

How are Pain Syndromes best treated?

(Dr Peter Dodwell, 6 Feb 1999, modified from a paper by Dr David Nye)

Taking medication by itself has relatively little effect on symptoms, so I will not mention medication till near the end. Treatment will only be successful with patients' active involvement in all aspects of their care, which should include:

- Daily gentle aerobic exercise.
- Avoidance of undue physical and emotional stress.
- Regular sleep hours and an adequate amount of sleep.
- Treatment of any coexisting sleep disorders.
- Medication to improve deep sleep.
- Patient education.

If any of these steps are omitted, the chance of significant improvement is greatly reduced.

1. Exercise

Daily gentle aerobic exercise is very important. Most patients who don't begin a daily aerobic exercise regimen will never notice much improvement.

A word of caution: trying to do the wrong type of exercise, or too much exercise too soon, will worsen the problem temporarily. You can do without that sort of setback. If your pain is severe, and focussed in one particular area (an upper limb for example) then it makes sense initially to choose an exercise which does not significantly work this group of muscles.

Aerobic exercise is defined as any type of exercise that gets your heart rate up to a target heart rate for the duration of the exercise period. Heart rates are measured in beats per minute. It is accurate enough for our purposes just to take your pulse for 6 seconds and multiply by 10. The aerobic target heart rate is calculated from the following formula:

$$(220 - \text{age} - \text{rhr}) \times .6 + \text{rhr}$$

where **age** is your age in years and **rhr** your resting heart rate, determined by taking your pulse when you wake up but before getting out of bed. A good place to feel your pulse is at the wrist turned palm up, next to the large bone on the thumb side at the end of your forearm. If you are exercising hard enough you should be able to feel your heart beating and can just count that. For most people, the aerobic target heart rate is at about the point where they can no longer sing but can still talk comfortably.

Exercise seems not to work through conditioning of muscles but rather through a direct, possibly hormonal effect on pain and sleep. That is why you can deliberately avoid exercising the painful muscles, and yet will find the pain in them will decrease as a result. Daily exercise is essential. Patients who have been exercising regularly and then miss a day usually find that their pain syndrome's symptoms are significantly worse for the next day or two.

The kind of exercise is unimportant. Just make sure to pick something that doesn't make you hurt worse.

You may have to try several different kinds before finding one or more types that agree with you. Popular kinds include walking, a water exercise program, regular or exercise bicycles, other exercise equipment, and **gentle** aerobic dance. Jogging, vigorous aerobic dance, and weight lifting tend not to be very good choices. If your pain is mainly in your legs or back, exercise just your arms or try exercising in the water.

While many patients insist that they get plenty of exercise at work, doing housework, or in their yard, it is rarely the right kind. Effective exercise must result in a sustained elevation of the heart rate, and these incidental kinds of exercise are usually stop and go and may instead increase your pain.

You need to set aside a time specifically for daily exercise. Particularly if you are out of shape, start out with just 3-5 minutes of exercise and gradually increase as tolerated, aiming for twenty to thirty minutes. Take a few minutes to stretch your muscles, then start out slowly, increasing to full speed after a minute or two. Slow down again for the last minute or two and repeat the stretches. There are five recommended stretches, each done for 20 seconds a side. They should be gentle and painless. Hold onto a tree or post for support for #s 3-5:

- 1) Shrug your shoulders in a circular motion.
- 2) Reach your arm over your head and bend to the opposite side.
- 3) Bend forward with your legs straight.
- 4) Pull your foot towards your buttock while standing on the other leg.
- 5) With your feet flat on the ground and one foot ahead of the other, lean forward, bending just the front knee.

Exercise is most effective if done in the late afternoon or early evening. If you absolutely can't do it then, exercising earlier in the day is better than not exercising at all, but you will probably need to exercise longer for the same effect. Don't exercise just before bed as this may interfere with sleep.

Some patients find that exercise provides an immediate benefit, making them feel more alert and comfortable for several hours. If you experience this effect, you may want to try exercising on awakening and at noon as well. Some patients for whom this works may not need medication.

2. Avoid physical and emotional stress & learn new ways to relax

People with pain syndromes are usually hard workers who drive themselves. But unduly prolonged physical activity and stress will make you feel worse. Rather than doing housecleaning, yard work, or other physical activity in a long session on a single day, break up the task so that you do a half hour or an hour every day until it is done. While it is difficult to learn to do this, it is essential that you be able to sense when you have reached your limit and stop. By pacing yourself, you will be more productive overall. You need to be able to say no to family and friends when you are not up to some outing or other activity. Don't take on extra responsibilities if you can avoid it.

Emotional stress also worsens pain syndromes symptoms. If you have ongoing problems with depression or anxiety, consider seeking help for them from your family doctor or a psychiatrist. Anxiety and depression may arise as symptoms of pain syndromes and in turn cause insomnia, leading to worsening of the underlying problem.

These points may all sound a bit negative. But remember also to try ways of positively nurturing yourself. Make a conscious decision to do things which you find enjoyable and relaxing. Or you may find value in specific relaxation techniques, such as meditation. A chronic pain program (if available) can also help lower your stress level. All these things are of proven benefit in treating pain syndromes.

3. Regular sleep

Patients with pain syndromes must get to bed by the same time every night and get enough sleep. Staying up just one hour late may cause an exacerbation that lasts for several days. Many patients with pain syndromes have exacerbations triggered by the change over to or from Daylight Savings time. Try to make the switch in fifteen minute increments every few days instead of by one hour overnight. I have had no success getting patients truly feeling well who work off shifts that prevent them from having a consistent bedtime or require that they sleep during the day.

4. Treat other sleep disorders

Several other sleep disorders besides insomnia may aggravate pain syndromes. Almost half of men with pain syndromes and some women have *obstructive sleep apnea*. In this condition the patient snores loudly and has periodic pauses in breathing after which he starts breathing again with a snort. *Periodic limb movements of sleep* is a condition in which patients jerk or kick every 30 to 90 seconds for long periods during the night. Patients may be completely unaware of either of these conditions until the spouse complains. Not only will it be difficult to get pain syndrome symptoms to improve without treating other sleep disorders, but if sleep apnea is left untreated it may lead to accidental death or injury as well as early strokes or heart attacks. Be sure to tell your physician about these problems if you notice them.

Other common sources of repeated sleep disturbance are a *spouse's snoring* and *young children*. If the spouse drinks alcohol in the evenings or is overweight, then avoidance of alcohol after supper or weight loss may eliminate snoring. Avoiding sleeping on the back will often help. At the very least, the patient can wear earplugs. Children are harder to put off but fortunately most soon outgrow their need for care at night.

5. Medications & Drugs

A number of medications have been used to improve sleep in pain syndromes. The oldest of these is amitriptyline, a medication first used to treat depression. Amitriptyline and related medications probably work by *improving the quality and depth of deep sleep* rather than by any effect on moods. Drugs like amitriptyline have a number of bothersome side effects, such as weight gain, dry mouth, and fuzzy-headedness, so these are rarely tried first. Other often-prescribed medications with less bothersome side effects include trazodone (Desyrel), diphenhydramine (Benadryl), cyclobenzaprine (Flexeril), alprazolam (Xanax), carisoprodol (Soma), and 5-hydroxytryptophan.

Medication is started at a low dose and gradually increased until you sleep well at night and feel good during the day, encounter unacceptable side effects, or reach the prescribed maximum dose. Starting low and slow helps minimize initial side effects such as dizziness and morning grogginess. By two to four weeks, most patients find that the side effects are settling down and the pain syndrome's symptoms are starting to improve. It often takes a lot of fiddling with the dose to get it exactly right, and it frequently will be necessary to try several medications in succession or sometimes in combination. Some patients find that certain of these medications cause stimulation rather than sedation, as if one has had too many cups of coffee. When this "paradoxical effect" occurs it will be necessary to switch to another medication. The medication may become less effective after a period of time and the dose may then need to be increased slightly. Most patients will need to continue on medication indefinitely.

There are several herbal and other "alternative" remedies that some patients feel are helpful. While I can't recommend them simply because they haven't been adequately studied for efficacy or long term harm, I don't discourage patients from using them if they find them helpful.

It is important to avoid prescription tranquilizers and sleeping medications of the benzodiazepine group. While these may help you get to sleep, they suppress deep sleep and therefore often make pain syndromes' symptoms worse the next day. Alcohol and narcotic pain medications taken in the evenings have the same effect on deep sleep and should be avoided. In some patients certain foods may trigger pain syndrome symptoms, much as they may migraines. Some find that a diet low in fats and simple sugars helps. If you suspect that some food make you worse, try avoiding it and see if that makes a difference. Patients with pain syndromes should probably give up caffeine, as even one cup in the morning can sometimes disrupt sleep at night and may also directly increase muscle pain and headaches. If you are drinking more than a cup a day you should taper yourself off caffeine-containing beverages over two weeks or so to minimize withdrawal symptoms such as headaches.

6. Support and education

Patients who make the effort to learn as much as possible about this disorder usually do better than those who don't. I recommend that you keep this handy and re-read it periodically. Pain syndrome sufferers often get less sympathy and support than they deserve from family, friends, and employers because of the lack of outward evidence of disease. Many have been told by physicians that there is nothing wrong with them or that it is "all in your head" which can be very demoralizing. For these reasons, and just because it is good to know that you are not alone, attending a support group can be valuable. For those of you with Internet access, alt.med.fibromyalgia, a Usenet newsgroup devoted to fibromyalgia syndrome, is a great place for information and support.

Please note though that doctors cannot agree whether '*fibromyalgia*' exists as a separate disease entity. The diagnosis is based largely on whether a person scores a certain number of points on what may be a quite arbitrary checklist. My own view is that '*fibromyalgia*' is just a way of describing the most severe variety of chronic pain syndrome. Unless you have been told by a doctor that you have this, you should not assume that your less severe problem will ever get that bad. The fact that you are reading these notes means that you have had your problem off and on for a long time already, and if its pattern has not included fibromyalgia, this is unlikely in the future. It is best to keep a positive attitude.

Staying in remission

The chronic pain syndromes are all about being a susceptible type of person, so are not truly 'curable', but most patients with a little work can make it to the point where they feel substantially better most of the time. Even with good results from treatment however brief relapses are common, perhaps caused by staying up as little as one hour late one evening, skipping exercise, a disruption in your routine, increased stress, a storm front moving in, or often for no apparent reason. You will do best if you "give in to it" when this happens and try to get extra rest. Ibuprofen or naproxen and hot baths may help at these times. If at all possible, try not to stop exercising when this happens, even if you have to back off on the amount a little. Once you have had a period of feeling relatively well, it should be possible to get you back to that point again by identifying what derailed you and correcting the problem.

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