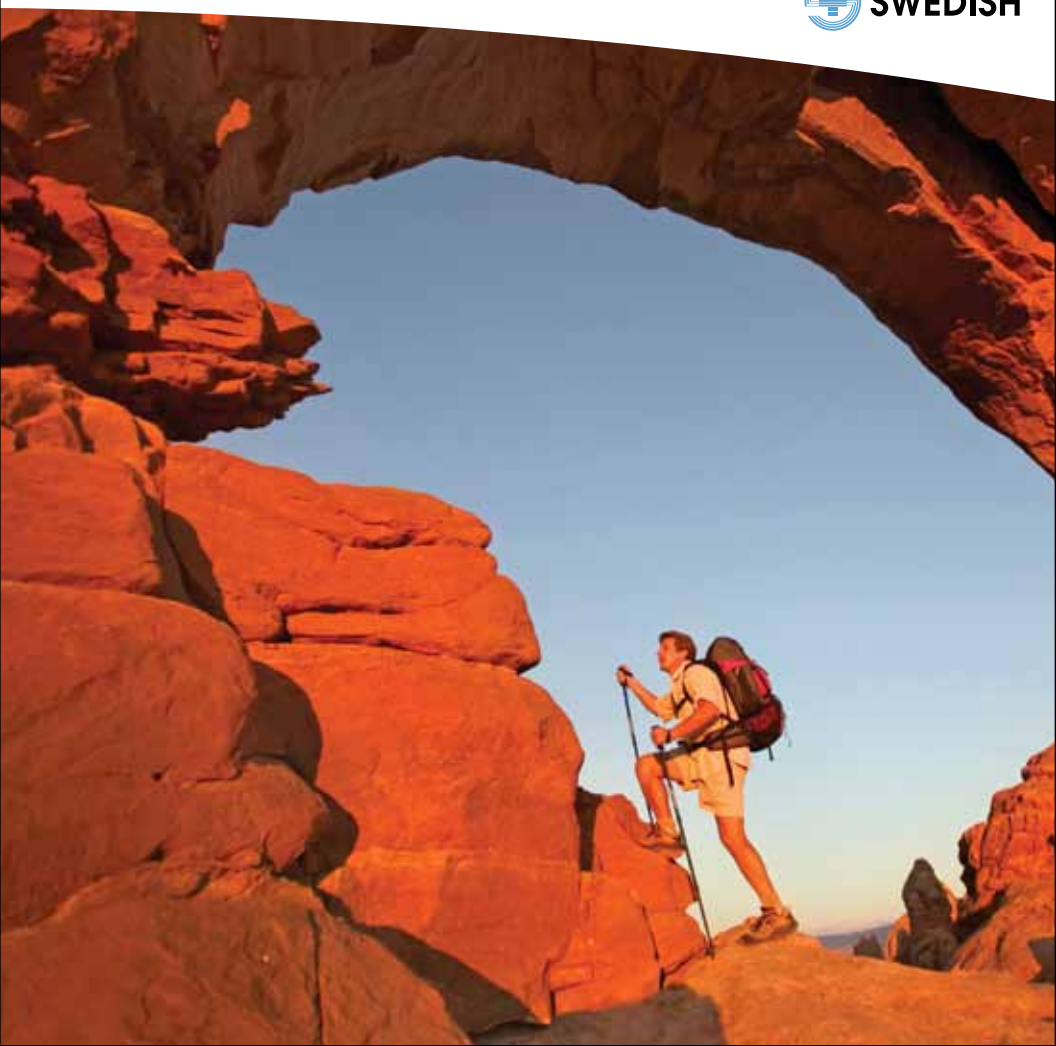


STOMP

Structuring Your Own Management of Pain

Setting goals that help you and your doctor alleviate your pain and improve your quality of life.



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Introduction

The STOMP booklet is designed to help you set health goals that will alleviate your pain and improve your quality of life. The booklet is divided into two sections. The first section offers general information on a number of pain topics. The second section provides a brief overview of goal-setting ideas and steps to take to achieve those goals.

How to Begin Setting Your Goals

You and your doctor should discuss your health goals. Because your pain may have limited your activity or your feeling of being able to do things for a long period of time, you should set goals that may initially seem small, but can be increased once you achieve them.

What are goals?

Goals should be something:

- Desired – choose something you WANT to do
- Realistic – choose something you think you really CAN do
- Specific – choose something concrete; for example, “doing more exercise” is not a specific goal, but “walking for 10 minutes twice a day, 4 days a week” is specific
- Achievable – choose something you are confident you can ACHIEVE

How do you develop a goal?

- First, review Section One: General Information on Chronic Pain.
- Then read through Section Two: Goal-Setting Suggestions to help identify two or more health goals you would like to work on.
- Next, turn to page 4 and locate My Health Goal Chart. On this chart, place a check mark next to the goal or goals you have selected. An example appears below.
- Once you have selected your goal(s), read through the Steps to Get There section listed under each goal. This section will provide steps you can take to reach your goal. It will also help you develop an achievable action plan.

Goal	Health Goal Set	Didn't Try	Almost Achieved	Achieved	Achieved and More
Mind-Strengthening Program					
Protecting Your Medications					
Improving Sleep					
Learning to Relax					
Exercising					
Improving Nutrition					
Stop Smoking					
Start to Journal					
Energy Exercises					
Headache Management					
Starting Mindfulness Techniques					
Reviewing Psychological Problems					

- Before each follow-up visit with your doctor, make sure to update your Health Goal Chart by placing a check mark under the appropriate progress heading. During your office visit, you and your doctor can review your progress.

My Health Goal Chart

Instructions: Please use the chart below to help you and your doctor track the status of your health goal(s). It is important to bring your Health Goal Chart to each doctor visit. Once you have identified your goal(s), use the space provided to create your action plan.

Goal	Health Goal Set	Di
Mind-Strengthening Program		
Protecting Your Medications		
Improving Sleep		
Learning to Relax		
Exercising		
Improving Nutrition		
Stop Smoking		
Start to Journal		
Energy Exercises		
Headache Management		
Starting Mindfulness Techniques		
Reviewing Psychological Problems		

My Goal: _____

To achieve this goal, I plan to: _____

Section 1

General Information on Chronic Pain

- Pain medications will not totally block out pain. Even the most effective medication will typically only decrease your pain by 50% to 60%.
- When you have a pain flare-up, taking more medication than prescribed may not improve your relief, and you may run out of your prescription early.
- If you are on short-acting painkillers and you are going to do something you know will be painful – for example, gardening – taking the short-acting pain medication before the event may stop the pain from becoming intense.
- Try to always have a few pills left over at the end of the month so you can accumulate at least a three-day supply of your pain medication in case of a natural disaster (think what would happen if there were a flood, earthquake or volcano eruption at the time you needed a refill). Having a few days' extra supply also takes away the anxiety when it is getting close to your refill date.
- Always request a refill ahead of time so you are not waiting until the last minute. This will avoid causing any tension between you and your doctor.
- You are the only one who really understands your pain problem and your needs. It is up to you to collaborate on a realistic pain-management plan with your doctor. Your provider may not always understand your pain, and it may sometimes be difficult to immediately reach your provider.
- Medications are only part of the solution and will not solve all your pain. Exercising on a regular basis and using your other pain-management self-care techniques are equally or even more important.

- Learn to pace yourself during activities. Avoid trying to get everything done when you are feeling good because you know you will feel bad later.
- You can have a life even with pain. It may not be easy, and it will require positive and realistic thinking, but those with pain who do the best are those that accept their limitations and refocus to live life fully.
- Avoid fearful thinking, as this leads to anxiety and avoiding doing anything because of the fear of more pain. Fear of doing things has been found to increase disability and to create even more limitations over time.
- The cure is inside you. You must learn to observe and pay attention to your body and feelings. Become an active part of your health-care team. You have the most to gain.

Resources

For more information, visit:

- American Pain Foundation, www.painfoundation.org
- American Chronic Pain Association, www.theacpa.org
- National Pain Foundation, www.nationalpainfoundation.org
- Pain Action, www.painaction.com

Pain Medications

Common Concerns

- Opioids (Narcotics)
(for example, hydrocodone, oxycodone, hydromorphone, fentanyl, morphine, methadone, Opana)

When taken in high doses for a long period of time, this drug may cause an increased sensitivity to pain that can only be controlled by coming off the medication. These drugs may also suppress the immune system and decrease various hormones such as testosterone, estrogen and cortisol.

- Acetaminophen

(for example, Tylenol)

Keep the total dose of acetaminophen to less than 3 grams per day (for example, 6 extra-strength Tylenol). Take less if you have any liver problems or are drinking heavily.

Remember: There are some medications, such as Vicodin and Percocet, that contain acetaminophen, and this should be added into your calculation of how much acetaminophen you are taking.

- Anti-Inflammatories

(for example, Advil, Aleve, ibuprofen, Celebrex)

Anti-inflammatory drugs increase the risk of stomach and intestinal bleeding, kidney damage, and high blood pressure. They often do not help chronic pain except when there is a flare-up due to physical overactivity. If they are not helping, do not take them: They are dangerous. It has been estimated that over 14,000 Americans die from anti-inflammatory drugs every year.

Common Side Effects

All medications have side effects, some of which are obvious, others are not so obvious.

- Constipation

Many pain medications, especially the opioids, cause constipation by slowing the gut and allowing increased absorption of water. Treatment is usually necessary and includes a stimulant laxative as well as increased fiber and fluid intake and adding a stool-softening agent. The stool should be soft, and afterwards you should not have a feeling of incomplete evacuation. If you still have problems, talk to your doctor.

- Dry mouth

There are more than 400 medications (both prescribed and over the counter) that may slow or even stop your saliva. Saliva has many important actions. These include protection for teeth and gums, acting as a local antibiotic and a

solvent for taste. Decreased saliva increases the risk of stomach irritation, mouth burning, and hoarseness, as well as increasing the risk of teeth caries and decay. If you feel your mouth is dry because of any of your medications, the American Dental Association recommends that you go to your dentist for preventative care that also includes your regular teeth care, increased fluid intake, fluoride applications, antimicrobial rinses and agents to increase salivation.

- Drowsiness

To decrease drowsiness, try decreasing the medication that is causing you to be tired. Ask your doctor if you can take it later in the evening before going to bed.

Spinal Injections

- There are many structures that can give pain in the back and neck. These include ligaments, muscles, joints, nerves, bone and discs. The majority of spinal pains are a combination of some or all of the above.
- A bulging disc or disc degeneration is a normal aspect of aging and is usually not the cause of pain.
- Even pain going down the leg or arm does not indicate there is a “pinched nerve”; in fact, in the majority of cases, it is not. A pinched or inflamed nerve will usually give shooting pains into the hand or foot.
- Radiology – including MRIs, CT scans and bone scans – is not very accurate at predicting a source of pain.
- In an individual between about 20 and 50 years of age, the most common cause of spinal pain is the intervertebral disc; after the age of 65, it is arthritis of the spinal joints.
- Because radiology and even a careful history and examination do not reveal the cause of the pain, spinal injections can be used for diagnostics and, sometimes, treatment.

Injection Facts

- If the first injection does not make a significant difference to your pain, further injections in the same place are very unlikely to help.
- If a local anesthetic is used to numb the painful area (for example, a spinal joint), there should be at least a 75% decrease in the pain for 2 hours or longer if that is the area that is causing the pain.
- Injections are not likely to be beneficial if the pain is in the middle of the back and has been present for more than a year.
- There is a high false-positive rate with some spinal injections, meaning that, although you may have had some benefit from the first injection, a second injection given exactly the same way will have no effect.
- Injections are passive for the patient and only help a few patients you must continue to be active in your own treatment.

Types of Injection

- **Muscle** — Trigger-point injections with a local anesthetic decrease spasms and tight muscles. Acupuncture needles can be used either in classic acupuncture points, just under the surface of the skin, for electrical acupuncture or for “pecking” treatments.
- **Ligament** — If diagnostic injections with a local anesthetic help decrease pain, temporarily, prolotherapy injections may be suggested. For these injections, a mixture of local anesthetic dextrose (sugar) and sometimes other substances are injected to cause collagen (scar tissue) to strengthen the ligament and perhaps kill small pain nerve endings.
- **Spinal joint injections (facet joint injections)** — These joints on either side of the spine from the sacrum to the skull allow the spine to flex and bend. Like any joint, they can be sprained or develop arthritis. The injections are usually done under X-ray control, although ultrasound can

be used. Small amounts of local anesthetic are injected into the joint with or without steroids, or onto the small sensory nerves that transmit pain from the joints.

If injections, done on two occasions, take 75% or more of the pain away for a few hours, but the pain returns and PT/exercise is not helping, a radiofrequency neurotomy procedure (RF) may help. In the RF procedure, a special insulated needle is placed near the small sensory nerves coming from the painful joints. A microwave current is directed down the needle to destroy the small nerve, so pain signals are no longer sent to the brain. These nerves regrow, and as the problem in the joint is still present, the RF procedure may have to be repeated after several months.

- **Epidural injections:** The space around the nerves in the spinal canal, which runs from the skull to the sacrum, is called the epidural space. Injections into this space can be done from the middle of the spine (interlaminar) or from the side (transforaminal). The transforaminal route is often used if there is a herniated disc inflaming a nerve at that level. If there is inflammation in the epidural space, it is usually because of a disc herniation or a narrowing (spinal stenosis).
- **Selective nerve blocks:** To assess which nerve is giving pain when it is not clear from other tests, the nerve can be blocked by placing local anesthetic onto it as it comes out of the spinal column.
- **Disc injections:** The intervertebral disc does not have a blood supply, so there is always a risk of severe infection (discitis) whenever an injection is made into the disc. Pressurizing a disc by an injection can indicate if that disc is the cause of the pain. The problem is that often more than one disc is the cause of pain, and there are not good treatments for multiple painful discs. Despite all the advertisements for “minimal invasive surgeries” for disc problems, the long-term results are often not good.

Problems with Spinal Injections

- As with any injection, there are risks, although they are relatively minor for all except the disc injection. Bruising and discomfort, the risk of infection and a reaction to the medications injected are all possible but uncommon. Epidural and transforaminal injections into the neck, however, carry a significant risk and have caused deaths, strokes and paralysis.

Implantable Pain Devices

Spinal Cord Stimulators (SCS)

- These are epidural-placed leads that, when connected to a generator, produce a small current or voltage that changes the pain signals going to the brain. They are usually reserved for those patients for whom usual therapy has not been successful.
- SCS have been successfully used in various painful nerve conditions, including failed back surgery syndrome, severe back and leg pain, and complex regional pain syndrome (CRPS) types I and II (RSD and causalgia).
- They are widely used in Europe for vascular problems, including severe angina and pain in the legs due to poor circulation.
- Prior to implantation, a trial is performed in which the leads are placed in the epidural space and connected to an external generator that the patient can carry around. The patient goes home and has a normal routine for the next week to see if trial stimulation will significantly reduce the pain. This process, which is relatively inexpensive and completely reversible, provides an indication of long-term effectiveness and increases the cost-effectiveness of permanent implantation.
- The implanted generators can be recharged at home, and the patient receives a hand-held telemetric device to increase or decrease the stimulation.

Intrathecal Pumps

- These are hockey-puck-like devices that are implanted under the skin and have a reservoir for liquid medications and an internal pump. They pump the medication from the reservoir, via a catheter placed under the skin, to the fluid surrounding the nerves in the back (cerebrospinal fluid). This fluid bathes the spinal cord and the brain, so it delivers the drug more directly to where pain is felt.
- Before the pump is placed, there is usually a three-day trial in the hospital.
- The medication is usually an opioid (morphine, Dilaudid or fentanyl) or baclofen for spasticity, or ziconotide for neuropathic pain. There are, however, other medications that may be used, including clonidine and bupivacaine. Several others are being tested.
- Problems include:
 - Mechanical breakdown where the pump stops, or the catheter becomes dislodged
 - Granuloma (scar tissue) formation at the tip of the catheter, which can press on the spinal cord and cause severe problems
 - Necessity of having the pump refilled every 2 to 3 months

For more information, visit:

- National Pain Foundation – Implantable Technologies, www.nationalpainfoundation.org/articles/340/implantable-technologies

Section 2

Goal-Setting Suggestions

GOAL

Protecting Your Opioid (Narcotic) Medications

Why should I protect my opioid medications?

The majority of opioids (narcotics) that are taken or stolen and abused, sometimes causing death, come from the homes of people who have been prescribed them for pain, but have not been careful about looking after them. The number of people being harmed from these abuses now exceed the number of deaths from car accidents in Washington State.

Steps to Get There

- Do not share your medications with anyone.
- Lock your medications in a locking cabinet or safe box and secure the key.
- Do not use a bathroom cabinet. These rarely lock and are the first place any stranger or visitor in your house will look.
- Make sure that you have the correct number of pills when you get your prescription and count the number you have left on a regular basis. If you are short, discuss it with your immediate family or anyone else you share your house with.
- If you are missing any medications, change the place where you keep the locked container and change the lock.
- Remember: Not only is stealing narcotics a federal offense, it is also taking away the medication that you need for your pain.

- If you do suspect someone has stolen your prescription medicine, report it to your local police department. You may save the thief from tragedy or even save a life.

Resources

For more information, visit:

- Safe Medication,
www.safemedication.com/meds/medSafety.cfm

GOAL

Improving Sleep

How much sleep do I need?

- The amount of sleep each person needs depends on many factors, including age. For most adults, 7 to 8 hours a night appears to be the best amount of sleep, although some people may need as few as 5 hours or as many as 10 hours of sleep each day. Getting too little sleep creates a “sleep debt.” Eventually, your body will demand more sleep, but it cannot make up for the sleep you have lost.

Why is sleep important?

- Our bodies cannot get used to getting less sleep than we need. While we may get used to a sleep-depriving schedule; our judgment, reaction time and other functions are still impaired.
- Lack of sleep makes pain feel worse and decreases the ability to cope with pain.

Effect of pain medications on sleep:

- Unfortunately, many medications, including those that are given for pain, may interfere with normal sleep patterns. If you feel your medications may be disturbing your sleep, talk with your doctor about this.

Am I getting enough sleep?

- If you feel sleepy or drowsy during the day, you haven’t had enough sleep.

- If you routinely fall asleep a few minutes after lying down, you probably have severe sleep deprivation, possibly even a sleep disorder.
- Microsleeps, or very brief episodes of sleep in an otherwise awake person, are another sign of sleep deprivation. In many cases, people are not aware that they are experiencing microsleeps.

Steps to Get There

Below is a list of suggestions to help you improve your sleep.

Improve Your Sleep Hygiene

Use the list below to check off all the sleep-hygiene techniques you are already using. Then try incorporating the other techniques to help improve your sleep pattern.

- Treat sleep apnea, restless leg syndrome, periodic leg movements, depression and anxiety.
- Have a regular sleep routine. Go to bed and wake up at the same time.
- Exercise regularly early in the day.
- Avoid napping during the day (except if you are a shift worker).
- Go to bed only when you are sleepy.
- Use the bed only for sleep and sex.
- Avoid TV and reading in bed.
- Avoid staying in bed awake for more than 5-10 minutes.
- Avoid nicotine, caffeine or alcohol 6 hours before bedtime.
- Minimize light noise and changes in temperature during sleep.
- Do something relaxing before bedtime; for example, have a warm bath.

- Eat a light snack before bed if you are hungry.
- Avoid watching the clock. If you are unable to sleep within 15 to 20 minutes of going to bed, move to another room.

Use Relaxation Techniques

- See page 20 for tips on how to relax.

Sleep Restriction Therapy

- Use a sleep diary to record your total sleep at night. See the One-Week Sleep Diary on the next page.
- Wake up at your usual time, but go to bed later so you are only in bed for as long as you think you are currently sleeping.
 - For example, if you think you are only sleeping 4 hours and you normally get up at 7 a.m., only go to bed at 3 a.m.
- Avoid lying in bed and sleeping during the day.
- Gradually increase your length of time in bed by 30 minutes until you are getting a full night's sleep.

Resources

For more information, visit:

- Sleep Foundation, www.sleepfoundation.org
- World Sleep Foundation, www.worldsleepfoundation.com

One-Week Sleep Diary

Name:	
Answer the following in the morning	
What time did you go to bed last night?	
What time did you turn everything off and try to fall asleep?	
How long did it take you to fall asleep after that?	
What did you do between getting into bed and falling asleep?	
Did you wake up during the night? How often? How long were you awake total?	
Did your pain wake you? (yes/no)	
What time did you get out of bed?	
What is the total amount of time you slept last night in hours and minutes? (best estimate)	
What medications did you take within two hours of going to bed?	
Answer the following in the evening	
Did you nap today? How many times? When? How long?	
Did you have any caffeinated or alcoholic beverages today or did you smoke? What? How much? When?	
Please rate your average sleepiness today on a scale of 1-10. 1 = wide awake, 10 = very sleepy.	

List any medications taken regularly – both prescription and over the counter, how much, and how often you are taking them:

Medication	How much are you taking?	How often do you take it?

GOAL

Learning to Relax

Why should I learn to relax?

Your reaction to stress may increase your pain and disturb your sleep. Relaxation exercises can help reduce your stress reaction, decrease pain and improve sleep.

Steps to Get There

Below is a list of suggestions to help you learn how to relax.

Deep Breathing

When you are under stress or in pain, your breathing pattern can become shallower and faster. Many people hold their breath. This pattern of shallow breathing reinforces the body's stress reaction. In contrast, diaphragmatic, or belly, breathing decreases the body's stress reaction and promotes a calming of your mind and body. This instruction to observe your breathing and take a deep breath sounds simple; however, it is not always easy to do when stress and pain levels are high. It does get easier with practice, though. Develop the habit of observing your breath and breathing deeply during times of stress. Deep breathing is a proven way to reduce your stress reaction. Below are some steps you can take to practice deep breathing.

- Formal breathing practice
 - Sit comfortably with a good posture. Place your hand on your belly, just below your navel.
 - As you breathe in, try to breathe into your hand. Allow your breath to move deep into your lungs and your stomach to gently move outward and your lower ribs to move out to the side slightly. It may feel like you are breathing into your waistband.
 - As you breathe out, allow your stomach to gently fall.
 - You do not have to take an extra-large breath. Your breath can be of normal size.

- The key is to allow your breath to fill the bottom of your lungs. You know this is happening when your stomach slightly rises on the in breath and falls on the out breath.
- Now repeat a word or phrase to yourself that helps you relax in concert with your breath. The simplest of these is “in” on the in breath and “out” on the out breath.
- You can use any word or phrase that has meaning for you. For example:
 - ~ Your own name on the in breath followed by the phrase “let go” on the out breath
 - ~ “May I” on the in breath, “be peaceful” on the out breath
 - ~ “Present moment” on the in breath, “only moment” on the out breath
 - ~ If you practice within a religious tradition, you can use a word or phrase from spiritual writings or the phrases “let go” on the in breath, “let God” on the out breath, or “in the Kingdom of God”...“I dwell.”
- Practice for 2 minutes at least once a day.
- Informal deep breathing
 - Use deep breathing when you have pain, during daily activities and when going to bed.
 - Wherever you find yourself, whatever the time of day, take a moment to bring your attention to your breath and take a deep breath.
 - Observe your breath during routine daily activities, such as sitting at a red light in traffic, standing in line at the grocery store or waiting in a doctor’s office.
 - If your pain increases, notice your breath and breathe deeply.
 - When you are going to sleep, notice your breath, breathe deeply and repeat the word or phrase that helps to calm your mind and body.

Progressive Relaxation

This exercise involves gently tensing then relaxing the major muscle groups throughout your body. It promotes the body awareness you need to control your stress and tension and will help you relax.

Autogenic Training

Autogenic training promotes states of deep relaxation by inviting you to repeat key verbal phrases to yourself. “My right arm feels heavy and warm” is an example of an autogenic phrase.

Body-Scan Relaxation

Body scan relaxation involves guiding your awareness through your body in a systemic way, relaxing each body area. It is a simple and commonly used relaxation technique.

Guided Imagery

Guided imagery exercises can be taught to promote relaxation and engage the mind-body relationship in a healing process. Images can be general, for example: “Imagine yourself in a calm and peaceful place.” Or they can be specific, for example: “Imagine lots of oxygen bathing an area of pain.”

Resources

For more information, visit:

- Mayo Clinic - Stress Management Assessment,
www.mayoclinic.com/health/stress-management/MY00435
- University of Maryland – Stress Relaxation Techniques,
www.umm.edu/sleep/relax_tech.htm
- Access CD recordings of relaxation exercises and view guided relaxation scripts for the exercises listed above,
www.carolynmcmanus.com

Recommended reading:

- *The Relaxation & Stress Reduction Workbook* by Martha Davis, Matthew McKay and Elizabeth Robbins Eshelman

GOAL

Exercising

Why should I exercise?

Exercise is a very important part of managing your pain. There are many benefits that come with a gentle, consistent exercise program. These benefits include:

- Endorphins – Endorphins are natural chemicals that are released in your body during exercise and can help block pain signals from reaching your brain. They work like natural pain relievers and can lessen anxiety and depression.
- Muscle strength – Building muscle strength and tone can help take force and load off your bones and cartilage. Your heart is also a muscle: It is important to keep it strong and healthy to help with circulation and healing. And, as always with muscle, there is the old adage “Use it or lose it.”
- Flexibility – Increasing and maintaining flexibility is very important to decrease stress on joints. Joints that can move through their whole range of movement are less likely to have aches and pains.
- Increased energy – Boosting your energy levels will help you better cope with pain.
- Reduced stress – Regular exercise can lower your stress hormones, resulting in better sleep.
- Improved well-being – Your mood will improve and your overall sense of well-being will increase.
- Ability to maintain a healthy weight – Exercise can help you burn calories, drop excess pounds and reduce the stress on your joints.
- Lower your blood pressure – Exercise can help lower your risk of high blood pressure, diabetes, heart attack and stroke.

Steps to Get There

Pacing of Exercise

Pacing means estimating how much activity you can do comfortably without having your pain flare up afterwards. Your pace may be as little as walking to the mail box 2 to 3 times a day. Once you have succeeded in doing that activity 3 times, try increasing the distance or time. Before long, you will be doing more activity on a regular basis than you have done for a long time and feeling the benefits mentally and physically.

Exercising regularly has been shown to increase function and decrease pain in as little as 3 weeks, even if you start slowly. Remember:

- Pacing and consistency are the keys.
- Exercise is not about overnight success, but if a person is consistent and patient, he or she is almost guaranteed success.

Getting Started

- First, pick one or more activities you enjoy and gradually increase it daily. The types of exercise that are good to work into your routine are aerobic, strengthening, flexibility and relaxation.

Type of Exercise	Definition	Example
Aerobic	Aerobic exercise is anything that increases your heart rate. For a good, safe start and progression, you may need to begin with 2 to 5 minutes at your own brisk pace and increase by 1 minute every week. Eventually your goal should be to do 20 to 30 minutes, 4 to 5 times a week.	Walking, biking
Strengthening	Strength exercises increase your lean muscle mass. This helps to: <ul style="list-style-type: none">• support your bones• improve control and decrease postural stresses• improve coordination and balance• prevent injuries resulting from muscle weakness	Push-ups, lunges
Flexibility	Flexibility and range-of-motion exercises can be done every day to help decrease joint compression and improve mobility.	Stretches
Relaxation	Relaxation exercises can help reduce your stress reaction, decrease pain and improve sleep.	Yoga, meditation, mindfulness

- Plan to keep an exercise log to keep track of your exercise activity; see the example on page 28. Keeping a log can be very helpful to measure your progress and improvement.

Helpful Hints

- Make exercise a priority, set a schedule and stick to it.
- Listen to your body. Set appropriate goals for you: No goal is too small.
- A pedometer is very helpful for seeing how active you are in your daily living, how far you are walking and for tracking your exercise progression.

Resources

Equipment

- Pedometer: One recommended pedometer is the Walk4Life, www.walk4life.com

For more information, visit:

- The Chronic Pain Haven, www.chronic-pain-haven.com
- Mayo Clinic – Chronic Pain, www.mayoclinic.com
- National Pain Foundation, www.nationalpainfoundation.org

Exercise Log

Name: _____

Instructions: Please use the chart below to help keep track of your exercise goals. Fill in the activity and the number of minutes the activity was performed each day. For activities such as sit-ups, fill in the number of sets performed. Use the space provided to comment on the effectiveness or difficulty of the exercises.

Exercise Activity	Recommendations	
Comments		
Comments		
Comments		
Comments		
Comments		

GOAL

Improving Your Nutrition

How will improving my nutrition help?

- Many pain sufferers have food intolerances that they may or may not recognize (see the elimination diets listed below).
- Being overweight can cause pain problems ranging from all over body pain to pain in the weight-bearing joints, such as the knees, hips or back. Losing as little as 7% to 10% of your current body weight may decrease your pain.
- Changing how you eat, drink and exercise can be hard, but the results are always very rewarding. All the changes you make to reduce your weight will help every part of your life. This includes your ability to think clearly, your memory and your moods. Eating healthily can also help you avoid illnesses of all kinds, including heart disease, diabetes and cancer.

Steps to Get There

Below is a list of suggestions to help you improve your nutrition.

- Choose a diet that follows basic rules.
 - There is no single diet that will work well for everyone who needs to lose weight. The basic rule of any healthy diet is to limit foods that are high in unhealthy fat, get plenty of lean protein, increase your intake of vegetables and fresh fruit and drink plenty of water.
- Choose food choices that allow for your personal preferences.
- Vitamin supplements
 - Some vitamin supplements may help.
 - Treatment with vitamin D may help decrease musculoskeletal pain. How much vitamin D each person requires differs depending on many things – factors include sun

exposure, skin color, food choices and digestive health. 2000 to 4,000 IU per day are frequently recommended.

- Nutritionists
 - Registered dietitians are an excellent source of nutritional counseling.
 - Naturopathic doctors (NDs) can also help patients develop healthier eating habits and can give you advice about vitamins and herbal supplementation.
 - The ongoing support of a nutritionist can help you start new healthy habits that should become a permanent part of your daily life.
- Elimination diets
 - The basic elimination diet first removes all possible food allergens and then reintroduces these foods one at a time. Meeting with a dietitian or ND is helpful while going through an elimination diet trial.
 - How to get started:
 - ~Keep a food diary (see the example on page 34), and log all food items and amounts as accurately as possible — along with any symptoms you notice. This can help you identify food allergies or intolerances.
 - ~Eliminate the following foods from your diet for a period of 7 days to a month:
 - ~Dairy products, including cheese. Instead, use soy milk and soy cheese, rice milk and rice-based ice cream.
 - ~Egg and egg-containing products
 - ~Food products containing gluten, such as wheat and wheat-based products (including pasta/noodles), barley, oats or rye grains. Instead, you can eat brown rice, nuts, buckwheat, spelt, millet, potatoes or sweet potatoes.
 - ~Citrus fruits
 - ~Corn and corn-containing products
 - ~All processed foods, including caffeine
 - Suddenly stopping some foods (such as drinks with caffeine) can result in withdrawal symptoms (such as headaches); however, this should only last a few days.

- Next, add back one food group to your diet about every 5 days.
- The reintroduction period allows you sufficient time to determine any intolerances.
- See if you notice a pain flare-up or increased tiredness when you add a food back into your diet. This might be the sign of an intolerance or food allergy.

Resources

For more information, visit:

- American Dietetic Association, *www.eatright.org*
- Physicians Committee for Responsible Medicine, *www.pcrm.org*

Daily Food Diary*

Instructions: Use this form daily for one week. Make copies as needed. After one week, you will be able to look back at this form and see how well you are doing in maintaining your healthy eating habits.

Date	Day of Week	

Time of Day	Place		
	Home	Out	

*Adapted from Solutions for Wellness.

GOAL

Stop Smoking

Why should I stop smoking?

- For an hour after smoking a cigarette, the carbon monoxide you have inhaled prevents oxygen in your red blood cells from going to the areas of your body that may have a poor blood supply, such as the spine.
- There is a higher incidence of back and muscle pain in smokers.
- Smoking decreases how well some pain medications work.
- Patients who have lung cancer and continue to smoke have more pain than those who stop.

Steps to Get There

Below is a list of suggestions to help you stop smoking.

- Keep telling yourself your reasons for quitting and imagine yourself as you'd like to feel, enjoying your favorite activities without smoking.
- Promise yourself something you enjoy, such as a movie or dinner out as a reward, for getting through the first week.
- Get involved in activities that don't go with smoking, such as meditation or exercise.
- For two days before you quit, every time you smoke, write down the feelings you had before smoking each cigarette:
 - Were you tired? Bored? Hungry? Restless?
 - Write down the positive feeling that came from smoking each cigarette.
 - Did it help you relax? Did you feel less bored? Did it help you wake up? Did it help you fall asleep?
 - Study your list. You'll probably notice a pattern.

- Make specific plans ahead of time for dealing with temptations. Find two or three coping strategies that work for you, such as taking a walk or calling a friend.
- Set a quit date. If you smoke mostly at work, try quitting on a weekend. If you smoke mostly when relaxing or socializing, quit on a weekday.
- Find things to distract you when you start feeling like having a smoke. Find replacements for the positive feelings that you get from smoking. If you smoke to relax, figure out how to relax without a cigarette. If you smoke to clear your mind, figure out how to do that without a cigarette.
- Get cooperation from family and friends. They can't quit for you, but they can help by not smoking around you, providing a sympathetic ear and encouragement when you need it, and leaving you alone when you need some space.
- Make clear to your smoking friends that you don't want them to give you a cigarette. When people relapse and smoke, they usually get their cigarettes from friends.

Helpful Hints

- The average person makes 9 attempts at quitting before they are able to stay smoke-free. If you return to smoking, it doesn't mean you can't quit. It just means you need to try again by figuring out what caused you to slip up and changing your plan for next time.
- You may want to talk about medications with your doctor if you have tried to quit without them in the past. Or you may want to try a different group, an individual counselor or other source of help if you have not been able to quit on your own.
- You do not reduce your health risks by smoking low tar/nicotine. Smokeless tobacco, pipes and cigars are just as harmful.

Resources

For more information, visit:

- Smoking Cessation, *www.smoking-cessation.org*
- National Institutes of Health – Medline Plus, *www.nlm.nih.gov/medlineplus/quittingsmoking.html*

GOAL

Start to Journal

Why should I start to journal?

- Writing creates a clear set of thoughts that is seen through the eye and a different part of the brain.
- It sets up a lot of complex neurological connections in the brain, which can have positive effects in dealing with pain and suffering.
- Writing is a means of detaching yourself from pain.

Steps to Get There

Watch what you do throughout the day and assess how you react to stress by suffering, suppressing and/or masking. At the end of the day, take a moment to complete the Three Column Technique worksheet below, jotting down experiences that have fallen into one of these categories. Really try to understand how these habits aren't useful to you in dealing with the stress in your life.

None of us likes giving up familiar patterns. We feel uncomfortable and anxious. The most difficult one to give up is that of being a “victim.” The more strongly you feel that you are a victim and don't have control, the harder it is to give up.

If you are able to admit to yourself that you often are a “victim,” then proceed on to this next step:

- Keep a list of the ways that you feel you are a victim.
- Don't throw this list away; add to it if you can.
- Keep doing this list until you understand how you are keeping yourself a victim:
 - Make sure you include your pain in this list.
 - The pain is bad enough – what makes it much worse is when you start feeling sorry for yourself.

- Make an appointment with yourself to look over your list. Think about it for a while. Acknowledge what being a victim has done to you and to others around you.
- Make a choice to not be a victim. Write it down with the time and date. Put it in a place where you can look at it once a day and remind yourself and your nervous system about the commitment you have made to yourself.

Your victimhood will not disappear automatically. But because you are learning to choose to take charge and not be a victim, you will notice that your life will have some positive changes.

Resources

For more information, visit:

- Hoffman Institute, www.hoffmaninstitute.org

Recommended reading:

- *Feeling Good* by David D. Burns
 - Read only the first third of the book and learn the “three-column technique.”

Three-Column Technique

Using the Chart:

- At the end of the day, jot down experiences that fell under one of these categories.
- Take a few examples from the day and write down your reaction and how it felt.
- Do this every day until you start to get in the habit of watching yourself as the day progresses.
- Write down your negative thoughts and throw them away.

Suffer	Suppress	Mask

How did it make you feel?

--

GOAL

Energy Exercises

What is energy medicine?

- Energy medicine uses forms of energy to affect and rebalance your energetic systems.
- The principles of energy medicine involve the mind, body, environmental, emotional and spiritual dimensions.
- The body has energy centers called “chakras.” Chakras are related to your endocrine organs, which are related to your emotions. It is important to recognize these energy centers so that when emotional charges occur, you can have a better understanding of your body’s reaction. You then have the choice to change your responses and improve your quality of life.
- Love, awareness, gratitude and forgiveness are very important to one’s own self as well as to others.

What are energy exercises?

- Energy exercises are very important parts of well-being and include deep-breathing exercises, regular physical exercise and sensible, healthy eating.

Steps to Get There

- Breathe deeply for 3 breaths 5 times a day.
- When you wake up, think of one thing to be grateful for that day.
- Eat sometimes in silence and concentrate on the food you are eating.
- Exercise daily: Move all joints through their normal movements.

- Say “I am wonderful” with arms outstretched.
- Hug yourself and say “I love myself” 3 to 5 times a day.
- Meditate daily: this can be as short as 60 seconds, at least 2 times a day.
- Laugh frequently. Laughter:
 - Boosts the immune system
 - Shifts your mood
 - Has anti-aging effects
 - Increases stamina
 - Relieves aches and pains
 - Decreases blood pressure
 - Fights depression
 - Diffuses painful emotions
 - Builds happiness
 - Relaxes and improves mood
- Blame no one for anything.
- In difficult times, look at the lesson you are learning.
- Speak from an open heart.
- Live your life according to the “Four Agreements” by Don Miguel Ruiz:
 - Be your work.
 - Do not take things personally.
 - Do not make assumptions.
 - Always do your best.
- Set intentions for positive intentions.
- Remember: You are what your deep driving desire is.
- “As your desire is, so is your will. As is your will, so is your deed. As your deed is, so is your destiny.”
 - Brihadaranyaka Upanishad IV

Resources

For more information, visit:

- International Society for Study of Subtle Energies and Energy Medicine (ISSSEEM), www.issseem.org
- Institute of Noetic Sciences (IONS), www.noetic.org
- William Tiller, www.tillerfoundation.com
- Institute for Applied Meditation (IAM), www.applied-meditation.org
- Online Meditation Center, www.wildmind.org

Videos

- Mindfulness-based meditation lead by Dr. Chopra, www.youtube.com/watch?v=2RvtDFfLFIk
- Presentation on the effect of mindfulness meditation practice on the brain systems, www.youtube.com/watch?v=sf6Q0G1iHBI
- Jon Kabat-Zinn leads a session on Mindfulness at Google, www.youtube.com/watch?v=3mwwKbM_vJc

Recommended reading:

- *The Four Agreements* by Don Miguel Ruiz
- *The Wise Heart* by Jack Kornfield
- *The New Earth* by Eckhart Tolle
- *Anatomy of the Spirit* by Carolyn Myss, www.myss.com
- *The Seven Spiritual Laws of Success* by Deepak Chopra, www.chopra.com

GOAL

Headache Management

Types of Headaches

- Tension headaches are the most common type of headache. As many as 90% of adults have had or will have tension headaches. They are more common among women than men.
- Migraine headaches are the second most common type of headache. An estimated 28 million people in the United States, about 12% of the population, will experience migraine headaches. An estimated 6% of men and up to 18% of women will experience a migraine headache. Migraines are usually diagnosed by the symptoms of nausea and/or vomiting in combination with 2 of the following 3 symptoms: light, noise or smell sensitivity.

Common Reasons for Migraine Treatment Failure

- Acute medication or analgesic (painkiller) overuse
- Medication dose too little or used too late
- Inadequate medication for degree of disability
- Medication not well matched with most disabling symptoms (for example, using agents by mouth when the patient is vomiting)
- Failure to use other medication (for example, anti-nauseants)

Steps to Get There

Recognize Your Triggers

- Dietary (food) triggers may sometimes trigger migraine headaches but are very different from patient to patient. Also, these triggers will not always bring on a migraine headache. Some common triggers include citrus fruit (lemons, lime, oranges or grapefruits), aspartame (one kind of artificial sweetener), caffeine and aged cheeses.

- Chemicals from computer screens can cause allergies and other problems, including headaches. If you use computers in a confined space, make sure you have adequate ventilation.
- Caffeine – found in sodas, coffee, tea, chocolate, caffeine pills, some over-the-counter analgesics and antihistamines, and pain remedies such as Anacin, Empirin, Midol and Excedrin – is a major cause of headaches. The headache pain remedies can cause a “rebound” effect: You take it to get rid of the headache, which goes away, but then comes back worse than ever. Try to eliminate all sources of caffeine from your diet. Although you may experience withdrawal symptoms for a few days, including headaches, it will be worth the temporary suffering.
- A low magnesium level can cause regular headaches, cluster headaches and migraines. The following factors cause low magnesium: mental stress, coffee, sugar, a high-sodium diet, alcohol, cola-type sodas, tobacco, high perspiration, drugs of all types, low thyroid function, diabetes, chronic pain, diuretics, a high-carbohydrate diet and a high-calcium diet.
- Alcohol consumption is a major contributor to dehydration, which can trigger headaches or migraines. To avoid dehydration, drink water while you are consuming alcohol and before bedtime. In addition, impurities in alcohol can bring on a headache or make one worse. Some forms of alcohol have more impurities than others, such as red wine and beer.
- Smoking can cause headaches because the nicotine and carbon monoxide in cigarette smoke affect the blood vessels. Secondhand smoke causes headaches in some people.
- Indoor air pollution may cause headaches. Use indoor house plants to decrease the most common household pollutants, including formaldehyde, benzene (from cigarette smoke) and acetone (from nail polish remover).

Treat the Symptoms without Medication

- Take a hot shower and run the water on your lower back and neck. This will help relax the muscles and improve blood flow to the head. This is an excellent remedy for tension headaches. You can also use a heating pad.
- Have someone massage your neck and lower back. This will have a similar effect as the shower.
- Acupressure is a good pain relief technique. Place one finger on a spot halfway between your eyebrows and another finger directly above, on the top of your head. Apply gentle pressure and hold for 2 minutes. Another pressure point is the soft fleshy pad on your hand where the bones of your thumb and index finger meet. Apply pressure for 2 minutes.
- Relax! Although this seems obvious, tension is one of the major causes of headaches. Practice relaxation techniques. Lie down where it is quiet and inhale for a count of 8; exhale slowly; do this several times until you feel yourself relaxing. Draw your breaths deep into your belly.
- If you have throbbing temples, try using an ice pack or a bag of frozen vegetables on your neck. If you don't have anything frozen, use a cold towel. Ice therapy is a good remedy for migraine relief. Place an ice pack behind your neck, on your forehead or temples and lie down for five or ten minutes.

Resources

Recommended reading:

- *Heal Your Headache* by David Buchholz, M.D.

Online resources:

- National Headache Foundation
 - Environmental and Physical Factors,
www.headaches.org/education/Tools_for_Sufferers/Headache_-_Frequently_Asked_Questions/Environmental_and_Physical_Factors
 - Migraine
www.headaches.org/education/Tools_for_Sufferers/Headache_-_Frequently_Asked_Questions/MIGRAINE
 - Menstrual Migraine
www.headaches.org/education/Tools_for_Sufferers/Headache_-_Frequently_Asked_Questions/Hormones_and_migraine
 - Migraine with Aura
www.headaches.org/education/Tools_for_Sufferers/Headache_-_Frequently_Asked_Questions/AURA
 - Chronic Daily Headache
www.headaches.org/education/Headache_Topic_Sheets/Chronic_Daily_Headache
 - Sinus and Allergy Headache
www.headaches.org/education/Tools_for_Sufferers/Headache_-_Frequently_Asked_Questions/SINUS_HEADACHE http://www.headaches.org/education/Headache_Topic_Sheets/Allergy_and_Headaches
 - Cluster Headache
www.headaches.org/education/Tools_for_Sufferers/Headache_-_Frequently_Asked_Questions/Cluster_Headache
 - Analgesic Rebound Headache
www.headaches.org/education/Tools_for_Sufferers/Headache_-_Frequently_Asked_Questions/Analgesic_Rebound_Headaches
 - Tension-Type Headache
www.headaches.org/education/Tools_for_Sufferers/Headache_-_Frequently_Asked_Questions/TENSION-TYPE_HEADACHE

GOAL

Starting Mindfulness Technique

Why should I use the Mindfulness Technique?

How you choose to respond to the physical sensation of pain has a major impact on the quality of your life. Your automatic reactions to pain often increase your pain and distress. Through the Mindfulness Technique:

- You can learn skillful responses to pain that reduce pain and distress.
- You will be able to identify and choose skillful responses so you more effectively manage pain using the following equation:

Pain = unpleasant physical sensation + your physical, cognitive and emotional reactions to the sensation

Mindfulness means present-moment awareness and offers you a constructive, practical and effective way to observe your physical, cognitive and emotional reactions and make skillful choices that can decrease your pain and distress.

You do not have control over the sensation of pain, but you do have control over your reactions to the sensation.

Steps to Get There

Formal Mindful Awareness Exercise

- Pause now and direct your awareness to your body and breathing. Listen to your present-moment experience with a stable, steady mind. Some sensations may be pleasant; others, such as pain, may be unpleasant; and still others neutral.
- Imagine your mind is like the sky, and the pain is like a cloud in the sky.
- Listen with compassion. Be kind to yourself. Listen with the same friendliness you would offer a loved one if he or she were in your situation.

- Avoid any tendency to judge or criticize yourself. Pay attention to your body as if you were doing so for the first time. Accept your experience just as it is without needing to change or improve anything.
- Deliberately scan your body. Observe your feet, legs, torso, hands, arms, shoulders, neck, face and head.
- When you have completed scanning your body, let your attention rest with the rhythm of your breath. Breathe deeply. Observe your abdomen and rib cage move with your in breath and out breath, here and now. Breathe into your waistband.
- Count each exhalation. On the first out breath, say to yourself “one,” on the second out breath, say to yourself “two” and so on up to the tenth exhalation. When you reach the tenth out breath, return to “one” and begin again. When your mind wanders, label it “thinking” and return your attention to your breath and the counting practice. Begin again with “one.” Continue for 5 minutes.

The inability to stay in the present moment is the most common concern of beginning meditators.

- Be assured this is normal and not an indication that you are doing something wrong.
- When you become distracted from the present moment, notice that your mind has wandered like you might observe a cloud drift by in the sky.
- Avoid judging your experience as right or wrong.
- Note “thinking” and return your attention to the present moment and your breathing.

Although these instructions may sound simple, the mind quickly wanders off and becomes lost in thought. Pain can also be distracting. Just as the body can be trained to per-

form with greater strength and endurance through regular exercise, the mind can be trained to function with greater stability and clarity through this mindfulness practice. Begin practicing this formal mindfulness exercise for 5 to 10 minutes each day.

Informal Mindful Awareness Exercise

An informal practice involves bringing present-moment awareness into daily activities. For example, when walking, notice your present-moment experience. Observe your breath, the sensations of your feet when they touch the ground and the feeling of your legs moving through space. Or, when you wash your hands, again, notice your breath, the warm water on your fingers and palms, and the sensations in your shoulders. Any daily activity can become an informal meditation practice.

Mindfulness and Pain Management

- You are not your pain.
- Pain is a physical sensation, not your identity.
- You are a whole human being who is dealing with a medical condition.
- By learning to be mindful, you can observe pain with a stable, compassionate and curious mind. You can identify pain sensations and your physical, cognitive and emotional reactions to pain sensations. This alone is helpful.
- You can experiment with new responses that reduce your distress and often decrease your pain intensity.
- By training your mind to be in the present moment, you also worry less about future unknowns and put your energy into skillful choices and living well today.

See the chart on page 52 for examples of changing responses to pain.

Resources

Recommended reading

- *Full-Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain and Illness* by Jon Kabat-Zinn
- *Managing Pain Before It Manages You* by Margaret Caudill, M.D.
- Mindfulness meditation CDs can be found at www.carolynmcmannus.com

Changing Responses to Pain

Below are some examples of changing your responses to pain:

	Mindful observation	A skillful response	How I felt after
SUN	In a lot of pain and very tense, shallow breathing.	Deep breathing.	More relaxed and in control of my reaction to the pain.
MON	In pain and having negative thoughts.	Talked to myself like I would to my best friend if she were in pain and took a short walk.	Comforted and felt good about myself for taking the walk.
TUE	Anxious and in pain.	Did my stretching exercises and deep breathing.	More relaxed and in less pain.
WED	In a lot of pain.	Listened to a relaxation CD.	Less tense and more able to cope with the pain.

Now it is your turn to experiment:

	Mindful observation	A skillful response	How I felt after
SUN			
MON			
TUE			
WED			
THU			
FRI			
SAT			

GOAL

Reviewing Psychological Problems

Depression, Anxiety, Bipolar Disorder, Trauma and Attention Deficit Hyperactivity Disorder (ADHD)

Take a moment to review the different conditions listed below. If you feel you may have one of these conditions, it may be helpful to talk with your doctor about these concerns. You can also learn more by visiting the suggested Web sites.

Steps to Get There

Depression

Are you feeling depressed?

- In the past 2 weeks have you felt downhearted and sad for more days than not?
- Have you had little interest or pleasure in doing things you used to enjoy doing?
- Do you have problems with getting to sleep or staying asleep?
- Have you been feeling hopeless about your future?

Patients with chronic pain are at increased risk for depression. Also, individuals who have had depression in the past may have more difficulty managing chronic pain. As pain worsens or fails to improve, emotional factors such as depression play an important role in coping with the pain. If you answered yes to some of the questions above, you may be dealing with depression. It may be helpful to talk with your doctor about these concerns.

For more information visit:

- Depression Screening, www.depressionscreening.org
- National Alliance on Mental Illness, www.nami.org
- National Institute of Mental Health, www.nimh.nih.gov

- Mental Health America, www.mentalhealthamerica.net

Anxiety

Are you experiencing the following symptoms?

- In the past 6 months, do you tend to worry all the time?
- Do you find it difficult to control the worry?
- Do you tend to feel restless or keyed up?
- Do often feel irritable?
- Do you have muscle tension?
- Do you have trouble concentrating?

Anxiety is a common health condition among patients with pain. If you answered yes to some of the questions above, you may be dealing with an anxiety disorder. It may be helpful to talk with your doctor about these concerns.

For more information visit:

- Anxiety Disorders Association of America, www.adaa.org
- National Institute of Mental Health, www.nimh.nih.gov
- Mental Health America, www.mentalhealthamerica.net

Bipolar Disorder

Do you experience the following symptoms?

- Do you feel downhearted or sad for periods of time?
- Do you ever feel you have so much energy it's hard to control yourself?
- Do you have times where you have a greatly increased self-esteem?
- Do you have times when you don't need much sleep?
- Do you have times when you are very talkative or feel pressure to keep talking?
- Do you ever experience racing thoughts?
- Are you easily distracted or focus on unimportant details?

- Do you ever feel really agitated?
- Do you find yourself going on buying sprees?

Bipolar disorder is a type of mood disorder with periods of both sadness and an elevated or expansive mood. If you answered yes to some of the questions above, you may be dealing with a mood disorder. It may be helpful to talk with your doctor about these concerns.

For more information, visit:

- National Alliance on Mental Illness, www.nami.org
- National Institute of Mental Health, www.nimh.nih.gov
- Mental Health America, www.mentalhealthamerica.net

Trauma

Have you experienced the following:

- Have you been exposed to a traumatic or really disturbing event? Examples include a severe car accident, rape, natural disaster, assault, loss of a limb, or a medical procedure gone wrong.
- Were you involved in a life-threatening situation that involved serious injury to yourself or others?

Sometime chronic pain is caused by accidents or other traumatic events. In order to treat the pain effectively, the trauma must be addressed as well. If you answered yes to some of the questions above, you may be dealing with an trauma disorder. It may be helpful to talk with your doctor about these concerns.

For more information, visit:

- EMDR Network, www.emdrnetwork.org
- U.S. Dept. of Veterans Affairs, www.ptsd.va.gov
- National Institute of Mental Health, www.nimh.nih.gov

Attention Deficit Hyperactivity Disorder (ADHD)

Do you have any of the following problems?

- You often make careless mistakes and exhibit poor attention to detail.
- You are easily distracted and cannot pay attention to one thing for a long time.
- You often misplace or forget important things.
- You avoid long, involved projects.
- You have trouble listening, completing tasks or following instructions.
- You have a hard time sitting still and don't stay seated when you are supposed to.
- You talk a lot when you shouldn't.
- You often interrupt other people midsentence.
- You often feel restless and jumpy.

For more information, visit:

- National Institute of Mental Health, www.nimh.nih.gov
- Inside ADHD, www.insideadhd.org

GOAL

Mind-Strengthening Program

About the Mind-Strengthening Program

- The Mind-Strengthening Program is an online brain fitness training program developed by Professor Shlomo Breznitz. Based on his research, he determined that brain fitness is an important key to maintaining an active and healthy life, and that a regular program of effective cognitive training is the best way to achieve and maintain brain fitness.
- The program begins with a short assessment of 14 key cognitive thinking skills: response time, short-term memory, awareness, divided attention, eye-hand coordination, inhibition, naming, planning, shifting, spatial perception,

time estimation, visual perception, visual scanning and working memory. It is done in two parts and each part will take approximately 20 minutes to complete.

Why should I try this program?

- The human brain has approximately 100 billion neurons (nerve cells). Each neuron connects to about 1,000 other neurons. This means there are 100 million connections that are not fixed but are influenced by how we “train the brain.”
- Recent studies have shown that the brain shrinks when a person has chronic pain.
- In certain brain areas, this shrinkage, caused by pain, may be up to 10 times more than is expected for the person’s age if they were not in pain.
- Pain impairs such functions as the ability to think clearly.
- Changes in certain brain areas may add to the effect of pain.
- The brain continues to form new neurons and connections even in old age.
- Most of these new neurons will die unless the brain is challenged to learn something new.
- It is possible to keep healthy brains fit by training.
- Training may lessen the effect of pain.

Steps to Get There

How to Get Started

- From a computer, visit *www.cognifit.com*.

How It Works

- Based on your performance, the program creates 24 individual training sessions. Each session is made up of a 20-minute training routine that will help strengthen your weaker areas, as well as maintain cognitive strengths.
- Training is done through a series of short tasks that have to be completed each day.
- Online training takes about 20 minutes to complete.
- By keeping to a training schedule of about 2 to 3 times a week, the average user takes about 2 months to finish the training program.
- At the end of the training program, the user is checked again in order to measure the amount of improvement in each trained skill, compared to the baseline measures taken before.
- Based on this assessment, the program will devise a new training program of 24 more sessions.
- At the end of the second cycle of training, a final assessment will be presented to the participants in this study.

Swedish Pain and Headache Center

1101 Madison, Suite 200

Seattle, WA 98104

The Swedish Pain and Headache Center has a pain team that includes specialists from anesthesiology, neurology, physical medicine and rehabilitation, family medicine, psychology, physical and occupational therapy. It is preeminent in the Northwest in the evaluation and therapy of pain. With fluoroscopy (X-ray) machines and ultrasound on site, consultations and treatment including physical and occupational therapy are offered in one convenient location. We also have a satellite clinic in Issaquah. Upon referral from a primary-care physician or specialist, we provide:

- Comprehensive pain and headache consultations
- A spine care program using a case managed team approach to optimize the patients' time with appropriate appointments on the same day
- Optimization of pain conditions, with recommendations for ongoing care to referring physicians
- Psychological assessment, testing and therapy
- Comprehensive diagnosis and management of chemical dependency and addiction disorders
- Specific referrals for physical and occupational therapy, biofeedback and non-pharmacological pain management therapies
- Acute post-operative pain inpatient consultative service

Research: At any time, there are several ongoing research studies investigating new pain and headache treatments.

Interventional procedures with and without fluoroscopic (X-ray) or ultrasound guidance include:

- Electromyography (EMG) and nerve conduction studies
- Medical acupuncture
- Trigger-point injections
- Diagnostic spine injections
- Radiofrequency neurotomy (ablation)
- Minimally invasive disc procedures
- Neurostimulation (spinal cord stimulation) for intractable pain
- Implantation of intrathecal pumps for pain and spasticity

Once patients are evaluated or their pain condition optimized, they are referred back to their primary-care physicians for ongoing care and management. The Center does not take over long term management or prescribing.

Phone numbers

A referral from a primary-care physician or specialist is required

Main line: 206-386-2013

New referrals: 206-215-3362

Spine Care Program: 206-215-6681

Issaquah Clinic: 425-394-0806

Fax number: 206-215-2229

Meet the Authors



Gordon Irving, M.D.

Board Certification: American Board of Anesthesiology, American Board of Pain Management with added Certification in Pain Management from the ABA.

Education: Dr. Irving earned his medical degree from the University of Newcastle in England and completed his residency at Durban and Cape Town in South Africa. He was Medical Director of the University of Texas Pain Center in Houston and he holds a Clinical Associate Professor position at the University of Washington Medical School. He is currently Medical Director of the Swedish Pain and Headache Center.

Special Interests: Dr. Irving specializes in acute and chronic pain management with pharmacological, non-pharmacological and interventional techniques. His interests include neuropathic, spinal and cancer pain. He lectures locally, nationally and internationally on pain related topics.



Louise Berkowicz, M.D.

Board Certification: Family Practice, Hyperbaric Medicine, Certified Wound Specialist

Education: Dr. Berkowicz earned her medical degree from the University of Cape Town in South Africa.

Special Interests: Dr. Berkowicz has a special interest and practice in energy medicine. This unique therapy utilizes different forms of energy to bring about both individual self awareness and healing. The result is changes in the body, mind and spirit of the patient. She assists the patient in dealing with everyday issues of life, pain and suffering to move toward living lives filled with more pleasure, joy and good health.



David A. Hanscom, M.D.

Board Certification: Orthopedic Spine Surgery

Education: Dr. Hanscom earned his medical degree from Loma Linda University and completed his residency in Spokane, WA. His orthopedic surgery training was at the University of Hawaii and he completed an orthopedic trauma fellowship at UC Davis in Sacramento, CA. His spinal deformity fellowship was completed in Minneapolis, MN at the Twin Cities Scoliosis Center.

Special interests: Dr. Hanscom specializes in complex spine problems in all areas of the spine. He is the founder of the Puget Sound Spine Interest Group and has developed the

DOCC project to optimize spine care. He feels that many times further surgery can be avoided through a carefully structured rehabilitation program. The program should involve improving sleep, managing stress, engaging in strength and endurance conditioning, obtaining adequate pain control, and educating the patient so as to regain control of their decision making.



Allen Hume, Ph.D.

Education: Dr. Hume is a Washington State licensed psychologist who earned his doctoral degree from Indiana State University. He completed his pre-doctoral internship at the Seattle VA Medical Center.

Special Interests: Dr. Hume specializes in behavioral medicine, chronic pain management, co-occurring psychiatric and substance use disorders, and psychological assessment and testing. In addition, he provides consultation and training to physicians, psychologists, and counselors in professional and community settings



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