

Myoreflex, Trauma and More...

**Robert Bering, Bo Kähler,
Anne Marie, Kurt Moser**

**Odense,
01.06.-02.06.2017**

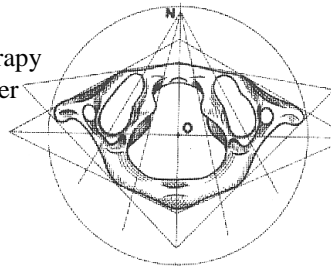


Dr. B. Mana, Dr. B. Clark, Dr. Y. Donden
Kathmandu, Ayurveda, Tibetan medicine...
nutrition, acupuncture.
1986- 1997

Dr. med. Tilmann Goerttler
Badenweiler/Freiburg
Orthopedics, Atlas therapy,
Trigger points, Manual therapy
Ear acupuncture Paul Nogier
1988-1995

**Prof. Dr. Dr. Gertraud
Teuchert- Noodt**
Bielefeld University
Neurobiology, brain research
2002 - 2016

Prof. Dr. med. Dieter Felsenberg
Prof. Dr. med. Eckhardt Schönau
Charité Berlin/Cologne University
Muscle and bone research, Galileo training
2002- 2016



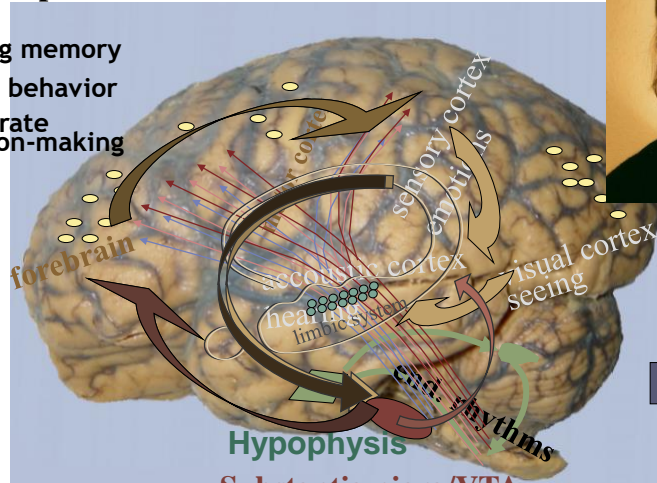
**Prof. Dr. med. Peter
Riedesser** 1987- 2008
**Prof. Dr. med. Gottfried
Fischer** 1988 -2013
**Prof. Dr. med. Dr. phil.
Robert Bering** 1999 -2016
Freiburg University/
Hamburg/ Cologne/Krefeld
Child and Adolescent
Psychiatry
Psychotraumatology
Clinical Psychology

Prof. Dr. med. Werner Reutter
Charité Berlin
Biochemistry, molecular biology,
Glycobiology, Galactose, GAG
1992 - 2010

It's all about Offer and demand. ...designed to repair itself...

big limbo-prefrontal circuit

- working memory
- social behavior
- deliberate decision-making



GABA

Glutamat

new

neurons

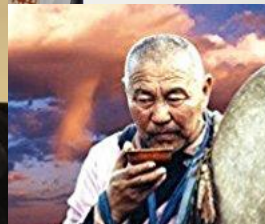
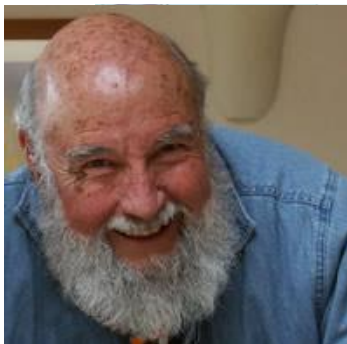
Acetylcholin

Serotonin

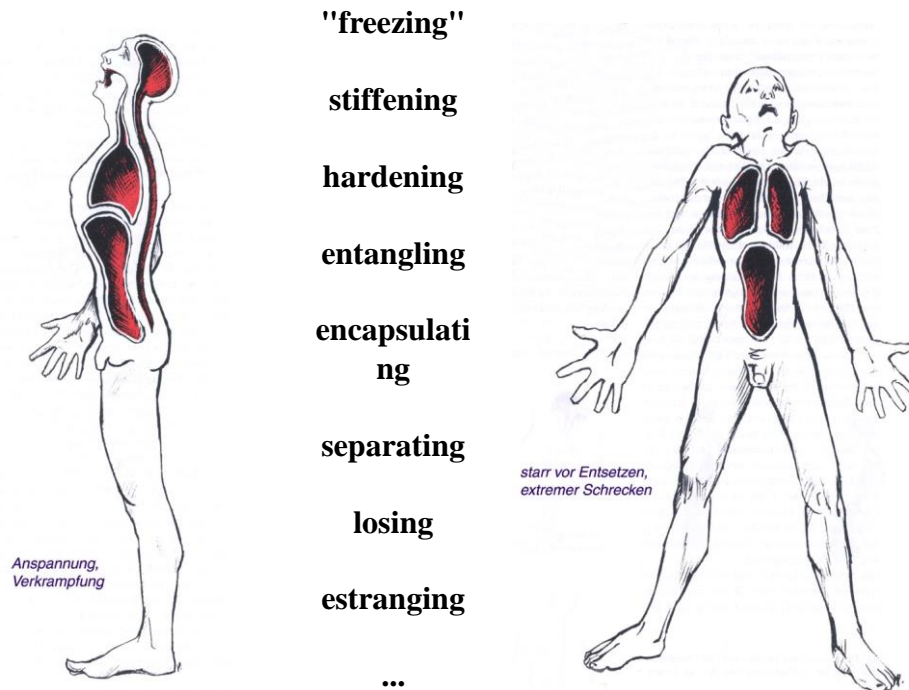
Noradrenalin

Dopamin

Enthusiasm, pleasure, training, cooperation...



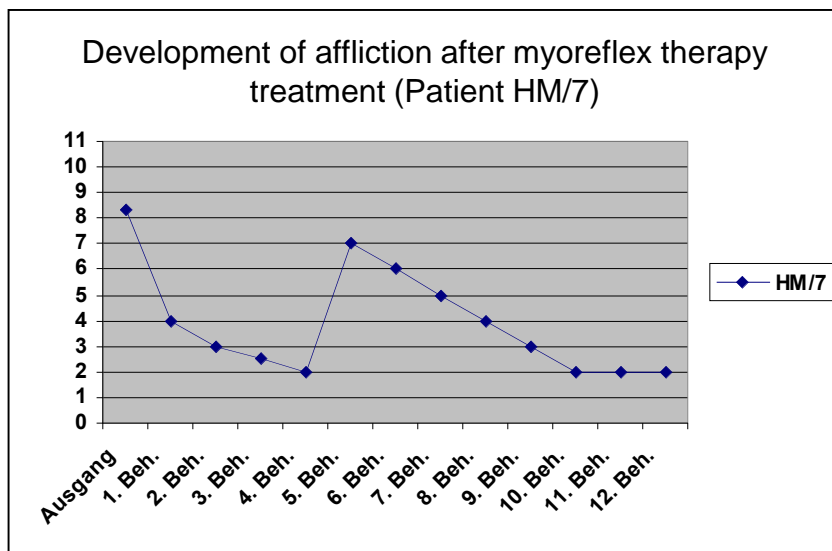
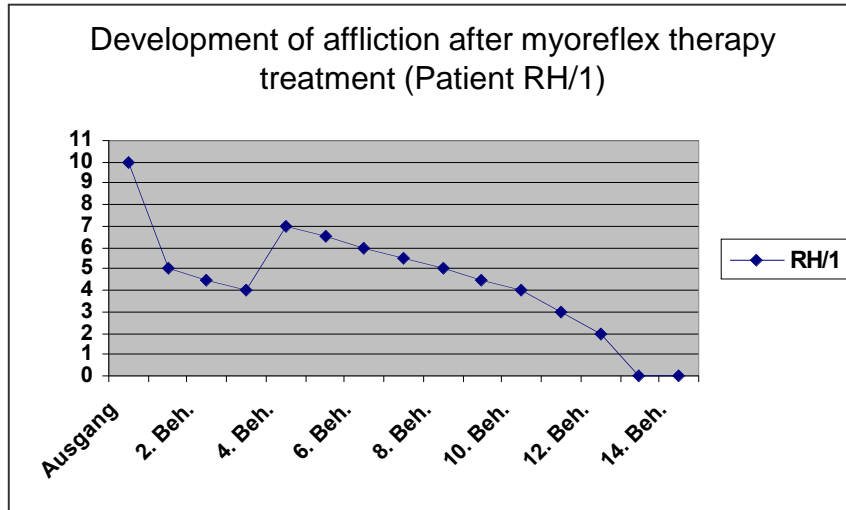
VEREINIGUNG
COCKP



Traumatic experiences are imbedded into our body scheme as neuro-muscular memory trails. While its activation pattern withdraws from our awareness, the physical dynamics may follow us constantly. Therefore, psychic traumata are active as frozen neuro-muscular activation patterns, but are still inaccessible.

Thus, avoidance postures and fixations are reflected and made conscious. Now, working on the underlying trauma-scheme can be taken up again under improved conditions. The overmodulation of the pressure points can be understood as de-construction of maladaptive neuro-muscular schemes, which only then enables the construction of new schemes and a revision of stuck activation patterns (reconstruction).



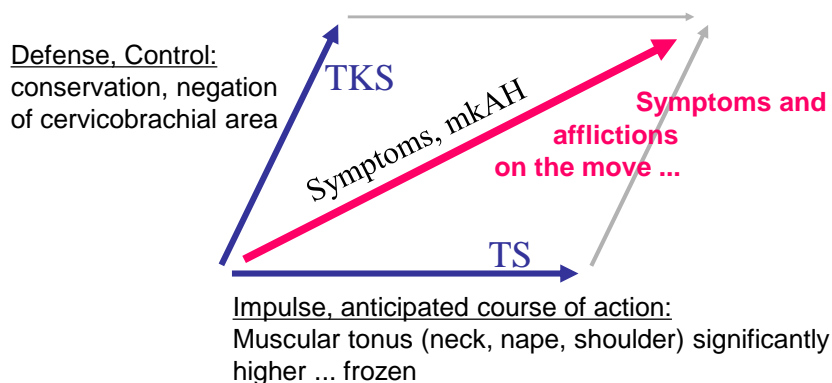


With myoreflextherapy these “control operations” are:

- therapeutically de-constructed,
- new schemes are constructed and
- old schemes are re-constructed

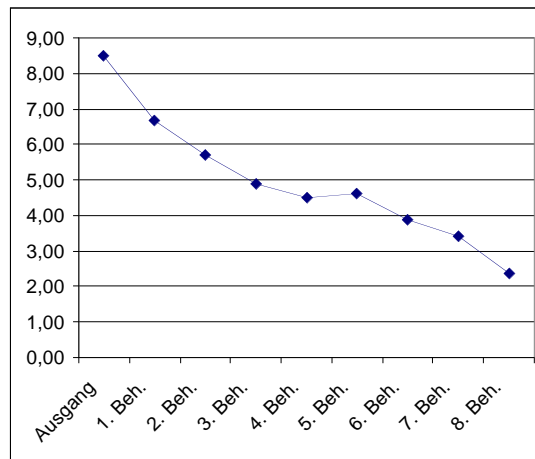
by overmodulation of the neuro-muscular trauma
related memory pictures.

Cervicobrachial dynamics in case of life-threatening car accidents



Average Patients 1-12 up until treatment #8

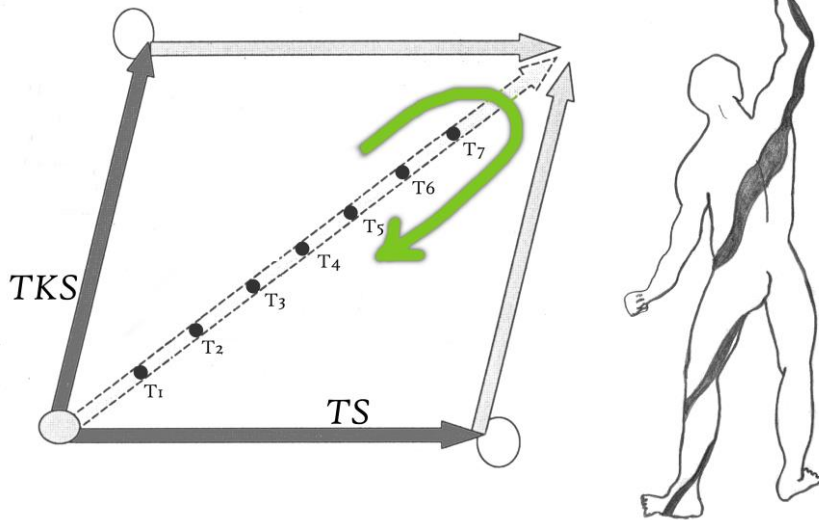
Visual analogue scale (VAS) [10 = unbearable to 0 = no pain]



- Afflictions of the physical body: 1.75
- Standard mood: 1.0
- Psychological strain: 0.85
- Problem solving strategies: 1.6

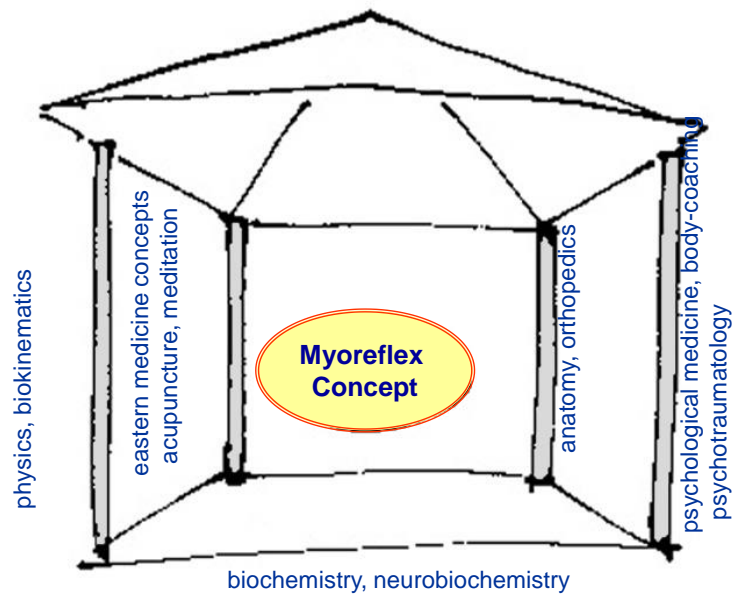
• **Progress measure of physical affliction (myo) before and after myoreflex therapy treatments: 3.65.**

de-velop complications ...
reinforcement and restabilization



Neuro Muscular Trauma Therapy

brain research



Interoception is a device to create emotional and physical landscapes in our bodies. This sense of "body awareness" is interconnected, fine-tuned and synchronized mainly through the neuronal networks of the insular and cingulate cortex.

Interoception: the sense of the physiological condition of the body
AD (Bud) Craig

How do you feel — now? The anterior insula and human awareness

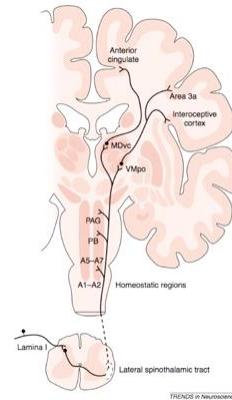
A. D. (Bud) Craig

How do you feel? Interoception: the sense of the physiological condition of the body
A. D. Craig

A new view of pain as a homeostatic emotion

A.D. (Bud) Craig

Atkinson Pain Research Laboratory, Barrow Neurological Institute, 350 West Thomas Road, Phoenix, AZ 85013, USA



Interoception



Opinion

TRENDS in Neurosciences Vol.26 No.6 June 2003

A new view of pain as a homeostatic emotion

A.D. (Bud) Craig

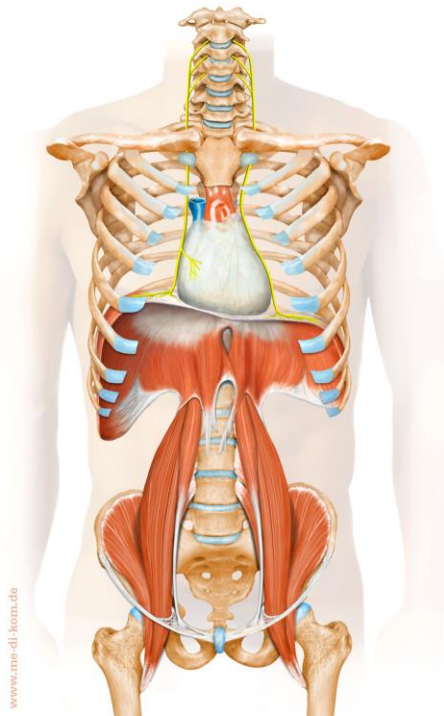
Atkinson Pain Research Laboratory, Barrow Neurological Institute, 350 West Thomas Road, Phoenix, AZ 85013, USA

How do you feel — now? The anterior insula and human awareness

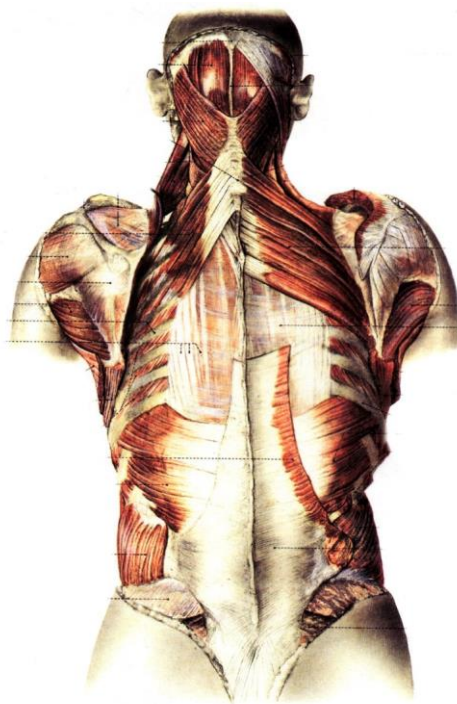
A. D. (Bud) Craig

Abstract | The anterior insular cortex (AIC) is implicated in a wide range of

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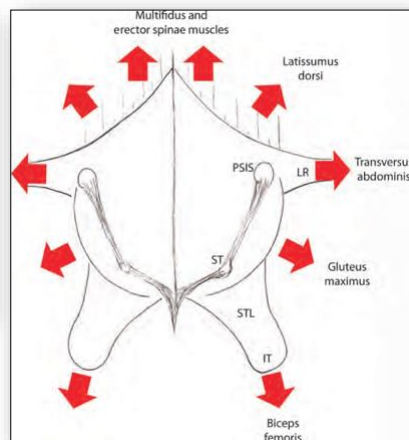


Interoception and dynamics in anatomy pathways

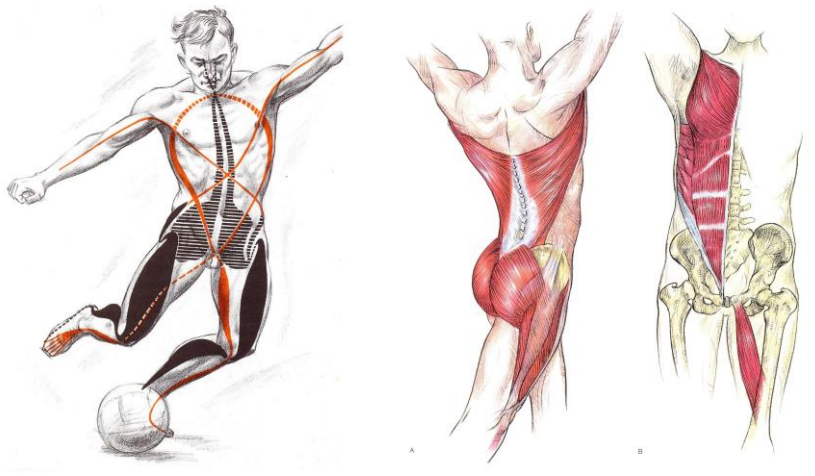




Lumbar fascia as multi-directional elastic spring membrane

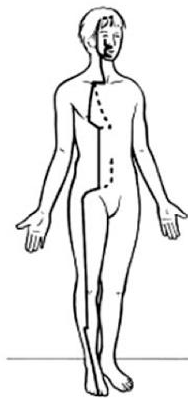


25

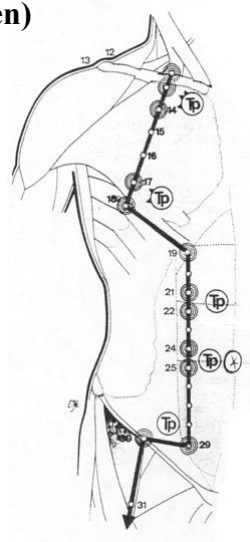


Muskelmeridiane

Otto Bergsmann (Wien)



(200 BC)



(1988)



(1997)

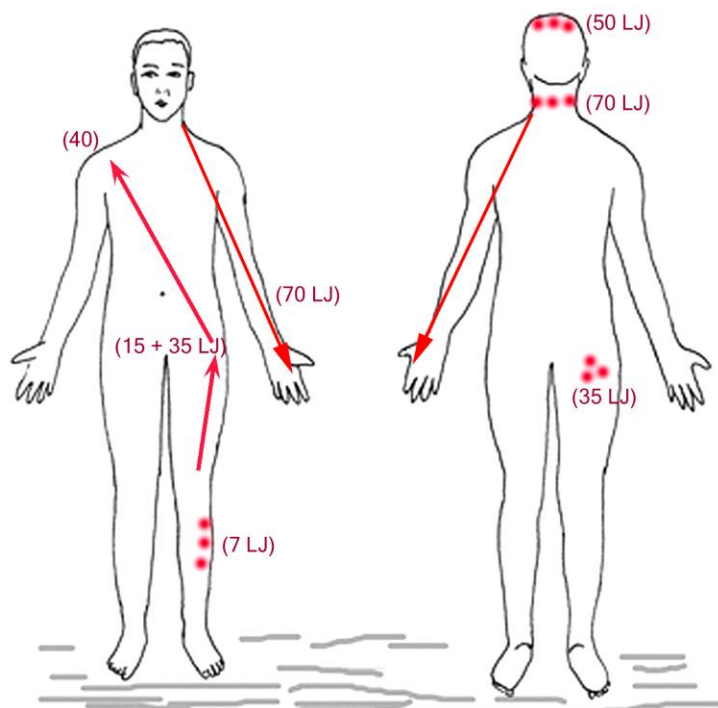


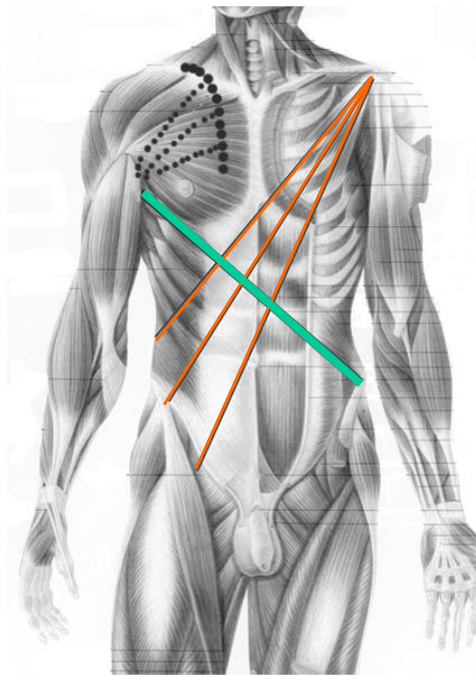
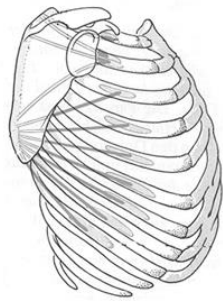
What is evidence-based about myofascial chains?

A systemic review.

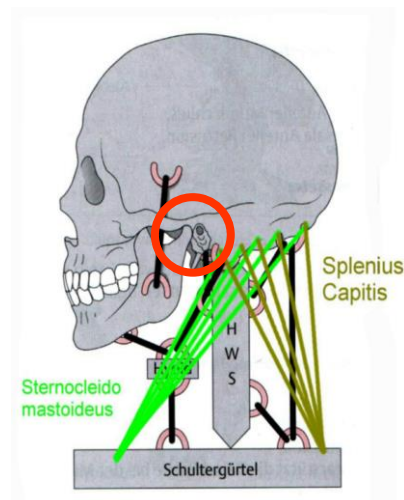
Archives of physical medicine and rehabilitation, August 2015

- Conclusions: the present review suggests that most skeletal muscles of the human body are directly linked by connective tissue.
- Examining the functional relevance of these myofascial chains is the most urgent task of future research! Strain transmission along meridians would both open a new frontier for the understanding of referred pain and provide a rationale for the development of more holistic treatment approaches.
- Bendik Johannessen, www.klinikk-johannessen.no Trondheim
- www.myoreflex.legehandboka.no

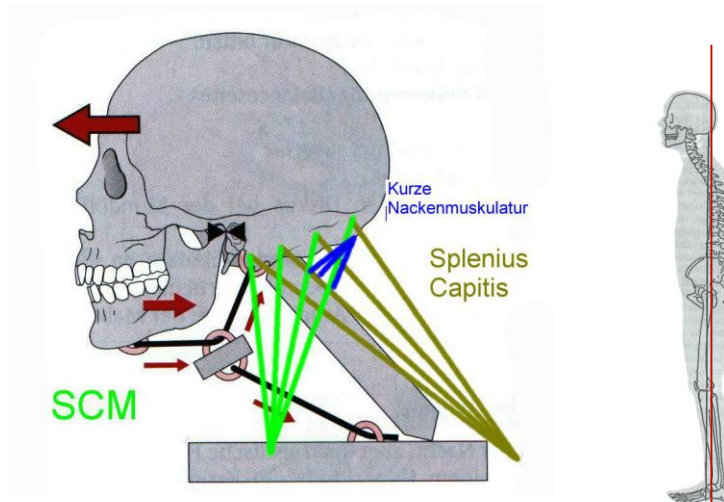




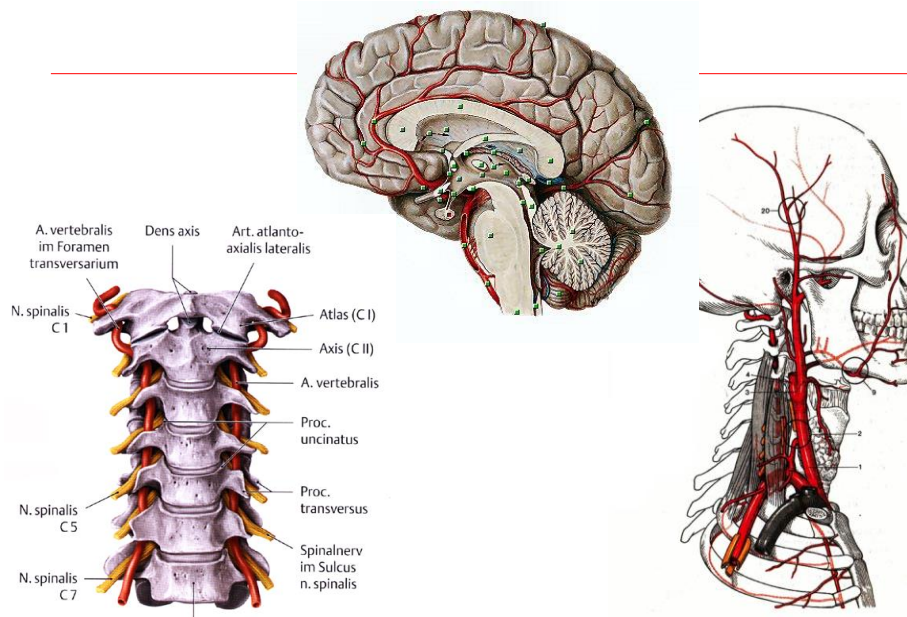
System of alignment in the landscape
of the neuromuscular system



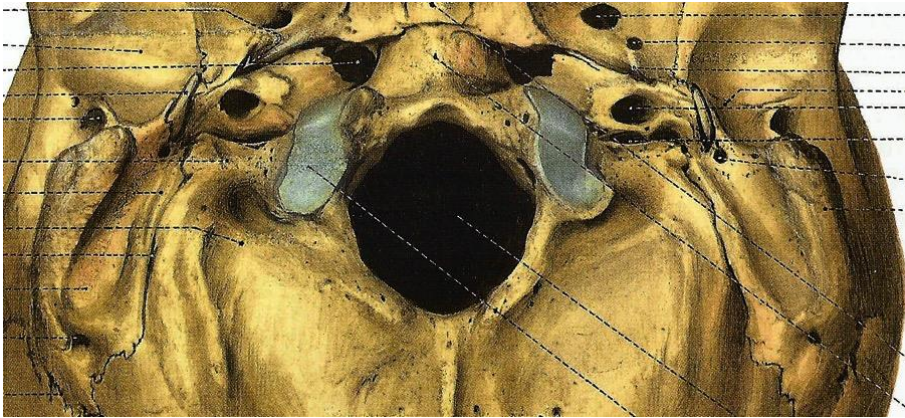
Trauma associated perturbed balance



Essential Arteries: Cerebral Blood Supply

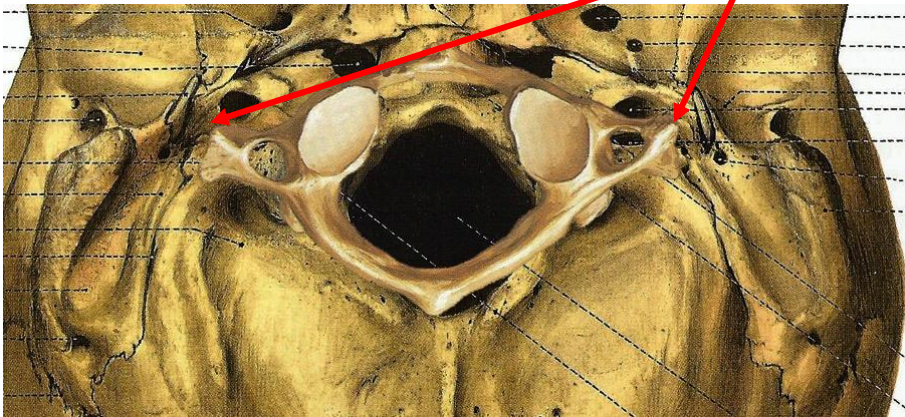


Foramen jugulare



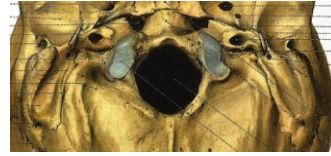
V. jugularis, N. glossopharyngeus (IX), N. vagus (X), N. accessorius (XI)

Foramen jugulare and Atlas



V. jugularis, N. glossopharyngeus (IX), N. vagus (X), N. accessorius (XI)

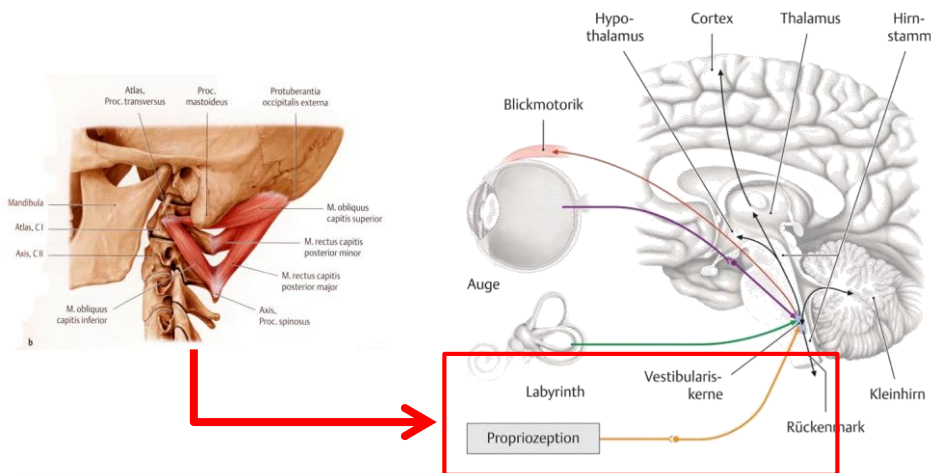
Possible Symptoms:



Foramen jugulare

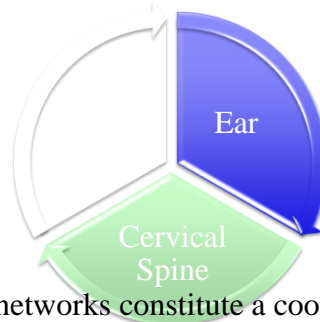
- swallowing and speech disorders, globus pharyngis, coughing, hoarse throat, dry mouth
- irritated taste sense
- itching and other dysesthesia in the ear
- changing heart rate (contraction remains stable)
- dysfunctions of stomach, respiratory system, small intestine, large intestine (not sigmoid and rectum), liver, gall bladder, pancreas, kidneys
- tension changes of M. trapezius and M. sternocleidomastoideus

C1 – C3, trigeminal nerve and brain nerve orchestra

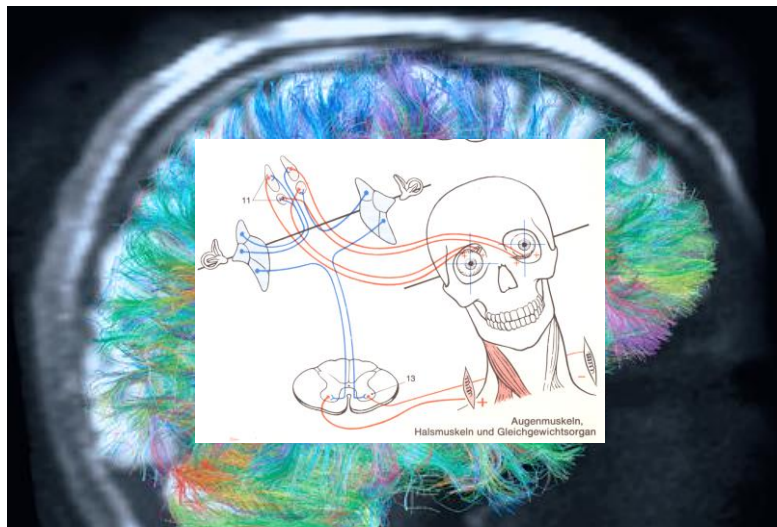


Central role of the neuro- motor neuro –muscular junctions and the synchronized nerve-cell- networks of vestibular nuclei in maintaining equilibrium

The 2014 Nobel Prize in Physiology or Medicine
John O'Keefe and May-Britt Moser and Edvard I. Moser
for their discoveries of cells that constitute a positioning system in the brain,



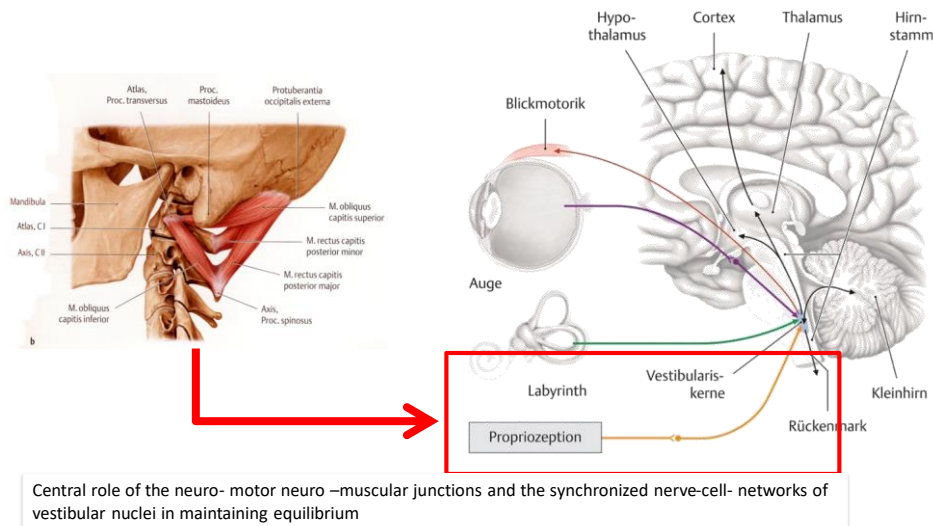
Collectively these networks constitute a coordinate system that allows for spatial navigation. Together with other cells of the entorhinal cortex that recognize the direction of the head and the border of the room, they form circuits with the place cells in the hippocampus. This circuitry constitutes a comprehensive positioning system, an inner GPS, in the brain



The brain doesn't recognize any artificial differentiation between muscles, fascia, emotions...

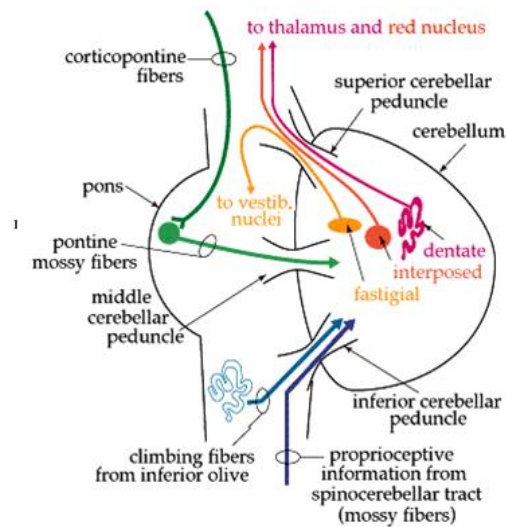
basal patterns of action or movement like orientation, empathy, antipathy rather constitute engrams. Motor-neuro patterns are pre-programmed like complex melodies and symphonies.

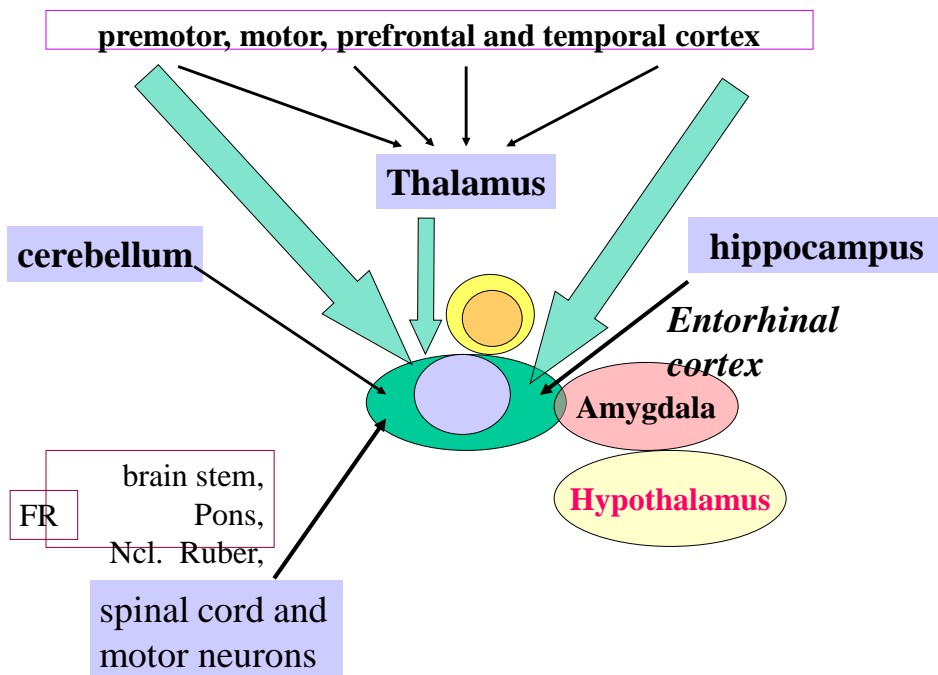
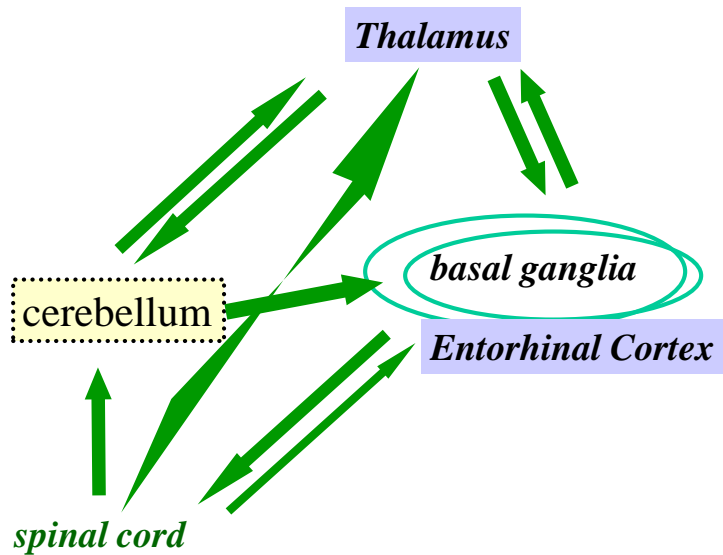
C1 – C3, trigeminal nerve and brain nerve orchestra

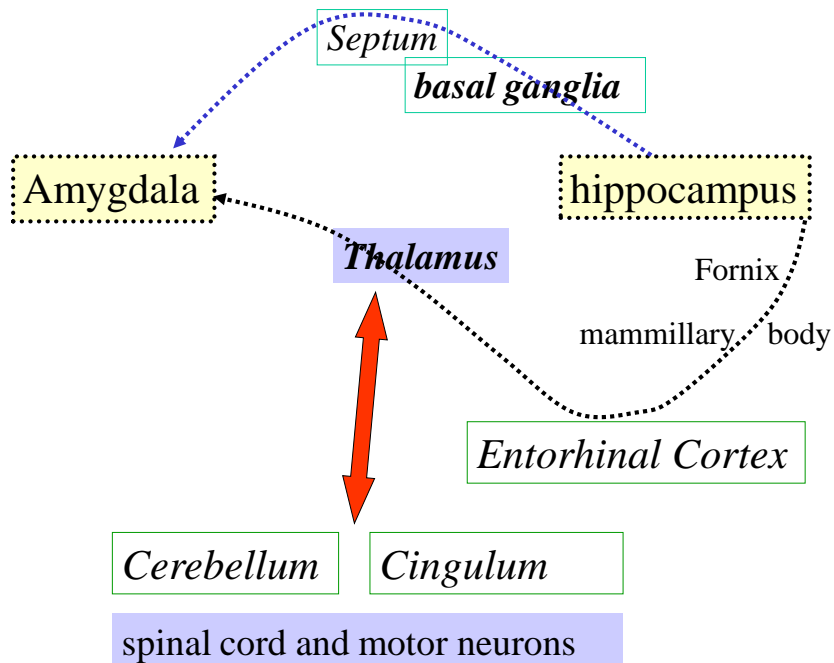
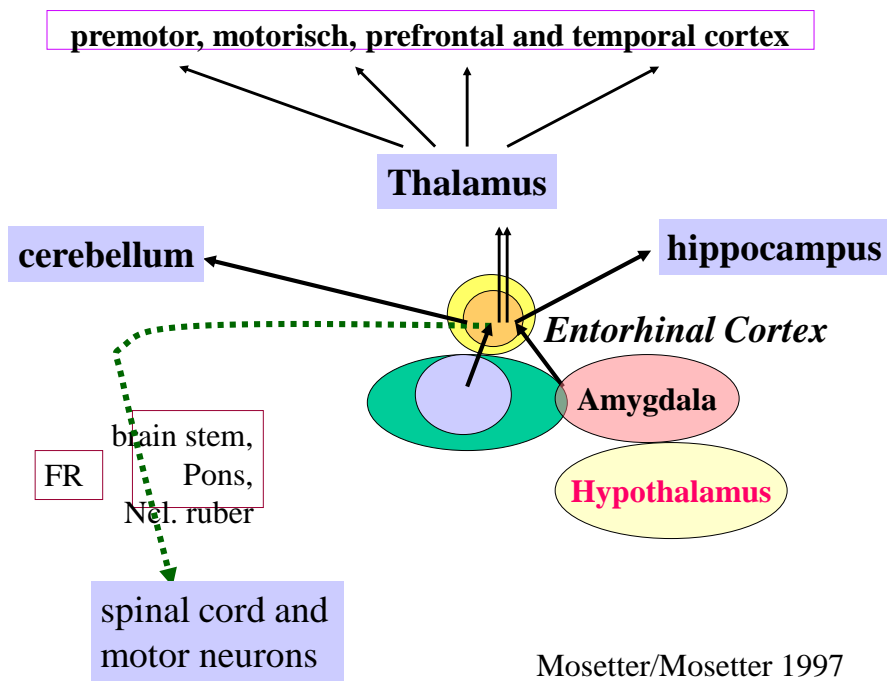


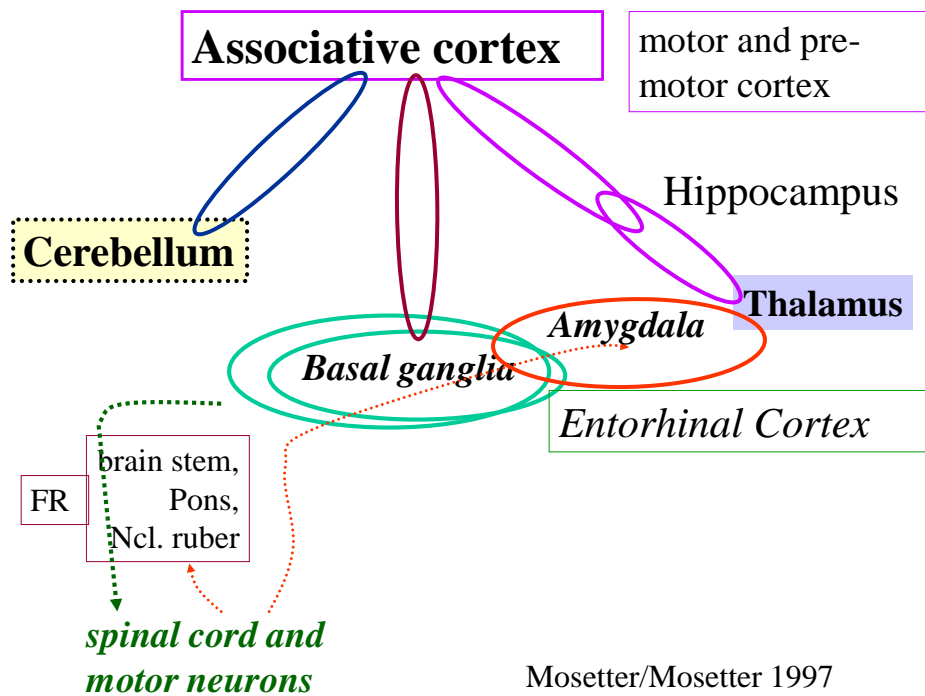
Brain...Nerve- and Glia-cell networks in the Cerebellar connections and the

Vestibular system...all need essential information from our body

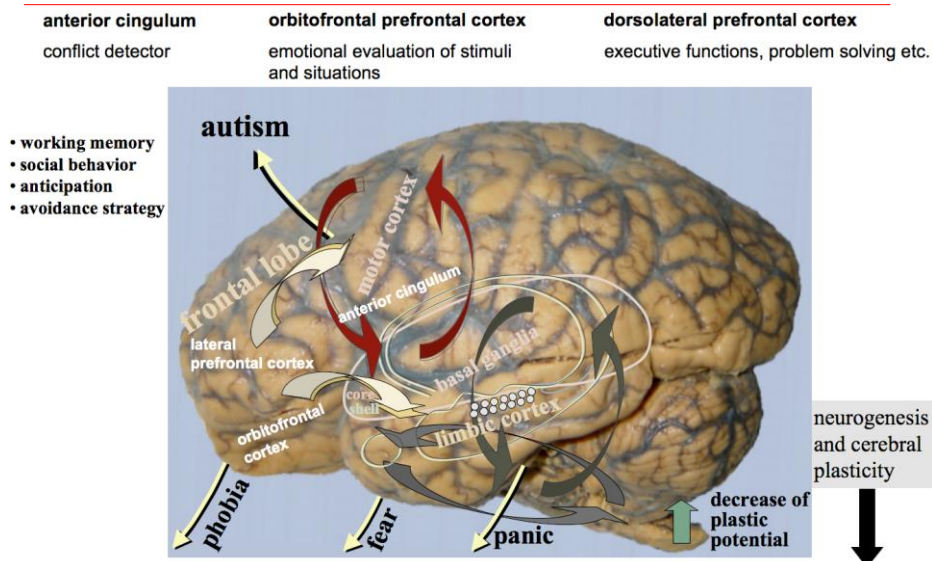




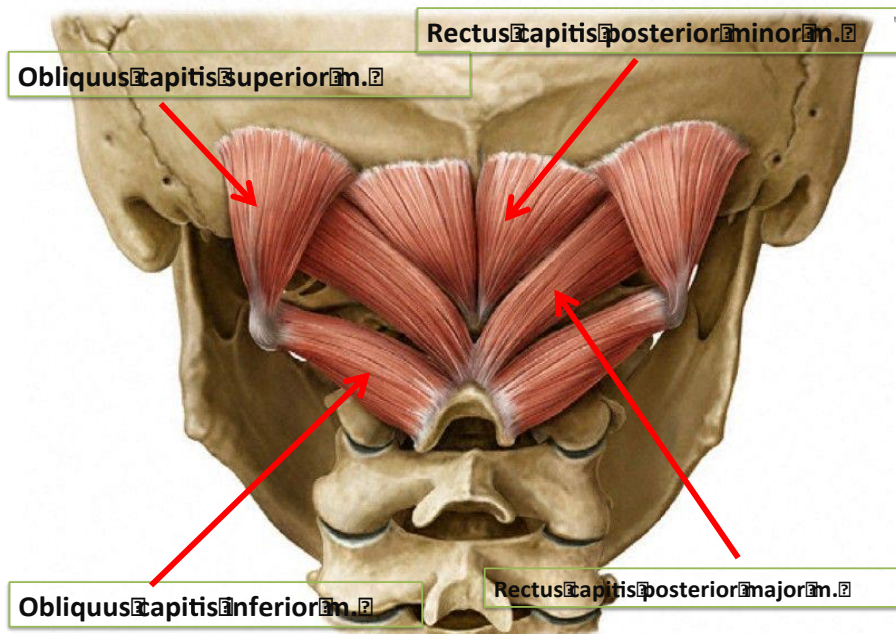
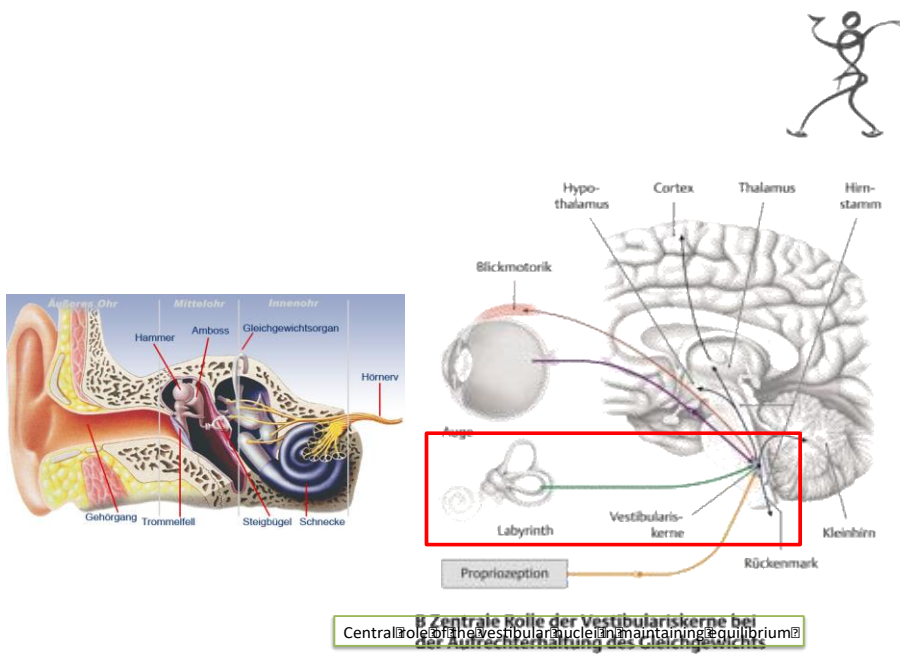




Disconnection syndromes in traumatic stress and low energy states: The brain enters slow-mode state

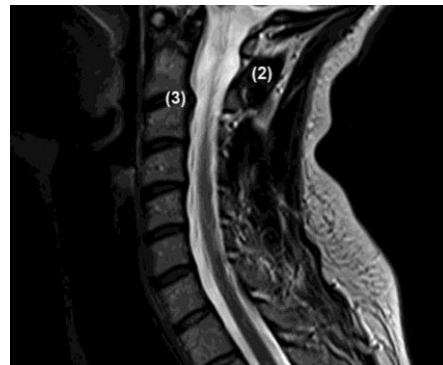
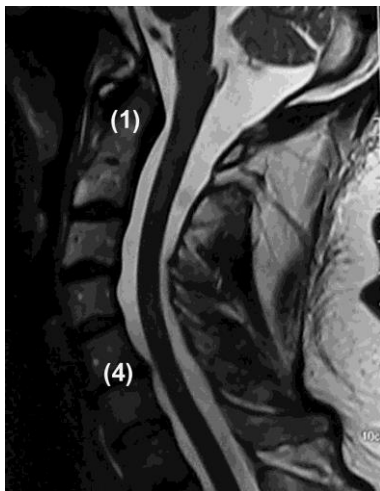


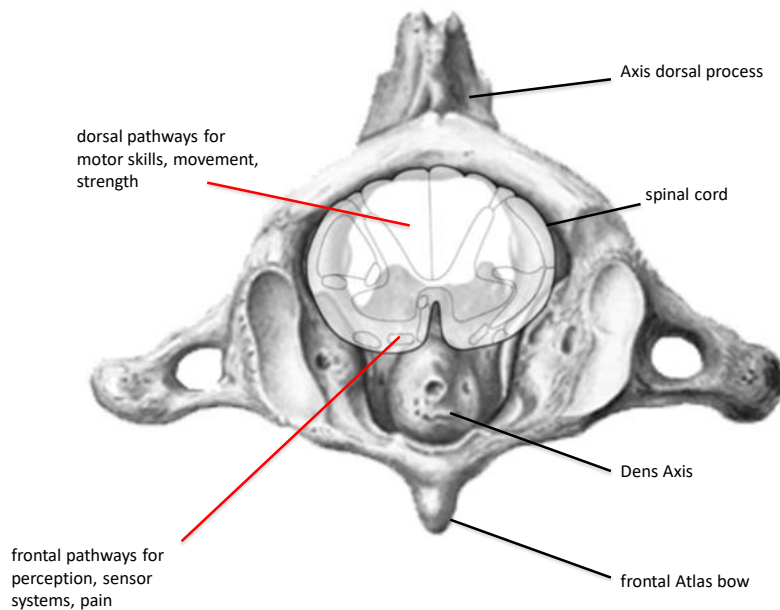
Source: G. Teuchert-Noodt, University of Bielefeld



When the Nape tickles the Tongue...

- itching ears
- whistling in the ears
- numbed tongue
- disturbed speech
- provokes vertigo
- causes irritated vision
- irritated taste
- confused orientation
- disturbed concentration
- burning sensation in the face
- causes headaches
- initiated migraine
- causes lump-feeling in the throat
- provokes palpitations
- evokes fear
- disturbed sleep



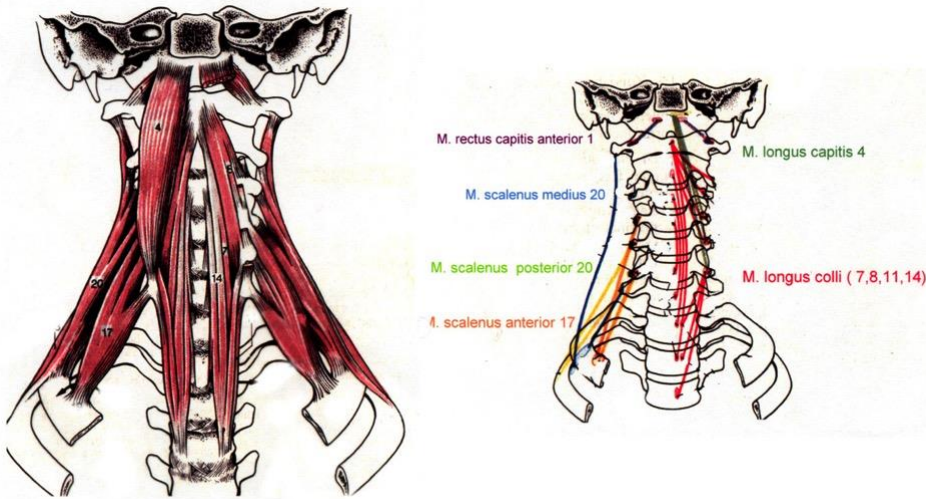


Vascular Tissue Dysfunctions

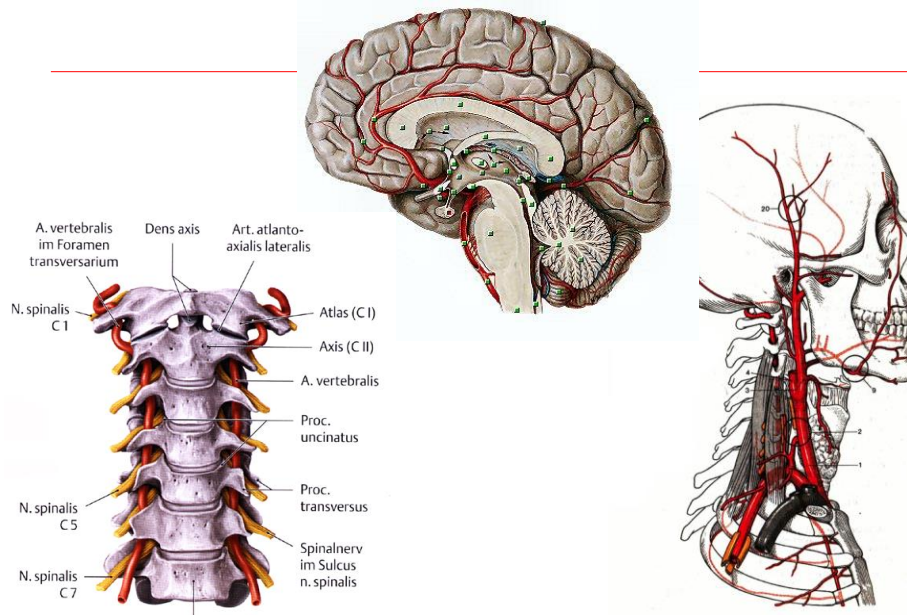
- ventral vascular tissue, Tractus spinothalamicus ventralis and lateralis can be disturbed through relative dorsal dislocations of the Dens axis.
- pain, numbness, instabilites, vertigo, and dysregulated interoception can lead to a multitude of symptoms

Myoreflex Therapy and Torque

anterior neck (scaleni) as psoas' "little sister"



Essential Arteries: Cerebral Blood Supply



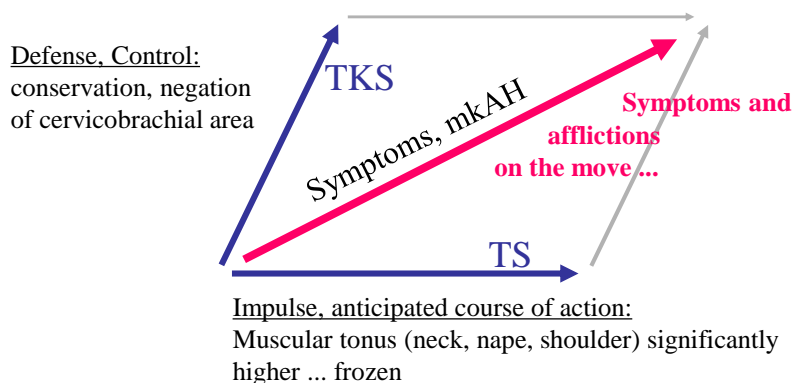
Scalenus Syndrome

numbness in the fingers
 Carpal tunnel Syndrom
 tennis elbow (epicondylitis)
 "golfer arms"
 shoulder arm afflictions
 angina pectoris
 short breath
 thoracic spinal pain
 scapula problems
 neck pain
 fear syndrome
 rip blockage
 Tietze syndrome

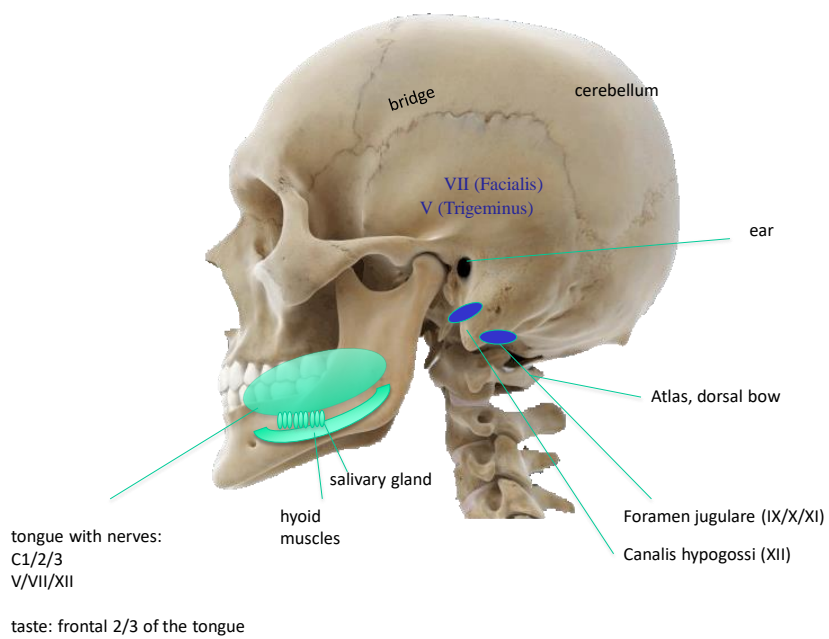
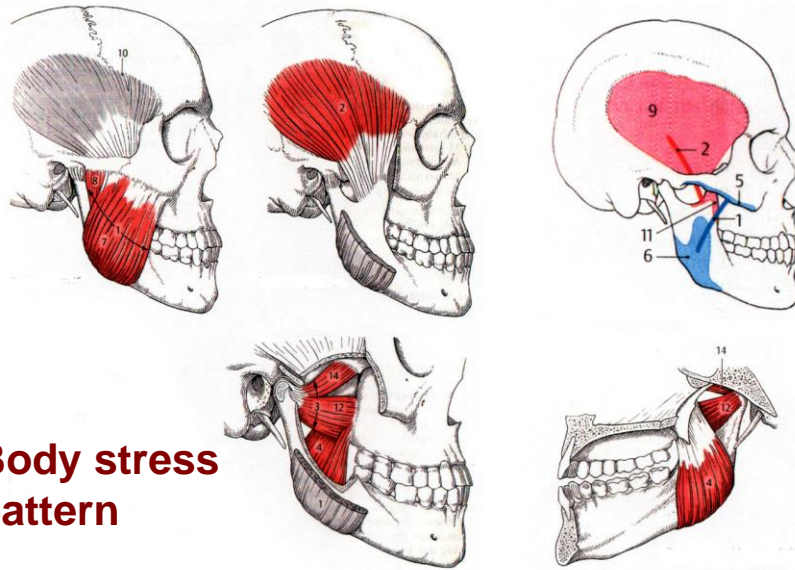
Cervicobrachial dynamics

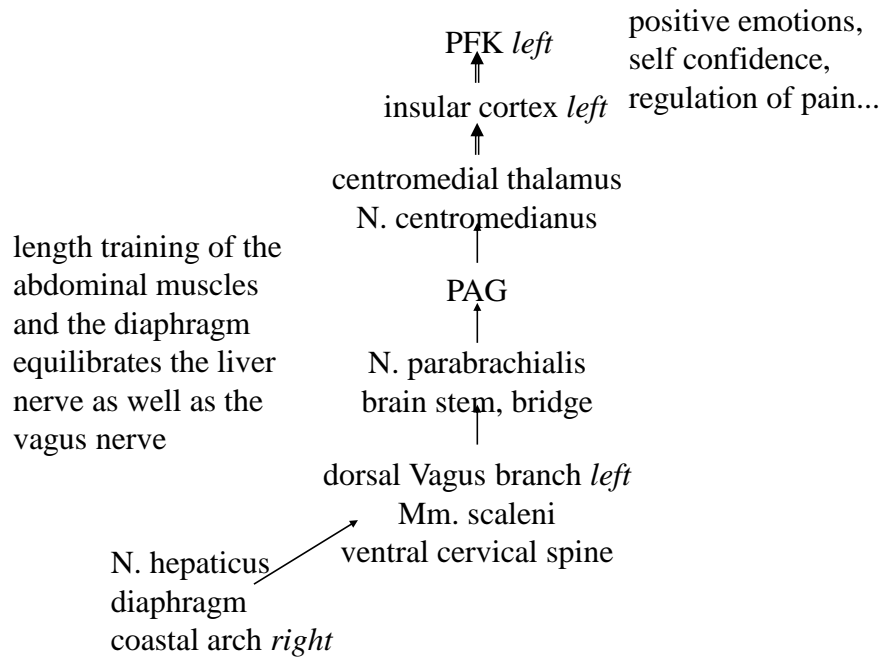
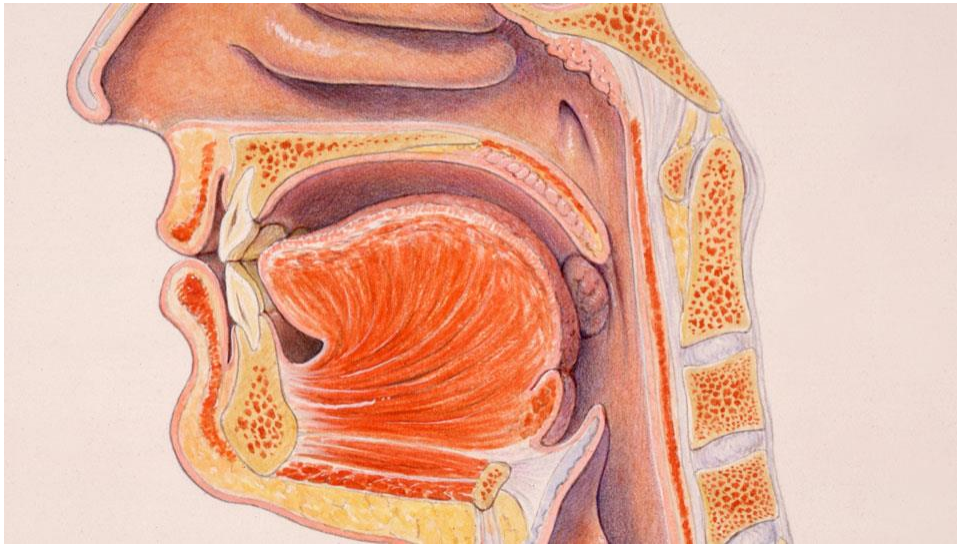
in case of life-threatening car accidents

Inhibition of active Orientation and Action



Body stress pattern

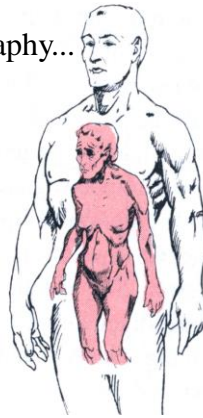




Trauma- Traumatic experience- Traumatic reactions- Trauma
 compensation mechanisms-
 Memory processing in traumatic experience- Posture and
 neuromuscular memory-
 Motor- neuro-pattern in biography...



Prof. Dr. med. Dr. phil.
 Robert Bering, excellent
 colleague, an inspiring
 teacher and great
 mentor for the
 Myoreflex concept



rigid anterior
 collapsed interior
 by Stanlev Keelman



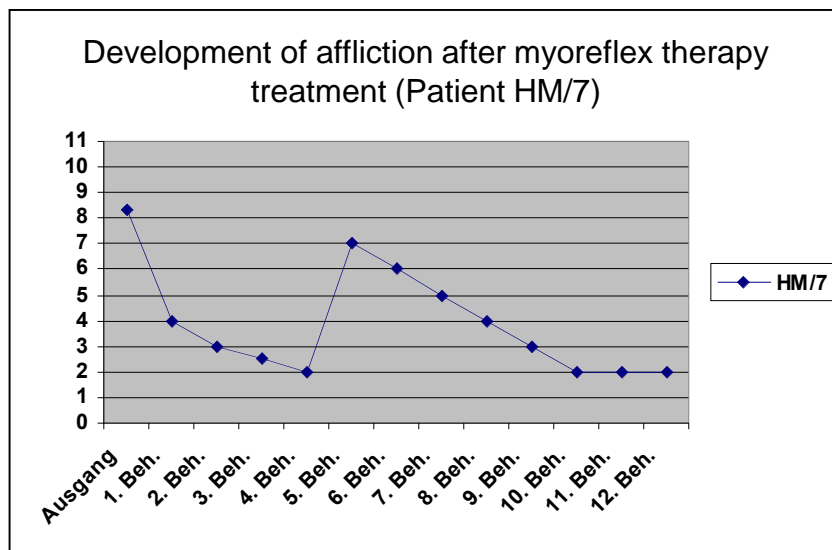
Prof. Dr. Gottfried
 Fischer, founder of
 psychotraumatology,
 who recognized and
 helped to develop the

With myoreflextherapy these “control operations” are:

- therapeutically de-constructed,
- new schemes are constructed and
- old schemes are re-constructed

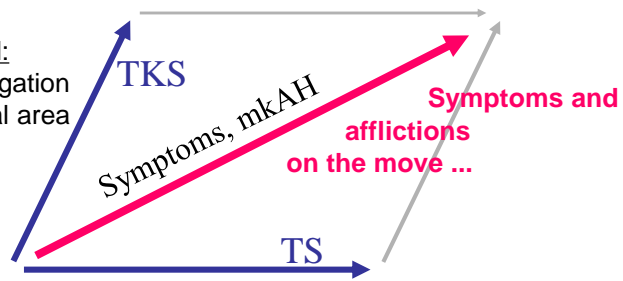
by overmodulation of the neuro-muscular trauma
 related memory pictures.

Thus, avoidance postures and fixations are reflected and made conscious. Now, working on the underlying trauma-scheme can be taken up again under improved conditions. The overmodulation of the pressure points can be understood as de-construction of maladaptive neuro-muscular schemes, which only then enables the construction of new schemes and a revision of stuck activation patterns (reconstruction).

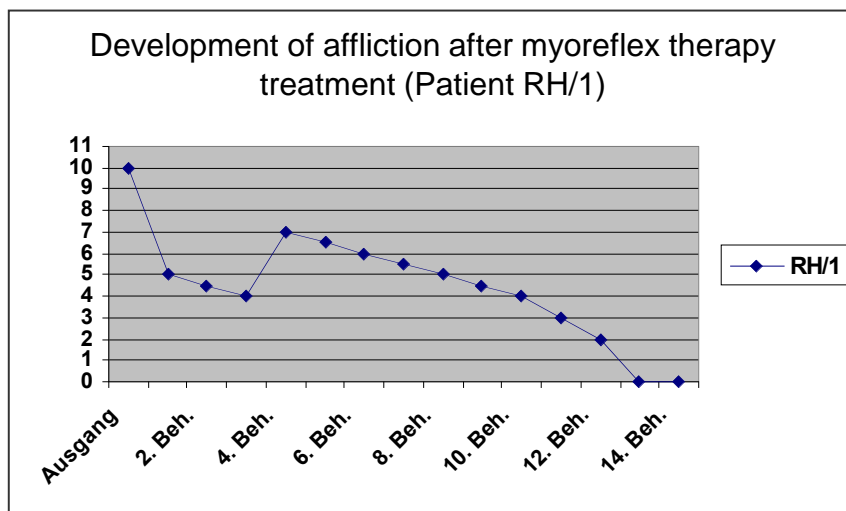


Cervicobrachial dynamics in case of life-threatening car accidents

Defense, Control:
conservation, negation
of cervicobrachial area

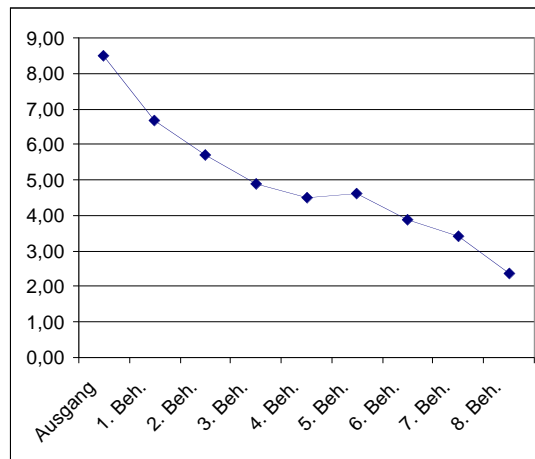


Impulse, anticipated course of action:
Muscular tonus (neck, nape, shoulder) significantly
higher ... frozen



Average Patients 1-12 up until treatment #8

Visual analogue scale (VAS) [10 = unbearable to 0 = no pain]



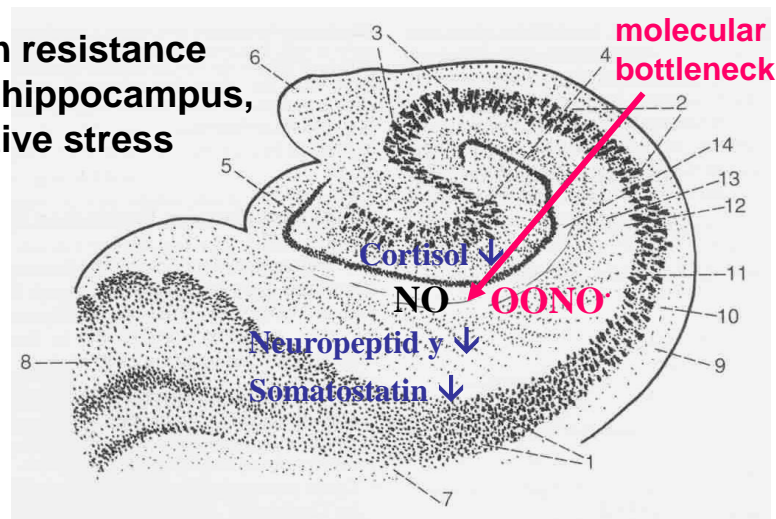
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• **Progress measure of physical affliction (myo) before and after myoreflex therapy treatments: 3.65.**

„Nature“:

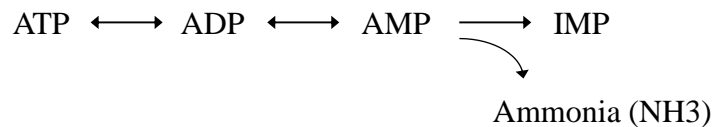
- „Can we conquer pain?“ (11/2002)
- „Attacking pain at its source:
new perspectives on opioids“ (10/2003)
- „Breaking the pain barrier“ (11/2003)
- Christof Stein, Halina Machelska, Joachim Scholz, Clifford Woolf
- Harvard Medical School, Charité Berlin

**Insulin resistance
in the hippocampus,
oxidative stress**



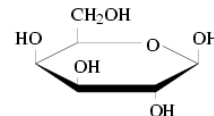
Source: Trepel, M. (2004). Neuroanatomie. Struktur und Funktion. (3. Aufl.). München, Stuttgart, Jena, Lübeck, Ulm: Urban & Fischer.

Energy metabolism, lactate and ammonia in the state of stress



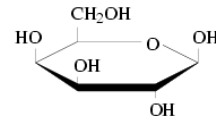
- ammonia damages Schaffer Collaterals, chloride ion channels and synapsin in the CA1 of the hippocampus.
- because ammonia can easily bypass the blood-brain barrier, it is central in increasing general exhaustion.
- the depletion of the energy repositories and the glycogen leads to IMP and the production of ammonia
- ammonia affects the oxidative energy metabolism and causes cognitive deficits
- ammonia causes fluctuating and manifest hepatic encephalopathies

Metabolic Advantages of D(+)-Galactose



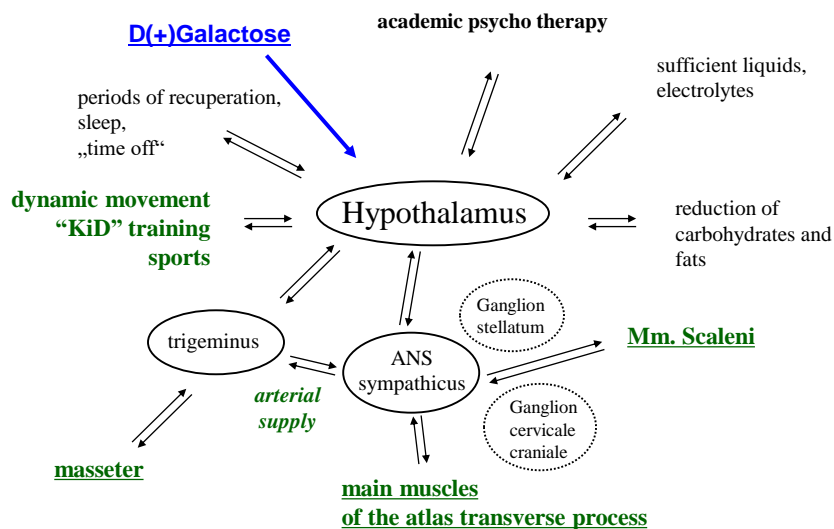
- insulin-independent absorption
- substitute for lack of glucose caused by metabolic stress
- endogenous
- endogene detoxication (elimination of ammonia)
- recycling (metabolisation) into amino acids
- constructive anabolic effect (enhanced protein synthesis)
- prolonged energy output
- building element in glycogen (mainly muscles)
- guarantees a balanced building metabolism

Latest Insights

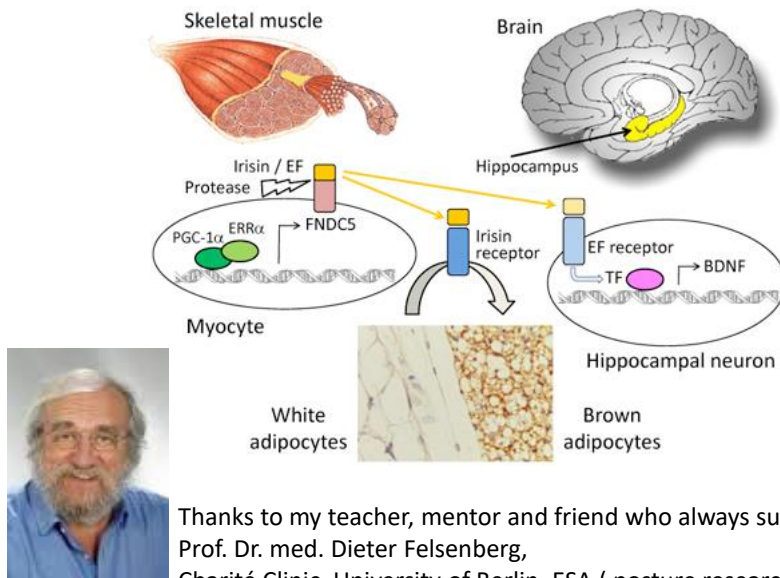


- Galactose induces the expression of insulin-independent GLUT1 and GLUT3 transporters >> improvement of glucose usage
- Galactose induces an increase of the levels of GAPDH (Glycerinaldehyd-3-Phosphat-Dehydrogenase)
- Galactose induces the step-controlling dopamine enzyme dopa-hydroxylase (Tyrosin-3-Monooxygenase)

Advancing on central regulatory mechanisms through
myoreflex therapy and neurobiochemistry



Structure, stability, function, metabolism, and genes of bones are switched on,- or off, by dynamic forces and strain conditions of muscle-fascia activities



Thanks to my teacher, mentor and friend who always supports me,
 Prof. Dr. med. Dieter Felsenberg,
 Charité Clinic, University of Berlin, ESA (posture research in BRS)



Leitender Arzt
Priv. Doz. Dr. med. Dipl.-Psych. Robert Bering



Alexianer-Krankenhaus Krefeld
Zentrum für Psychotraumatologie

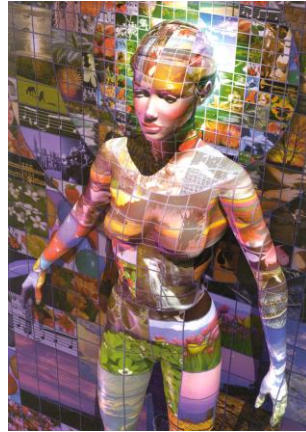
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6. November 2009 | 13:49 Uhr
 Patientenaufnahme
 Tel. 08651/601-1002, -1004
 Fax. 08651/601-1021
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Thank you for your attention!

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