

Management

Early management practices for paralysed muscles emphasised the need to rest the affected muscles and splint them to prevent contractures. Many paralysed patients lay in plaster body casts for months at a time. This prolonged casting often resulted in disuse and atrophy of muscles both affected and not affected by the disease.

In 1940, Sister Elizabeth Kenny, an Australian nurse, arrived in North America and challenged this approach to treatment. Having treated polio cases in rural Australia, Sister Kenny had improvised a form of therapy that aimed at relief of pain and spasm that was contrary to the opinion of much of the medical profession. Her treatment protocol involved the use of hot, moist packs to relieve muscle spasm and the prescription of early activity and exercise to maximise the strength of unaffected muscle fibres. Sister Kenny settled in Minnesota and established an institute, from which she began her world-wide crusade to advocate her system of treatment. Slowly, Sr Kenny's ideas won acceptance and by the mid 20th century had become the hallmark for the treatment of paralytic polio.²

THE LATE EFFECTS OF POLIO

A significant development which saved the lives of many with severe respiratory problems was the development and introduction of the mechanical tank respirator (or iron lung) during the 1930s.¹³ Other respiratory aids, such as the “rocking bed” were used in patients with less critical breathing difficulties.

Patients with residual paralysis were treated with braces and taught to compensate for lost function with the help of callipers, crutches and wheelchairs. Orthopaedic surgical procedures such as joint fixations, tendon transfers and limb lengthening and shortening, were used extensively.¹³