

## People with Spinal Cord Injury in Israel

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### EPIDEMIOLOGY OF SPINAL CORD INJURY IN ISRAEL

There is currently no epidemiological database in Israel concerning spinal cord injury (SCI). The data presented here date back nearly 40 years and are reported in 2 studies carried out at an important site for spinal cord rehabilitation medicine in Israel, the Lowenstein Rehabilitation Hospital.<sup>1-3</sup> In 2009, it was estimated that there were 140 new cases of SCI per year. Traumatic SCI was mostly due to vehicular accidents,<sup>4</sup> work accidents, war violence, and shallow water accidents. The incidence of traumatic cases was more common than nontraumatic cases in persons 40 years or younger. Mortality for all causes of SCI combined stood at 4.8% a year after injury and 13.6% 5 years after injury.

### THE PATIENT JOURNEY THROUGH THE CHAIN OF CARE

The SCI patient's journey begins upon arrival of the paramedics at the scene of the accident. Paramedics are specifically trained to handle cases of SCI by providing immobilization of the patient and adequate transport and transfer. Transport to the nearest emergency room is relatively fast because Israel is a small country with a well-developed ambulance service. Rescue in areas without roads is done by means of a specialized helicopter service. The primary rescue team is very professional and well equipped in the provision of emergency treatment in the field. The general population is also educated in basic life support and the immobilization of people injured with suspicion of SCI.

After arriving in the emergency room, comprehensive medical assessments and radiological studies can be performed without delay. Appropriate insurance is checked only after the patient is hospitalized. At all major admitting hospitals, the ambulances are equipped with advanced intensive care facilities capable of stabilizing the survivor's medical condition. If the hospital is small and without a specialized neurosurgical department or orthopedic spine department, the patient is

transferred to the appropriate hospital for further treatment. Today the majority of SCI patients require further surgery for stabilization of the spine. Statistics reveal that 20% of patients with traumatic injuries of the spine have involvement of the spinal cord; 55% to 59% of them needed to be operated on. After the surgery and further medical stabilization, 45% of the SCIs were transferred to rehabilitation.<sup>1</sup>

In Israel, 2 neurological rehabilitation departments are specialized in the management of SCI patients. One rehabilitation center is located within a general hospital, whereas the other is in the community. The rehabilitation process depends on the level and severity of SCI and can last up to 6 months. A comprehensive multidisciplinary team approach is provided in light of the patient's special medical needs. On the medical front, SCI-specific issues include deep vein thrombosis and osteoporosis prophylaxis, pain relief, bladder and bowel incontinence, treatment and prevention of pressure sores and contractures, and spasticity management.

The main goals of the inpatient rehabilitation are to achieve maximal functional independence in activities of daily living and to optimize mobility in light of the severity of the injury. The majority of the patients are discharged home, while continuing outpatient rehabilitation in a day care setting or physical therapy in the community. Each neurological rehabilitation department specialized in SCI provides medical regular life-long follow-up outpatient care services after discharge for individuals with SCI.

### LIVING WITH SCI

The reintegration of the SCI population into the society is difficult in Israel both on a professional level and a personal level. Funds from the government are provided for education and reeducation purposes. Guidance is also provided for job placement. Unfortunately, we know very little about the everyday life of persons with SCI because there are few available data or research done on, for example, success rates for reentry to work. This lack of statistics also applies to the social and marital status of persons with SCI. In the case of housing, patients from a lower socioeconomic status are provided a stipend; otherwise, they receive a loan. The state also provides funds to help cover rental costs. The level of SCI activity in the community differs from person to person and is dependent on financial means, type of injury, and personality, but the unemployment rate may be as high as 50% of the working-age population with disabilities of all varieties.

### THE HEALTH AND REHABILITATION SYSTEM

The health system in Israel is of a mixed type. Each person is covered for their basic needs by the public system. Those who choose to have more specialized insurance or wish to

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see specific doctors go into the private system, which exists alongside the public system. Some patients who use the private system are sometimes reimbursed by the public system. The public system is divided into 4 funding arrangements known as “kupat holim.” Every person is obliged to choose 1 of the 4 plans to subscribe to. Israeli veterans are insured separately from the budget of the Ministry of Defense. As in many countries, Israel suffers from a lack of human resources in health care. Yet, help is always provided in emergent cases should it be needed.

### WHAT IS THE STATE OF SPECIALIZED CARE?

There are no centers of specialized care in SCI in Israel. The National Insurance Institute in Israel and the Ministry of Health provide assistance in financing rehabilitation equipment, including the funds to adapt homes and to support caregivers. All benefits, health services, and insurances are provided according to the functional and medical needs of those with disabilities and are not specifically related to separate diagnosis such as SCI.

At the same time, SCIs are included in the general health services provided by the government and local institutions. SCI, as well as all other disabling conditions, is covered by the health insurance. According to the Israeli law, every citizen is covered by the public health insurance, whose services are provided by insurance at 1 of the 4 available levels. The insurance provides the population with a wide range of basic but comprehensive health services. More specialized and extended treatments, procedures, and medications, which are not included in the general health insurance, can be acquired only through additional private insurances.

There are a few nonprofit organizations that help survivors with SCI after discharge from post-acute rehabilitation to adjust to living in the community. Social workers in the health funds and veterans groups provide support to people after the injury.

### THE SOCIAL RESPONSE TO SCI

On the prevention side, although there are many regulations regarding safety and driver behavior to prevent motor vehicle accidents, these regulations are difficult to enforce, and there are many motor vehicle accidents in the urban and outlying areas, often involving casualties. At the same time, social awareness of the needs of people with disabilities is quite high, particularly in the context of disability resulting from military service. Buses, trains, and train stations adapted the use of wheelchairs. Citizens are also socially aware on public transit.

There are several state programs designed to assist people with disabilities, generally although nothing specifically for persons with SCI. There are few public awareness campaigns, and these are usually initiated by prominent disabled individuals themselves. General awareness of people with disabilities is strong, but accessibility remains an issue.

Today, there are laws that aimed to facilitate the reintegration of people with disabilities to employment by adapting the workplace, providing sheltered employment, and protecting against discrimination. In 1998, for example, a law pertaining to the equality of rights for the disabled was passed. This law includes accessibility recommendations. It also provides the opportunity for government aid to help with the costs of adapting the workplace. An amendment to the law in 2009, which will be gradually implemented until 2022, further promises accessibility for people with disabilities in spheres of living such as education, public places, insurances, and communications. Another recent law from 2009 provides incentive to integrate people into the workplace by not cutting their government stipend after employment and allowing them to earn above minimum wage. Because foreign individuals are the primary caregivers in Israel, there is a strong infrastructure in place to regulate their employment. Private insurers, government funds, and personal funds contribute to the funding of these caretakers.

### THE INTERNATIONAL SPINAL CORD INJURY (InSCI) COMMUNITY SURVEY

We hope to be able to create and present a database representing Israel's current situation regarding SCI survivors, as well as their predominant medical, functional, and social issues. The Israeli national protocol that will be used to create this database will be in keeping with the international study protocol.

### CONCLUSION

Currently, the initial care that the SCI population receives is within the hospital setting from the time of injury through to the time to outpatient rehabilitation. The greater challenge for the SCI patient is once he/she leaves the hospital and integrates into the society. The government makes many efforts toward the population of persons with disabilities as a group by providing funding and new laws to enable a smooth integration into the workplace and society, although these laws are not specific to SCI alone. On a practical level, there is still a lack of accessibility for the SCI patient. It is extremely difficult to find information about the patient's experience after hospitalization.

A key part of improving the patient's experience would be to have a better idea of what his/her daily challenges are on a practical level. Based on these analyses, a better plan could be put into place to meet these needs and create more specific programming. It is hoped that Israel's participation in the InSCI study will help to fill that gap.

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