



Hand Therapist Profile

The European Federation of Societies for Hand Therapy (EFSHT) Education Committee views this document as a position and standards paper with regard to the qualification of hand therapy as a speciality area of practice. It establishes a hand therapist profile on the basis of which standards of practice are defined. These form the basis of the hand therapy body of knowledge as defined by the EFSHT. The paper represents the initial step in the EFSHT's intention to devise a European Hand Therapy accreditation. The title of the accreditation is "European Certified Hand Therapist" (ECHT).

Acknowledgement

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Note: Throughout the text the term "Upper Extremity" will be used to include: hand, wrist, elbow and shoulder girdle. Also "Upper extremity disabling conditions" will cover: illness, disorder, dysfunction, disease, injury trauma, and congenital or acquired deformity.

1 Introduction to the EFSHT

The European Federation of Societies for Hand Therapy (EFSHT) was founded in 1989 when representatives from six European countries came together to discuss issues relating to hand therapy rehabilitation. Presently, there are fifteen full member countries and six corresponding countries that are represented within the EFSHT. The EFSHT currently organises one scientific meeting every three years. Representatives from the member countries meet annually to discuss issues and plan for the future. Multiple publications on the subject of Hand Therapy are published in journals of individual countries in Europe. The journal entitled "Hand Therapy" is the official journal of the EFSHT and the British Association of Hand Therapists (BAHT).

The purpose of the EFSHT is to encourage high standards of care, education and research within the field of hand therapy. Its objective is also to spread information about hand therapy practice across Europe.

Currently, working practice within this speciality differs widely throughout Europe and the EFSHT

aims to establish common standards of working practice. Many member countries have their own Hand Therapy societies and the EFSHT plans to work with these societies in an attempt to establish a recognised European Standard for Hand Therapy practice. This should lead to the award of "European Certified Hand Therapist (ECHT)" being presented to Hand Therapists who have proven their clinical knowledge and skills and achieved the required standards to be discussed and laid down in this, and future, documents.

The aim of the EFSHT is to establish common pathways of care for hand rehabilitation. It is hoped that the establishment of the European Certified Hand Therapist will enhance this aim, by encouraging experienced therapists to continue post-graduate education in this specialised field.

1.1 Introduction to Hand Therapy

Hand therapy is the art and science of rehabilitation of the upper extremity of the human body. It has become a specialisation for occupational therapists (OT) and physiotherapists (PT) in theory and practice, combining a comprehensive knowledge of both the anatomy and function of the upper extremity and conceptual issues involved in rehabilitation.

Improved surgical techniques enable greater functional restoration of injured and diseased extremities, however, their management requires a skilled and knowledgeable approach. Hand therapy developed as a response to dealing with advanced problems of dysfunction of the upper limb and diseases of the upper extremities. The specialty of hand therapy emerged from a combining of these two professions (OT) and (PT). Interdisciplinary rehabilitation has replaced the traditional boundaries between the two professions and it is felt that joint professional team work between OT, PT and other members of the rehabilitation team is the approach of choice for dealing effectively and efficiently with the complex issues arising in hand rehabilitation.

Hand therapists are qualified occupational therapists or physiotherapists who, through advanced continuing education, clinical experience and independent study have gained proficiency in the treatment of pathological upper extremity conditions resulting from trauma, disease, or congenital or acquired deformity. The purpose of a hand therapist is to promote the goals of restoration and maintenance of functioning and the prevention of dysfunction for individuals with upper extremity disabling conditions.

1.2 The current European situation with regard to Hand Therapy

At the present time, it is common practice in Europe that registered OT's and PT's treat patients with upper extremity problems, although the skills required for initiating and carrying out the appropriate treatment following loss of function in

the hand after surgery, injury or other disorders are manifold. Some European countries have started to develop core skills and standards identified as being necessary for a Hand Therapist. These vary greatly at the moment due to the different working practices across the countries.

One of the primary aims of the EFSHT is to establish an award of "European Certified Hand Therapist". Physiotherapists or Occupational Therapists holding this award can be distinguished from their colleagues working routinely with upper extremity patients. The EFSHT recognises that across Europe it is not feasible that all patients with hand injuries and illnesses are treated exclusively by European Certified Hand Therapists. The aim of this qualification is to provide a medium for quality assurance and a clinical ladder for practicing therapists. Through the development of a network of Certified Hand Therapists the EFSHT also hopes to establish a network of experienced clinicians than can mentor less experienced therapists from other countries as they enter this area of specialisation.

1.3 Clinical settings

Throughout Europe work settings for Occupational and Physiotherapists vary. In general a Hand Therapist can work in almost all areas of health care, for example in general hospitals, university hospitals, private practices, rehabilitation centres or nursing homes. The Hand therapy team can include the following professions: the Hand Therapist/OT and Hand Therapist/PT, hand surgeon, plastic surgeon, rehabilitation physician, orthopaedic surgeon, general surgeon, social worker, and psychologist. Within certain settings there are specific hand teams, often organised around conditions such as the traumatic hand injuries, neurological or rheumatological hand conditions. The EFSHT has identified core skills and set standards that are attainable for all experienced therapists whatever their clinical setting.

2 Theoretical Knowledge

The EFSHT considers that an European Certified Hand Therapist:

- is a qualified Occupational or Physiotherapist who, through advanced continuing education, clinical experience and independent study, has become specialised in the treatment of pathological upper extremity disabling conditions which have resulted from trauma, disease, congenital or acquired abnormality;
- recognises the components of health according to the conceptual model of the International Classification of Functioning, Disability and Health – ICF, (WHO 2001) and adopts a biopsychosocial perspective towards the treatment and management of the hand and upper extremity conditions and, therefore,
- focuses on the following domains in his/her practice:
 - ✓ **Body functions** (including for example, the constructs: motion, sensation, strength, proprioception, co-ordination, etc) and body structures (ligaments, tendons, muscles, skin, etc) of the hand and upper extremity – and impairments thereof.
 - ✓ **Upper extremity functioning** (activity level). In our society people value the use of their hands and any limitation of function can have a devastating effect on their lives. It is essential to consider whether patients can carry out the tasks and activities that are important to them in their daily lives.
 - ✓ **Social consequences** (participation level). Rehabilitation aims to restore or optimise a person's participation in society.
 - ✓ **Contextual factors**. A patient's functioning and disability is conceived as a dynamic interaction between their health condition (disease or injury) and **personal and environmental factors**. These interact with all the components of functioning, and have either a facilitating or hindering impact on the process of care and rehabilitation outcome.
- works with the patient in different situations to provide a continuum of care. This often starts within days of the injury or surgery, right through to the patient's return to work and/or a productive lifestyle.

- is able to utilize EBP to interpret and apply clinical research and outcome studies in their daily practice.
- understands that the interests and needs of the patient and his/her family play a central role in hand therapy.

Hand therapy promotes a patient-oriented, interdisciplinary treatment approach. In a patient-oriented approach, patients and therapists work together to define the nature of the problems that prevent their satisfactory involvement in their individual life situation; the focus and need for treatment and the preferred outcomes of therapy. Attention must be paid not only to impairments but also to limitations in those activities that are of value to the patient and aspects of his/her occupation. Patients with hand injuries may be seen by a number of professionals (surgeons, rehabilitation doctors, neurologists, psychologists, social workers etc.). It is of the utmost importance that the hand rehabilitation team adopt treatment aims and that interventions are well co-ordinated within the different professions.

3 Upper extremity specialist knowledge

3.1 Diagnostic knowledge

The EFSHT expects that:

A European Certified Hand Therapist is proficient in assessing, treating and evaluating the treatment outcomes of individuals with upper extremity diagnoses. These may include:

- amputations
- central nervous system disorders as they relate to the upper extremity
- congenital abnormalities/anomalies
- cumulative trauma disorders/repetitive stress injuries
- Dupuytren's contracture
- tendon injuries and disorders
- fractures/dislocations/joint instabilities
- infections
- inflammatory and degenerative arthritis
- multiple system trauma
- nail bed injuries
- pain-related syndromes
- peripheral nerve compression and disease
- peripheral nerve injuries
- post-mastectomy/post-radiation lymph oedema
- psychogenic disorders involving the upper quarter
- soft tissue injuries
- thermal injuries
- tumours and cysts
- vascular disorders

3.2 Clinical conditions

Patients may be referred to a Hand Therapist for the evaluation and treatment of various upper extremity conditions. A European Certified Hand Therapist must demonstrate skills and knowledge within a range upper extremity conditions including:

- amputation
- arthroplasty
- arthrodesis
- fasciectomy/fasciotomy
- fracture fixation/bone graft
- ganglionectomy
- injections
- joint reconstruction
- joint stiffness / release
- joint synovectomy
- ligament repair
- nail bed repair
- nerve blocks/sympathectomies
- nerve decompressions
- nerve grafts/nerve repairs
- neurolysis
- replantation/re-vascularisation
- scar revisions
- skin grafts/flaps
- soft tissue releases
- tendon grafts/tendon repairs
- tendon transfers
- tenolysis
- tenosynovectomy
- tissue transfers

4 Upper extremity specialist skills

A European Certified Hand Therapist recognises that the key principles of hand therapy depend upon:

- early intervention
- regular and timely, sometimes highly intensive interventions
- a holistic, patient-oriented approach
- sound interdisciplinary teamwork
- effective rehabilitation management
- professional education and life-long learning

4.1 Specialist clinical skills

The European Certified Hand Therapist needs to show evidence of and reflect on their ability to:

- assess and evaluate relevant characteristics of the upper extremity patient
- develop treatment techniques
- develop and implement treatment and discharge plans
- organise and manage population-based services
- promote professional practice.

4.2 Specialist therapeutic skills

The ability to treat patients utilising a variety of techniques and tools must be demonstrated. These may include:

- activity
- adaptive/assistive devices
- training in activities of daily living (ADLs)
- behaviour management
- oedema management
- desensitisation
- electrical modalities
- ergonomic modification
- exercise
- manual treatment techniques
- occupational assessment
- patient and family education
- prosthetics
- scar management
- sensory re-education
- splinting
- standardised and non-standardised assessment tools
- strengthening
- thermal modalities
- work hardening
- wound care

5 Promotion of professional practice

The European Certified Hand Therapist must demonstrate the maintenance of high ethical and legal standards in their daily practice. Evidence of the participation in and implementation of evidence-based clinical practice is essential, as is evidence of continuing professional development.

6 Basis of the Curriculum

The foundation of Hand Therapy is composed of a comprehensive understanding of the following:

- anatomy and physiology of the skin/connective, muscular, skeletal, nervous, and vascular/lymphatic systems
- behavioural science, and psychological reactions to injury/disease
- etiology and pathology of medical conditions
- evidence based treatment methods, techniques, and tools
- expected functional outcomes of treatment
- expected physiological and psychological effects of treatment procedures
- health and safety techniques and procedures (e.g., infection control, emergency procedures, practitioner safety, environment).
- kinesiology and biomechanics
- physical properties/modalities (e.g., heat, water, light, electricity, and sound)
- posture and pathomechanics
- professional codes of ethics
- regulatory and legal guidelines
- research design and statistics
- resource management
- safe and appropriate use and maintenance of equipment and assistive devices
- standardised and non-standardised assessment tools
- surface anatomy
- surgical and medical treatment of conditions
- treatment rationale, indications and contraindications
- understanding of the WHO "Internal Classification of Functioning, Disability and Health (ICF)"
- wound healing

The European Certified Hand Therapist will have demonstrated to the EFSHT a high level of competence and a contribution to the field of Hand Therapy. The therapist will also show an advanced level of professional knowledge of the anatomy and physiology of the upper extremity, plus advanced clinical skills and knowledge about upper extremity rehabilitation during completion of clinical experience, post graduate education and independent study. He/she will be a member of a society recognised by the EFSHT. He/she will have a minimum of 5 years of clinical experience (9000 hours), including 4000 hours or more in direct practice in hand therapy and be able to demonstrate learning and reflection on their clinical practice. The award will be valid for 7 years after which the therapist can then apply for re-certification.

This Hand Therapist Profile, outlines and defines the essential areas of knowledge and competencies that are required for the effective practice of Hand Therapy. It is meant as unifying definition of the practice of Hand Therapy within Europe. The certification of Hand Therapists within Europe currently happens at a national level, if at all. The European Certified Hand Therapist accreditation process is currently being developed. The ECHT is not intended to replace national certification, but to add a further level of certification and thus identify experienced practitioners of Hand Therapy. In the future detailed information will be available on the EFSHT website.

