

Use of the International Classification of Functioning and Disability to Develop Evidence-Based Practice Guidelines for Treatment of Common Musculoskeletal Conditions

In 2006, the Orthopaedic Section began a project to use the International Classification of Functioning and Disability (ICF) to develop evidence-based practice guidelines that will enhance diagnosis, intervention, prognosis, and assessment of outcomes for a variety of musculoskeletal conditions commonly managed by physical therapists.

In the April issue of JOSPT, the first of an ongoing series of evidence-based practice guidelines will be published. These guidelines were developed using the International Classification of Functioning, Disability and Health (ICF) as the basis for describing and classifying care provided by physical therapists to patients with a variety of musculoskeletal conditions. The Orthopaedic Section began the process to develop these practice guidelines in 2006.

The ICF is a new model of disablement that was developed by the World Health Organization in 2001. In the ICF model, functioning and disability are classified in terms of body structure and function as well as in terms of activity and participation of the individual. The ICF model will be used to classify common musculoskeletal conditions, such as adhesive capsulitis, acute low back pain, patellofemoral pain and ankle sprains, in terms of impairment of body structure and function, activity limitations, and participation restrictions. These ICF classifications will be used to develop evidence-based guidelines for diagnosis, intervention, prognosis, and assessment of outcome. It is believed that these guidelines will advance orthopaedic physical therapist practice and could be used to guide professional and postprofessional education and to establish an agenda for future clinical research.

In developing these evidence-based practice guidelines, the Orthopaedic Section adopted the ICF model of functioning and disability, which was developed in 2001 by the World Health Organization (WHO). The ICF is a companion to the WHO's International Statistical Classification of Diseases and Related Health Problems (ICD), which forms the basis for coding and classifying medical conditions in the United States and throughout the world. As a companion to the ICD, the ICF, provides a basis for classifying and coding human functioning.

The ICF intends to capture the interaction of body structure and function (impairments) with activities (limitations) and participation (restrictions) in the context of an individual's environmental and personal factors and health condition.

The body functions that are described in the ICF include:

- Mental functions;
- Sensory functions and pain;
- Voice and speech functions;
- Functions of the cardiovascular, haematological, immunological and respiratory systems;
- Functions of the digestive, metabolic and endocrine systems;
- Genitourinary and reproductive functions;
- Neuromusculoskeletal and movement-related functions and
- Functions of the skin and related structures.

The associated body structures that are described in the ICF include:

- Structures of the nervous system;
- The eye, ear and related structures;
- Structures involved in voice and speech;
- Structures of the cardiovascular, immunological and respiratory systems;
- Structures related to the digestive, metabolic and endocrine systems;
- Structures related to the genitourinary and reproductive systems;
- Structures related to movement and
- Skin and related structures.

The practice guidelines being developed by the Orthopaedic Section will focus primarily on the *structures related to movement* and the *neuromusculoskeletal and movement related functions* and *sensory functions and pain* categories within the ICF. These body structures and body functions will be linked with their associated health conditions from the ICD.

For example, the Heel Pain – Plantar Fasciitis Guidelines, published in this issue of JOSPT, link the ICF body structures (*Ligaments and fascia of ankle and foot* and *Neural structures of lower leg*) and the ICF body functions (*Pain in lower limb* (and) *Radiating pain in a segment or region*) with the ICD health condition (*Plantar fascia fibromatosis / Plantar fasciitis*). Furthermore the impairments in body structure and function are linked to activity limitations and participation restrictions experienced by the individual.

The Orthopaedic Section plans to publish 4 to 5 evidence-based practice guidelines each year in JOSPT over the next 4 years and will cover the most common musculoskeletal conditions treated by physical therapists. For example, look for the practice guidelines for the following conditions in future issues of JOSPT:

Neck Pain – Cervicalgia, Cervical Sprains and Strains, and Radiculopathy
Hip Mobility Impairments – Coxarthrosis
Shoulder Mobility Impairments – Adhesive Capsulitis
Shoulder Muscle Power Impairments – Rotator Cuff Syndrome
Shoulder Movement Coordination Impairments – Shoulder Ligament Sprain
Ankle and Foot Muscle Power Impairments – Achilles Tendinitis
Ankle and Foot Muscle Coordination Impairments – Ankle Ligament Sprain
Low Back Pain – Lumbago, Lumbar Sprains and Strains, and Sciatica

Each evidence-based practice guideline will provide recommendations on procedures for examination, diagnosis/classification, intervention and methods to assess outcomes for the condition. The strength of the recommendations will be based on the level of evidence in the peer-reviewed, scientific literature related to the conditions. The practice guidelines will be considered for review and revision every 5 years; or sooner if substantial new evidence becomes available. Any updates to the guideline in the interim period will be noted on the Orthopaedic Section of the APTA website: www.orthopt.org

It is believed that these guidelines will advance orthopaedic physical therapy practice and could be used to guide professional and post-professional education and to establish an agenda for future clinical research. We welcome your feedback on these guidelines.

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