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Graduate Certificate in Hand Therapy (United Kingdom)

## Therapeutic Interventions

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Hand therapy is a specialised area of physiotherapy and occupational therapy that focuses on the rehabilitation of the upper extremity, with particular attention to the hand and wrist. Within the Graduate Certificate in Hand Therapy (United Kingdom) a broad range of therapeutic interventions are explored, each accompanied by a set of specific terms and concepts that form the professional language of the discipline. The following explanation presents the essential vocabulary, organised by thematic clusters, and illustrates each term with practical examples, typical clinical applications and common challenges that practitioners may encounter.

### Assessment terminology

**Range of motion (ROM)** – The angular measurement of movement at a joint, expressed in degrees. ROM is quantified with a goniometer for joints such as the metacarpophalangeal (MCP), proximal interphalangeal (PIP) and wrist. Example: A client with a flexor tendon repair may demonstrate 30° of active flexion at the PIP compared with a normal expected 100°. **Passive range of motion (PROM)** – The movement produced by the therapist without active muscular effort from the patient. This is essential for distinguishing between joint stiffness and muscular weakness. Challenge: Excessive force during PROM can cause pain or tissue damage, especially in acute inflammatory phases. **Active range of motion (AROM)** – The movement generated by the patient's own muscle contraction. AROM assessments help identify motor control deficits. Example: After a distal radius fracture, AROM may be limited by pain, whereas PROM may be near normal.

### Strength assessment

**Manual muscle testing (MMT)** – A graded scale (typically 0–5) used to evaluate the ability of specific muscle groups to generate force. For hand therapy, MMT often focuses on grip, pinch and intrinsic muscle groups. Example: A grade 3 MMT for thumb abduction indicates the patient can move the thumb against gravity but not against resistance. **Grip dynamometry** – Objective measurement of hand grip strength using a calibrated dynamometer. Results are compared to normative data adjusted for age and sex. Practical application: Tracking progress after carpal tunnel release, where grip strength may increase from 15 kg to 25 kg over six weeks.

### Sensory assessment

**Two-point discrimination** – The minimum distance at which a patient can distinguish two separate stimuli on the skin. This test evaluates tactile discrimination, which is crucial for fine motor tasks. Example: A patient with a peripheral nerve injury may have a discrimination threshold of 12 mm compared with the normal 2–5 mm. **Semmes-Weinstein monofilament testing** – A set of calibrated filaments used to assess light touch perception. Scores are recorded as "normal," "diminished," or "absent." Challenge: Patients with oedema may have altered thresholds, requiring repeated testing after swelling resolves.

### Edema management terminology

**Compression therapy** – The application of graduated pressure using bandages, elastic sleeves or custom

orthoses to reduce interstitial fluid accumulation. Effective compression must be applied with a pressure gradient, higher distally and lower proximally. Example: A short-arm volar splint with a 20 mmHg compression sleeve for post-operative finger swelling. Elevation – Positioning the affected limb above heart level to facilitate venous return. Elevation is a cornerstone of early post-injury protocols. Practical tip: Instruct patients to prop the arm on pillows while sleeping to maintain a 30-degree incline. Manual lymphatic drainage (MLD) – A gentle, rhythmic massage technique that stimulates lymph flow along superficial pathways. MLD is often combined with compression and exercise. Challenge: Therapists must be skilled in the precise hand-over-hand movements to avoid tissue irritation.

#### Splinting and orthotic terminology

Static splint – An immobilising device that holds a joint in a fixed position, preventing movement. Used for conditions such as post-operative immobilisation after tendon repair. Example: A static volar wrist splint set at 20° of extension to protect a repaired extensor tendon. Dynamic splint – A removable orthosis that applies a controlled, low-load force to encourage gradual motion. Dynamic splints are valuable for preventing contractures. Example: A dynamic finger extension splint that provides a constant 5 N of extension force to a flexed PIP joint. Functional splint – An orthosis designed to support the hand during specific activities while allowing functional movement. Example: A thumb spica splint that permits key pinch while protecting the CMC joint after osteoarthritis surgery. Thermoplastic material – A mouldable polymer (often low-temperature thermoplastic) used to fabricate custom splints. The material becomes pliable at 60–70°C and hardens upon cooling, enabling precise contouring to the patient's anatomy.

#### Joint mobilisation terminology

Grade I – Small amplitude movement performed at the beginning of the range, used primarily for pain control. Grade II – Larger amplitude movement within the mid-range, also aimed at pain reduction. Grade III – Large amplitude movement performed up to the end of the available range, intended to increase joint mobility. Grade IV – Small amplitude movement performed at the end range, focusing on stretching the joint capsule. Grade V – High-velocity, low-amplitude thrust that moves the joint beyond its restrictive barrier, used sparingly in hand therapy.

Understanding the grading system is essential for safe and effective mobilisation. For instance, a patient with adhesive capsulitis of the wrist may benefit from Grade III mobilisation of the radiocarpal joint to improve flexion, while a patient with post-fracture stiffness might only tolerate Grade I-II techniques initially.

#### Therapeutic exercise terminology

Tendon gliding exercises – A sequence of movements that sequentially tension each flexor tendon to promote smooth excursion through the carpal tunnel. The classic “four-stage” tendon glide includes straight hand, hook fist, full fist, and straight hand with thumb adduction. Practical application: Prescribed 10 repetitions, four times daily after flexor tendon repair. Intrinsic muscle strengthening – Exercises that target the small muscles of the hand, such as the lumbricals and interossei. Tools include therapy putty, hand-grip exercisers and rubber bands. Example: “Paper-pinch” exercises where the patient lifts a sheet of paper using the thumb and index finger. Functional task practice – Repetitive performance of real-world activities (e.g., Buttoning a shirt, typing) to integrate motor learning principles. This approach emphasises specificity, feedback and progressive difficulty. Challenge: Ensuring tasks are appropriately graded to avoid

frustration while still providing sufficient challenge for neuroplastic change.

#### Scar management terminology

**Massage therapy** – Manual manipulation of scar tissue to remodel collagen alignment, reduce adhesions and improve tissue pliability. Techniques include cross-fibre massage, friction massage and myofascial release. Example: A 5-minute scar massage performed twice daily on a dorsal hand scar after skin grafting. **Silicone gel sheeting** – A non-adhesive, flexible silicone sheet applied over the scar to maintain hydration and modulate fibroblast activity. Typically worn 12–24 hours per day for several weeks. Practical tip: Instruct patients to clean the scar before applying the sheet to avoid infection. **Pressure garments** – Custom-fitted elastic garments that exert uniform pressure (approximately 20–30 mmHg) over extensive scar areas, such as after severe burns involving the hand. Challenge: Ensuring compliance, as garments can be uncomfortable in hot weather.

#### Modalities terminology

**Therapeutic ultrasound** – A high-frequency sound wave (usually 1 MHz or 3 MHz) that penetrates tissue to produce thermal and non-thermal effects. In hand therapy, ultrasound is commonly used at 1 MHz for deeper structures (e.g., Flexor tendons) and at 3 MHz for superficial tissues (e.g., Skin grafts). Example: 1 MHz continuous mode at 1.0 W/cm<sup>2</sup> for 5 minutes to increase tendon extensibility before mobilisation. **Low-level laser therapy (LLLT)** – Also known as cold laser, this modality delivers photons at specific wavelengths (typically 630–830 nm) to stimulate cellular metabolism and reduce inflammation. Evidence suggests modest benefits for pain modulation in conditions such as lateral epicondylitis. Challenge: Selecting appropriate dosage (energy density) to avoid under- or over-treatment. **Electrical stimulation** – The application of electrical currents to elicit muscle contraction, improve circulation or provide analgesia. Common forms include TENS (transcutaneous electrical nerve stimulation), NMES (neuromuscular electrical stimulation) and IFC (interferential current). Practical example: NMES at 35 Hz applied to the thenar muscles to prevent atrophy after median nerve decompression. **Paraffin wax bath** – A heat therapy in which the hand is immersed in melted paraffin (approximately 50 °C) for 20–30 minutes, providing deep, moist heat. Benefits include increased tissue extensibility and pain relief for arthritic joints. Example: A patient with osteoarthritis of the CMC joint receives a weekly paraffin soak followed by gentle joint mobilisation.

#### Therapeutic taping terminology

**Kinesiology tape** – Elastic, adhesive tape applied with tension to facilitate or inhibit muscle activity and improve lymphatic flow. In hand therapy, kinesiology tape may be used to support the wrist while allowing full range of motion. Example: Applying tape from the distal forearm to the dorsal hand in a “Y-strip” configuration to off-load the extensor tendons after epicondylitis. **Rigid taping** – Non-elastic tape used to restrict excessive movement, commonly employed in acute ligament injuries. Challenge: Ensuring the tape does not impede circulation, especially in the limited space of the hand.

#### Functional outcome measures terminology

**Disabilities of the Arm, Shoulder and Hand (DASH)** – A self-reported questionnaire that quantifies upper limb disability on a scale of 0 (no disability) to 100 (most severe). The shortened version, QuickDASH, contains 11 items and is frequently used in research and clinical audits. Example: A patient’s DASH score improves from 55 to 20 after a six-week hand therapy program. **Jebsen Hand Function Test** – A timed

performance test that assesses a range of hand functions, including simulated feeding, writing and object manipulation. Scores are interpreted in relation to age-matched norms. Practical tip: Repeat the test at baseline, 4 weeks and 8 weeks to track functional gains. Grip and Pinch Dynamometry – Objective tools that measure maximum voluntary grip and pinch forces. Results are expressed in kilograms or newtons and compared with normative data. Challenge: Ensuring consistent positioning (seated, elbow at 90°, forearm neutral) to obtain reliable data.

#### Patient education terminology

Activity modification – Advice to alter the way a task is performed to reduce strain on injured structures.

Example: Teaching a patient to use a “neutral wrist” position when typing to minimise median nerve compression. Ergonomic assessment – Systematic evaluation of workstations, tools and postures to identify risk factors for hand injury. In the UK, therapists often reference the Health and Safety Executive (HSE) guidelines when recommending workstation adjustments. Practical application: Recommending a split-keyboard and a forearm support for a data-entry clerk with early carpal tunnel symptoms.

Self-management plan – A personalised program that outlines home exercises, splint wear schedules, pain-monitoring strategies and criteria for seeking further care. Example: A patient with trigger finger receives a self-management plan that includes night-time splinting, gentle tendon glides, and a log to track pain intensity on a 0–10 scale.

#### Specific condition terminology

Flexor tendon repair – Surgical restoration of a ruptured flexor tendon, typically followed by a protocol of immobilisation, controlled mobilisation and progressive loading. Key terms related to this condition include “Kessler suture,” “pulley system,” “tendon gliding,” and “adhesive formation.” Example: After a zone II flexor tendon repair, the therapist initiates passive flexion exercises on day 3, progressing to active flexion at week 2, while monitoring for signs of tendon rupture (e.g., Sudden loss of flexion).

Extensor tendon injury – Damage to the extensor tendons at the dorsal hand, often requiring splinting in extension to protect the repair. Important concepts include “Mallet finger,” “Boutonniere deformity,” “tenolysis” and “dynamic extension splint.” Practical scenario: A patient with a Mallet finger is placed in a static extension splint for six weeks, with daily passive extension exercises to maintain joint alignment.

Carpal tunnel syndrome – Compression of the median nerve at the wrist, presenting with numbness, tingling and thenar weakness. Therapeutic terms encompass “median nerve gliding,” “wrist neutral splint,” “nerve flossing,” and “post-operative rehabilitation.” Example: After carpal tunnel release, the therapist prescribes wrist neutral splinting for two weeks, followed by progressive grip strengthening and activity modification.

Dupuytren’s contracture – A fibroproliferative disorder of the palmar fascia leading to finger flexion contractures. Relevant vocabulary includes “fasciectomy,” “needle aponeurotomy,” “splinting in extension,” and “range of motion maintenance.” Challenge: Postoperative scar management is critical to prevent recurrence, requiring diligent scar massage and silicone therapy.

Rheumatoid arthritis of the hand – An inflammatory arthropathy that produces joint swelling, pain and

deformity. Therapeutic concepts involve “joint protection,” “assistive devices,” “low-load strengthening,” “splinting for alignment,” and “pain-modulating modalities.” Example: A patient with a swan-neck deformity may wear a night-time dorsal blocking splint to prevent further hyperextension of the PIP joint.

Complex regional pain syndrome (CRPS) – A chronic pain condition characterised by hyperalgesia, swelling, motor dysfunction and autonomic changes. Key terms include “graded motor imagery,” “desensitisation techniques,” “mirror therapy,” “pain neuroscience education,” and “functional restoration.” Challenge: Treatment requires a multidisciplinary approach, and therapists must be cautious not to exacerbate symptoms through aggressive mobilisation.

### Rehabilitation phases terminology

Phase I – Protective phase – The initial period post-injury or surgery, characterised by immobilisation, edema control and pain management. Interventions focus on gentle PROM, compression, elevation and education. Example: After a distal radius fracture, the therapist applies a volar wrist splint, initiates finger PROM and instructs the patient on hand elevation.

Phase II – Mobilisation phase – The stage where controlled movement is introduced to restore ROM, prevent adhesions and promote tendon gliding. Interventions include active-assistive exercises, gentle joint mobilisation, and early functional tasks. Example: A patient with a repaired extensor tendon begins active extension exercises using a dynamic splint at week 3.

Phase III – Strengthening phase – The period where resistance training, functional task practice and endurance work are emphasized to rebuild muscular capacity and coordination. Interventions may incorporate theraband, hand-grip dynamometers, and activity-specific drills. Example: A boxer recovering from a hand fracture engages in progressive grip strengthening with a hand-grip exerciser, advancing from light to moderate resistance over four weeks.

Phase IV – Return-to-activity phase – The final stage focused on reintegration into occupational, sport or hobby activities. Emphasis is placed on skill acquisition, performance optimisation and injury-prevention strategies. Example: A pianist resumes scales and arpeggios under therapist supervision, with attention to ergonomic hand positioning and pacing to avoid overuse.

### Documentation terminology

SOAP note – A structured format for recording clinical encounters: Subjective, Objective, Assessment and Plan. Within hand therapy, the “Assessment” section often includes ROM values, strength grades, and functional scores such as DASH. Example: “Subjective: Patient reports mild night pain; Objective: PIP flexion 80°, grip 18 kg; Assessment: Improving but still limited; Plan: Continue tendon glides, add NMES.”

Progress note – A brief entry that captures changes from the previous session, including improvements, setbacks, and modifications to the treatment plan. Example: “Increased active PIP flexion from 70° to 80°, tolerated 10 repetitions of tendon glide without pain.”

Goal statement – A concise description of the desired outcome, written in SMART format (Specific,

Measurable, Achievable, Relevant, Time-bound). Example: "Patient will achieve 90° of active PIP flexion within four weeks."

#### Interprofessional terminology

Multidisciplinary team (MDT) – A collaborative group of health professionals (e.G., Surgeons, occupational therapists, physiotherapists, podiatrists, psychologists) working together to deliver comprehensive care. In hand therapy, MDT communication is essential for coordinated splinting, surgical follow-up and rehabilitation planning.

Referral pathway – The process by which patients are directed from primary care (e.G., GP) to specialist services (e.G., Hand surgery) and subsequently to hand therapy. Understanding the referral pathway helps therapists manage expectations and ensure timely intervention.

Hand therapist – A practitioner with specialised training (often at postgraduate level) who provides expert assessment, treatment and education for hand conditions. In the UK, the title is protected by professional bodies such as the Royal College of Surgeons and the Association of Chartered Physiotherapists in Hand Therapy (ACPHT).

#### Common challenges and problem-solving terminology

Patient adherence – The degree to which a patient follows prescribed home programmes, splint wear schedules and activity modifications. Strategies to improve adherence include setting realistic goals, providing written instructions, and using reminder tools (e.G., Smartphone apps).

Pain catastrophising – An exaggerated negative mental set towards pain, often measured with the Pain Catastrophising Scale (PCS). High PCS scores can hinder rehabilitation progress. Therapeutic approaches include cognitive-behavioural techniques, graded exposure and reassurance.

Complication monitoring – The systematic observation for adverse events such as infection, tendon rupture, complex regional pain syndrome or splint-related skin breakdown. Documentation of warning signs (e.G., Increasing pain, swelling, erythema) is crucial for early intervention.

Outcome variability – The recognition that patients with similar diagnoses may experience different recovery trajectories due to factors such as age, comorbidities, psychosocial status and baseline functional level. Therapists must individualise treatment plans and set flexible timelines.

#### Research and evidence-based practice terminology

Randomised controlled trial (RCT) – The gold standard study design for evaluating the efficacy of therapeutic interventions. In hand therapy literature, RCTs compare modalities such as ultrasound versus sham, or static versus dynamic splinting.

Systematic review – A comprehensive synthesis of all relevant studies on a specific topic, providing high-level evidence. Example: A systematic review of low-level laser therapy for lateral epicondylitis informs clinical decision-making.

Clinical practice guideline (CPG) – Evidence-based recommendations that assist clinicians in selecting appropriate interventions. In the UK, NICE guidelines on hand conditions are frequently consulted.

Level of evidence – A hierarchy that categorises research quality, ranging from Level I (high-quality RCTs) to Level V (expert opinion). Hand therapists should aim to base interventions on Level I or II evidence whenever possible.

#### Technology-enhanced therapy terminology

Virtual reality rehabilitation – The use of immersive computer-generated environments to facilitate motor learning and engagement. Hand therapy applications include virtual “pinch” games that provide real-time feedback on grip force.

Wearable sensors – Devices that monitor hand motion, grip force or activity levels, transmitting data to clinicians for remote monitoring. Example: A glove-based sensor that records daily finger flexion angles, enabling therapists to adjust home programmes based on objective use patterns.

Tele-rehabilitation – The delivery of therapy services via video conferencing platforms, allowing remote assessment, instruction and progress review. In the UK, tele-rehabilitation has expanded during public health emergencies, offering continuity of care for patients unable to attend face-to-face appointments.

#### Legal and ethical terminology

Informed consent – The process by which a patient receives adequate information about the nature, benefits, risks and alternatives of a proposed intervention, and voluntarily agrees to proceed. Documentation of consent is mandatory before invasive procedures such as tendon tenolysis.

Professional indemnity – Insurance that protects therapists against claims of negligence or malpractice. All practising hand therapists in the UK must maintain valid indemnity coverage in accordance with the Health and Care Professions Council (HCPC) regulations.

Confidentiality – The ethical duty to protect patient information, adhering to the Data Protection Act and General Data Protection Regulation (GDPR). Therapists must ensure that electronic records, including video recordings of functional tasks, are stored securely and accessed only by authorised personnel.

#### Specialty-specific tools and equipment terminology

Theraputty – A malleable silicone material used for graded resistance exercises to improve grip strength and dexterity. The material is available in different densities (e.g., Soft, medium, hard) to provide progressive loading.

Hand-held dynamometer – A portable device that quantifies force output during grip or pinch tasks. Calibration before each use ensures accuracy.

Orthotic workshop – A specialised facility equipped with thermoplastic heaters, vacuum forming machines, and carving tools for custom splint fabrication. Hand therapists often collaborate with orthotists in these

settings.

Digital goniometer – An electronic device that records joint angles with increased precision compared with manual goniometers. Data can be transferred to patient records for trend analysis.

Therapeutic putty ball – An ergonomically shaped ball filled with silicone putty, used for proprioceptive training and hand strengthening.

Terminology related to specific functional tasks

Key pinch – The grip formed between the thumb and the lateral aspect of the index finger, commonly used in fine motor tasks such as turning a key. Therapeutic exercises may target key pinch strength using a pinch block or small cylinder.

Tip pinch – The pinch performed between the thumb and the tip of the index finger, essential for writing and manipulating small objects. Example: Practising tip pinch with a 5 mm bead to improve dexterity after a nerve injury.

Power grip – The whole-hand grasp used for holding larger objects (e.G., A hammer). Strengthening the power grip involves using hand-grip exercisers or a therapy ball.

Fine motor coordination – The ability to execute precise, small-scale movements, often assessed with tasks such as tracing, bead stringing or typing. Interventions include task-specific drills and sensory re-education.

Clinical reasoning terminology

Hypothesis-driven assessment – The process of forming clinical hypotheses based on patient history and examination findings, then testing these hypotheses through targeted investigations. For example, hypothesising that limited PIP flexion is due to tendon adhesion, and confirming with a tendon glide test.

Red flag – Signs that indicate a serious underlying condition requiring urgent referral (e.G., Sudden loss of hand function, severe unrelenting pain, signs of infection). Therapists must recognise red flags and act promptly.

Outcome-oriented goal setting – The practice of establishing goals that are directly linked to functional outcomes, rather than solely to impairments. An outcome-oriented goal might be “patient will be able to type a 40-word paragraph without pain” rather than “increase wrist extension to 30°.”

Terminology for patient-centred communication

Motivational interviewing – A counselling approach that encourages patients to articulate their own reasons for change, enhancing engagement with rehabilitation. Example: Asking “What activities are most important for you to return to?” To elicit personal motivation.

Shared decision-making – A collaborative process where clinicians and patients discuss treatment options, benefits, risks and preferences, arriving at a mutually agreed plan. In hand therapy, shared decision-making may involve choosing between a static splint and a dynamic splint for contracture prevention.

Health literacy – The degree to which patients can obtain, process and understand health information. Therapists must adapt educational materials to suit varying literacy levels, using plain language and visual aids.

#### Specific intervention protocols

Boston splint protocol – A widely used regimen for managing tendon adhesions after flexor tendon repair. The protocol includes a schedule of passive flexion, active flexion, and extension exercises, typically progressing over six weeks.

Vince-Miller protocol – A splinting and mobilisation approach for Dupuytren’s contracture post-fasciectomy, emphasizing early extension splint wear and scar massage to minimise recurrence.

Orthotic wear schedule – The prescribed timing for splint use (e.G., “Wear at night and during high-risk activities, remove for hygiene and therapy sessions”). Clear communication about wear schedule reduces the risk of non-compliance and skin irritation.

#### Terminology addressing psychosocial aspects

Fear-avoidance beliefs – The perception that activity will cause further injury, leading to avoidance of movement. High fear-avoidance can impede progress, and therapists may use graded exposure to address it.

Social support – The network of family, friends and caregivers who assist the patient in adhering to therapy. Documentation of social support helps in planning home-based exercises and determining the need for caregiver training.

Work-related disability – The impact of a hand condition on the ability to perform occupational duties. Hand therapists often conduct vocational assessments and recommend workplace modifications to facilitate return-to-work.

#### Terminology for advanced manual techniques

Myofascial release – A hands-on technique that applies sustained pressure to fascial layers to release restrictions and improve tissue pliability. In hand therapy, myofascial release may be applied to the forearm flexor fascia to reduce compartment pressure.

Cross-fibre friction massage – A manual technique that mobilises scar tissue perpendicular to fibre orientation, promoting collagen realignment. Example: Applying cross-fibre friction to a dorsal hand scar after skin grafting.

Joint distraction – A mobilisation maneuver that separates joint surfaces to decrease intra-articular pressure and improve range of motion. This technique is useful for stiff wrist joints following prolonged immobilisation.

#### Terminology for pediatric hand therapy

Growth plate injury – Damage to the epiphyseal plate in children, requiring careful monitoring to avoid growth disturbances. Hand therapists must adapt splinting techniques to accommodate ongoing bone growth.

Play-based therapy – Incorporating games and toys to encourage active participation in children, making exercises enjoyable while promoting functional gains. Example: Using a “pinch-the-apple” game to improve thumb opposition after a congenital anomaly repair.

Family-centred approach – Engaging parents and caregivers as partners in the therapeutic process, providing them with training to facilitate home exercises.

#### Terminology for geriatric hand therapy

Osteoporotic fracture – A fracture occurring in bone weakened by reduced mineral density, common in older adults. Rehabilitation protocols must consider fragility and incorporate safe loading strategies.

Age-related decline in proprioception – Reduced joint position sense that can affect hand coordination. Interventions include proprioceptive training using textured surfaces and balance boards for the upper limb.

Adaptive equipment – Devices such as built-up handles, jar openers and modified keyboards that enable older adults to maintain independence despite hand weakness.

#### Terminology for sports-related hand injuries

Boxer’s knuckle – Contusion of the metacarpophalangeal joint capsule, often presenting with swelling and pain on dorsum of the hand. Management includes joint protection, cryotherapy and gradual return-to-impact activities.

Gymnast’s wrist – Chronic overuse injury affecting the distal radioulnar joint, characterised by pain on ulnar deviation. Therapeutic interventions include wrist stabilisation splints, eccentric loading exercises and activity modification.

Return-to-play criteria – Objective benchmarks that must be met before an athlete resumes sport, such as pain-free grip strength  $\geq 90\%$  of the contralateral side, full ROM and functional test performance.

#### Terminology for chronic pain management

Graded exposure – A behavioural technique that gradually introduces feared activities, reducing avoidance and anxiety. In hand therapy, graded exposure may involve progressive loading of a painful grip task.

Pain neuroscience education – Teaching patients about the neurophysiological mechanisms of pain to shift maladaptive beliefs. Example: Explaining how the brain amplifies nociceptive signals after a nerve injury.

Central sensitisation – An increased responsiveness of central neurons to peripheral input, contributing to widespread pain. Hand therapists may need to collaborate with pain specialists when central sensitisation is suspected.

### Terminology for outcome measurement tools

**Patient-Specific Functional Scale (PSFS)** – A brief questionnaire where patients identify up to five activities they find difficult and rate their ability on a 0–10 scale. The PSFS is useful for tracking individualized progress.

**Visual analogue scale (VAS)** – A 10-cm line anchored by “no pain” and “worst pain imaginable,” used to quantify pain intensity. The VAS is simple, reliable and frequently employed in clinical trials.

**Box and Block test** – A timed test that measures gross manual dexterity by counting the number of blocks transferred from one compartment to another within 60 seconds.

### Terminology for documentation standards

**Clinical coding** – The use of standardised alphanumeric codes (e.G., ICD-10, OPCS) to classify diagnoses, procedures and interventions for billing and audit purposes. Hand therapists must accurately code procedures such as “splint application” (e.G., OPCS code X71.1) To ensure proper reimbursement.

**Audit cycle** – A systematic review of clinical practice against established standards, followed by implementation of improvements. In hand therapy, an audit may examine compliance with splint wear guidelines and patient outcome measures.

### Terminology for research methodology

**Cross-sectional study** – An observational design that assesses a population at a single point in time, useful for establishing prevalence of hand conditions.

**Prospective cohort study** – A longitudinal design that follows a group of patients over time to examine outcomes related to specific interventions.

**Effect size** – A statistical measure that quantifies the magnitude of treatment effect, independent of sample size. Hand therapy researchers report effect sizes (e.G., Cohen’s *d*) to indicate clinical relevance of findings.

### Terminology for health economics

**Cost-effectiveness analysis** – An economic evaluation that compares the relative costs and outcomes of two or more interventions, expressed as cost per quality-adjusted life year (QALY).

**Incremental cost-utility ratio (ICUR)** – The additional cost required to gain one additional QALY when switching from one intervention to another. Hand therapists may contribute data on therapy hours and functional gains to inform ICUR calculations.

### Terminology for professional development

**Continuing professional development (CPD)** – Ongoing learning activities that maintain and enhance competence. In the UK, hand therapists must log CPD hours annually to satisfy HCPC re-registration requirements.

Peer-reviewed journal – A scholarly publication in which submitted manuscripts undergo evaluation by experts in the field before acceptance. Hand therapists frequently reference journals such as “The Journal of Hand Therapy” and “Hand Surgery.”

Mentorship – A structured relationship in which an experienced practitioner provides guidance, feedback and support to a less experienced colleague, fostering clinical skill development and reflective practice.

Terminology for ethical dilemmas

Resource allocation – Decisions about how limited healthcare resources (e.G., Splint material, therapist time) are distributed among patients. Therapists must balance equity and need when prioritising caseloads.

Conflict of interest – Situations where personal or financial interests could influence professional judgement. Disclosure of any relationships with equipment manufacturers is mandatory to maintain transparency.

Terminology for cultural competence

Health belief model – A framework that explains how cultural beliefs influence health behaviours, such as attitudes toward splint use or medication. Understanding a patient’s cultural context can guide tailored education.

Interpreter services – Professional language assistance that ensures accurate communication with patients who have limited English proficiency. Hand therapists should arrange interpreter support for consent and instruction where needed.

Terminology for risk management

Incident reporting – The formal documentation of any adverse event or near-miss that occurs during therapy (e.G., A patient developing a pressure ulcer under a splint). Prompt reporting enables corrective actions and quality improvement.

Root-cause analysis – A systematic investigation that identifies underlying factors contributing to an incident, informing preventative strategies.

Terminology for policy and regulation

Health and Social Care Act – Legislation that sets out the framework for health service delivery in England, including standards for safe practice. Hand therapists must be familiar with the Act’s implications for service commissioning and patient safety.

National Institute for Health and Care Excellence (NICE) – The body that produces evidence-based guidance on clinical practice, including recommendations for the management of musculoskeletal conditions of the hand.

Terminology for interdisciplinary collaboration

Occupational therapist – A health professional who focuses on enabling participation in daily activities,

often working alongside hand therapists to address ADL (activities of daily living) challenges.

**Hand surgeon** – A specialist surgeon (orthopaedic or plastic) who performs operative procedures on the hand. Close communication ensures alignment of post-operative protocols and splinting strategies.

**Physiotherapist** – A practitioner who emphasizes movement, exercise, and manual therapy. In hand therapy, physiotherapists may contribute to joint mobilisation, therapeutic exercise prescription and pain management.