ACTIVITY IN REHABILITATION

BY

Sir ROBERT STANTON WOODS, M.D., F.R.C.P.

Consultant Adviser in Physical Medicine; Member of the Committee on Rehabilitation, E.M.S., Ministry of Health

When a member of the rescue squad gingerly removes the debris from the limbs of the entombed air-raid victim, or a stretcher-bearer picks up the wounded soldier, he takes the first step in a long series of activities destined to rehabilitate or restore to health the casualty he has rescued. Every phase of the patient's subsequent treatment—first-aid, resuscitation, operation, blood transfusion, skin-grafting, physiotherapy, psychotherapy, supervised exercises, occupational therapy, vocational training—is part of a well-ordered plan with one object in view: that of returning the injured person to the fullest possible living and working capacity.

Such a plan, whereby the industrial or war casualty is followed through from the injury to his return to work, is fundamental in the organization of the Emergency Medical Service. At no period has the pronouncement "The operation was successful but the patient died" ever been more than a popular gibe. Paraphrased, however, as "the fracture was successfully set but the limb completely useless," it becomes relevant to what not seldom occurred in the recent past when the unfortunate victims of injury were sent out into the world with the not unfamiliar rigid joints, the wasted claw-like hands; so that, encountering them, one was at times forced to the conclusion how much better a really good artificial limb would have been.

Early Application of Physical Measures

With the extension of modern rehabilitation facilities came the widespread realization that physical measures for restoring function—massage, electrical stimulation, remedial movement—must, to be effective, be applied early, in many cases from the beginning of treatment. The fracture case is no longer merely a broken bone to be joined together in good alignment, but a bone clothed in muscles, whose blood and nerve supply must be maintained throughout in the face of enforced immobilization, and in which healing must keep pace with the bony union. Massage, electrotherapy, assisted movement, afford very necessary and very effective means for maintaining the ebb and flow of blood and lymph in a muscle which must not or cannot be moved by the patient himself.

But as soon as the patient can move the injured part with safety, such purely local and passive measures of restoration may in the majority of cases be abandoned with advantage in favour of active therapy, since the muscle stimulus most potent for good is the one coming from the central nervous system. As the patient's muscles contract in voluntary effort they promote the blood and lymph flow and bring fresh supplies of nutrient fluid to the injured tissues by a much more physiological mechanism than that of artificial stimulation. Furthermore, these nutrient fluids bathing the injured area must possess certain biochemical properties if optimum healing is to occur. Thus the health and general muscle tone of the patient have to be considered, the scope of rehabilitation is widened still further to include dietetics and general exercise, and we are no longer dealing with an injury but with an injured body.

Quite apart from the economic fear, the dread of losing one's job, of having to be kept by relations or by the State, even the merely temporary loss of use in an arm or leg can be accompanied by serious mental depression peculiarly inherent in this type of illness, since movement, one of the fundamental attributes of living matter, is as natural and necessary as breathing and eating. The patient becomes convinced that he is crippled, paralysed; he will never be any good again. Once the disabled person can be shown that he can throw a dart or kick a football or hammer in a nail or work a loom almost as well as the next patient and certainly better than he himself did yesterday, he is on the road to recovery, mental as well as physical. And now we are no longer dealing with an injured body, but with an injured person—body, mind, spirit.

Purposeful Movements of Muscle Groups

Even stereotyped voluntary movements of the injured part alone, since they demand the patient's co-operation and introduce the element of self-help, are excellent psychologically. Of far greater therapeutic value are purposeful and productive movements of groups of muscles such as those required in the performance of games and handicrafts, or the resumption of Army training, where the creative and competitive instincts can be brought into action and the patient's attention is no longer focused on his disability but rather on his returning skill in achievement. It is better still when he can actually forget himself in the interest and usefulness of the work or the sheer enjoyment of the game so that muscular co-ordination is achieved automatically and without conscious effort.

The importance of activity in recovery is not confined to injuries. Before and after an abdominal operation, before and after childbirth, in recovery from many illnesses, and very especially in the treatment of the psychoneuroses, active and productive exercise now plays a prominent part in treatment. In a certain Army convalescent depot of 1,000 beds, as at present constituted, 25% of those undergoing active rehabilitation come under the category of "hernia."

Medical Supervision

All these therapeutic measures ought to be under the direct supervision of an instructed medical practitioner, whilst the patients are guided at their work and play by a staff of male and female medical gymnasts and occupational therapists. In this way only such movements as are safe and effective in any given case are performed, and the range of activity is gradually increased with the patient's increasing capacity.

Planned at first to deal with air-raid victims only, the E.M.S. later afforded accommodation for Service casualties, and later still its orthopaedic and fracture centres have become extended and will co-operate in the ambitious scheme for industrial rehabilitation now on foot. It would seem that the demands of such an elaborate and growing organization for trained masseuses must become for a time increasingly difficult to meet. Fortunately, however, the problem is being partly solved by the more widespread use of active than of passive physical treatment. Not only does the patient benefit mentally and physically, as we have seen, by the increasing use of active rehabilitation, but whereas in the past a masseuse might spend three-quarters of an hour giving passive treatment (massage and electrotherapy) to one patient, or could treat at the most only two patients simultaneously, she can now give active treatment in medical gymnastics to eight or nine patients at the same time. Passive therapy still has an important place in rehabilitation, but as soon as the injured part can be used at all the physician or surgeon in control makes his decision as to how far active therapy can be substituted. The earlier this can safely be brought about the more rapid the patient's recovery and the greater the saving in trained personnel.

MEDICAL SICKNESS AND LIFE ASSURANCE

The annual meeting of the Medical Sickness, Annuity and Life Assurance Society, Ltd. (whose registered offices are now at Highfield, Chesterton, Cirencester), was held in London, with Mr. R. J. McNeill Love, chairman of the Board of Directors, presiding. Reference was made to the heavy personal losses the Society has suffered during the year in the death of its chairmen, Dr. F. C. Martley and Dr. G. de Bec Turtle, and of Sir William Willcox, who had been a member of the Board for more than twenty years.

The chairman said that the amount of new business in the Life Assurance Fund was only slightly smaller, but the claims by death had been lighter and the surrenders fewer. On the Sickness Fund the claims had been considerably lighter and the premiums were up a little. The funds of the Society had been increased by £173,537, and now stood at £2,355,319. The quinquennial valuation had taken place at the end of the year under review, and on a cautious estimate a surplus of nearly £83,000 was disclosed on the Life Assurance and Annuity Fund and of £120,850 on the Sickness Fund. Both Funds had been strengthened and provision made for all known contingencies.

A vote of thanks was accorded to the staff on the motion of the chairman, who mentioned that Mr. Bertram Sutton, the manager and secretary and now one of the directors, had been with the Society for 43 years, 30 of which had been in the capacity of chief officer.