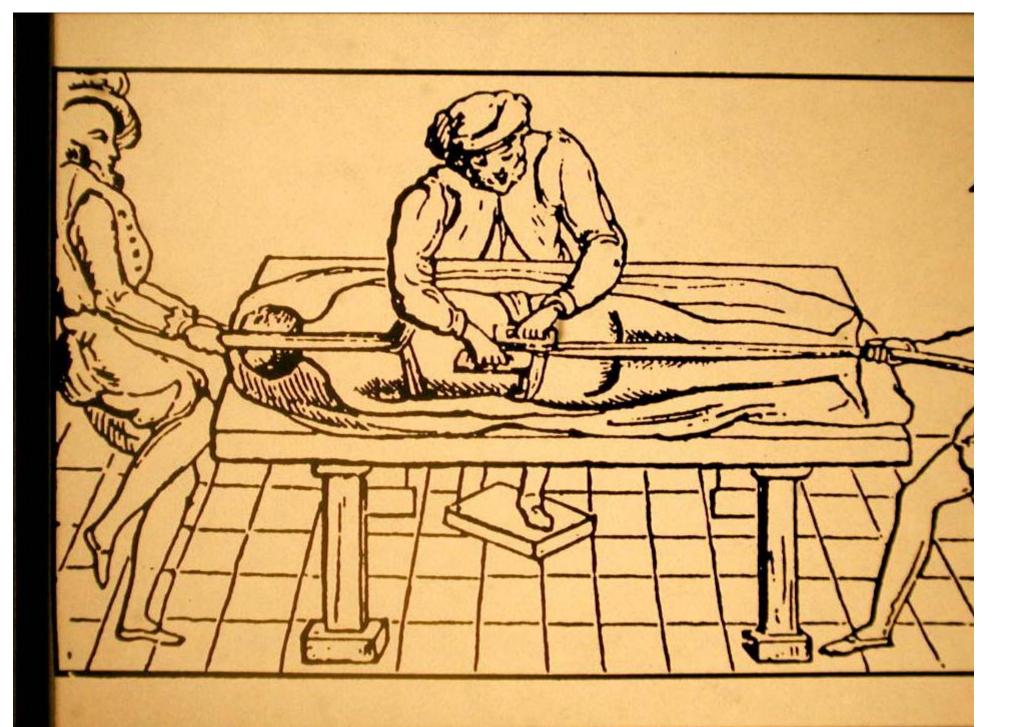
# COS' E' LA CHIROPRATICA ?



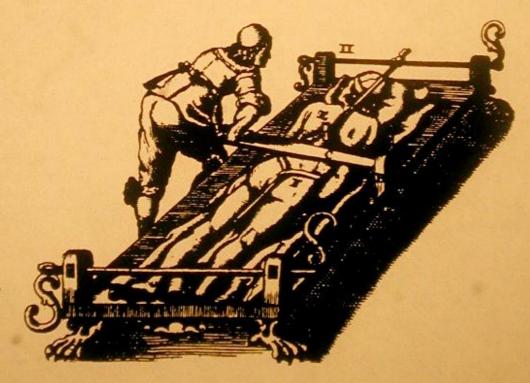


tory cases, practitioners could even use lature of this adjusting table (Fig. 1-5). In the equipped with a wooden bar attempt at one side either to a vertical post and or into a hole in the wall. Passing across the back of the patient from its arm could be pulled down on a small wor thickness of cloth located on the by the adjuster who, with an assistant or weight was needed, pressed the bar across the malpositioned vertebra 1928, pp. 297–301; Schiotz and Cyriax,

ates considered spinal manipulation ien it was done with less specificity. He it the adjustment could be done on a paraction by sitting on the subluxation, by opping up and down, or by mobilizing

#### Europe From Antiquity to the 19th Century

The influence of Hippocrates was immense. Although his method of succussion was not widely emulated, his method of adjusting vertebral subluxations using an adjusting table persisted for more than 2000 years. To the east this method became a part of Islamic medical practice. During the Middle Ages, Avicenna of Baghdad included this technique in his influential medical book, which helped diffuse it throughout the Middle East. At the end of the Middle Ages, a Latin translation of Avicenna's work was published in Europe, contributing to the renaissance of Western medicine. During the 16th century, the method of Hippocrates also appeared in the writings



atment table
ve technique of
still practiced
tury. (From
Surgeon's
674. Courtesy
(Library.)

## JOHANNIS SCULTETUS

(IN INGLESE 1674 & IN LATINO 1693)
SCRISSE IL LIBRO

"THE SURGEONS STORE - HOUSE"

### MONELL (1845)

"when acute Rheumatism attacks any part, the pain of that part is increased by pressure on the spine at that point from whence the nerves distributed to the diseased part arise."

#### J. EVANS RIADORE (1843)

(Fellow of the Royal College of Surgeons)

He demonstrated this point by noting that disorders of the digestive organs resulted from spinal nerve irritation exiting the intervertebral foramena at T6-T8. He also noted what we would today call "disc and facet degeneration" might be involved at those levels.

Treatment was to perform a spinal adjustment. (cited in Schiotz and Cyriax, 1974, pp 71-71)

## TROFISMO

"STATO DI NUTRIZIONE DELL'ORGANISMO O DI UNA SUA PARTE"

def.: DIZIONARIO MEDICO USES (1981)

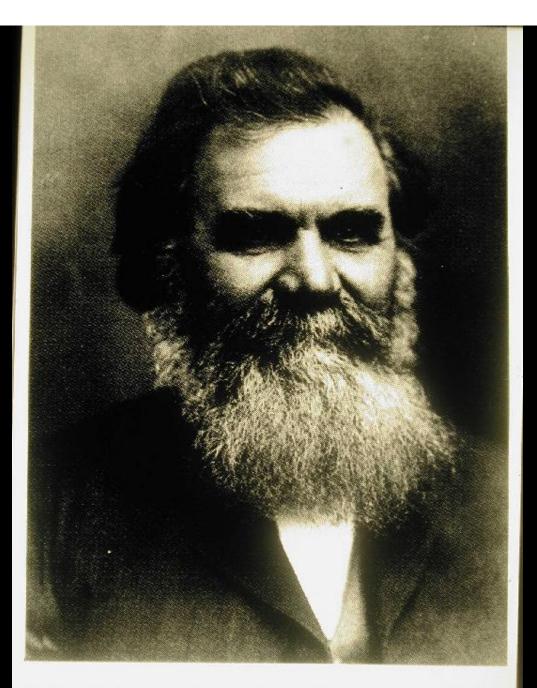
## TUBERCOLOSI SIFILIDE

#### TUCSON (1841); BRODIE (1850)

NELL'OTTOCENTO I CHIRURGHI ERANO MOLTO PREOCCUPATI PER EVENTUALI FRATTURE PATOLOGICHE, CAUSATE DA UNA MANIPOLAZIONE, IN QUANTO PENSAVANO CHE LE VERTEBRE NON SAREBBERO ANDATE INCONTRO ALL'AUTOFUSIONE.

THE FUNDAMENTAL HYPOTHESES OF CHIROPRACTIC HAD BEEN REPEATEDLY STATED IN THE MEDICAL LITERATURE WELL BEFORE THE BIRTH OF D.D.PALMER (Terrett, 1987, p.32).

## LA PROFESSIONE CHIROPRATICA CIRCA 25 ANNI DOPO DANIEL DAVID PALMER ESEGUIRA' IL PRIMO "AGGIUSTAMENTO CHIROPRATICO"



D.D. Palmer, the Founder of Chiropractic, 1909.



Harvey Lillard, a janitorial service owner, became the first chiropractic patient on September 18, 1895.

COS' E'
LA CHIROPRATICA?

Definizione come appare nella 27° edizione del Dorland's Medical Dictionary.

- "Una scienza diagnostica della neurofisiologia applicata basata sulla teoria che salute e malattia sono processi vitali correlati alla funzione del sistema nervoso.
- L'irritazione del sistema nervoso causato da agenti meccanici, chimici o psichici è causa di malattia; ripristino e mantenimento della salute dipendono dal buon funzionamento del sistema nervoso.
- La diagnosi chiropratica consiste nella identificazione delle noxe irritanti ed il trattamento consiste nella loro rimozione attraverso metodiche conservative."

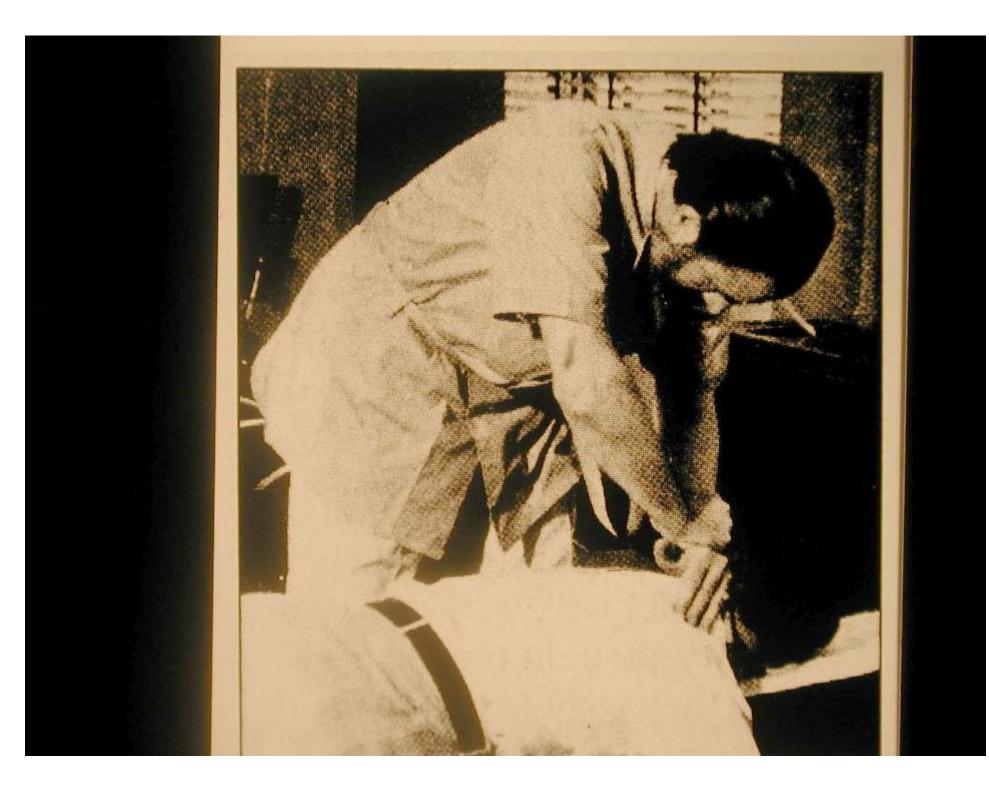
# "SUBLUXATION"

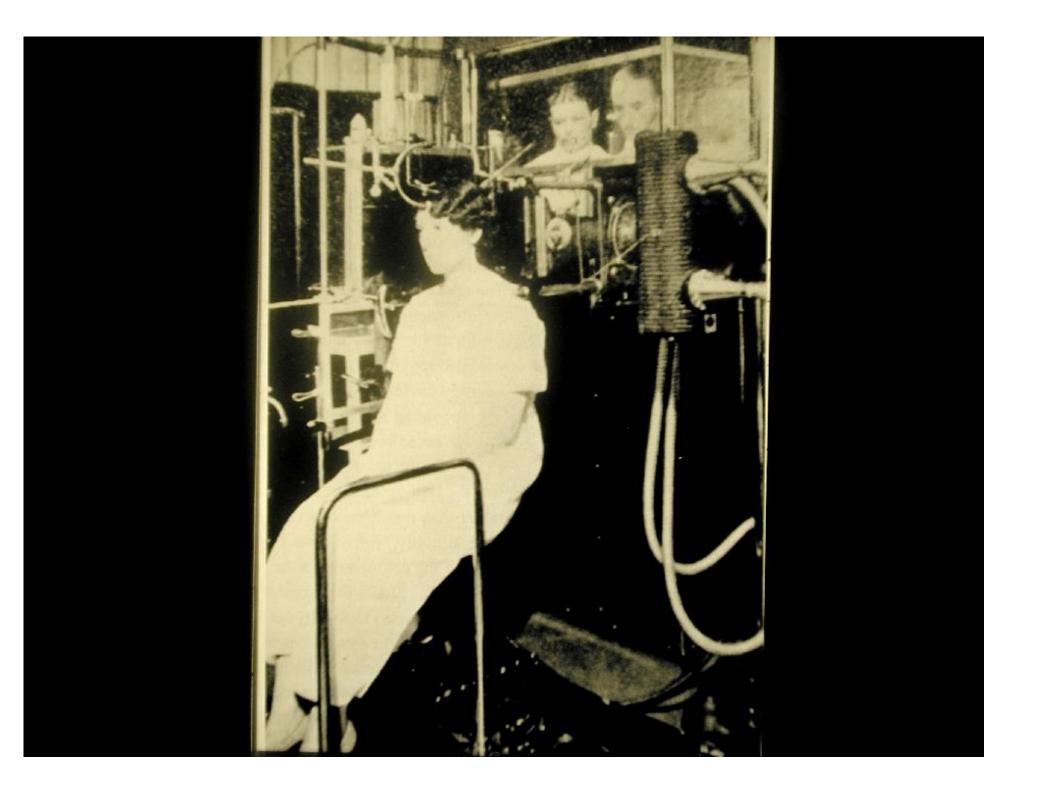
**UNA METAFORA** 

SUBLUXATION: La Sublussazione perciò è un segmento vertebrale non lussato completamente (in senso medico), ma invece è metaforicamente associato ad una riduzione del movimento articolare che può portare a malattia. Il fattore che fa da tramite è il sistema nervoso. (GAUCHER, 1986)



.D., B.J., Mabel Health Palmer, and early graduates.







B.J. Palmer consulting with patients in the B.J. Palmer Clinic, a clinic to which chiropractors in the field were encouraged to send patients who were not responding to normal care.





The Palmer School of Chiropractic (now Palmer College of Chiropractic) campus in Davenport, Iowa, circa 1

#### RST ANNUAL CHIROPRACTIC LYCEUM "CERTIFICATION OF THE PROPERTY OF THE PROPERTY

MINEN AT CHIEGERACTIC

August 17th, 18th, 19th, 20th and 21st, 1914 COME AND BRING YOUR FRIENDS ALONG-EVERYTHING IS FREE

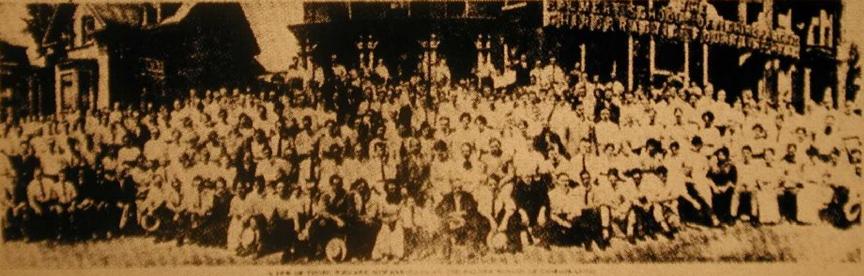
SCHOOL STRONG

PACLETY OF THE PALMER SCHOOL OF CHROPASCTIC-ALC GRADUATES OF THE PALMER SCHOOL OF CHROPE ALTE.



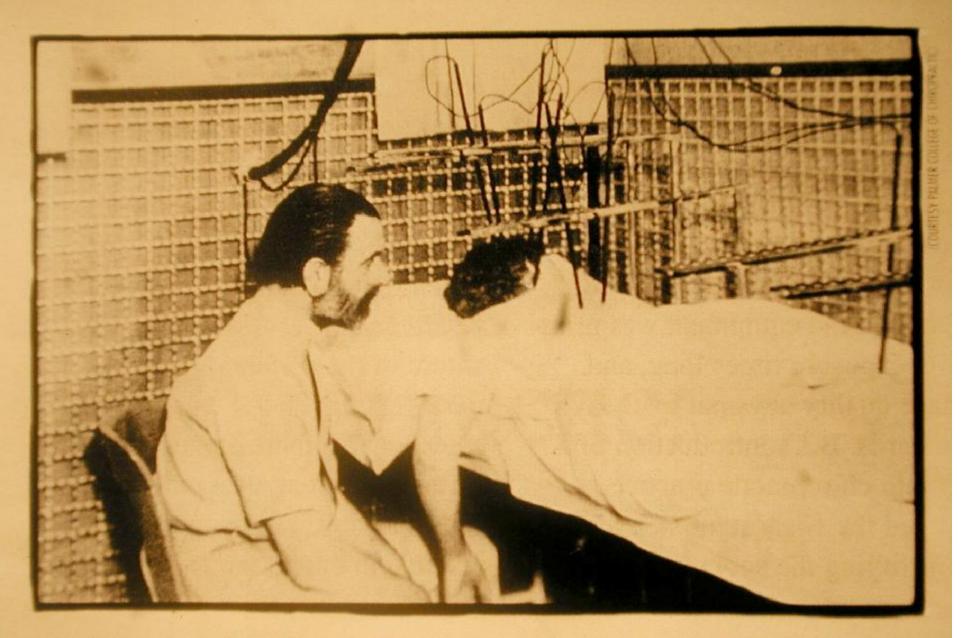
Dr. & J. Palmer will become each night, in the P. S. C. Auditorium, choosing some subject from among the following

Chiropractors From All the World Will Be Present at This Great Gathering. Come and See!

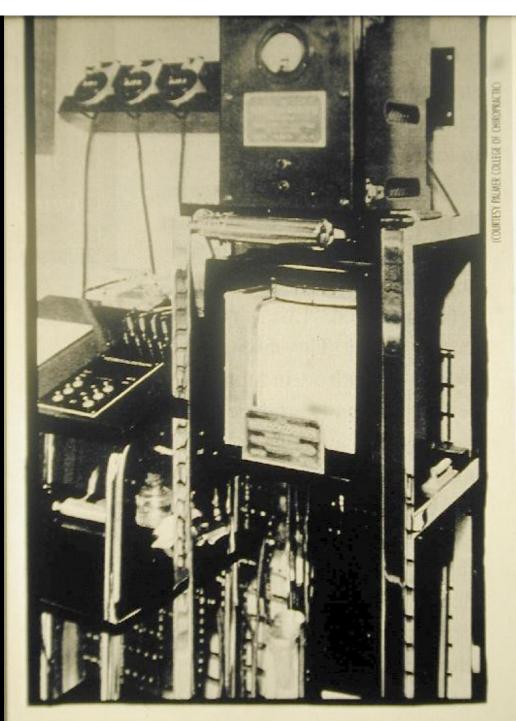


CONFIRMUS puldes will chem cittle commune buth kerture and

After wash



B.J. Palmer performing an electroencephaloneuromentimpograph reading in the grounded and shielded room at his clinic.



Neurocalograph (NCCH) used in the R I



Clearview Sanitarium, an in-patient chiropractic psychiatric facility that operat in Davenport, Iowa from 1926 to 1961

Courtesy Palmer College of Chiropractic Archives, Davenport, Iowa.

"Clinical data noting the development of tinnitus after transection of the auditory nerve or ablation of the cochlea implies that tinnitus has a central origin" "Patients showed evidence for more widespread activation by the tones and aberrant links between the limbic and auditory systems" "These abnormal patterns provide evidence for cortical plasticity that may account for tinnitus and associated systems" (PET scan measured CBF)

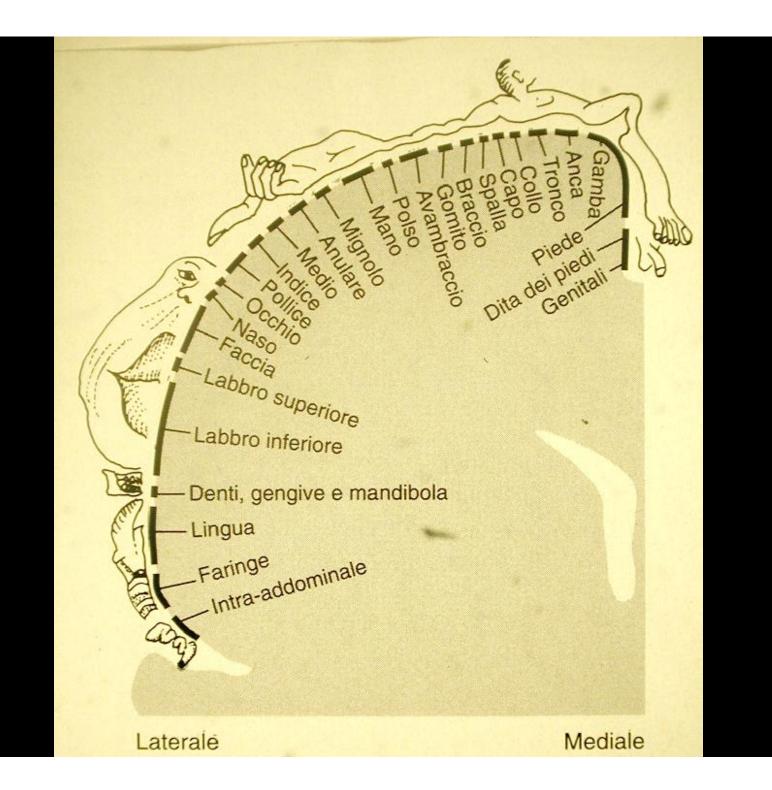
Objective: To ascertain whether manipulation of the cervical spine is associated with changes in brain function.

Outcome Measure: Use of blind-spot maps before and after manipulation.

Conclusions: Accurate reproducible maps of cortical responses can be used to measure the neurological consequences of spinal joint manipulation.

Manipulation may be associated with an increase or decrease in brain function depending on the side of the manipulation and the patient's cortical hemisphericity.

Using electrical stimulation of DRG axons, myelination was possible through the reduced expression of a cell adhesion molecule critical for inducing myelination. The results suggest, myelination can occur in peripheral axons with schwann cells independent of glia activity. These affects on the schwann cells are dependent on the Frequency of Firing in the axon. (in vitro results)



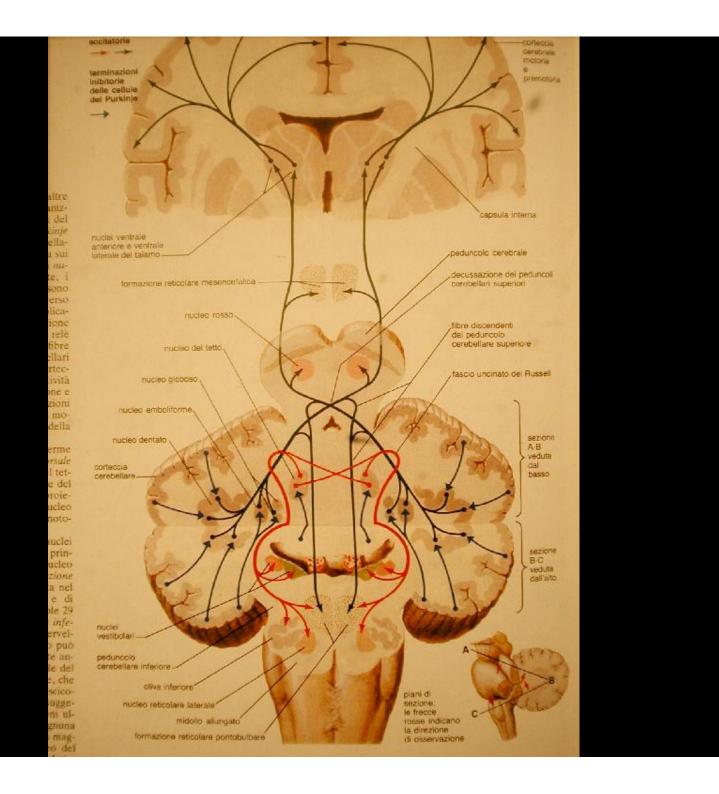
THE BODY IN THE BRAIN: Neural Bases of Corporeal Awareness "Imitation of movements by neonates suggests an implicit knowledge of the body structure that antedates the adult body schema..."
"Dynamic aspects of the body schema are revealed by spontaneous sensations from a lost body part as well as by orderly phantom sensations elicited by stimulation of body areas away from the amputation line and even by visual stimulation.

The mechanisms of the body schema exhibit stability, since some brain regions seem permanently committed to representing the corresponding body parts in conscious awareness and plasticty, since brain regions deprived of their natural inputs from a body part become reactive to inputs from other body parts..."

Aim: to evaluate reorganization in the Motor Cortex of stroke patients that was induced with an efficacious rehabilitation treatment.

Methods: use of focal transcranial magnetic stimulation to map the cortical motor output of a hand muscle on both sides in 13 stroke patients in the chronic stage of illness before and after a 12 day of constraint-induced movement therapy.

Conclusion: this is the first demonstration in humans of a long-term alteration in brain function associated with a therapy - induced improvement in the rehabilitation of movement after neurological injury.



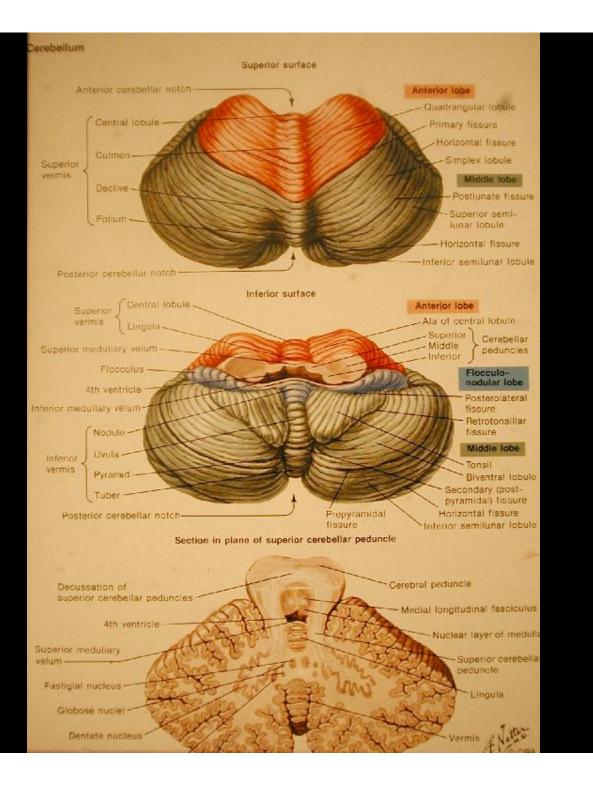
"The findings suggest that sensory input does have a substantial effect on efferent function and sensation" (Slosberg, D.C., JMPT; 1988)

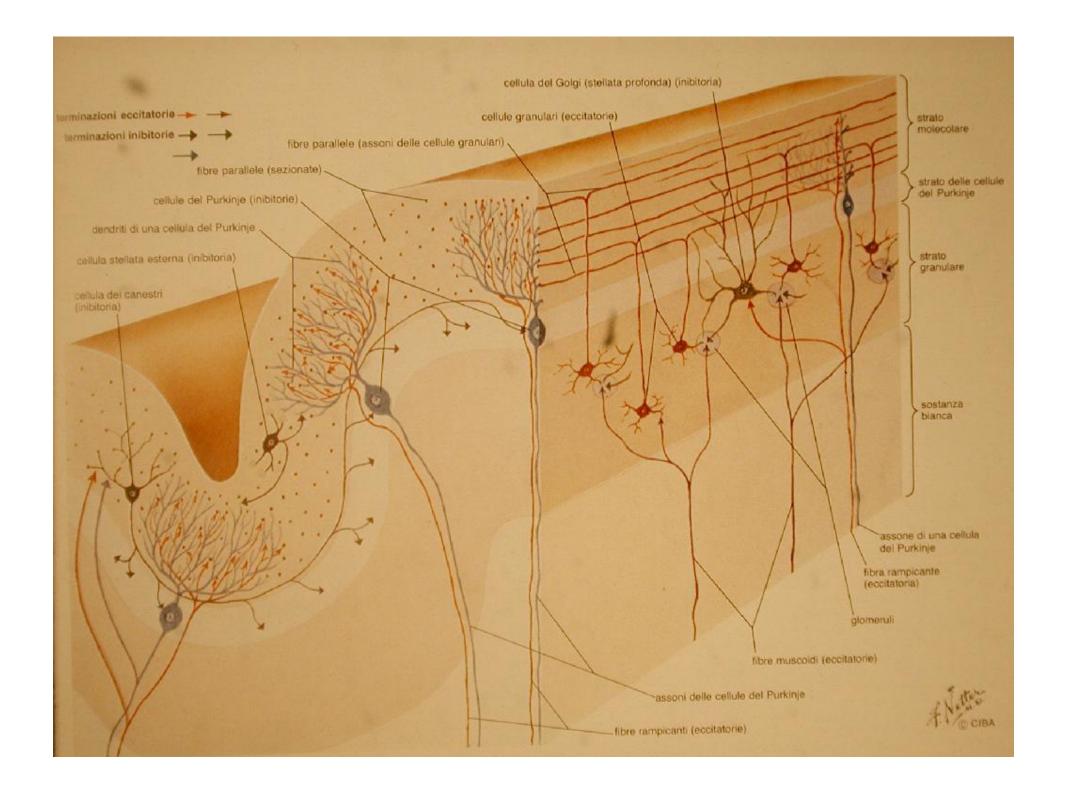
"SI RITIENE CHE LA RIDOTTA FUNZIONALITA' DELLA MEMORIA POTREBBE SPIEGARE I PROBLEMI COGNITIVI NONCHE' LE REAZIONI SECONDARIE NEUROTICHE"

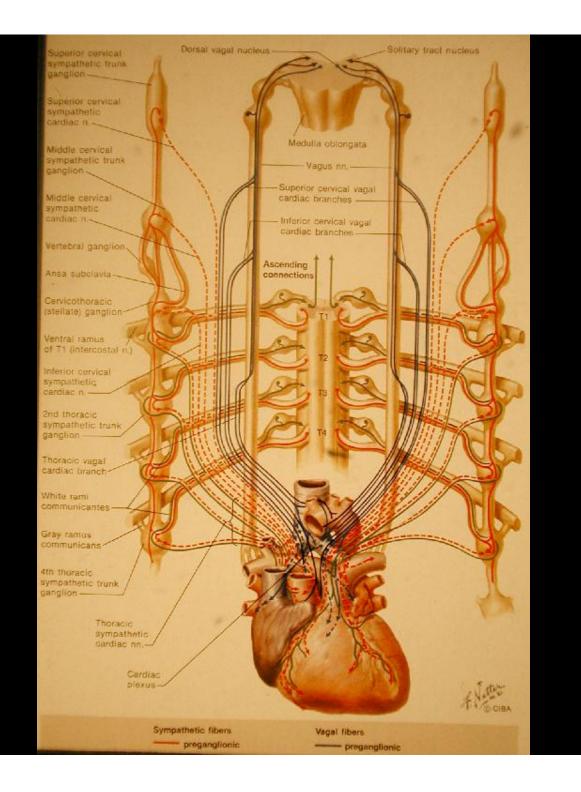
"Clinical, neuroanatomic, neurobehavioral, and functional brain-imaging studies suggest a role for the cerebellum in cognitive functions, (of learning, spatial encoding, visual discrimination and visual attention) including attention" "A cerebello-thalamo-prefrontal circuit dysfunction may subserve the motor control, inhibition, and executive function deficits encountered in 'Attention-Deficit Hyperactive Disorder' (ADHD)"

"The Dentate Nucleus has facilitatory effect on the generation of BP (Bereitschaftspotential) and NS (negative slope)"

"BP and NS preceeding voluntary finger movement ipsilateral to the lesion were absent or markedly reduced in amplitude in those case of Dentate Nucleus Lesions"







Functional Tachycardia or Premature Beats in Neurocirculatory Asthenia, Symptoms of Sympathetic Irritation in Cervical Radicular Syndrome, Hyperkinetic Syndrome with postive exercise test, Long Q-T Syndrome, the classic troubles of Sympathetic Origin in Pheochromocytoma and the "Vegetative Storm" in Cerebral Damages or excessively stressful situations" may be included in the <a href="SYMPATHETIC HYPERFUNCTION SYNDROME">SYMPATHETIC HYPERFUNCTION SYNDROME</a>. Of greater clinical interest is the CERVICAL RADICULAR SYNDROME with sympathetic irritation......

Objective: To determine possible sites of therapeutic action of vagus nerve stimulation (VNS) by correlating acute VNS induced regional cerebral blood flow (rCBF) alterations and chronic therapeutic responses.

Background: "VNS acutely induces rCBF alterations at sites that receive vagal afferents and higher order projections, including dorsal medula, contralateral somatosensory cortex, thalamus and cerebellum bilaterally and several limbic structures (hippocampus and amygdala)"

Conclusions: Increased thalamic synaptic activities probably mediate some antiseizure effects of VNS.

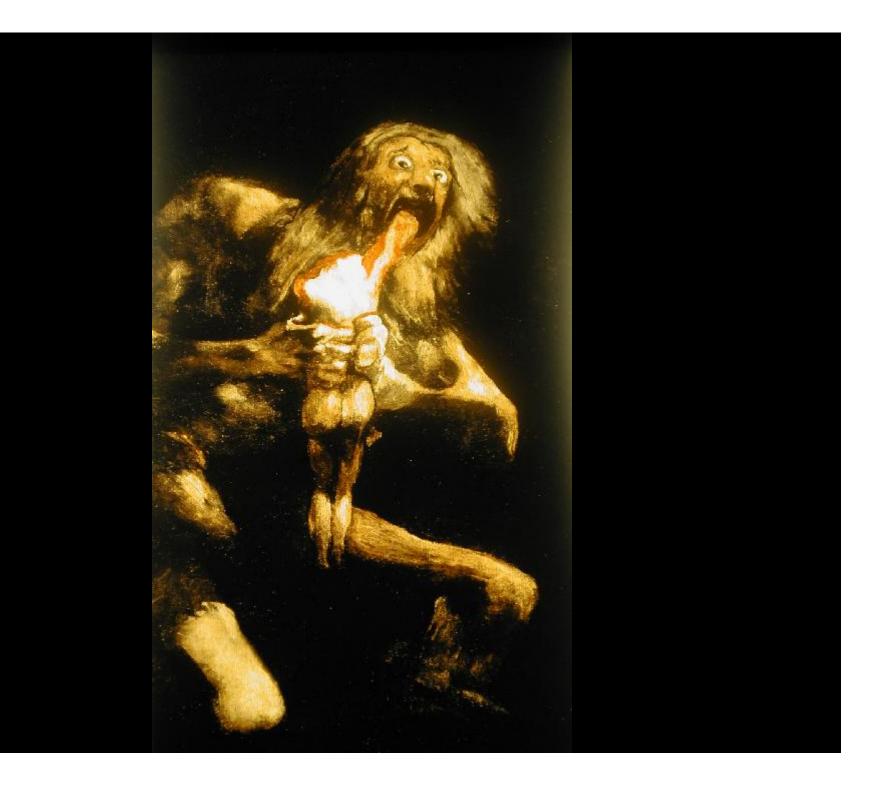
Article Abstract: "We report four patients with refractory epilepsy who experienced <u>VENTRICULAR ASYSTOLE</u> <u>INTRAOPERATIVELY</u> during initial testing for implantation of the vagus nerve stimulator.

Conclusions: Acute intraoperative vagus nerve stimulation may create VENTRIULAR ASYSTOLE in humans. Extracorporeal cervical vagus nerve stimulation testing with continous EKG monitoring before generator implantation is warranted.

#### DOLORE:

LA PERCEZIONE DI UNA SENSAZIONE SPIACEVOLE, DI AVVERSIONE, CHE VIENE AVVERTITA A LIVELLO DI UNA REGIONE SOMATICA.

ALLODYNIA:
DOLORE DOVUTO AD UNA
STIMOLAZIONE CHE
NORMALMENTE NON PROVOCA
DOLORE



### THE NEURON THEORY:

"THEORETICAL BASIS FOR THE ROLE PLAYED BY THE CENTRAL NERVOUS SYSTEM IN THE CAUSES AND CURES OF ALL DISEASES"

(Medical Hypothesis - 1994 43:285-302) (Lee, TN)

LA TEORIA NEURONALE:
QUESTI STATI DI MALATTIA CRONICI POSSONO
ESSERE GUARITI TRAMITE TECNICHE MEDICHE
MODERNE (CHIROPRATICA, AGOPUNTURA,
OMEOPATIA, ECC.), APPLICATE IN MODO
RIPETITIVO PER DISABITUARE IL SISTEMA
NERVOSO CENTRALE DAL SUO STATO
PATOLOGICO CRONICO.

Results: "With double magnetic stimulatio, facilitatory phenomena were absent in fibromyalgic patients and the inhibitory responses recorded with a delay of 155 ms were reduced."

No significant differences were noted beween FM and RA patients.

Conclusions: The study demonstrated motor cortical dysfuncion in patients with fibromyalgia involving excitatory and inhibitory mechanisms. This indicates motor cortical involvement and supports the hypothesis of aberrant central pain mechanisms. The absense of difference between FA and RA suggest that the lesions were not specific and could be related to chronic pain disorders within the central nervous system.

Conclusions (continued): We hypothesize that basal ganglia disturbances observed with rCBF (Mountz et al., 1995) in FM may be responsible for our results since these neuronal structures influence motor cortical circuity.

These results support the hypothesis of an aberrant central pain mechanism in FM.

(Mountz JM et al., Fibromyalgia in women. Abnormalities of regional cerebral flow in the thalamus and the caudate nucleus are associated with low pain threshold levels.

Arthritis Rheum 1995; 7: 926 - 938)

