

## 3<sup>rd</sup> Week for Somatosensory Rehabilitation

7<sup>th</sup> to 10<sup>th</sup> March 2011

3<sup>rd</sup> WEEK for SOMATOSENSORY REHABILITATION  
2011

### Problem

- When the patients that are placed in our care have been suffering too much for too long, when their facial expression remains frozen, how can the hope of a better tomorrow be rejuvenated: a future with less shooting pain, with less burning sensations - simply put - with a decrease of **neuropathic pain**.
- Most patients suffering from chronic pain have cutaneous sense disorders. A decrease in the hypoaesthesia (for example the pressure perception threshold) will, at the same time, cause a decrease of their chronic neuropathic pain (for example the McGill Pain Questionnaire).

### Overall Aim

- To rehabilitate the disorders of the cutaneous sense on the basis of the neuroplasticity of the somaesthetic system so as to lessen chronic neuropathic pain.
- To avert the outbreak of painful complications by rehabilitating the cutaneous sense.
- To build bridges between rehabilitation, medicine and the neurosciences.

### Specific Objective

- To evaluate disorders of the cutaneous sense: aesthesiography, static 2-point discrimination test, tingling signs and somaesthetic symptoms, pressure perception threshold, etc.
- To evaluate painful complications with the McGill Pain Questionnaire: mechanical allodynia, reflex sympathetic dystrophies, neuralgia, etc.
- To implement planned rehabilitation procedures within the context of chronic pain complications.
- To adapt the knowledge of mainstream neurology for use in rehabilitating neuropathic pain and vice versa.

### Teachers

- Claude Spicher, OT, Swiss certified HT, Manager & therapist in the Somatosensory Rehabilitation Centre, Scientific collaborator  
<http://www.unifr.ch/neuro/rouiller/collaborators/spicher.php>
- Rebekah Della Casa, OT, therapist in the Somatosensory Rehabilitation Ctr.

### Guestspeakers

- Dr Thomas Rutishauser, MD, Orthopaedic and Foot surgery, fellow in Foot Surgery Centre, Schulthess Clinic, Zürich
- Dr Patrick Freund, PhD, Research Associate; UCL, Institute of Neurology, London

<http://www.unifr.ch/neuro/rouiller/teaching/continedu.php>

Date	7 <sup>th</sup> to 10 <sup>th</sup> of March 2011
Time Table	9am – 12am & 1pm – 5 pm
Duration	28 hours
Place	Clinique Générale; 6, Hans-Geiler Street ; Friburg
Price	CHF 990.- / 915 US Dollars / € 745 / £ 610 (Work Documents in English + Handbook + Atlas)
Reference	Spicher, C.J. (2006). <i>Handbook for Somatosensory Rehabilitation</i> . Montpellier, Paris: Sauramps Médical. Spicher, C.J., Desfoux, N. & Sprumont, P. (May 2010). <i>Atlas des territoires cutanés du corps humain</i> . Montpellier, Paris: Sauramps Médical.

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## REGISTRATION FORM

[Deadline: Friday, 25<sup>th</sup> February 2011](#)

**Name:**

**First (given) name:**

**Professional occupation:**

**Address:**

**e-mail address:**

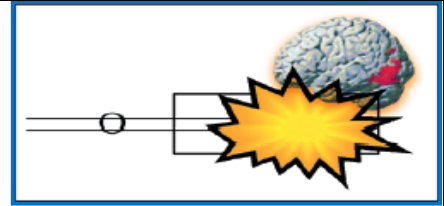
**Please fill and return to:**

Claude Spicher  
Department of Medicine – Physiology  
Rue du Musée 5  
CH-1700 Fribourg  
Switzerland

e-mail : [claudio.spicher@unifr.ch](mailto:claudio.spicher@unifr.ch)

**or**

Fax: +41 26 350 06 35



## PROGRAM

### 1<sup>st</sup> Day

Morning:

Your patients suffer from hypersensitivity to touch  
Diagnostic testing of axonal lesions (part one)

Afternoon:

Workshop introduction  
Workshop  
Rehabilitation of hyposensitivity

**6 pm:** Conferences at the university of Friburg

### 2<sup>nd</sup> Day

Morning:

Diagnostic testing of axonal lesions (part two)  
A Way of Hope towards the Liberation from Neuropathic Pain

Afternoon:

Desensitization at the site of axonal lesions  
Live Treatment  
Chronic Neuropathic Pain decreases through Somatosensory Rehabilitation

### 3<sup>rd</sup> Day

Morning:

Distant vibrotactile counter stimulation  
Static Mechanical Allodynia  
VAS  
Distant vibrotactile counter-stimulation  
Rainbow pain scale

Afternoon:

Chronic pain  
Live Treatment  
McGill Pain Questionnaire

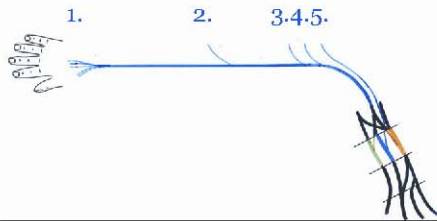
### 4<sup>th</sup> Day

Morning:

CRPS Definition and Therapy  
Ideas for every days practice

Afternoon:

Case report  
Live Treatment  
Drugs and Prevention



	<p>1. Branche superficielle du nerf radial Branche sensitive, du nerf radial</p>	<p>Nerf radial</p>	<p>Faisceau (secondaire) POSTERIEUR du plexus brachial C5-C6</p>
	<p>2. Nerf cutané postérieur de l'avant-bras</p>		
	<p>3. Nerf cutané postérieur du bras</p>		
	<p>4. Branche inférieure du nerf cutané latéral du bras</p>		
	<p>5. Branche supérieure du nerf cutané latéral du bras Nerf cutané de l'épaule</p>	<p>Nerf axillaire Nerf circonflexe</p>	

## Département brachial

Planche III : La famille des 5 nerfs  
 du faisceau (secondaire) POSTERIEUR du plexus brachial  
 Posterior cord of brachial plexus  
*Fasciculus posterior, plexus brachialis*

# Branche supérieure du nerf cutané latéral du « bras »

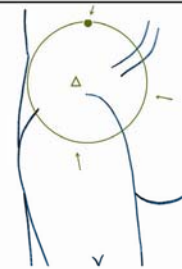
Superior lateral cutaneous nerve of arm

*Nervus cutaneus brachii lateralis superior*

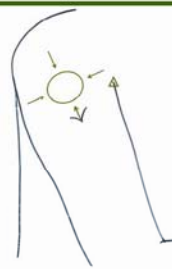
Rameau cutané de l' épaule



*Le plus proximal*  
Face postérieure



*Le plus supérieur*  
Face postérieure



*Territoire autonome*  
Face latérale



*Le plus inférieur*  
Face latérale



*Le plus distal*  
Face antérieure

● von Lanz *et al.* (1938)

## Département brachial

Planche 4.5 : les 5 éléments topographiques de la sensibilité vibrotactile

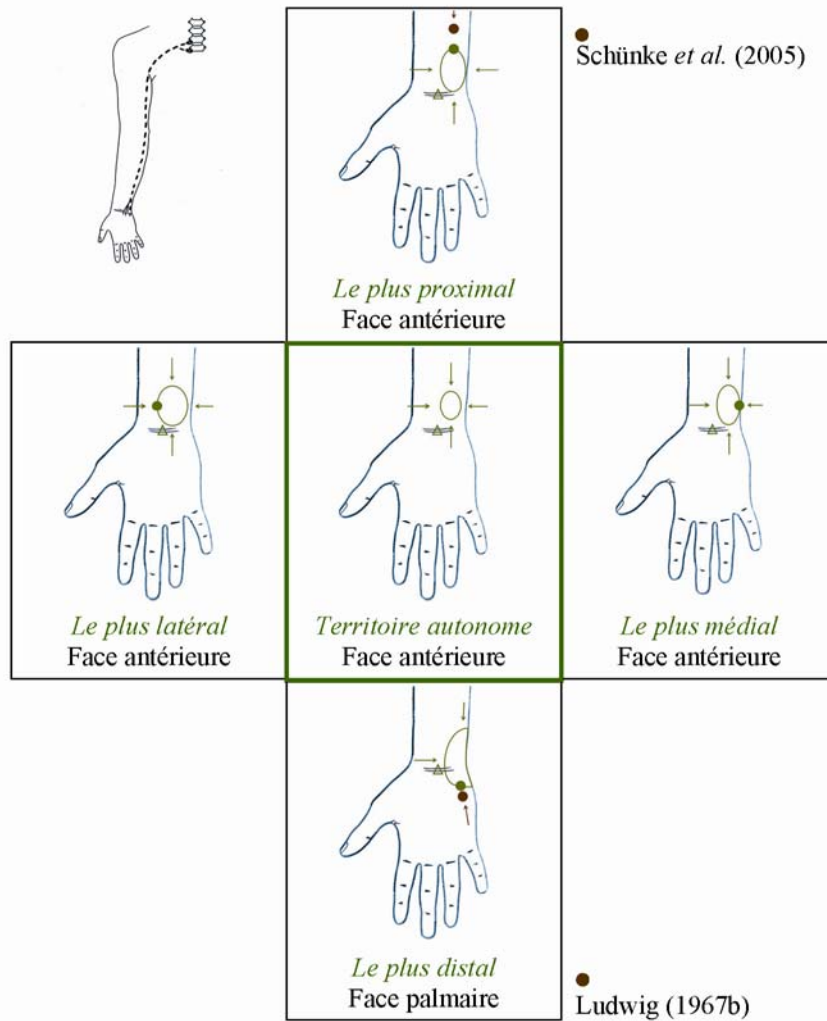
*Les 4 points cardinaux du territoire maximal de distribution cutanée  
et son territoire de distribution autonome*

# Branche cutanée palmaire du nerf ulnaire

Palmar branch of ulnar nerve

*Ramus palmaris, nervus ulnaris*

Branche hypothénarienne du nerf cubital



## Département brachial

Planche 4.10 : les 5 éléments topographiques de la sensibilité vibrotactile  
*Les 4 points cardinaux du territoire maximal de distribution cutanée  
et son territoire de distribution autonome*

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Foreword : A Lee Dellon, MD

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Definitions, Testing & Rehabilitation of Basic Cutaneous Sense Disorders in Case of Neurological Lesions.

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2. Cutaneous Sense

*A. Protective Sense*

*B. Vibrotactile Sense*

*C. Somatosensory Recovery Stages*

*D. Nerve Regeneration*

3. Touch

### Testing of the Cutaneous Sense

1. Argumentation to the Prescribing Doctor

2. Diagnostic Testing of Axonal Lesions

*A. Aesthesiography*

*B. Static 2-Point Discrimination Test*

*C. Tingling Signs*

*D. Somatosensory Qualifiers*

3. Search Procedure of Abnormal Low-Sensitivity

4. Testing of the Protection Sense

*A. Perception of Vibrations*

*B. Protection from Heat*

*C. Protection from Pain*

## **Pressure Perception Threshold**

### **Rehabilitation of Hyposensitivity**

1. Line Rehabilitation
2. Asperity Rehabilitation
3. Hands-on Therapy
4. Stimulation of Nerve Regeneration
  - A. Overdose of Vitamin B12*
  - B. Stimulation by Mechanical Vibration*
5. Permanent Assessment
  - A. Static 1-Point Localization Test*
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  - C. Picking-Up Test*
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## **Conclusion**

## Part 2

Definitions, Testing, Rehabilitation & Prevention of Painful Complications of Cutaneous Sense Disorders in Case of Peripheral Neurological Lesions

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  - A. History*
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  - C. Etiopathogenesis*
2. Assessment
3. Rehabilitation
4. Conclusion

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1. Definitions
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19. CRPS Diagnostic Procedure According to Bruhl
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**Ihre Meinungen zum Thema - Ce qu'ils en disent - Their point of view -**

Published in the *American Journal of Hand Surgery*, with the kindly authorization of its editor-in-chief, the authors and the publisher.

**BOOK REVIEW**

**Handbook for Somatosensory Rehabilitation.** Claude Spicher, Paris: Sauramps Medical, 2006; 199 pages, \$36.00.

The *Handbook for Somatosensory Rehabilitation* provides a practical primer for individuals interested in the rehabilitation of patients following peripheral nerve lesions and particularly painful nerve lesions. This book will be useful primarily to rehabilitation specialists interested in sensory recovery and rehabilitation following nerve injury.

This book is authored by Claude Spicher, an occupational therapist who has devoted his career to the treatment and study of patients with peripheral nerve injuries. Spicher is a certified hand therapist of the Swiss Society for Hand Therapy and in 2004 founded the Somatosensory Rehabilitation Center in Switzerland. This book is easy to read and understand; it is obviously written with passion by an individual dedicated to this specialty.

Part One of this book outlines the basic definitions, testing, and rehabilitation principles for patients following neurological lesions. Spicher provides the reader with an excellent summary of the critical aspects that pertain to the evaluation of patients with sensory nerve injuries. He provides an excellent compilation of definitions, terms, and syndromes that are commonly seen in this patient population. With a sufficient bibliography, the reader is quickly directed to other, more detailed monographs and references. This book is not meant to provide a definitive literature review, but the comprehensive bibliography provides the reader with the capability to pursue other sources of specific interest.

Part Two addresses primarily the evaluation and treatment of patients with neuropathic pain and includes some specific treatment strategies that have worked in the author's personal experience. This

book also discusses and recommends the McGill Pain Questionnaire, which is just one of many questionnaires that are available to assess pain. Spicher should be commended for recommending the use of a valid and reliable measure for pain. Pain, however, is a complex phenomenon with psychosocial issues, such as anxiety, depression, and catastrophic pain, that can also impact these patients and should be considered in management but are beyond evaluation with the McGill Pain Questionnaire. In other sections, such as CRPS, the reader is provided with a brief overview of the topic, and the interested reader should research other sources for more comprehensive reviews.

This book provides the reader with an overview of a very complicated problem. It is good "starter" material for individuals interested in this patient population. It is filled with detailed personal reflection. As such, Spicher clearly states that he is not intending this book to be anything more than his interpretation over his very long career in managing these patients. Perhaps the most useful part of this book is the bibliography, which will direct the reader to manuscripts that may be obscure but also relevant. The book achieves its intent as Spicher states: A "handbook based on practice with its originality in the attempt to synthesize numerous publications and in the introduction of a few personal touches." It is, in fact, Spicher's personal touches, anecdotes, and musings that readers will find enjoyable and perhaps stimulating and beneficial to the evaluation and management of their own patients.

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Toronto, Ontario, Canada  
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