



Treatment Philosophy
for the Occupational
Athlete



Treatment Philosophy

Nova's treatment philosophy is a resource to both Nova's team of licensed providers as well as outside entities; providing education and support for treatment rationale regarding rehabilitation of musculoskeletal injuries.

Our treatment philosophy is based on current research and clinical practice guidelines, and is intended to promote exceptional patient outcomes, improve patient function, reduce the risk of re-injury, and promote a stay at work or full return to work.



Occupational Athlete

An individual that is capable of meeting the physical demands posed by their occupation.

Nova's occupational athletes are all seen by our expert team of licensed physical therapists and physical therapist assistants with an emphasis on early intervention through expedited access to treatment. Each occupational athlete is progressed through an individualized, one-on-one rehabilitation program designed to promote full functional ability and injury prevention.



Integrated Setting

Nova Medical Centers prides itself in consistently providing the highest level of quality care and excellent customer service.

Our integrated approach is based on the most current evidence-based practice and treatment is provided by a team of professionals that encourage effective communication amongst all parties involved in the patient's care. Within this collaborative setting patients are encouraged to stay at work while on modified work restrictions to promote development of the most optimal plan of care and a successful stay at work or speedy return to work.



Effective Communication

Occuflex[®], Nova's proprietary software, is an automated online occupational medical service designed to meet the needs of clients which include real-time online customized reporting and communication as well as an online injury management database utilizing:

- ❑ International Classification of Diseases, Tenth Revision, (ICD-10) is a system used to classify and code all diagnoses, symptoms and procedures recorded.¹
- ❑ Current Procedural Terminology (CPT[®]) codes for how medical professionals document and report medical, surgical, radiology, laboratory, anesthesiology, and evaluation and management (E/M) services.²
- ❑ International Classification of Functioning (ICF) to provide a standard language and framework for the description of health and health-related states.³
 - “The ICF is a classification of health and health-related domains -- domains that help us to describe changes in body function and structure, what a person with a health condition can do in a standard environment (their level of capacity), as well as what they actually do in their usual environment (their level of performance).”⁴
 - The ICF provides a framework for our licensed providers to better evaluate our patients at the individual level of functioning, looking at body functions and structure, activity restrictions and participation restrictions. It also allows them to examine environmental factors and personal factors that may have an impact on the patient's overall function.



Early Intervention

Early intervention is emphasized by scheduling a patient's first physical therapy visit within 24–48 hours of initial medical exam.

- ❑ “Early access to a physical therapist is associated with significant reductions in subsequent health care utilization and overall costs of care.”⁵
- ❑ “Early and adherent physical therapy was associated with significantly lower utilization of advanced imaging, lumbar spinal injections, lumbar spine surgery, and use of opioids.”⁵

Standardized tests and measures are implemented early in an episode of care to establish the baseline status of the patient/client, providing a means to quantify change in the patient's/client's functioning.⁶

Evidence-Based Practice

Nova's team of licensed physical therapy providers recognize the use of evidence-based practice (EBP) as fundamental to providing high-quality care and decreasing unwarranted variation in practice.

Nova embraces the integration of the *best available research, clinical expertise*, and *patient values and circumstances* related to patient and client management, practice management, and health policy decision-making.⁷



Best Available Research

Relevant evidence from peer-reviewed journals regarding similar patient cases.

- ❑ Utilized to both optimize and standardize the level of care across all Nova centers.
 - Multiple professional development resources are specifically designed and accessible by our team, to ensure current best practice and quality of care is standardized across all centers.

Return to Work and Treatment Guidelines

- ❑ Official Disability Guidelines & ODG Treatment in Workers' Comp
- ❑ American College of Occupational and Environmental Medicine's Occupational Medicine Practice Guidelines

Clinical Expertise

Licensed provider's prior experiences with similar patient cases.

- ❑ Experienced physical therapists and physical therapist assistants hold a variety of advanced specializations and certifications to help further their knowledge and skills. Certifications include, but are not limited to:
 - Board Certified Clinical Specialist – Orthopedics (OCS)
 - Certified Workers' Compensation Healthcare Provider (CWcHP)
 - Certified Orthopedic Manual Therapist (COMT)
 - Certified Hand Therapist (CHT)
 - Certified Ergonomic Assessment Specialist (CEAS)
 - Selective Functional Movement Assessment (SFMA)
 - Certification in Spinal Manipulative Therapy (Cert. SMT)
 - McKenzie Method of Mechanical Diagnosis and Therapy (MDT)



Patient Values & Circumstances

What is important to the patient?

- ❑ At Nova, we utilize the net promoter score and a variety of patient reported information, including subjective reporting, satisfaction surveys and well-established standardized outcomes measures to address both specific functional abilities and psychosocial factors.
- ❑ Patient Reported Outcome Measures include:
 - Fear Avoidance Components Scale (FACS)
 - Neck Disability Index (NDI)
 - Quick Disability of Arm, Shoulder, and Hand (Quick DASH)
 - Modified Low Back Pain Disability Questionnaire
 - Lower Extremity Functional Scale (LEFS)



PHASE 1

Early Intervention Leading to Functional Independence



Patient Education

Patient education is “any set of planned activities designed to improve a patient's health behaviors, health status, or both.”⁸ By incorporating patient education into treatment activities, Nova promotes optimal outcomes, improves adherence and increases patient confidence.

- ❑ Home Exercise Programs (HEP) are individually designed to guide patients towards ongoing self-management and are implemented at initial visit and progressed throughout the entirety of the program.
 - Adherence is more probable when patients receive info explaining effectiveness of self-management strategies.⁹
- ❑ “Education and counseling regarding pain management, physical activity, and exercise can reduce the number of days off work in people with fear-avoidance beliefs and acute low back pain.”¹⁰



Manual Therapy

Manual therapy techniques (e.g., connective tissue massage, joint mobilization and manipulation, and manual traction) are utilized in order to to manipulate tissue of the body to restore movement, alleviate pain, promote general health and induce relaxation.²

- The use of manual therapy and exercise is superior to Home Exercise Program (HEP) [alone].¹¹
- Manual therapy techniques in conjunction with therapeutic exercises is effective in regards to increasing function, active range of motion (AROM), while decreasing levels of pain and disability.¹²



Active Versus Passive

Nova performs primarily active interventions focusing on therapeutic procedures. If appropriate, passive modalities (e.g. hot and cold packs, ultrasound, e-stim, etc.) are integrated to reduce impairments in order to maximize outcomes and functional performance.

- ❑ “Although there is some evidence of short-term pain relief for certain modalities, outcomes are improved when passive physical agents are used selectively and in conjunction with an active treatment program.”¹³
- ❑ “A carefully designed active treatment plan has a greater impact on pain, mobility, function, and quality of life.”¹³



Therapeutic Procedures

“A manner of effecting change through the application of clinical skills and/or services that attempt to improve function.”²

- Therapeutic Exercises
- Neuromuscular Reeducation
- Therapeutic Activities



Therapeutic Exercises

“...develop strength and endurance, range of motion, and flexibility.”²

- ❑ These are prerequisites for normal human movement and function as it relates to the occupational athlete and their jobs.
- ❑ There is strong evidence that clinicians should consider utilizing trunk coordination, strengthening, and endurance exercises to reduce low back pain and disability in patients with subacute and chronic low back pain with movement coordination impairments and in patients post-lumbar microdiscectomy.¹⁴



Neuromuscular Reeducation

“...of movement, balance, coordination, kinesthetic sense, posture, and/or proprioception for sitting and/or standing activities.”²

- ❑ Skilled neuromuscular reeducation can improve motor control and neuromuscular function of the occupational athlete.
- ❑ Verbal feedback of performance in real-time or knowledge of results following movement is commonly used clinically as a preliminary means of instilling motor learning.¹⁵



Therapeutic Activities

“...use of dynamic activities to improve functional performance.”²

- ❑ Specific Adaptations to Imposed Demands (S.A.I.D. Principle) is utilized by performing individualized dynamic activities related the job requirements of the occupational athlete.
 - By performing part or whole practice of functional activities related to a patient’s occupation the body will adapt specifically based on the demands placed on it.¹⁶



PHASE 2

Building Safer, Smarter, Stronger Occupational Athletes



Job Specific Activities

Nova utilizes the principle of specificity by incorporating job specific activities to simulate both the quality and quantity of movements that are required for the occupational athlete's job. Effective application of these principles will guide patients toward their goals as quickly and efficiently as possible.

- ❑ Successful programs include key design considerations such as ensuring a stable baseline before progression, treating the right impairments and activity limitations, understanding contextual factors, considering the principles of specificity and optimal loading, and applying dosing principles.¹⁷
- ❑ Program progression can be achieved through increases in total exercise volume and/or through manipulation of exercise challenges at the same exercise volume.¹⁷



Job Specific Activities

Job specific activities are interventional activities that simulate an occupational athlete's essential work functions. By incorporating the Standard Occupational Classification (SOC) system into the outcome measure data collection, Nova can identify trends or effective treatments best suited for various job.

- ❑ SOC is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data.¹⁸
- ❑ Example: MAIL CARRIER (53-0000 Transportation and Material Moving Occupations)
 - Essential Functions: Performing frequent driving, climbing, lifting, balancing, walking, stooping, bending, squatting, and handling of materials.
 - Job specific activities may include, but are not limited to, Maneuvering through an obstacle course, lifting and carrying objects of variable shapes and weights, step climbing or others depending on this particular mail carriers essential functions.



Job Specific Activities

Incorporating the principle of specificity with job specific activities and ensuring that the occupational athletes are able to meet all of their functional goals, without re-exacerbating symptoms, allows Nova to be confident in releasing the occupational athlete to a full return of work activities.



Primary Focus

To provide reasonable and medically necessary services that require the skills of a physical therapist.

Our Goal

Creating a patient-centric environment for reducing the occupational athlete's impairments, as they relate to function, to allow a progression to higher level, functional and work-specific activities.

Identifying the source of movement dysfunction through the identification of one or more system impairments, as well as compensatory strategies that may interfere with optimal movement.¹⁹

Reducing pain, impairments and activity restrictions through patient education, manual therapy, active centered, therapeutic exercise, neuromuscular reeducation and therapeutic activities.

Normalizing neuromuscular function with strengthening, endurance, dynamic stability exercises, functional and work simulated activities through graded progressions.

Maximizing an individual's ability to engage with and respond to his or her environment by providing a customized and integrated plan of care. They then utilize movement-related interventions to optimize functional capacity and performance to achieve the individual's goal-directed outcomes.¹⁹



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