# **Chapter 11**

# **Post-Operative Orthopedic Aquatic Rehabilitation**

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#### CHAPTER OBJECTIVES

- Understand the healing process, phases and characteristics of specific tissues.
- Describe the effects of immobilization on specific tissues.
- Identify the indications, contraindications, benefits and precautions for post-surgical aquatic rehabilitation.
- Identify types of dressings and bandages that are available for use in aquatic environment to protect surgical wounds/incisions.
- Explain the pool safety considerations with post-operative clients.
- Recognize various surgical procedures and identify guidelines and restrictions for healing
  and therapeutic exercise progressions with specific considerations for designing an aquatic
  rehabilitation program for each surgical procedure described..

## INTRODUCTION

Post-surgical rehabilitation has been described and implemented for decades as primarily a land based procedure. This chapter attempts to explain how the aquatic environment can be implemented to assist in the post-surgical rehabilitation to aid in client pain, range of motion, and return to functional activities of daily living and sport. Concerns associated with wound and tissue healing, care for wounds, and when and how to enter the water with wounds will be described. The effects of immobilization and how to maneuver in the aquatic environment with mobilization issue will be presented along with general safety principles of the pool and facility. Specific injuries and surgical procedures will be presented with a way to add aquatic rehabilitation as a adjunctive therapy to enhance the management of the post-surgical client.

## WOUND AND TISSUE HEALING

All injuries whether they are accidental, surgical, or develop over time heal in three phases.