

# Dry Needling

competency profile

for physical therapists

The *Essential Competency Profile for Physiotherapists in Canada 2004* (the Profile), developed by the Accreditation Council for Canadian Physiotherapy Academic Programs, the Canadian Alliance of Physiotherapy Regulators, the Canadian Physiotherapy Association and the Canadian Universities Physical Therapy Academic Council, describes the essential competencies that physical therapists must demonstrate upon entry to the profession and maintain throughout the course of their careers. Essential competencies are defined in the Profile as “the repertoire of measurable knowledge, skills and attitudes required by a physiotherapist throughout his or her professional career”.

This document builds upon the *Essential Competency Profile for Physiotherapists in Canada 2004* by identifying the competencies, beyond those described in the Profile, required by physical therapists to safely use dry needles in practice. The competencies in this document specific to the use of dry needles appear in italics; others competencies are taken from the *Essential Competency Profile for Physiotherapists in Canada 2004* with Performance Criteria specific to the use of dry needles added.

The *Dry Needling Competency Profile for Physical Therapists* can be used in many ways: it can help identify which physical therapists are competent to use dry needles in physical therapy practice, provide direction for physical therapy curriculum, inform regulatory programs that focus on continuing competency/quality assurance and provide explicit expectations for physical therapists.

© 2007 College of Physical Therapists of Alberta  
Permission to reproduce in part or whole is granted; please include a printed acknowledgement of the College of Physical Therapists of Alberta.

College of Physical Therapists of Alberta  
Suite 1350, 5555 Calgary Trail  
Edmonton AB T6H 5P9  
780/438-0338  
cpta@cpta.ab.ca  
www.cpta.ab.ca

ISBN: 978-0-9687043-5-6

## ASSUMPTIONS ABOUT THE USE OF DRY NEEDLES BY PHYSICAL THERAPISTS

### PRACTICE

- ▶ Physical therapists practice within their legally defined scope of practice (i.e. provincial/territorial regulations and standards).
- ▶ Physical therapists work within their personal level of competence.
- ▶ The use of dry needles as a physical therapy intervention is within the scope of practice of physical therapists.
- ▶ Physical therapists, in consultation with the patient, use their professional judgment and the best available evidence to determine when it is appropriate to initiate and discontinue the use of dry needling techniques.

### USE

- ▶ Physical therapists using dry needling techniques know the common side effects of treatment, understand and practice in consideration of the contraindications to and precautions regarding the use of dry needles and demonstrate the competence to minimize the risk of harm to themselves and their patients.
- ▶ Physical therapists use dry needles in practice to facilitate healing, reduce pain, increase mobility, maintain and improve function.
- ▶ Physical therapists understand and ensure informed consent and patient safety, including appropriate selection of patients, the use of clean dry needling techniques and safe dry needling practice.
- ▶ Physical therapists use dry needling techniques in the treatment of selected patients with musculoskeletal, cardiorespiratory, neurological and integumentary (e.g. dermatological) conditions.
- ▶ Dry needles may be left in place for an appropriate therapeutic time as determined by the physical therapist. Alternatively, dry needles may be further stimulated with manual techniques (e.g. twirling, flicking), heating via moxibustion, low or high frequency electrical stimulation or other ancillary techniques (e.g. cupping).

### EDUCATION

- ▶ Recognized educational programs in the use of dry needling techniques by physical therapists ensure that students achieve the established essential competencies for the safe and effective use of dry needles as a physical therapy intervention. Recognition is the responsibility of the local regulatory authority.
- ▶ Essential competencies and some selected dry needling skills (e.g. needle insertion using guide tubes) are entry-level skills or as outlined by the local regulatory authority. Dry needling points could include selected distal points (e.g. two upper limb points – interossei, common extensor tendon; two lower limb points – between the first and second metatarsal, tibialis anterior; and one facial point – e.g. temporal mandibular joint).

## PROFESSIONAL ACCOUNTABILITY

**assumes professional responsibility and demonstrates safe, ethical, culturally sensitive and autonomous professional practice**

***Demonstrates an awareness of the theoretical background of the classical, neuroanatomical and intramuscular stimulation approaches and an understanding of the theoretical background of one or more approaches.***

***Demonstrates an understanding of how dry needling fits within the physical therapist's scope of practice and within the physical therapeutic model.***

***Selects appropriate patients for the use of dry needles:***  
[see Page 4]

- ▶ *considers the patient's needs as well as other factors such as age, cognitive status and psychological status before using dry needling.*

***Conducts self within legal and ethical requirements:***

- ▶ *avoids marketing or advertising that suggests specialization or certification unless authorized by regulation;*
- ▶ *uses credentials in accordance with local regulations; and*
- ▶ *discloses to patients when there is an additional fee specific to the use of needles.*

***Respects the individuality and autonomy of the client:***

- ▶ *manages any emotional response by the patient related to the use of needles.*

## PROFESSIONAL JUDGMENT AND REASONING **applies principles of critical thinking while solving problems and making decisions**

***Uses a comprehensive problem-solving process to make decisions:***

- ▶ *presents options (e.g. use of dry needles, alternative approaches, advantages, risks) to the patient for consideration and decision; and*
- ▶ *makes decisions within a shared decision-making model (i.e. with the patient).*

***Uses a reflective approach to practice:***

- ▶ *uses reflection with other sources of information (e.g. peer review, external review) to understand and improve practice.*

**CLIENT ASSESSMENT** assesses client's physical and psychosocial status, functional abilities, needs and goals

**Collects and reviews background information relevant to the client's health and health management profile and determines, with the client, the need for physiotherapy intervention:**

- ▶ screens patients requesting the use of dry needles for appropriateness for the intervention;
- ▶ collects patient health and functional status (e.g. sleep, appetite, energy levels) to ensure the appropriate use of dry needling as an intervention;
- ▶ inquires specifically about conditions calling for caution (e.g. cancer, hepatitis, hemophilia, mitral valve disease, pregnancy, HIV);
- ▶ inquires specifically about reactions to needles;
- ▶ inquires specifically about precautionary medications (e.g. blood thinners, antihypertensives);
- ▶ inquires specifically about the appropriateness of the patient for dry needling;
- ▶ ensures the patient understands the rationale for dry needling, as well as its purpose, technique, side effects, benefits, risks, conditions calling for caution and contraindications; and
- ▶ uses a shared decision-making model.

**Collects the quantitative and qualitative data relevant to the client's needs and to physiotherapy practice:**

- ▶ ensures the therapeutic aims of the patient and the physical therapist correspond to the desired outcomes of dry needling; and
- ▶ documents the details of the patient's health status, as well as the patient's response to dry needling, including any emotional responses.

**PHYSIOTHERAPY DIAGNOSIS/ CLINICAL IMPRESSION AND INTERVENTION PLANNING** analyzes data collected, establishes the physiotherapy diagnosis/ clinical impression and prognosis, and develops a client-centred physiotherapy intervention strategy

**Analyzes assessment findings to determine client abilities, functional needs and potential outcomes respecting clients' and/or substitute decision-makers' choices:**

- ▶ considers the patient's needs, as well as other factors such as his or her age, cognitive status and psychological status, before using dry needling.

**Establishes a physiotherapy diagnosis/clinical impression:**

- ▶ complies with local laws about developing and communicating a diagnosis or clinical impression.

**Facilitates informed decision-making by clients:**

- ▶ ensures the patient understands the rationale for dry needling, as well as its purpose, technique, side effects, benefits, risks, conditions calling for caution and contraindications;
- ▶ obtains informed consent from the patient or a substitute decision-maker if the patient is a minor or full comprehension is not possible (e.g. there is a cognitive impairment or a language barrier); and
- ▶ obtains written consent if it is deemed appropriate or required by the local regulatory authority.

**IMPLEMENTATION AND EVALUATION OF PHYSIOTHERAPY INTERVENTION** implements physiotherapy interventions to meet client/patient needs, evaluates their effectiveness for the client and incorporates findings into future intervention

**Demonstrates appropriate selection of dry needling points.** [see below]

**Demonstrates the ability to recognize and manage a patient's complications and adverse reactions.**

**Implements physiotherapy interventions to assist the client in achieving and maintaining health, functional independence and physical performance and in managing physical impairments, disabilities and limits to participation:**

- ▶ provides close supervision on the first use of dry needling; subsequent treatments require monitoring and ease of communication (e.g. call bell);
- ▶ does not delegate dry needling to support workers unless authorized by regulation;

<b>APPROPRIATE SELECTION OF DRY NEEDLING POINTS</b> includes consideration of:
the theoretical background related to the approach for dry needling (i.e. classical, neuroanatomical and intramuscular stimulation)
the patient's medical conditions, including conditions calling for caution (e.g. tumor location, chronic obstructive pulmonary disorders)
the surface and underlying anatomy
palpation findings

- ▶ provides detailed safety precautions and orientation to the patient (e.g. no coughing, no laughing, no movements in areas where needles are inserted);
- ▶ provides detailed instructions regarding post-intervention care (e.g. the need to watch for post-treatment effects, hydrate well, not smoke, avoid strenuous exercise); and
- ▶ understands funder policies and advise patients of any additional costs related to the use of dry needles as funding for dry needling by physical therapists may or may not be covered as physiotherapy intervention.

**Evaluates on an ongoing basis the effectiveness of physiotherapy interventions in relation to identified goals and outcomes and makes appropriate adjustments:**

- ▶ monitors the patient for post-treatment affects.

**Plans for timely completion of physiotherapy intervention and follow-up, as required, to meet client's needs:**

- ▶ facilitates the patient's discharge with alternatives to dry needling as appropriate (e.g. acupuncture).

**PRACTICE MANAGEMENT** manages the physiotherapist's role and implements physiotherapy services within the diverse contexts of practice

**Demonstrates clean dry needling techniques.** [see next column]

**Demonstrates safe dry needling practices.** [see next column]

- ▶ ensures that all needles inserted are removed.

**Manages dry needling equipment and supplies.**

**Supervises personnel involved in the delivery of physiotherapy services including physical therapist support workers, volunteers and students:**

- ▶ does not delegate dry needling to support workers or volunteers unless authorized by regulation;
- ▶ assigns the use of dry needles to physical therapy students on the basis of their educational experience and demonstrated competence and in a manner consistent with local regulations; and
- ▶ provides proper instruction to and supervision of all staff, including physical therapist support workers, in safe handling procedures for dry needles that relate to equipment and the facility (e.g. filling or cleaning needle trays/kits, emptying disposal containers, safe handling of sharps).

**CLEAN DRY NEEDLING TECHNIQUES**  
include infection-control procedures and involve the knowledge, skills and abilities required to:

wash hands

use personal precautions as appropriate (e.g. hepatitis vaccination, gloves, mask, eye shield)

safely store needles

use sterile plungers and single-use needles

prepare the patient's skin as appropriate (e.g. wash skin, swab with alcohol)

use special preparations for intra-articular use (e.g. use of betadine, tetrachlorohexadine)

dispose of needles and contaminated materials appropriately (e.g. tamper-proof disposal containers)

avoid contact with the shaft of the needle

minimize the needle's contact with the patient's skin

use proper techniques to re-sheath the needle (e.g. put the handle end in the tube first)

ensure resources for the removal of broken needles are readily available (e.g. needle removers/pliers)

clean or sterilize equipment (e.g. plungers, clips, eye shields) appropriately (e.g. using an autoclave)

have cotton tips/swabs available for removing needles as necessary (e.g. in case of bleeding)

**SAFE DRY NEEDLING PRACTICES**  
Includes knowledge, skills and abilities in:

surface and underlying anatomy

the safe handling of needles

accurate and appropriate point selection

the positioning of needles at the appropriate depth and in the appropriate direction

the handling and positioning of the patient

the appropriate positioning of the patient and the education of the patient regarding the appropriate amount of movement while needles are inserted

supervision and monitoring of the patient during treatment

communication with the patient

the obtaining of informed consent

appropriate patient selection

self-assessment of the capacity to provide treatment (e.g. time constraints, stress, emotions, fatigue)

the creation of a physical environment that ensures the safety and comfort of both patient and physical therapist

**Uses available physical, material and financial resources as required for safe, effective and efficient physiotherapy practice:**

- ▶ uses safety precautions regarding the use of dry needles (e.g. uses dry needles that are not expired; ensures leads, clips and electrical stimulators are in good working order; ensures trays/kits are complete with clamps or pliers; and ensures CSA-approved sharps containers are used);
- ▶ uses accepted infection-control precautions (i.e. uses clean dry needling techniques);
- ▶ complies with local regulations regarding infection-control precautions;
- ▶ ensures the physical environment (e.g. clinic, hospital, home) is safe;
- ▶ demonstrates knowledge and skill in handling specific emergency procedures (e.g. fainting, broken needles);
- ▶ ensures the physical environment allows for patient privacy when dry needles are inserted (e.g. if full draping is not possible);
- ▶ if using gloves or iodine, ensures the patient is not allergic to latex and is prepared to use alternatives (e.g. plastic gloves, tetrachlorahexadine); and
- ▶ calibrates electrotherapy equipment used with dry needling on a regular basis.

**Systematically records and provides appropriate access to accurate, objective, relevant information about the client and general physiotherapy services:**

- ▶ records information on the location, number and removal of dry needles, as well as any reaction to the needles; and
- ▶ does not assign documenting any aspect of dry needling practice to support workers.

## DEFINITIONS

**Dry needling and dry needles** are generic terms. In day-to-day language and in some jurisdictions, the terms acupuncture and acupuncture needles are used rather than the term dry needles. Dry needling refers to the use of fine gauge, dry needles that are inserted into the body at specific points selected according to the needs of the patient. Dry needles are solid, thin needles that have no ability to inject or withdraw fluid.

The terms **dry needling techniques** and **use of dry needles** can describe a variety of approaches. Physical therapists may use a classical, neuroanatomical or intramuscular stimulation approach to dry needling or a combination of these approaches.

A **classical approach** to dry needling relies on a Traditional Chinese Medicine diagnosis of disharmonies in body functions and on the meridian theory to influence the flow of energy (Qi) and other life substances to restore harmony in those functions.

## APPROPRIATE SELECTION OF PATIENTS involves:

consideration of the patient's physical therapeutic diagnosis with a reasonable expectation of benefits from the use of dry needles

consideration of the patient's medical conditions, including conditions calling for caution (e.g. pregnancy, the use of medications such as blood thinners, the presence of a pacemaker, the presence of cancer or hemophilia)

consideration of the patient's ability to understand what will be done and why

consideration of the patient's capacity to effectively communicate his or her response to treatment

consideration of the patient's ability to comply with treatment requirements (e.g. lying still)

consideration of the patient's ability to provide informed consent within the guidelines of local regulations

consideration of the capacity for the safe application and management of precautions (e.g. physical therapy treatment in the patient's home)

understanding the patient and practice contextual issues/factors related to the use of needles:

- ▶ patient cultural issues: comfort with needles, response to pain, response to handling;
- ▶ patient functional and physical ability: cognition, anxiety;
- ▶ patient language and communication: consent, reliability;
- ▶ patient psychological issues: fear of needles, emotional responses (e.g. labile); and
- ▶ patient age: limited, cautious use for 0-11 age group, appropriate selection in other age groups

There may be additional selection criteria physical therapists considers when determining if the use of dry needling is appropriate. As well, physical therapists may elect to use dry needles when the above considerations are not fully met if the use of needles is established as necessary and prudent and the physical therapist demonstrates due caution in the selection of patients.

A **neuroanatomical approach** to dry needling is based on anatomy and physiology, relies on a Western diagnosis and uses a number of specific points to achieve certain physiological changes in the body.

An **intramuscular stimulation (IMS) approach** to dry needling is based on neurophysiologic and neuropathologic principles.

The terms **physical therapist** and **physical therapy** are synonyms for physiotherapist and physiotherapy respectively and used interchangeably in this document.

Refer to the *Essential Competency Profile for Physiotherapists in Canada*, (2004), for further definitions.