

# Clinical history and physical examination

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**History** Asking about the patient's occupation, hobbies (sport, musical instruments, fine art) and hand dominance are important when taking a history. In considering the problem concerned there are a number of symptoms that patients complain of: pain, swelling, stiffness, instability and pins and needles are commonly encountered in the hand and wrist. Sometimes these present together and sometimes in isolation, but all affect the function of the hand. It is vital to ask which of these issues causes the functional deficit, since there is no value in fusing a painful finger that is stiff if the main concern of the patient is the stiffness rather than the pain. A history of other medical comorbidities is important to glean, since these may well be part of the pathology or alter the management strategies that can be considered, e.g. carpal tunnel syndrome may be the first presentation of diabetes mellitus.

**Examination** The examination of the hand should assess sensation, movement, power and clinically relevant special tests for the issues encountered. Perfusion is seen (pink is well perfused) and felt (slightly warm to the touch with palpable radial and ulnar pulses). Sensory innervation of the median (radial 3.5 volar digits), ulnar (ulnar 1.5 volar digits) and radial (first dorsal web space and back of the hand) nerves is required. To test the motor innervation one can assess the abductor pollicis brevis for the median nerve and the first dorsal interosseous muscle for the ulnar nerve. The radial nerve does not supply any muscles in the hand but supplies the muscles that drive wrist extension. In assessing movement and power, one should start by evaluating functional combined movements such as grip, 'thumbs up', flat hand, palm up (supination) and palm down (pronation) as well as wrist movements (flexion, extension, radial and ulnar deviation). After that, a more detailed assessment of each individual muscle/tendon group is required. While assessing movements, obvious side-to-side asymmetry may be encountered, such as rotational malalignment of the digits ( Figure 38.42 ). There are also a number of special tests relevant to different pathologies seen.

**Figure 38.41** Froment's sign tests the adductor pollicis. The patient is asked to hold a piece of paper in a

# side pinch between the thumb and

the index finger. The examiner attempts to pull the paper out. Owing to weakness of the adductor pollicis, the patient will compensate by flexing the flexor pollicis longus, which is supplied by the anterior interosseous nerve (median nerve).

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