# When unity makes the difference: Hand therapy rehabilitation in Argentina. A walk through history

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Although the birth of hand therapy in Europe dates back to the Second World War, its way into the Americas came much later.

In Argentina, in 1997 the Argentine Chapter for Hand Therapy (CATM) under the Argentine Association for Surgery of the Hand and Reconstruction of the Upper Limb (AACM) was created. CATM's creation responded to the need for the bringing together and coordination of the different professionals involved in hand rehabilitation throughout Argentina, and aimed at contributing to the progress, research, hierarchy, and teaching of the upper limb rehabilitation.

CATM's first president was Cristina Alegri, an Occupational Therapist of worldwide prestige as a result of her contributions and innovations in the hand therapy practice, and who was an inspiration to many in the field.

That same year, the CATM and the Brazilian Society of Hand Therapists constituted the South American Society of Hand Therapists, encouraging Chile and later Bolivia, Colombia and Venezuela to create their own national associations and join their scientific endeavor. The CATM was an inspiring initiative in South America.

The scientific development and participation of the CATM have maintained a progressive growth.

In 2002, the CATM became a member of the International Federation of Societies for Hand Therapy (IFSHT) and it remains an IFSHT member to this day.

In 2004, during the 6th Triennial IFSHT Congress, held in Edinburgh, Scotland, Alegri gave a memorable presentation on the use of snail slime in the treatment of scars. In recognition of her career, a distinguished IFSHT award for innovation in Hand Therapy was named after her.

In 2010, during the 8th Triennial IFSHT Congress, held in Orlando, USA, Argentina won the bid to host the next World Congress for surgeons and therapists, a major achievement.

And so, in 2016, for the first time our country organized and held the very successful 13th IFSSH & 10th IFSHT Congress in the city of Buenos Aires, gathering leading international authorities, 67 countries, and 1901 attendees. The 2016 congress constitutes the most important event ever held by the CATM.

#### What is Hand Therapy?

'Hand Therapy' is defined as the art and science of rehabilitation of the upper limb, which includes the hand, wrist, elbow, and shoulder. Hand Therapy is a specialization for Occupational Therapists, Kinesiologists, Physiotherapists, and Physical therapists, combining a comprehensive knowledge of the anatomy, biomechanics, physiology, pathophysiology, and function of the upper extremity.

Interdisciplinary rehabilitation has resulted in a transverse section that replaced the traditional boundaries between the two practices.

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How to cite this paper: Frigeri SB, Barbero M, Lasser D, Ortiz J. When unity makes the difference: Hand therapy rehabilitation in Argentina. A walk through history Rev Asoc Argent Ortop Traumatol 2020;85(Supl.):40-44. https://doi.org/10.15417/issn.1852-7434.2020.85.4S.1175

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The purpose of a hand therapist is to promote the objectives of restoration and maintenance of functioning and prevention of dysfunction in people with upper extremity conditions, the ultimate goal being an effective return to their activities of daily living.

Early referral and communication with the treating physician are the key to improving treatment results, both for conservative therapy and post-surgery rehabilitation.

Management of patients with upper extremity conditions, such as neurological, traumatic hand or rheumatologic conditions, warrant teamwork.

## What does Hand Therapy intervention involve?

The hand therapist's first contact with the patient consists in a thorough interview to collect data on the injury and the patient's lifestyle and activities. Based on these data, the hand therapist will perform an evaluation using different specific mechanisms that will allow for an objective assessment of the subsequent strategy and treatment evolution (Figure 1).



**Figure 1. A.** Digital goniometry evaluation. **B.** Grip strength dynamometry evaluation. **C.** Sensory evaluation.

According to the evaluation results, the hand therapist establishes the treatment goals, which may vary along the process in order to achieve the best possible outcome.

Treatment includes different therapeutic mechanisms to achieve these goals (Figure 2):

- Pain treatment
- Edema control
- Scar management
- Activities and/or exercises promoting a wider range of motion, greater stamina and strength as well as dexterity and coordination to improve gross and/or fine motor skills.
  - Proprioceptive training
  - Sensory reeducation
  - Neurodynamic mobilization
  - The use of different design and material orthoses
  - Advising and/or building adaptive and/or assistance devices
  - Ergonomic modification and energy conservation techniques
  - · Advising and training in activities of daily living



Figure 2. A. Vibratory massage waves to scar tissue. B. Hand thermoplastic splint in intrinsic position.



Figure 2. C. Humeral brace. D. Forearm hand thermoplastic splint in intrinsic position. E. Mirror therapy. F. Compressive dressing to minimize edema formation.



**Figure 2. G.** Tip-to-tip pinch strengthening exercise. (Images B, C and D are courtesy of OT Sandra Frigeri).

The treatment final outcome will benefit from the bond and empathy established with the patient. Communication and working alongside the patient throughout the process boost the results.

## **Navigating through 2020**

CATM's committees, which have been working year after year with a never-waiving dedication, are navigating during this unprecedented crisis through a pandemic that poses a new challenge for exchange and training. Thanks to online platforms we can continue to reach out to therapists throughout the world.

Undoubtedly the future of Hand Therapy will bring about information technology improvements as well as in the field of information and communication technologies.

We owe our current achievements to all the people who supported the CATM's development since its beginning, leaving differences aside and fostering unity through knowledge and experience.

"Coming together is a beginning. Keeping together is progress. Working together is success."

Henry Ford

Conflict of interests: Authors claim they do not have any conflict of interest.

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