### Underlying Pathways of Common Pain Syndroms And Pain Symptoms.

#### An Osteopathic Approach

Dominique Stulens Physiotherapist Osteopath



- 1) Pain Symptoms and consequences
- 2) Direct causes and treatment
- 3) Osteopathy?
- 4) Osteopathic Approach.
  - A) Mechanical B) Physiological
- 5) Tips and tricks
- 6) Self treatment Techniques.
- 7) Q & A section.

# **Common pain symptoms**

- Tension Headache
- 🗸 Neck- Shoulderpain
- Carpal tunnel Syndrom
- Wrist problems (RSI)
- Tenniselbow, …
- Intrascapular pains (between shoulderblades)
- 🗸 Lower Back pain
- 🗸 Buttocks pain

# annoying, enervating, tiring or even burning pains.

# Consequences of the pain and discomfort

- 80% of the people are suffering from any kind of discomfort, from slight to severe.
- If the discomfort continues, it has all kinds of consequences.
- Emotional: afraid they'll never get rid of the pain. 'I'm not sick, but what's it gonna give in 20 years from now?
- Practical: work in the garden, painting , …
- > <u>Social</u>: dinners, parties, ... leaving early
- Mood swings, bad tempered, feeling guilty



- Sitting on a desk all day, is a heavy task for your body!
- Lack of movement → muscle stiffness
- Do I have to buy a new bed, matrass, pillow?
- Do I have weak muscles?
- $\rightarrow$  Medical Doctor, Specialist



#### **Regular Treatment:**

- Pain medication, muscle Relaxants, Antiinflammatory drugs
- Technical investigations. No disease
- → Ergonomical advice at work. Positioning of screen, chair and desk height
- → Physiotherapy: muscle strenghtening excercises
  - Relief, but pain is not completely gone.
    Come back sooner and more intense



- 1874 during cival war in the US
- Dr Andrew Taylor Still: MD and an engeneer
- Body functions as <u>one</u> anatomical and physiological unit
- Great Engine of Life: Structure governs function and vice versa
- Treatment should improve the body's own healing mechanisms
- Rule of the artery blood supply (!)

# **Osteopthic Approach**

- Manual set of techniques to improve blood supply throughout the whole body.
- Connective tissue -> body = one piece.
  - Visceral system (organs)
  - Cransio-sacral (nervous) system
  - Musculo-skeletal system
- Treats functional and mechanical disorders with only manual techniques
- Does not treat disease  $\rightarrow$  MD, GP (!)

#### **Manual Treatment**

# Viszerale Osteopathie

#### Kraniosakrale Osteopathie

Marc De Coster Annemie Pollaris

Ein praktisches Lehrbuch

5., unveränderte Auflage







HANDBOOK OF Osteopathic Technique

THIRD EDITION

Laurie Hartman

iterte Auflage

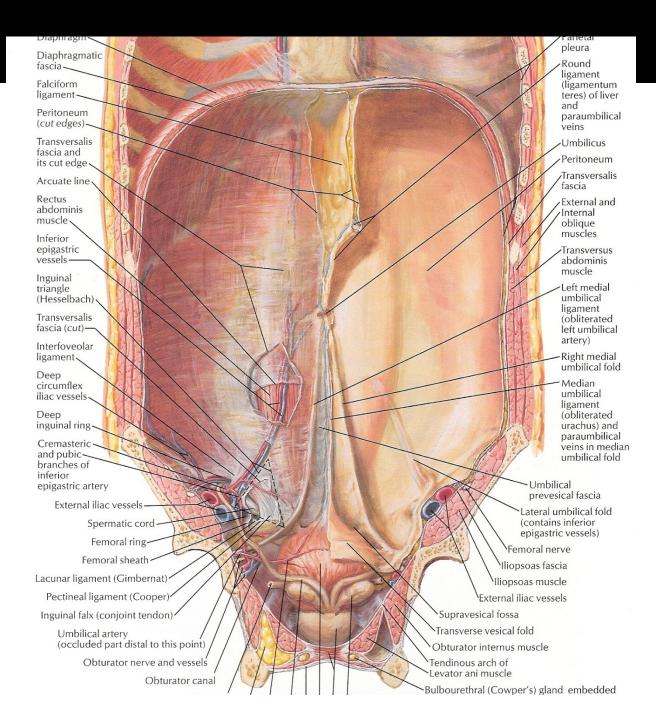
¥ Hippokrates

### **Visceral Connections I**

Sternum	WE 7 4	Coronary ligament
Diaphragm (central tendon)		enclosing bare area of liver
Inferior diaphragmatic		TIO
fascia and	K -	Esophagus
Parietal peritoneum	1 8 - 8 A	Superior recess of omental
Liver	- ~ .	bursa (lesser sac)
Lesser omentum		Diaphragm (right crus)
Hepatic portal vein and hepatic artery proper		T12 Left gastric artery
n right margin of		Omental (epiploic)
esser omentum		foramen (Winslow)
Omental bursa (lesser sac) —	The state	Celiac trunk
	-	Splenic vessels
Stomach		
Middle colic artery	12	Renal vessels
Transverse mesocolon —————		Pancreas
Parietal peritoneum (of anterior abdominal wall)	13	Superior mesenteric artery
Fransverse colon		Inferior (horizontal, or 3rd) part of duodenum
Greater omentum		
Small intestine	14	Inferior mesenteric artery
Rectus abdominis		Abdominal aorta
Rectus sheath	15	Parietal peritoneum (of
Arcuate line		posterior abdominal wall)
Transversalis fascia		Mesentery of small intestine
Jmbilical prevesical	SI SI	Anterior longitudinal ligament
ascia	VALAD	S2 Vesical fascia
Median umbilical	XUU	Rectal fascia
Fatty layer of	$O \rightarrow h$	Presacral fascia
ubcutaneous tissue Camper's fascia)		Rectovesical pouch
		Rectum
Membranous layer of subcutaneous tissue		
Scarpa's fascia)		Rectoprostatic (Denonvilliers') fascia
Jrinary bladder		Levator ani muscle
undiform ligament of penis		Prostate
Pubic bone		External
Suspensory ligament of penis	THE X	Deep Superficial Superficial sphincter
Retropubic (prevesical)		Subcutaneous Sphincler muscle
Deep (Buck's) fascia		perineal muscles
Superficial (dartos) fascia		Bulbospongiosus muscle
of penis and scrotum		Superficial perineal (Colles') fascia
	Perineal membra	ane and bulbourethral (Cowper's) gland
Tunica vaginalis testis /	Testis Puborectalis muscle edge of left levator	

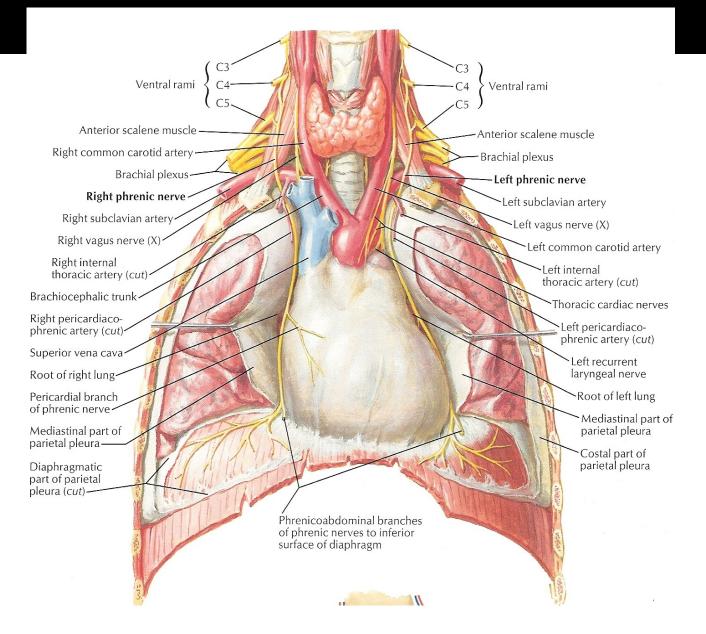
All organs are connected to each other, to the back, to the pelvis and to the **diaphragm**.

### **Visceral Connections II**



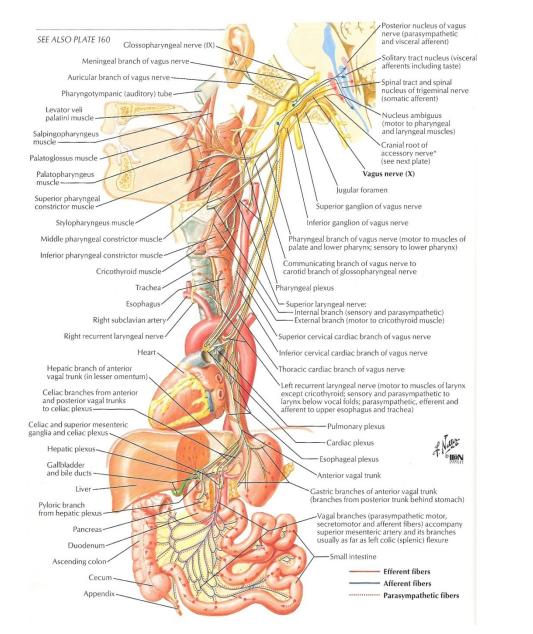
All organs are connected the back, the pelvis and the diaphragm.

### Visceral Connections: The diaphragm



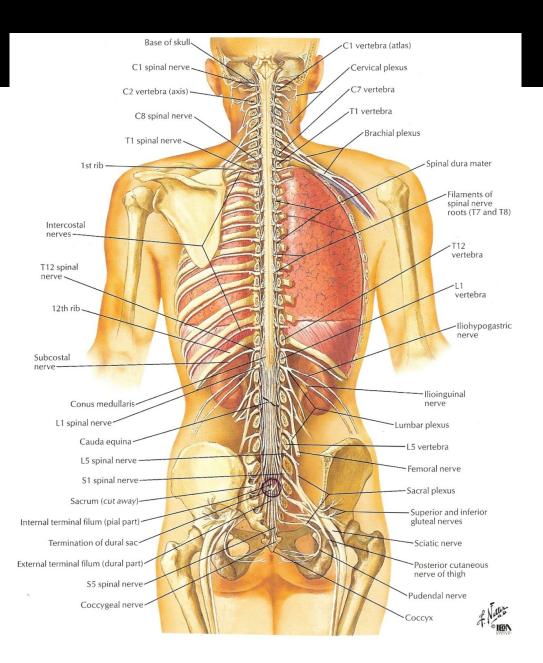
Connective tissue of the lungs  $\rightarrow$  Lower cervical spine Nerve supply of the diaphragm  $\rightarrow$  Middle cervical vertebra<sub>3-4-5</sub> Diaphragm is attached to the lower back and the lower ribs

#### Nerve Supply of the Digestive System: The Vagus Nerve

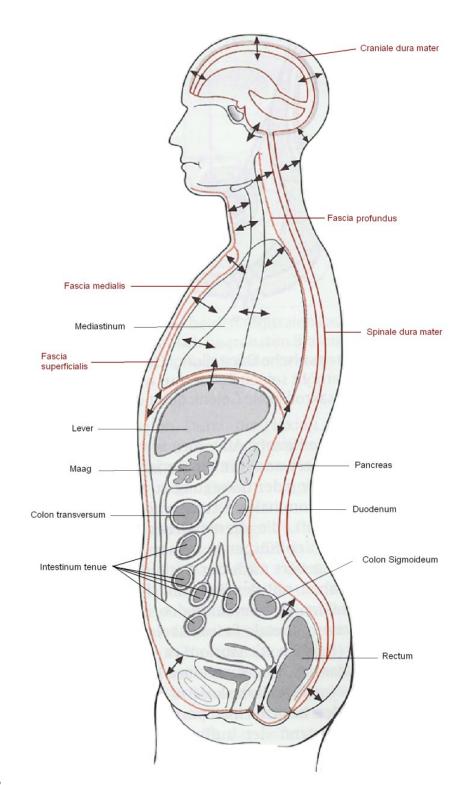


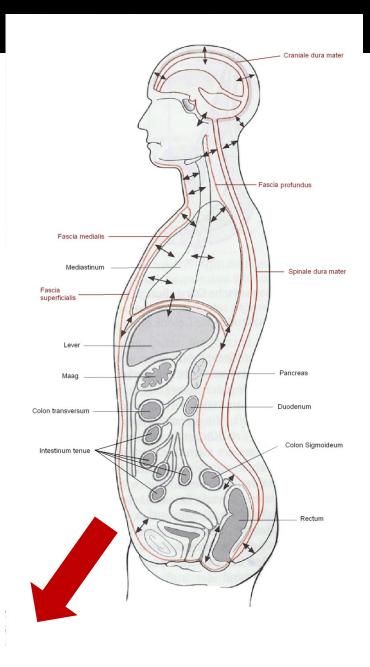
(Almost) all the organs of the digestive system receive their nerve supply from the base of the skull.

#### **Cranio-Sacral Connection**

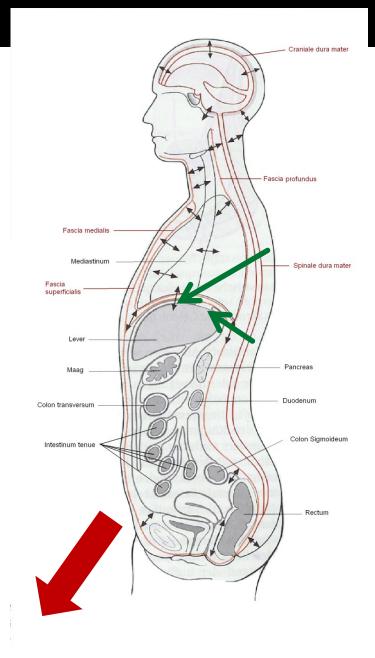


- The meninges connect the pelvis and (inside of) the head
- This connective tissue sourrounds ALL the nerves, from finger tips, toe tips into the head.

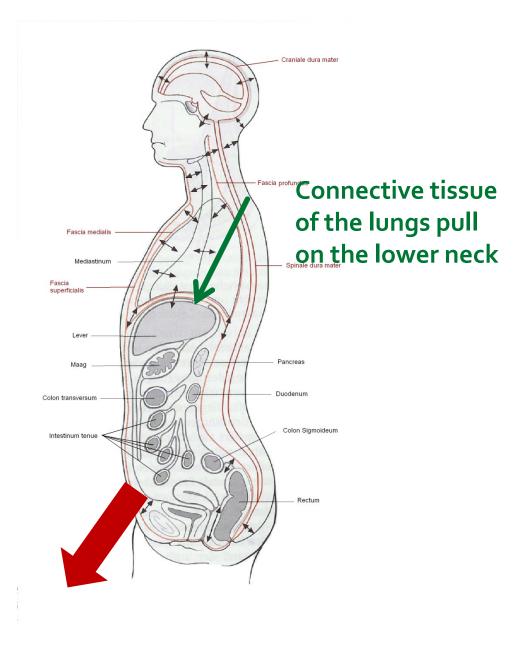


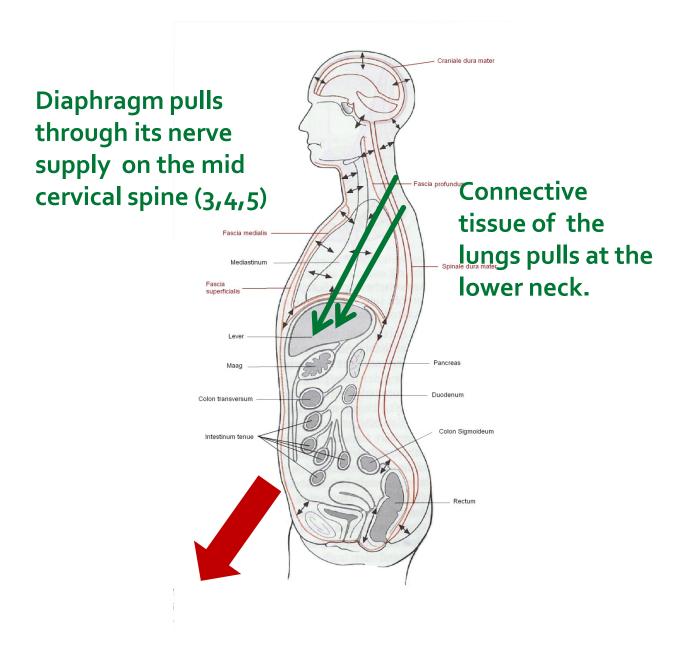


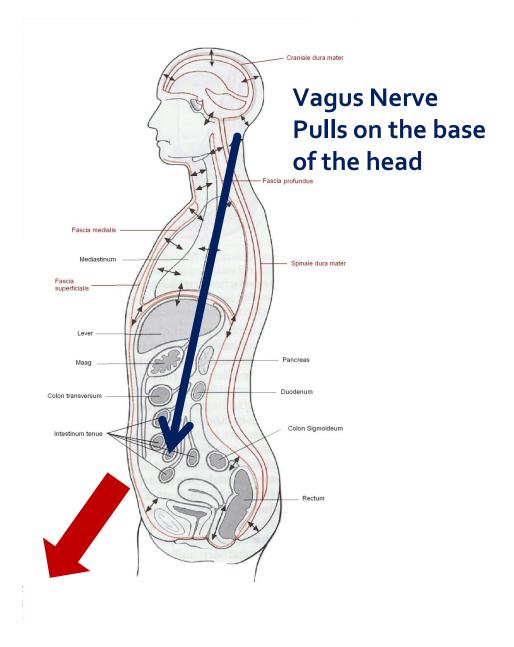
Visceral System: Tension of the (connective tissue of the) organs

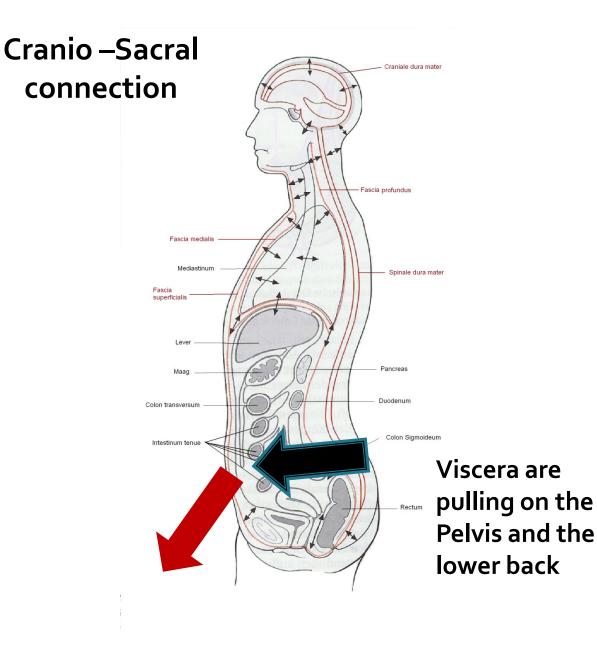


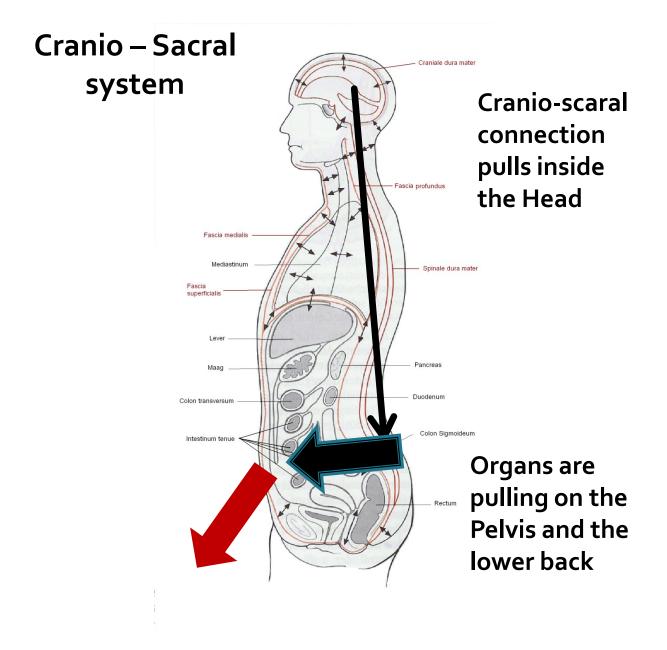
#### Anatomical connections of the diaphragm

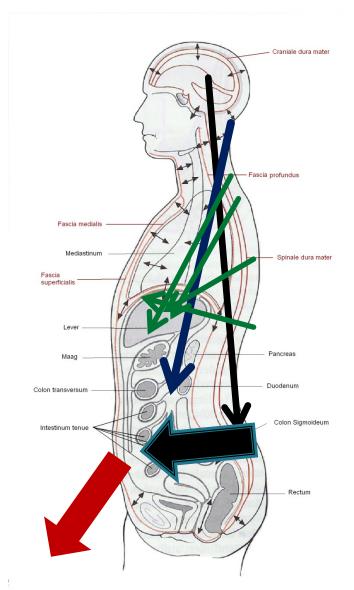












Tension of the visceral and the craniosacral system on the lower back, the neck, schoulders and the head.

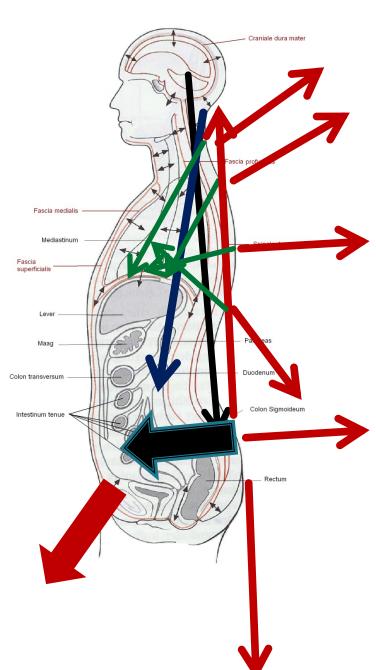
Craniale dura mate Fascia profundus nale dura mater Pancreas Colon Sigmoideu: Maag Colon transversu Rectum

Result? The body is pulled forward!

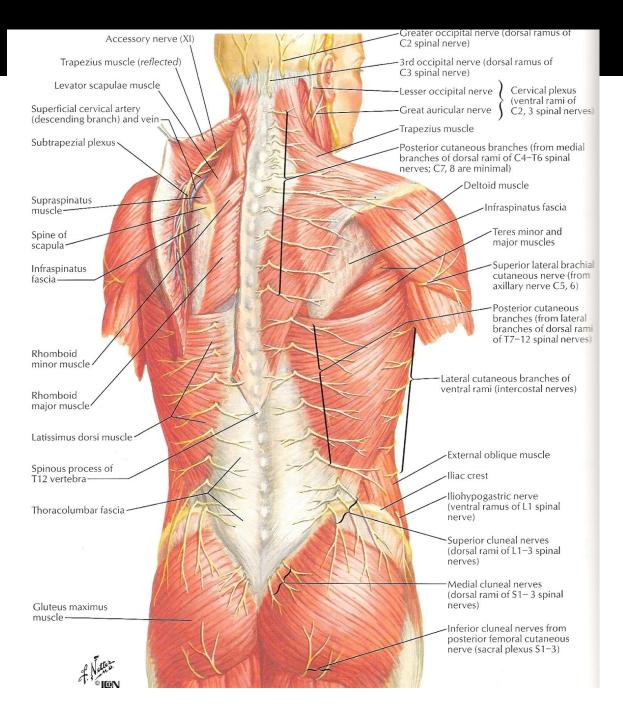
Result? The body is pulled forward!

Reaction of the musculoskeletal system?

All muscles will contract to pull the body upright : = INCREASED MUSCLE TENSION

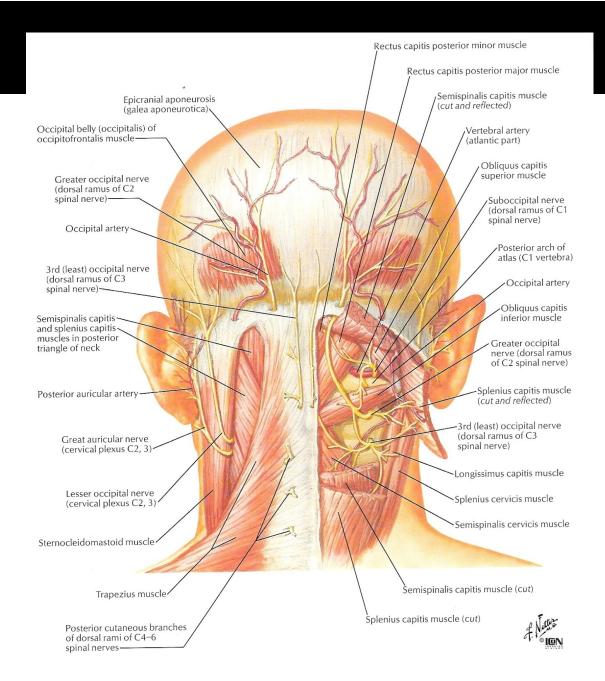


#### **Musculoskeletal System I**



Increased muscle tension will compress nerve supply of the skin.  $\rightarrow$  ennoying, tiring pain where the nerve compression takes place.

#### **Musculoskeletal System II**



#### Muscles on the back of the head will compress nerve supply at the base of the skull → Tension headache

#### Indirect causes

#### 1) Tension in the Visceral system (organs)

- A) Physiological
  - drinking and eating habits.
- B) Mechanical.
  - 1) abdominal surgery
  - 2) Child birth
  - 3) lack of movement

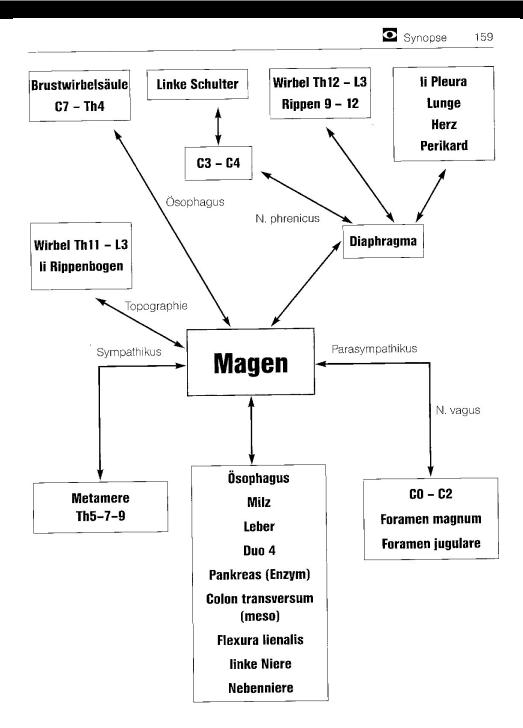
#### 2) Tension in the Cranio-Sacral system:

- Trauma (fall)
- Whilplash injury

#### 3) Tension in The Musculo- Skeletal system:

chronic contraction → stiffness of joints, connective tissue, muscles.

# Example of Osteopathic Approach



### **Before the Tips & Tricks**

#### Law of Participation

All lifeforms are obliged to participate in the perpetuation, the renewal and development of all other lifeforms, at full capacity, without the expectation of a particular compensation.

 $\rightarrow$  People have to take responsability Where they can for their own health.



Drinking water is an Internal Shower

Do you clean your house with coffee?

#### <u>If you do not drink enough water</u> <u>you increase the</u>

- Tension of the kidneys on the lower back and the neck, head and shoulders.
- Tension of the Vagus nerve

Kidneys 'travel' 500 m/day (!)

- Enjoying a drink = quality (not quantity)
  Water (quantity) will lead to improved
- quality



#### What and How much do we eat?

Fuel tank of 50 liters? 3 star restaurants – dwarf portions.

If you do not: Digestive disorders

- Tension of the Vagus nerve and the diafragm on the head and neck.
- Tension on the lower back and pelvis.

Enjoy the taste of food = quality Eating to much food ≠ quality

#### **Caution** !

Too much Saturated fatsToo much Carbohydrates

### Physiological Tips: Conclusion

#### Water and a drink you enjoy.

- Enjoy a beverage <u>and</u> drink enough water
- -> Do both!

#### Be aware of what you eat

- Chew more Enjoy the taste
- Eat less



#### First let's do one exercise together

# Osteopathic Self Treatment

Simple, but extremely effective stretching techniques of the muscles and the nerves

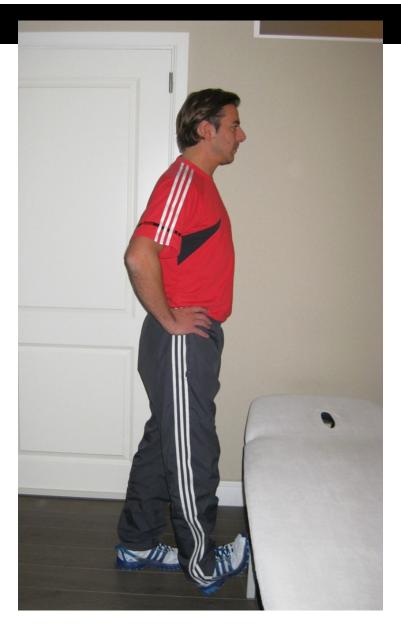
#### Purpose:

To reduce the tension of the cranio-sacral system and the visceral system

- 1 x 30 seconds/day
- 3 weeks in a row
- Don't overdue it

I must warn you: by doing this you will feel so much better

# Stretching Calf Muscle and Nerve



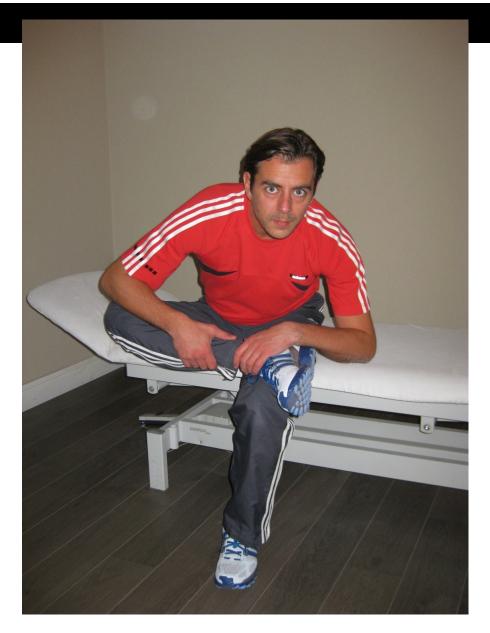
Stretches shortened calf muscle and calf nerve
 Reduces tension on the cranio-sacral system, lower back, neck, and the head .

# Stretching Hamstring Muscle and Nerve



Streches shortened Hamstring Muscle.
 Reduces tension on cranio-sacral system – lower back, neck, the head .

# Stretching Buttocks Muscle and Nerve



Stretches shortened buttocks muscle
 Reduces tension on cranio-sacral system – lower back, neck, the head .

25/11/2012

# Stretching Quadriceps Muscle and Nerve.



- ✓ Stretches shortened quadriceps musice and nerve
- ✓ Reduces tension on cranio-sacral system, lower back, neck, the head.
- $\checkmark$  Reduces traction of the visceral system.

# Stretch of the (nerve of) the Trapezius Muscle

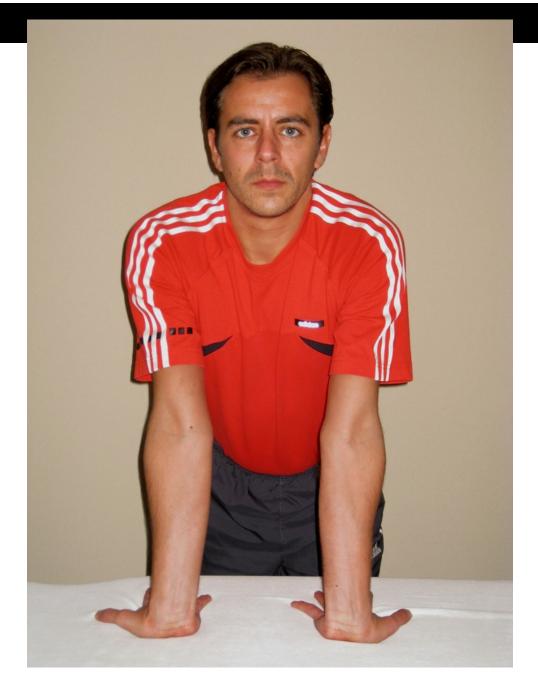


✓ Stretches shortened trapezius muscle

✓ Reduces tension on cranio-sacral system – lower back, neck, head and shoulder.

✓ Good influence on nerve supply og digestive system. 25/11/2012

# Stretching wrist and Forearm Muscles



Improves gateway of the carpal tunnel ! Very good excercise for Carpal Tunnel Syndrom

# Stretching the Nerve of Forearm



✓ Improves bloodsupply of forearm muscles.
 ✓ Carpal Tunnel syndrom (!)
 ✓ RSI!

#### **Questions and Answers**



### Thank You!

- Once again, I am Dominique Stulens
- Thank you for your time and attention
- Downloadable PDF file of the tips and stretching techniques is available on the intranet
- stulensdominique@gmail.com