Carpal tunnel syndrome is the most common condition surgically treated by hand surgeons. It is interesting to note this condition was only definitively described in the years after World War II. Retrospectively, however, this condition did not appear suddenly at that time but was known under a variety of different names in the past. Patients who appear to have suffered from carpal tunnel syndrome are clearly depicted in the surgical literature going back at least to the mid-1800s. The evolution of the clinical understanding that led to the current knowledge of carpal tunnel syndrome is an interesting one and represents a pattern that may be typical for many medical conditions. Specifically, early on there was confusion as to the pathophysiology, resulting in a variety of etiological theories, which in turn resulted in a variety of apparently different diagnoses being applied to the same clinical entity. Only later did the clinical threads merge and result in a single coherent clinical picture.

For carpal tunnel syndrome there were three major threads which needed to unite in order to establish our current understandings. Specifically, these were the threads of acroparesthesia, thenar neuritis, and median neuropathy after wrist fracture. The earliest of these threads was actually median neuropathy after wrist fracture, known at least since 1836 when Gensoul [1] described a case of the median nerve entrapped in an open fracture of the radius. In 1854 Paget [2] described two cases of median neuropathy after fracture of the distal radius. One case was treated by amputation and the other by splinting. Coming closer to our current understanding and therapeutic regimen, Bouilly, in 1884, described a 17-year-old with a Colles fracture and median neuropathy treated by excision of prominent palmar callus [3]. Additional cases were reviewed by Blecher in 1908 [4] and Kirchheim in 1909 [5]. By 1926 Dickson was describing a case of causalgia after Colles fracture, relieved by median neurolysis [6]. Finally, in 1933 Abbott and Saunders, in their classic cadaver study, injected dye into the carpal tunnel and noticed increased resistance to dye flow with wrist flexion [7]. As a result of this they condemned the Cotton-Loder position (Fig. 1.1), which had been commonly used up until that time for the treatment of Colles fracture. Bunnell later stated that it was this paper by his San Francisco colleagues, Abbott and Saunders, which prompted his own interest in what later came to be known as carpal tunnel syndrome [8]. The problem of carpal tunnel syndrome after Colles fracture continues, of course, to remain an important clinical problem (Fig. 1.2).

A related thread was that of median neuropathy associated with lunate dislocation. Speed reported three
Displaced Colles fractures are still a common cause of posttraumatic carpal tunnel syndrome. Chronic lunate dislocation remains a classic cause of carpal tunnel syndrome, and is still treated by lunate excision. A chronic lunate dislocation associated with symptoms of carpal tunnel syndrome. Complete relief of symptoms after excision of the dislocated lunate. Cases in 1922 [3], which improved with excision of the lunate. Watson-Jones in 1927 [9] and Meyerding in 1927 [10] also reported excellent restoration of median nerve function after removal of the dislocated lunate bone. The problem of chronic lunate dislocation and its treatment by lunate excision, of course, remains relevant to the present day (Fig. 1.3).

The second major thread, historically speaking, was that of acroparesthesias. Initially, there was no thought that acroparesthesias and median neuropathy associated with wrist fractures might actually share a final common anatomic bottleneck, namely the flexor retinaculum at the wrist. In 1862 Raynaud postulated that there was a vasomotor origin for these acroparesthesias [35]. Nonetheless he described what appears to be fairly classical symptoms of carpal tunnel syndrome: “a depressing sense of numbness and tingling… the tactile sense may be so much impaired that it is difficult for the fingers to retain small objects.” Certainly this is a common complaint among carpal tunnel syndrome patients even to this day. In 1880 Putnam, in Boston, reported on 37 patients, mostly women, who had nocturnal paresthesias. He noted that “simply letting the arm hang out of the bed or shaking it about… [or the use of] prolonged rubbing would relieve the symptoms.” He also noted “certain fingers were more severely affected… often it’s those supplied by the median nerve” [12]. Again, classic symptoms for present-day carpal tunnel...