because most perceptions are subjective. A lot of people who have pain are afraid to move because they fear that the pain will increase and that they will harm them-

selves further. However, by not moving, stretching, or engaging in some type of exercise, they are placing themselves at greater risk for reinjury or becoming even more out of shape. Regular exercise may also be effective in reducing your pain, as demonstrated in arthritis patients (see Minor and Sanford in "Supplementary Reading"). If you exercise carefully and slowly, you are not likely to make your condition worse. Consult your physician or a physical therapist if you have specific questions regarding what you can do and how you should proceed. Those of you with low back pain may find the physical activity and exercise descriptions in *The Back Pain Helpbook* beneficial (see "Supplementary Reading").

For people in pain, water exercises can be especially relaxing, because about 70% of the effects of gravity are lost in water. Movement in water offers the opportunity to strengthen muscles, stretch, and increase heart and lung function. The Arthritis Foundation sponsors water aerobic programs all across the United States. Contact the Arthritis Foundation in your state for details. Since movement is so much easier in water, however, you may be tempted to exercise longer and harder. It's always best to start out doing much less than you think you can do and gradually increasing the length or intensity of your water exercise as you progress.

Other forms of exercise that can give you a good aerobic workout include the following:

- Riding a stationary bike.
- Walking on a treadmill.
- Using indoor cross-country ski equipment.
- Walking. (This is a particularly good exercise, as it's inexpensive and can be done almost anywhere, indoors or outdoors.)
- Yoga or tai chi. (These exercises are helpful to patients in pain, because they are slow, purposeful, and coordinated with breathing. They can also be easily adapted for those with limited movement. It is important, however, to get individual instruction and work with an instructor who can modify the positions to meet your needs.)

My colleagues and I strongly encourage individuals in chronic pain to do some type of aerobic, stretching, and strengthening exercise on a regular basis, if at all possible, for the health of their bodies and minds.

Pleasurable Activities

Little Things

Most of us miss out
on life's big prizes.
The Pulitzer. The Nobel. Oscars. Tonys. Emmys.
But we're all eligible for
life's small pleasures.
A pat on the back.

A kiss
behind the ear.
A four-pound bass.
A full moon.
An empty parking space.
A crackling fire. A great meal. A glorious sunset.
Hot soup.
Cold beer.
Don't fret about copping life's grand awards.
Enjoy its tiny delights.
There are plenty for all of us.

—Anonymous

Pleasurable activities should constitute a normal part of life, but for many living with chronic pain, they simply don't. Some patients feel so bad about their pain and their lack of a "productive life" that they cannot engage in, or even admit wanting to engage in, pleasurable activities. They don't feel that they deserve any pleasure.

The truth of the matter, however, is that if you can't engage in some pleasurable activity, any suggestions to increase your general activities will be more difficult. It's easier to start becoming involved in life again by doing something pleasurable. (See the book *Healthy Pleasures* in the "Supplementary Reading" section at the end of this chapter.)

There are any number of ways to pursue pleasurable activities, but let's just say that you should do something purposeful, conscious, and enjoyable on a regular basis. It can be something as simple as feeding the birds, watching the sunset, or observing children at play. It doesn't have to be an outing, though it can be. It's often the little things in life that make our days meaningful. The key here is to make it *conscious and purposeful*. As the philosopher Epictetus (circa A.D. 55–135) said, "Practice yourself, for heaven's sake, in little things; and thence proceed to greater." In addition, take an active part in creating your own happiness. Participating in someone else's idea of a pleasurable activity doesn't count unless you are taking pleasure from that person's pleasure or enjoying the activity yourself. Also, when you have completed your pleasurable activity, do not spend 10 minutes describing how miserable you were and apologizing for engaging in it. There is something to be said for counting your blessings.

It's possible that you may be intimidated by having to seek out a pleasurable activity. Sometimes substituting the word "satisfaction" or "beauty" instead of pleasure helps. Look for something that you can feel satisfied with or that has a beauty you can identify.

Once you have discovered and enjoyed a pleasurable activity, try sharing it with someone. For example, if you just saw a beautiful sunrise on your way to work, you could share it with a colleague. People, it seems, are always willing to give a litany of their disappointments and bad news, but it is amazing how contagious and uplifting the sharing of pleasures can be. It's also a lovely way to begin dinner conversation. Let everyone have a turn to report a little pleasure they noted that day. Life has a whole different feel to it when you become an active participant.

In short, it's okay to do something nice and pleasurable for yourself. You're worth it!

Summary

Increasing Activities

- Keeping active while in pain requires consideration of pacing, adaptation, and delegation.
- When the body is not in a constant state of exhaustion, it has a chance to recuperate more effectively.

Time Management

- Drawing a "time pie" helps you identify your daily activities and the time spent on them; it provides you with a graphic depiction of how you spend each day.
- Take a look at each activity, and examine why you engage in it.
- Consider asking for assistance from others who are capable of helping.

Listening to Your Body

- Your body can be the source of important cues; by listening to your body and labeling your sensations, you can develop an awareness of your body that will allow you to increase your activity level safely and to intervene in the development of tension earlier than you otherwise would.
- Gentle stretching exercises, involving moving your limbs through their range of motion, will help you to label sensations in various parts of your body.
- The exercises also help relieve the stress, tension, and stiffness usually associated with inactivity.
- Learning not to label all body sensations as painful will help you to pace activities, such as exercise, more realistically.

Using Your Body to Change Your Mood

- Body postures and facial expressions can either reinforce negative emotions or uplift your spirits.
- By paying attention to how your body is communicating with the outside world as well as with your internal world, you have the power to change how you feel.

Aerobic Exercise

- Aerobic exercise at least three times a week can help improve your general health, particularly your heart and lungs; it can also help with weight control.
- Water exercises are particularly helpful, because about 70% of the effects of gravity are lost in water.

- Other types of exercise that can give you a good workout include the following:
 - Riding a stationary bike
 - Walking on a treadmill
 - Using indoor cross-country ski equipment
 - Walking
 - Yoga or tai chi

Pleasurable Activities

- Pleasurable activities should be conscious and purposeful. They help you become involved in your surroundings and make your days meaningful.
- Once you have discovered a pleasurable activity, share it with someone.
- You deserve to engage in pleasurable activities for your psychological and physical health.

Exploration Tasks

1. Reread this chapter and do the various exercises as they are presented, if you have not already done so.
2. Write out a goal that you want to accomplish related to this chapter. As in earlier goal-setting exercises, make sure your goal is a behavioral task that you can measure in terms of the steps that *you* will take to accomplish it. Here is an example:

Goal: Do the stretches described in the section "Listening to Your Body" once a day.

Steps to take to reach that goal:

- A. Use the kitchen chair.
- B. Place the instructions on a second chair beside me.
- C. Do the stretches just before I do my RR technique.

Now it's your turn.

Goal: _____

Steps to take to reach that goal:

- A. _____
- B. _____
- C. _____
- D. _____

Now list contingency plans. That is, identify what obstacles might get in the way of your accomplishing this goal. What solutions can you devise to work toward insuring

the success of this goal? See Chapter 3 ("The Mind-Body Connection") for an explanation of contingency plans if you've forgotten.

Obstacles

Solutions

- | | |
|----------|-------|
| A. _____ | _____ |
| B. _____ | _____ |
| C. _____ | _____ |
| D. _____ | _____ |

3. Identify some type of stretching exercise that you can do daily. What will you do?
How often will you be able to do it? _____
4. Identify some type of aerobic exercise that you can do at least three times a week.
What will you do? _____
How often will you be able to do it? _____
5. Identify some type of strengthening program that you can do three times per week. This can involve isometrics with an elasticized cord for that purpose, free weights, or weight machines. A good resource for women (and men) is *Strong Women Stay Young* (see "Supplementary Reading"). Ask your medical professional for recommendations or a physical therapy referral for a safe exercise program for you to do that takes your physical limitations (not necessarily your pain) into consideration.
What will you do? _____
How often will you be able to do it? _____
6. Continue with one of the basic RR techniques (see Chapter 3) at least once a day.
7. Choose a pleasurable activity and engage in it once a week at a minimum. Share it with someone.
List some pleasurable activities that you might like to try:

- (Don't forget the spontaneous pleasures, like listening to children's laughter or reveling in a sunny day.)
8. If your pain increases with activities or certain postures during your daily activities, take some time to fill out the "Increasing Activities Worksheet" at the end of this book. Determine your average daily level of pain from your daily diary sheet as your baseline pain.
Now make a list of activities that increase and decrease your pain. What are the

common threads identifying each category? Posture? Length of time? Fatigue? Motivation? What happens if you alternate the activities that increase pain with those that decrease pain? Can you fine-tune any of the activities to make them easier to do in bits, like John did (e.g., dividing the laundry to carry downstairs into four smaller bundles)?

Remember, the goal is to keep active while not significantly increasing the pain. This takes doing your daily routine differently, but a lot can still be accomplished nonetheless.

Beware of telling yourself, "Just one more dish [minute, task, etc.] before stopping." Use external cues such as timers to dictate when the time is up and/or your position needs to be changed.

As you continue working with the entire program, you will need to reassess your routine periodically, because your endurance may increase as your tension decreases. Make copies of the pacing activities worksheet at the back of the book so that you can reassess your times monthly.

Supplementary Reading

The following books and articles provide additional information on exercise, body awareness, and healthy pleasures:

- Lorna Bell and Eudora Seyfer, *Gentle Yoga* (Berkeley, CA: Celestial Arts, 1987).
 Paul Ekman, Robert Levenson, and Wallace Friesen, "Autonomic Nervous System Activity Distinguishes among Emotions," *Science*, 221: 1208-1210, 1983.
 Carol Krucoff, Mitchell Krucoff, and Adam Brill, *Healing Moves: How to Cure, Relieve, and Prevent Common Ailments with Exercise* (New York: Crown Publishers, 2000).
 Kate Lorig, James Fries, and Maureen Gecht, *The Arthritis Helpbook: A Tested Self-Management Program for Coping with Arthritis and Fibromyalgia* (Reading, MA: Perseus Books, 2000).
 M. A. Minor and M. K. Sanford, "Physical Interventions in the Management of Pain in Arthritis," *Arthritis Care and Research* 6: 197-206, 1993.
 James Moore, Kate Lorig, Michael VanKorff, Virginia Gonzalez, and Diane Laurent, *The Back Pain Helpbook* (Reading, MA: Perseus Books, 1999).
 Miriam Nelson, Wendy Wray, and Sarah Wernick, *Strong Women Stay Young* (New York: Bantam Doubleday Dell Publications, 2000).
 Robert Ornstein and David Sobel, *Healthy Pleasures* (Reading, MA: Perseus Books, 1990).
 James Rainville, David Ahern, Linda Phalen, Lisa Childs, and Robin Sutherland, "The Association of Pain with Physical Activities in Chronic Low Back Pain," *Spine*, 17: 1060-1064, 1992.