Scientific Publications

A. Books and monographs
A.1. Books Written - None

A.2. Monographs

1. Catz A.
   "Results of conservative treatment of impacted subcapital fracture of the femoral neck - A clinical and radiologic study. Hebrew University, Hadassah Medical School, Jerusalem, Ichilov Hospital, Tel-Aviv, 1981 (Hebrew)."

   "Blink Reflex as a screening examination for early diagnosis of benign intracranial space-occupying lesions. A preliminary report of a prospective study. Leowenstein Rehabilitation Hospital, Raanana, Tel-Aviv University, Tel-Aviv, 1986 (Hebrew)."

3. Catz A.
   "The Vestibulo-ocular reflex in patients following hemispheric stroke. Postgraduate Med. School, Tel-Aviv University, Tel-Aviv, Occupational Health and Rehabilitation Institute, Loewenstein Hospital, Raanana, 1990 (Hebrew)."

   "SCIM - Spinal Cord Independence Measure. A New Disability Scale for Patients with Spinal Cord Lesions. Reliability and sensitivity to functional changes. Loewenstein Rehabilitation Hospital, Raanana, Ministry of Defence, Tel-Aviv, 1996 (Hebrew)."

5. Giladi N, Ohri A, Catz A.
   "The effect of Botulinum Toxin on leg spasticity in patients with spinal cord lesions. Ministry of Defence, Tel-Aviv, 1996 (Hebrew)."

6. Catz A.
   "The feasibility of using the Matrix 200 mattress for pressure sore prevention. A concluding report on a preliminary experiment in patients with spinal cord lesions. Loewenstein Rehabilitation Hospital, Raanana, 1997 (Hebrew)."

   "The Spinal Pain Independence Measure (SPIM) - A Disability Scale for Patients with Chronic Low Back Pain Disability. Loewenstein Rehabilitation Hospital, Raanana, Ministry of Defence, Tel-Aviv, 1998 (Hebrew)."

   "The Second Version of SCIM - A Disability Scale for Patients with Spinal Cord Lesions. Reliability and Usability of Evaluation by Observation or Interview. Loewenstein Rehabilitation Hospital, Raanana, Ministry of Defence, Tel-Aviv, 1998 (Hebrew)."


14. Catz A. Hemodynamic and hormonal changes following thoracic spinal cord lesions. Tel-Aviv University, Tel-Aviv, Loewenstein Rehabilitation Hospital, Raanana, 2005.

15. Tchvaloon E, Catz A. Survival, neurological recovery, and morbidity after spinal cord injuries following road accidents and rehabilitation between 1962 and 2004. Loewenstein Rehabilitation Hospital, Raanana, 2006 (Hebrew).

B.1. Original Articles

B.1.1. Articles published

1. Catz A, Reider-Groswasser I.
   Acoustic Neurinoma and Posterior Fossa Meningioma, Clinical and CT radiologic findings.

2. Reider-Groswasser I, Catz A, Luz I.
   Computerized Tomography findings in posterior fossa lesions.

3. Reider-Groswaser I, Catz A, Harel S.
   Posterior Fossa lesions in childhood and infancy - A CT Study.
Blink Reflex in Stroke: Followup and correlation with function and CT parameters.  

5. Reider-Groswasser I, Catz A, Harel S.  
Computerized Tomography findings in pediatric patients with posterior fossa lesions.  

Natural history of impacted subcapital femoral fractures and its relevance to treatment options.  

Is the appearance of Periarticular new bone formation related to local neurological disability?  

Lumbar spine dimensions in C3-T11 paraparetic patients: A ten-year followup study.  

Management of pyogenic vertebral osteomyelitis with spinal cord compression in the elderly.  

10. Itzcovich M, Catz A, Ona I.  
A new double purpose device for elbow extension in tetraplegia with paralysis below C5.  

Vestibulo-ocular reflex suppression following hemispheric stroke.  

The Vestibulo-ocular reflex and dysequilibrium after hemispheric stroke.  

Saccadic responses in patients with hemispheric stroke. (Gain, Latency).  

The role of External sphincterotomy for patients with a spinal cord lesion.  

15. Baliga RR, Catz A, Watson LD, Short DJ, Frankel HL, Mathias CJ.  
Cardiovascular and hormonal responses to food ingestion in humans with spinal cord transection.  
   SCIM - Spinal Cord Independence Measure: a new disability scale for patients with spinal cord lesions.

17. Catz A, Ron S, Solzi P, Korczyn AD.
   Saccadic characteristics in patients with hemispheric stroke. (Velocity, Duration).

   Implantation of stimulated homologous macrophages results in partial recovery of paraplegic rats.

   Feasibility study of a novel approach to sore prevention in patients with spinal cord lesions:
   the computerized dynamic control MATRIX 200 system.

   The treatment dilemma in post-traumatic syringomyelia.

   Botulinum Toxin injection into the motor end plate for spasticity in patients with spinal cord lesions.

22. Catz A, Itzkovitch M, Agranov E, Ring H, Tamir A.
   The Spinal Cord Independence Measure (SCIM): Sensitivity to functional changes in subgroups of spinal cord lesion patients.

   The Spinal Pain Independence Measure - a new scale for assessment of primary ADL dysfunction related to LBP.

   The Catz-Itzkovich SCIM: a revised version of the Spinal Cord Independence Measure.

   Effectiveness of Charleston bending brace in the treatment of single-curve idiopathic scoliosis.

   Recovery of neurological function following Spinal Cord Injury in Israel.


48. Ratzon NZ, Jarus T, Catz A.


50. Spivak E, Oksenberg A, Catz A.


52. Catz A, Barkol H, Steinberg F, Ronen J, Bluvshtein V, Keren O.


55. Tchvaloon E, Front L, Gelernter I, Ronen J, Bluvshtein V, Catz A.

56. Folman Y, Shabat S, Catz A, Gepstein R.
Late results of surgery for herniated lumbar disc as related to duration of preoperative symptoms and type of herniation. Surgical Neurology, 70:398-40, 2008.

Properties and Outcomes of spinal Rehabilitation Units in Four Countries.


60. Bluvshtein V, Korczyn AD, Akselrod S, Pinhas I, Gelernter I, Catz A.
Hemodynamic responses to head-up tilt after spinal cord injury support a role for the thoracic spinal cord in cardiovascular regulation.

SCIM III is reliable and valid in a separate analysis for traumatic spinal cord lesions.

Insulin resistance in tetraplegia but not in paraplegia: Is the thoracic spinal cord involved in glucose regulation?

Expected Spinal cord independence measure, third version, scores for various neurological levels after complete spinal cord lesions.

A new grading for easy and concise description of functional status after spinal cord lesions.

Non-linear formulas for the spinal cord injury ability realization measurement index (SCI-ARMI).
66. Drory VE, Bronipolsky T, Bluvshtein V, Catz A, Korczyn AD.
   Occurrence of fatigue over 20 years after recovery from Guillain-Barre syndrome.

67. Charlifue S, Post MW, Biering-Sørensen F, Catz A, Dijkers M, Geyh S, Horsewell J,
   Noonan V, Noreau L, Tate D, Sinnott KA.
   International Spinal Cord Injury Quality of Life Basic Data Set.

68. Fekete C, Eriks-Hoogland I, Baumberger M, Catz A, Itzkovich M, Lüthi H, Post M,
   von Elm E, Wyss A, Brinkhof M. Development and validation of a self-report version
   of the Spinal Cord Independence Measure (SCIM III).

   Quality of life after spinal cord injury: a comparison across six countries.

B.1.2. Articles accepted - None

B.1.3. Articles Submitted -

   and gender controlled model for the spinal cord injury ability realization measurement index

B.2. Case Reports

B.2.1. Case Reports published

1. Catz A, Chen B, Jutrin I, Mendelson L.
   Late-Onset Isofenphos Neurotoxicity.

2. Catz A, Mendelson L, Askenasy JJ.
   Sleep tonus inversion: a feature of juvenile dystonic parkinsonism.

3. Catz A, Mendelson L, Solzi P.
   Symptomatic post prandial hypotension in high paraplegia. Case report.


B.3. Review Articles

B.3.1. Review Articles - published


B.3.2 Review Articles Accepted: none

B.3.3 Review Articles Submitted: none

C. Chapters in Books

1. Catz A, Ring H, Solzi P.
   The challenge: Rehabilitation of Stroke Patients.
   In: Ohry A, Shaked A. (Eds.): Introduction to Rehabilitation Medicine.
   The ministry of defence, Tel-Aviv, 160-173, 1990.

2. Catz A, Korczyn AD.
   Aging and the Autonomic Nervous System.

3. Catz A, Itzkovich M.
   Trends in the assessment of functional outcomes after spinal cord lesions.
   In: Soroker N, Ring H, (Eds.). Advances in Phisical and Rehabilitation Medicine.


D.1. Invited papers in scientific meetings

1. Catz A.
   Trends in the assessment of functional outcomes after spinal cord lesions.
   2nd World congress of the International Society of Physical and rehabilitation Medicine.
   Prague, Czech Republic, 2003.

2. Catz A.
   Rehabilitation and assessment of functional independence in recovery from SCI.
3. Catz A.
   SCIM - Spinal Cord Independence Measure: The comprehensive ability rating scale for the spinal cord lesion patient. Pre-course on outcome measures, the 31st Annual Scientific Meeting of the American Spinal Injury Association, Dallas, Texas, USA, 2005.

4. Catz A, Itzkovich M.
   SCIM & SCI-ARMI: Functional assessment measures and a new approach to assessing rehabilitation effectiveness.

5. Catz A. The role of the Thoracic Spinal Cord in Hemodynamic Cardiovascular Regulation: A proposed Model.
   The 3rd annual meeting of Heart and Brain, The Center for Medical Physics, School of Physics & Astronomy, Faculty of Exact Sciences, Tel Aviv University, Tel Aviv, 2007.


   The 61st annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2010.

8. Catz A. Principles and examples for measuring rehabilitation achievements and summarizing clinical information in rehabilitation medicine. The 63rd annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2012.

9. Catz A. Assessment of the ability realization after spinal cord injuries, as a model for the assessment of achievements in rehabilitation medicine. 7th World congress of the International Society of Physical and rehabilitation Medicine, Beijing, China, 2013.

D.2. Papers presented at Scientific Meetings

   Blink Reflex in unilateral cerebrovascular lesions: Followup and correlation with functional and CT radiologic parameters.

2. Askenasy JJ, Mendelson L, Catz A, Costeff H.
   Basal ganglia disorders with marked circadian fluctuations.

3. Reider-Groswasser I, Catz A., Harel S.
   Computerized Tomography of posterior fossa lesions in childhood and infancy.
Blink Reflex in Prolonged Unawareness. 
14th World Congress of the Israel Medical Association, Jerusalem, Israel, 1988.

Periarticular new bone formation in spinal and craniocerebral lesions. 
29th Annual Scientific Meeting of the International Medical Society of paraplegia. Ramat-Gan, Israel, 1990.

The Vestibulo-ocular reflex and its correlation with dysequilibrium following hemispheric stroke. 

7. Catz A, Ron S, Solzi P, Korczyn AD. 
Vestibulo-ocular reflex suppression following hemispheric stroke. 

Lumbar spine dimensions in C3-T11 Paraparetic Patients: A ten year followup study. 15th World Congress of 

Late onset papilledema following spinal injury. 15th World Congress of 

Vestibulo-ocular reflex activation and suppression in patients with hemispheric stroke. 
15th World Congress of the Israel Medical Association, The Israel Society for Clinical Neurophysiology, 

Saccadic gain and latency in patients with hemispheric stroke. 
15th World Congress of the Israel Medical Association, The Israel Society for Clinical Neurophysiology, 

Urethrocystographic findings in patients with spinal cord lesions. 
The Congress of the Israel Medical Association Scientific Societies, 

13. Itzkovich M, Catz A, Ona I. 
A double-purpose splint for elbow extension in tetraplegia below C5. 
The Congress of the Israel Medical Association Scientific Societies, 

Saccade velocity and saccade duration in patients with hemispheric stroke. 
The Congress of the Israel Medical Association Scientific Societies, 
15. Catz A, Ron S, Solzi P, Korczyn AD. 
Impairment of saccadic prediction following hemispheric stroke. 
The Congress of the Israel Medical Association Scientific Societies, 
The Israel Society of Physical Medicine & Rehabilitation, Jerusalem, Israel, 1993

Syringomyelia: Rehabilitation outcomes following conservative or surgical treatment. 

17. Agranov E, Lutvak ZP, Catz A. 
Results of the surgical treatment of bladder outlet obstruction in patients with spinal cord lesions. 

Rehabilitation of patients with spinal Tuberculosis and neurological deficit. 

SCIM - Spinal Cord Independence Measure: a new disability scale for patients with spinal cord lesions. 
The first Mediterranean Congress of Physical Medicine and Rehabilitation, Herzliya, Israel, 1996.

Functional outcome following conservative or surgical treatment for syringomyelia. 

SCIM: A new disability scale for measuring disability in patients with paraplegia and tetraplegia. 
The 35th Annual scientific meeting of the international medical society of paraplegia, Atlanta, USA, 1996.

22. Ronen J, Catz A, Spasser R, Gepstein R. 
The treatment dilemma in patients with post-traumatic syringomyelia. 
The 36th Annual Scientific Meeting of the International Medical Society of Paraplegia, Innsbruk, Austria, 1997.

The effect of comprehensive rehabilitation on chronic low back pain disability patients. 
The 8th annual meeting of the European Spine Society, Kos, Greece, 1997.

The effect of activated astrocytes transplantation on regeneration of transected rat optic nerve and spinal cord. 

25. Itzkovitch M, Catz A, Agranov E, Ring H, Tamir A. 
The sensitivity of the SCIM scale to functional changes in subgroups of spinal cord lesion patients. 


Functional electrical stimulation (FES) activated by electromyographic signals, to assist
cough and improve pulmonary function in patients with cervical spinal cord lesions (SCL).
The Fourth Research Fair of The Sackler Faculty of Medicine. Tel-Aviv, 2003.

37. Catz A.
Trends in the assessment of functional outcomes after spinal cord lesions.
2nd World congress of the International Society of Physical and rehabilitation Medicine.
Prague, Czech Republic, 2003.

38. Zlobinsky R, Gaides M, Catz A, Ben-Dov Y.
The respiratory response to hypercapnia in patients with chronic lower cervical spinal cord injuries.
Congress of equipment and advanced technologies in rehabilitation. The Israel Society of

39. Catz A, Itzkovicv M.
Rehabilitation and functional independence assessment in recovery from SCI.

40. Bluvshtein V, Pinhas I, Gelernter I, Bornstein N, Nissel T, Vered Y, Ronen J, Akselrod S,
Korczyn AD, Catz A.
The effect of cerebral blood flow velocity on ventilation in patients with spinal cord lesions. 15th
Israel Medical Week. The Israel Society of PM & R, Tel-Aviv, Israel, 2004.

41. Spivak E, Oxenberg A, Gelernter I, Ronen J, Bluvshtein V, Catz A.
The feasibility of actigraphy for sleep assessment in patients with tetraplegia. 15th Israel Medical

42. Catz A, Pinhas I, Akselrod S, Bornstein N, Korczyn AD.
The role of the spinal cord in the control of cerebral blood flow velocity (poster presentation).

43. Itzkovich M, Catz A.
SCIM II: reliability and sensitivity to functional changes in patients with SCL.
The American Occupational Therapy Association’s 84th Annual Conference and Expo, Minneapolis, MN, USA, 2004.

Lower-thoracic Spinal Cord Regulation of Cold Pressor Response to Foot Ice-water Immersion. The 55th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2004.

Outcomes in patients admitted for rehabilitation with spinal cord lesions following
degenerative spinal stenosis. The 55th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2004.


56. Izkovich M, Catz A, Biering-Sorensen F.
SCIM III reliability and validity: a multi-center international study. 44th ISCoS Annual Scientific Meeting, Munich, Germany, 2005.

Time dependent vs volume dependent intermittent catheterization among patients with spinal cord lesions and neuropathic bladder – clinical and economic consequences (poster presentation). 44th ISCoS Annual Scientific Meeting, Munich, Germany, 2005.

A proposed model of two thoracic spinal cord neural centers for hemodynamic regulation. The 56th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2005.

59. Ronen J, Bluvshtein V, Catz A.
Outcomes in patients admitted for rehabilitation with spinal neurological lesions following intervertebral disc herniation. The 56th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2005.

60. Barkol H, Avnery S, Spranchic M, Florentin A, Handlezaltz S, Fadida Y Shafir I, Catz A.
Utilization of orthoses in patients with spinal cord lesions, a year or more after discharge from rehabilitation. The 56th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2005.

61. Izkovich M, Catz A, Biering-Sorensen F, Tesio L.
A multi-center international study of SCIM third version. The 56th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2005.


63. Catz A, Bluvshtein V, Pinhas I, Akselrod S, Nissel T, Vered Y, Bornstein N, Korczyn AD.

64. Catz A, Ditunno J.

65. Catz A, Itzkovich M.
66. Catz A.
Assessment of the feasibility of hospital-community cooperation in rehabilitation medicine. 
The 57th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2006.

67. Catz A, Itzkovich M.
SCIM III reliability and validity: A multicenter international study. 
The 8th Israel Spine Society Conference, Eilat, Israel, 2007.

68. A Catz, V Bluvshtein, AD Korczyn, I Pinhas, I Gelernter, T Nissel, Y Vered, NM Bornstein, S Akselrod. Modified cold pressor test by cold application to the foot after spinal cord injury suggests hemodynamic control by the spinal cord and can be used to assess spinal cord autonomic integrity. The 46th Annual Scientific Meeting of ISCoS and 10th Biannual Congress of NoSCoS, Reykjavík, Iceland, 2007.

69. Amit Y, Catz A.
Spinal cord Rehabilitation Outcomes in Four Countries: a comparative study. The 58th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2007.


71. Tchvaloon E, Front L, Gelernter I, Ronen J, Bluvshtein V, Catz A.
Survival, neurological recovery, and morbidity after spinal cord injuries following road accidents in Israel. The 58th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2007.

Comparison of Spinal cord lesions Rehabilitation in Four Countries: effect of unit properties and policy on Outcomes. The 47th Annual Scientific Meeting of ISCoS, Durban, South Africa, 2008.

73. Catz A, Bluvshtein V, Akselrod S, Korczyn AD, Pinhas I, Gelernter I.
Hemodynamic responses to head-up tilt after spinal cord injury support a role for the thoracic spinal cord in cardiovascular regulation. The VII Mediterranean Congress of Physical Medicine and Rehabilitation, Portoroz, Slovenia, 2008.

74. Front L, Bluvshtein V, Itzkovich M, Gelernter I, Catz A.
A new classification of the daily task implementation: Examination of the model in patients with spinal cord lesions. The 59th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2008.
75. Bluvshtein V, Poliac T, Front L, Itzkovich M, Gelernter I, Catz A. 
Further development of the Spinal Cord Injury Ability Realization Measurement Index. The 
59th annual conference of the Israeli association of Physical and rehabilitation Medicine, 
Tel-Aviv, Israel, 2008.

76. Catz A. 
Ability realization: Complementing the ICF concept of "capacity" and supporting outcome 
assessment and prediction after spinal cord injuries: Introduction to the 
Predicting Outcome session. The 48th Annual Scientific Meeting of ISCoS, Florence, Italy, 
2009.

77. Bluvshtein V, Oksenberg A, Arons E, Front L, Catz A. 
Comparison of actigraph and polysomnograph findings after spinal cord injuries. The 60th 
annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-
Aviv, Israel, 2009.

78. Weitz R, Kestler H, Front L, Bluvshtein V, Catz A. 
Using the Spinal Cord Independence Measure (SCIM) for decision making during 
rehabilitation. The 60th annual conference of the Israeli association of Physical and 
rehabilitation Medicine, Tel-Aviv, Israel, 2009.

A new classification of daily task performance after spinal cord injuries, using SCIM scores 
clusters. The 60th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2009.

80. Itzkovich M, Front L, Shafler H, Catz A. 
SCIM III by observation and by interview. The 60th annual conference of the Israeli 
association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2009.

81. Aidinof E, Noyman Y, Front L, Itzkovich M, Bluvshtein V, Catz A. 
The 60th annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2009.

82. Catz A. 
Ability realization: Complementing the ICF concept of "capacity" and supporting outcome 
assessment and prediction after spinal cord injuries. The 60th annual conference of the 
Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2009.

83. Catz A, Benjamini Y. 
A new grading for easy and concise description of functional status after spinal cord lesions. 

84. Catz A, Galili T, Bluvshtein V, Polliack T, Front L, Itzkovich M, Aidinof E, Hart J, 
Benjamini Y. Non-linear formulas for the spinal cord injury ability realization measurement index (SCI-ARMI). 49th ISCoS Annual Scientific Meeting, New-Delhi, India, 2010.


95. Bluvshtein V, Magid S, Aidinof E, Front L, Catz A.
Demographic and survival tendencies in spinal cord injury patients, admitted to Loewenstein rehabilitation hospital before 2004. The 62nd annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2011.

96. Itzkovich M, Front L, Poliack T, Shafler H, Chachner S, Catz A.
The reliability of SCIM III by interview. The 62nd annual conference of the Israeli association of Physical and rehabilitation Medicine, Tel-Aviv, Israel, 2011.


100. Itzkovich M, Front L, Catz A.
Expected SCIM III scores for complete spinal cord neurological levels. Canadian Association of Occupational Therapists National Conference, Quebec, Canada, 2012.


D.3. Abstracts


    The Vestibulo-ocular reflex suppression following hemispheric stroke.

5. Catz A, Itzkovich M, Biering-Serensen F.

E. Items in Encyclopedias

