

Chapter 19

Equipment Options for Use in the Aquatic Therapy Pool

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OBJECTIVES

- Learn key elements of choosing aquatic physical therapy equipment for patient procedures in the warm water pool.¹
- Understand the potential liability associated with using aquatic equipment in a physical therapy practice.²
- Understand how specific types of aquatic equipment are manufactured and how to care for the equipment.
- Understand how various types of equipment are useful for specific treatment protocols.^{3,4}

Equipment available for use during aquatic physical therapy procedures and exercise sessions comes in a wide variety of sizes and types. Some pools have built-in apparatus such as treadmills, massage hoses, underwater video room, various seat arrangements with grab bars, entry ramps, and swim jets.^{5,6,7,8} Other equipment can be hand-held, slip-on, lightweight foam, expandable resistance, or contoured systems to provide impact-free exercise.^{9,10,11} Many pieces of equipment have a special shape, size, or feature, allowing the therapist to select multiple products for multiple uses. Individual patient needs dictate which equipment the therapist will utilize.

All pieces of pool equipment are designed to optimize the properties of water. A variety of equipment can be made available for program progression. Many are classified by therapists to include the following for selection during therapeutic procedures: (1) **buoyancy assist** (foam cuffs, belts, cervical collars, buoyancy bars), (2) **super assist** (graded air filled devices, larger foam bars or hand-held devices), (3) **buoyancy resist** (dumbbells, boots, paddles, gloves, kickboards, fins), or (4) **super resist** (weights, hard plastic boots, hand-held hard plastic or air filled devices).¹² With programs designed using different levels of progression, each level may have a different set of equipment. The end result of aquatic physical therapy treatment is to transfer gains the patient has made in the pool to dry land.

Some ailments treated in the pool may include (1) prepartum or postpartum pelvic and low back pain,^{13,14} (2) lower or upper extremity edema,¹⁵ (3) fractures,¹⁶ (4) arthritis and osteoarthritis,^{17,18} (5) spine dysfunction,^{19,20} (6) cerebral palsy,²¹ (7) neurologic disorders,²² (8) decreased balance or fear of falling disorders, (9) post surgical and orthopedic injuries,^{23,24} (10) heart disease,^{25,26} and (11) spinal cord injuries. Most need a physician's referral to begin treatment.