



## SCI Integrated Pain Program: (NEW) Directed By Dr. Vernon B. Williams

Sports related concussion and other mechanisms for head injury result in a variety of symptoms. The injured athlete or worker may suffer from abnormalities of cognitive function, difficulty with memory, trouble with concentration, speech, sleep and a number of other activities of daily living. **Pain is also a frequent and often devastating reality for athletes who have suffered sports related concussion, and for individuals with head and other musculoskeletal injury.**



Furthermore, repetitive stress injury, developmental variants and other activity related, inherited or medical factors can result in pain that significantly affects not only quality of life, but function and productivity. Whether one considers head injury in student athletes or headache and musculoskeletal pain in the adult/working population, pain is a significant factor in the development of disability, dysfunction or reduced function.

**Among head injured athletes:** It is estimated that 10-20% of high school and college football players and 5% of soccer players suffer concussion each season. **Up to 86% of athletes that suffer a concussion will experience Post-Traumatic Migraine or some other type of headache pain.** In fact, recent evidence indicates that presence and severity of headache symptoms may be a very significant indicator of severity of head injury and help guide return to play decisions (headache pain being an indicator of recovery or lack thereof from concussion).

**With respect to the adult work population** consider one pain process alone: Migraine. Migraine is **common** (comparing to Hypertension, Depression and allergic rhinitis in terms of prevalence) and affects 13% of the US population. Migraine **sufferers both miss work (absenteeism) and underachieve at work (presenteeism)**. 75% of migraine patients are unable to work due to their headaches and lose an average of 3 workday equivalents per 3 month period. 91% report functional impairment. **Headache associated lost productive time at work equals or exceeds that of other common pain conditions like backache, and arthritis.**

Appropriate pain management is crucial to maximizing function and recovery from head injury and crucial in reducing lost productivity in the workforce. **Time-limited, comprehensive, multidisciplinary pain management services with emphasis on accurate diagnosis, evidence-based treatments, functional improvement, and efficient disposition are offered by the Sports Concussion Institute under the direction of Dr. Williams. Dr. Williams is a board certified neurologist and fellowship trained pain specialist with interventional and pharmacologic pain management expertise.**

The **goal** of the pain program is **not to always eliminate pain**. For acute injury, elimination of pain may be realistic. But this is a very unrealistic goal in the overwhelming majority of chronic pain sufferers. In fact, lack of insight among chronic pain sufferers with respect to the *unrealistic goal of elimination of pain* typically results in the kinds of behaviors that only serve to frustrate the patient and continually drive up the cost of what turns out to be unsuccessful treatment. These behaviors include: a) “Doctor Shopping”, b) frequent Emergency Room visits, c) repetitive interventional procedures, d) inappropriate use of potentially harmful medications and e) other strategies that result in frequent utilization of healthcare using techniques that may be appropriate for acute injury/pain, but prove typically unsuccessful for chronic pain. These strategies are particularly unsuccessful given that success is often measured inappropriately by the goal of elimination of pain.

**Our goal is explicit. Our goal is different. The Sports Concussion Institute Integrated Pain Program goal is not necessarily elimination of pain. Rather, the goal is to provide each patient with a “Gameplan” that will allow them to minimize their pain and maximize their function.** The goal is to return them to a more normal and productive way of life. For student athletes, the goal is to return to baseline and enable pursuit of both athletic and academic full potential. For both student athletes and the working adult population, the goal is to give them the tools that will allow them to be less dependent on acute treatment modalities (medicine, ER visits, multiple doctor visits, multiple interventional procedures and surgeries, etc.) for what can become or has become a chronic problem. Our Integrated Pain Program will bring appropriate modalities into the individual patient’s plan in an effort to *maximize both pain relief and function*. There are a number of modalities for evaluation and treatment of acute, sub-acute and chronic pain problems available within a multidisciplinary pain program. Our strategy is to employ those modalities most likely to benefit the individual patient rather than employing a “cookbook” approach. We do, however request authorization for a basic program which would likely include four basic components. The major components to be instituted in each patient (according to individual need) include the following:

**Medical management** includes evaluation of each patient’s symptom complex and confirmation that correct and complete diagnoses have been made. In our experience, it is not uncommon for additional diagnoses (never having been made and never having been definitively treated) to be present, accounting for persistence of symptoms and development of chronic pain. Also, a thorough and expert evaluation of each patient’s medication regimen is performed to find the safest and most effective combination of medications possible. As part of the medial management, recommendations might be made for further diagnostic testing, and/or interventional procedures to achieve the most accurate diagnosis and to aggressively address all relevant pain generators. *Any recommendations for further diagnostic testing of interventional procedures will be requested separate from and in addition to the authorization that has been provided for the Integrated Pain Program.*



**Biobehavioral treatments** including cognitive therapy (individual pain management oriented sessions), group therapy (group discussion/education sessions led by pain psychologist), biofeedback and neurofeedback (muscle and neurologic retraining techniques geared toward autonomic quieting, and correcting abnormal electrical activity in the musculature and/or brain taught by specially trained therapists) are employed to augment the benefits of medications and to further educate patients as to the relationships between pain, muscular and neurologic activity, and mood/behavior. There are very clear relationships between muscle dysfunction



(treatable with biofeedback) as well as abnormal electrical activity (treatable with neurofeedback) and pain. Particularly with medical injury lasting 6 months or longer, the cognitive/behavioral psychologist can evaluate issues including: candidacy for aggressive or invasive medical treatments; disability acceptance; fear avoidance; premorbid coping style; primary and secondary gain; autonomic arousal and responsiveness to stressors; treatment compliance; narcotic pain cycle; association of symptoms to depression and anxiety; etc. *It should be noted that these associated symptoms are addressed only as they impede recovery from injury and medical treatment planning, without any determination of medical-legal status and is not in any way related to a "psych.claim".*

**Complementary Modalities** offered within our program include acupuncture, deep tissue massage, myofascial release trigger point injections, electrical and laser therapies. We also give specific individual and group consultation on Nutrition and how dietary factors positively (or negatively) impact not only weight, but the inflammation syndrome and chronic pain. These are extremely effective modalities for the treatment of orthopedic and chronic pain. There are a number of convincing reports in the medical literature that support the use of acupuncture (having well outperformed placebo in trials) for a variety of pain diagnoses. Many patients are able to dramatically reduce their medication requirements (with lasting effects) through acupuncture. Others find relief when no other modality (medication, injection, therapy) had been effective. Still others are much better able to participate in other rehabilitative treatments (physical therapy) and significantly improve their function through participation in acupuncture. This is often extremely helpful in decreasing persistent swelling, and pain in extremities that are dysfunctional in the context of chronic pain.

**Functional Restoration Modalities** such as physical therapy, Feldenkreis Method therapy, occupational therapy, yoga and self directed exercise are geared toward maximizing patient function and activity/ability during recovery and management of their pain problem. Many patients with orthopedic injury and chronic pain in general begin to limit motion, and then normal body mechanics suffer, followed by a significant effect on normal body physiology. Feldenkreis training is a discipline devoted to muscular reeducation, improving body mechanics, education in the importance of body symmetry and personal ergonomics. In our program we have witnessed countless patients "re-learn" appropriate static and dynamic posture resulting in dramatic effect on pain and function. We use Feldenkreis as a basis from which we can add other more aggressive layers (physical therapy, then self-directed exercise). In addition, there is a tremendous degree of improvement that can be made by modifying and maximizing dietary intake through knowledgeable nutritional counseling. Weight loss is not the

only goal. It should be noted that nutritional counseling with special emphasis on issues related to inflammation, muscle function, nerve function and minimizing pain provoking substances in the body will be most helpful for chronic pain patients. In addition, there are a variety of tips that can be very helpful preoperatively.

**Communication/Education** is one of the most important aspects of the Integrated Pain Program. Patients will be very well informed of the recommendations being made as well as the rationale for the recommendations, expected outcomes, risks, benefits and alternatives. This will include a multi-media presentation outlining what the problem is, where the problem is, what causes it, what can be done about it, and what to expect longterm. Unbelievably, the majority of pain patients we see have never had this type of communication with any of their previous physicians. They may have been given a diagnosis and told they needed this medication, or that injection, or surgery. But they were never truly educated. In addition, we will provide information to payers regarding the rationale for our recommendation. Finally, regular team meetings ensure that all treating providers are on the same page with respect to the patient's symptoms and progress.



### **Evidence-Based**

*All treatments and aspects of the Integrated Pain Program meet evidence-based criteria. The program prides itself on being state of the art and offering the latest and cutting edge technologies and treatments. At the same time, each and every component of the program is supported by best available evidence combined with experience and standard of care criteria among the leading national and international pain management experts and societies. We are pleased to provide references supporting our treatment recommendations and narrative reports outlining the rationale for each recommendation as related to the individual patient/case.*

### **Criteria**

To be enrolled in the Integrated Pain Program, patients must meet the following criteria:

- Pain with motivation to improve pain AND function
- Absence of substance abuse (initial and random urine screen)
- Ability to participate in rigorous, onsite program
- Absence of severe or untreated mood disturbance or personality disorder

## **Cost**

The Integrated Pain Program total maximum global cost is dependent on the specific type of pain program provided. There is a basic program that is very conservative in nature and avoids interventional procedures and/or strong medications. This program is typically most beneficial for adolescent patients who are not ideal candidates for those kinds of interventions because of obvious potential issues related to prescription drugs, radiation exposure with interventional procedures, etc... A more aggressive program (for adults and those with more severe pain and/or more acutely severe dysfunction) including state of the art prescription medications, combined with interventional procedures (nerve blocks, denervations, implants, etc.), complimentary treatments and functional restoration is also available. Finally, there are “add-on modules” that can be included for enhanced recovery. This includes the opportunity to include patient specific laboratory testing to more accurately identify nutritional issues ways to optimize nutritional status, laboratory testing to identify genetic factors that may affect drug metabolism and significantly influence risk of side effect or complication from prescribed medications, as well as incorporation of other complimentary modalities such as music therapy, hypnosis, herbal medicine and others in a comprehensive, interdisciplinary manner. Web-messaging for patient/payer/physician communication as well as online consultation are also available as an “add-on” service. Itemized charges for IPP services are available by request.

## Comprehensive Integrated Pain Program

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|---------------------------|---|
| <b>Time Limited</b>       | <b>12 weeks in Duration</b>   |
| <b>Multidisciplinary</b>  | <b>Medical, Behavioral, Functional Restoration and Complimentary/Adjunctive Modalities</b>  |
| <b>Interdisciplinary</b>  | <b>Frequent team conferencing among all treating practitioners with documented coordination of care</b>   |
| <b>Evidence-Based</b>     | <b>All treatments and components meet evidence based criteria</b>   |
| <b>Education Oriented</b> | <b>Emphasis on education for informed participation to maximize benefits</b>  |
| <b>Functional Goals</b>   | <b>Emphasis on synergistic application of all modalities to maximize function and minimize focus on pain</b>  |
| <b>Unique Approach</b>    | <b>Neurologically based with emphasis on accurate diagnosis, objective neurophysiologic testing/treatment, understanding of neuroplasticity and application of these concepts to pain</b>   |
| <b>Limited Procedures</b> | <b>Unlike the majority of expensive, procedure-oriented pain programs, there is judicious and strategic use of minimally invasive interventional techniques as an adjunct to a more comprehensive approach, rather than interventional procedures as the focus of pain management</b> |
| <b>Pt. Accountability</b> | <b>Motivation and compliance is mandatory to complete the program. After completion, patients have developed insight and strategies (medical and behavioral) to manage their symptoms without frequent, costly, unsuccessful, repeated utilization of treatments for acute pain</b>   |
| <b>Patient Encounters</b> | <b>Up to 55 Visits over 12 weeks</b>  |
| <b>Documentation</b>      | <b>Real time documentation of clinic visits (available day of appointment). No handwritten reports. All reports typed and available electronically (fax, or HIPPA compliant web-based messaging)</b>  |
| <b>Communication</b>      | <b>Web-message and e-mail availability with Practice Coordinator and Medical Director</b>   |
| <b>Easy Access</b>        | <b>New patient consultation/evaluation appointment available within 1 week of request for scheduling</b>  |

## **Detailed Menu of Integrated Pain Program Components**

Intake (Initial consultation and formal, specific recommendations with specific goals)

Medical Management

- Appropriate oral, topical, and/or transdermal regimen

- Re-evaluation with progress summary/update and adjustments q2-4 weeks

- Appropriate referrals to other medical specialists, if necessary (and separately authorized)

Biobehavioral Treatments

- Pain Psychology - Cognitive Therapy

- Pain Psychology - Group Therapy

- Biofeedback/Neurofeedback

Complimentary Modalities

- Acupuncture (up to 16 sessions)

- Nutritional Counseling (2 sessions)

- Myofascial and Electrical Modalities (up to 16 sessions)

Functional Restoration

- FCE if necessary (and separately authorized)

- Feldenkreis (up to 8 group sessions and 4 individual sessions)

- Home Exercise Kit

Communication/Education

- Program to Patient

  - Via printed, electronic, and lectured materials (2 extended educational sessions)

- Program to Payer

  - Via predetermined and defined length of treatment with discharge date, real-time production of clinic notes and recommendations, rationale and explanation for ALL recommendations, references to support utility and expected outcome of ALL recommendations, e-mail communication options, and comprehensive discharge "Gameplan" (in addition to P&S report for W/C patients).

- Program to Referring Physician

  - Via chart note and verbal communication

- Interdisciplinary Team Meetings (at least one per month on each patient)

***Separate authorization may be requested for the following interventions on an individual basis if indicated:***

Occupational Therapy

Functional Capacity Evaluation

Diagnostic Imaging

Electrodiagnostic Testing

Diagnostic and/or Therapeutic Injections

Non-surgical Spine Interventions (annuloplasty, nucleoplasty, etc.)

Surgical Implantation for Pain (Spinal Cord Stimulator, Intrathecal Pump)