



## **AMERICAN SOCIETY OF HAND THERAPISTS POSITION STATEMENT ON THE USE OF PHYSICAL AGENTS IN HAND THERAPY**

### **I. Disclaimer**

The American Society of Hand Therapists assumes no responsibility for the practice or recommendations of any member or other practitioner, or for the policies and procedures of any practice setting. The therapist functions within the limitations of licensure, state practice act, and/or institutional policy.

### **II. Definition**

Physical agents are defined as modalities, which use the physical properties of light, water, temperature, sound and electricity to provide a therapeutic response. Thermal physical agents may include, but are not limited to, superficial heat (commercial hot packs, paraffin, Fluidotherapy), cryotherapy (commercial cold packs, ice massage, ice bags, vapocoolant sprays), contrast baths, warm or cold whirlpools, ultrasound, and phonophoresis. Electrical modalities include, but are not limited to, TENS, electrical stimulation, NMES, surface EMG Biofeedback, iontophoresis, and vasopneumatic compression devices.

### **III Background**

In 1985, the American Society of Hand Therapists' Role Delineation Study indicated that physical agents were utilized in the practice of hand therapy. The Hand Therapy Certification Commission's Practice Analysis again confirmed this in 2001. The Hand Therapy Certification Examination includes material on utilization of physical agents in hand therapy. Now in 2002, the original 1991 Position Statement on Physical Agents is being reviewed and updated.

The ASHT recognizes that hand therapists have differing educational backgrounds, both occupational and physical therapy, formal as well as informal training, and that changes in technology require a continual updating of the therapists' education to remain current. While ASHT promotes education to encourage safe and effective use of physical agents, it recognizes that there are alternative methods that achieve the basic educational information needed on physical agents. Licensure requirements and ethical considerations are also preeminent.

The ASHT recognizes three progressive levels of education for safe and effective use of physical agents that address the diverse backgrounds of hand therapists. Each level is dependent on the previous levels of training, and it is felt that fulfillment of each is recommended before proceeding to the next level.

The three levels are as follows:

#### **I. Basic sciences of physics and chemistry**

Level I content includes the theoretical background of physics and chemistry. Preferably, this content is achieved through at least one semester of physics and chemistry. Fulfillment of this level can be achieved

through courses prerequisite to the professional curriculum, content within Level II applied science, or self-study.

## II. Theory of applied sciences

This level will address specific physical agents used in hand therapy as listed above in the definition of physical agents. Course time spent on each of these physical agents will be determined by difficulty of application, background material and frequency of use in hand therapy.

Level II course work should address the following issues on physical agents:

1. Physical properties.
2. Theoretical physiological response to musculoskeletal tissues, healthy and pathologic.
3. Indications, outcomes and expected results.
4. Contraindications and precautions.
5. Define available treatment parameters.
6. Machine safety and maintenance.
7. Documentation.
8. Evaluation of instrument.
9. Legal and ethical issues.

Level II can be fulfilled through college curriculum, continuing education and self-study.

## III. Clinical reasoning and application of physical agents with emphasis on upper extremities.

Level III education will be geared specifically towards common upper extremity problems. It will include a problem-oriented approach to common hand problems such as edema, pain, wounds, spasms, contractures, paralysis, weakness, neuromuscular dysfunction and adhesions.

Level III course work should address:

1. Discussion of optimal use of physical agents in conjunction with other hand therapy procedures.
2. Case studies.
3. Paper patient exercises.
4. Demonstration lectures.
5. Hands-on labs.
6. Documentation examples.
7. Legal and ethical issues.

Fulfillment of level III can be achieved through college curriculum continuing education or supervised clinical experience.

## IV. Position of ASHT

The American Society of Hand Therapists endorses the safe and effective use of physical agents in upper extremity rehabilitation by certified hand therapists, licensed or registered occupational therapists and physical therapists who have acquired the appropriate level of knowledge and training in their use as recommended in the ASHT Position Paper on the Use of Physical Agents in Hand Therapy. Physical agents must only be utilized within the parameters of the individuals' licenses and/or professional regulations.