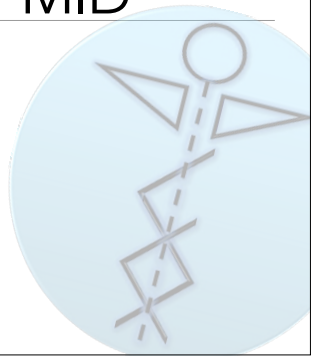
Fascial Manipulation® Workshop

Introduction to Fascial Manipulation for internal dysfunctions FMID



Andrea Pasini PT

Why FMID?

It happens that with treatments of FM® the therapist should have resolution of internal dysfunctions, but...**without really know why**

- **To give the therapist the knowledges to work directly to an internal dysfunction**
- **To be faster and more accurate**

What is FMID?

It is a new approach, it is not a new method but a different way to assess the patient and to organize a FM© session

What is the aim of FMID?

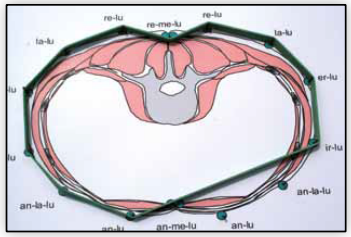
- **The treatment of internal dysfunctions**
- **The treatment of musculoskeletal disturbs related to an internal dysfunction**
- Treat the patient in a GLOBAL way
- Complete the fascia-therapist ability of evaluation and treatment

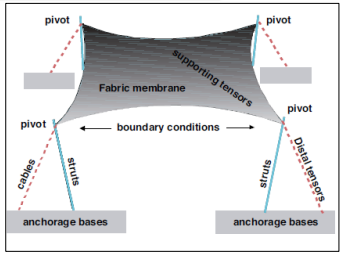
Basic Principles

Anatomy of the Inner Fasciae

Physiology of the internal organs and fasciae

New Biomechanical Model

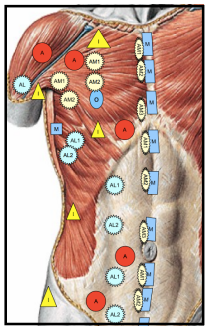


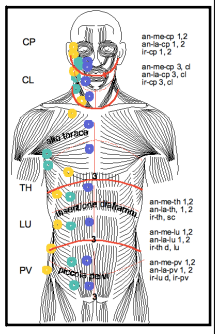


What's new?

FMID© moves the attention from the **content** to the **<u>container</u>!!!**

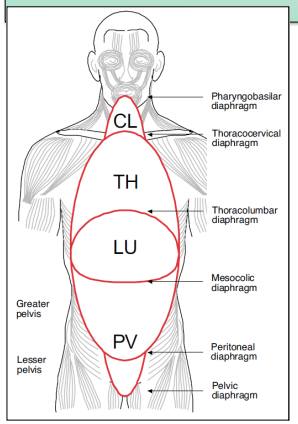
The target of the treatment is not directly the internal organ which is in dysfunction, but to balance the tensions over the container that disturb the internal physiological peristalsis.





The 4 Segments of the Trunk

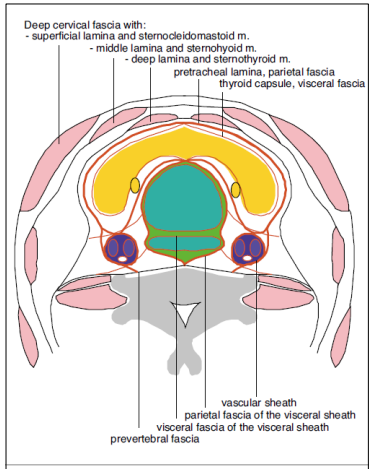
The various diaphragms define the 4 cavities of the trunk. Their existence increase the autonomy among the different organs/viscera



The trunk cavity could be divided in 4 segments thanks to the presence of diaphragms, more or less defined:

- The suspensor ligaments of the lung divide the neck from the thorax
- The diaphragm divides the thorax from the abdomen
- The abdominal cavity is divided in two parts from the mesocolon trasversus

The Organ-fascial Unit (OFU)



ig. 1.5. Section of the neck, based on Testut.

- The OF unit is formed by all the synergic organs of one segment (they work for the same purpose), by the investing fasciae (that coordinate the local movements of the organs) and by the insertional fasciae (that create the visceral space)
- In each segment is present:
  - 1 visceral UOF
  - 1 vascular UOF
  - 1 glandular UOF

WHY IS NECESSARY TO CREATE THE OFU?

- The anatomical boundaries of an organ are often an artifact. We look for the function of the organs/viscera, and this is defined by the synergy among parenchyma, fascia, autonomous nervous system.
- The boundaries of each OF unit aren't exactly defined, the key element is the specific function of that OF unit.

NO the muscle defined by its external aspect, YES the MFU

NO the organ defined by its external aspect, YES the OFU

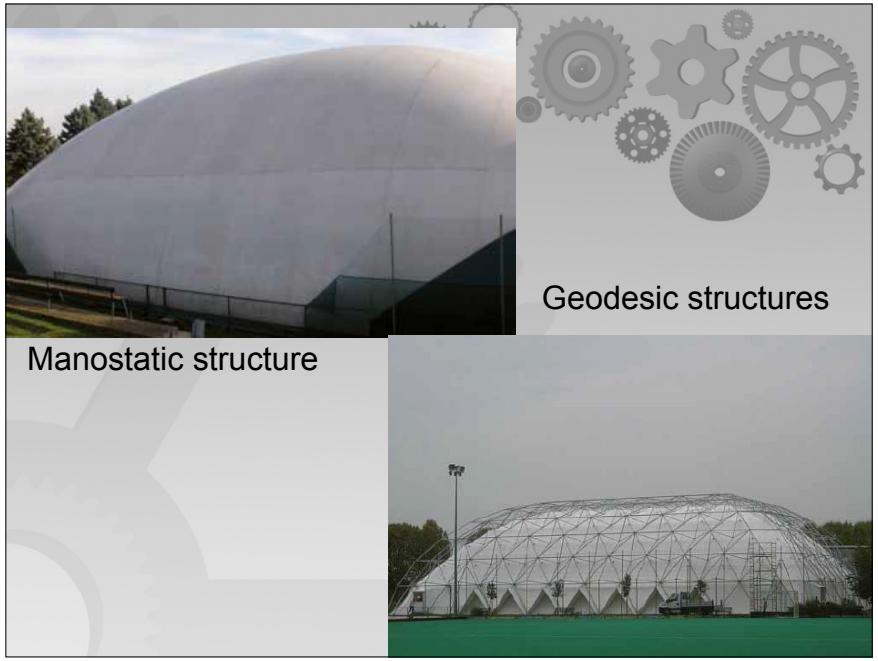
A new Biomechanical Model

Does abdominal cavity follow the tensegrity rules?

- The rigid components are not in contact with one another but they are united by tensed elements.

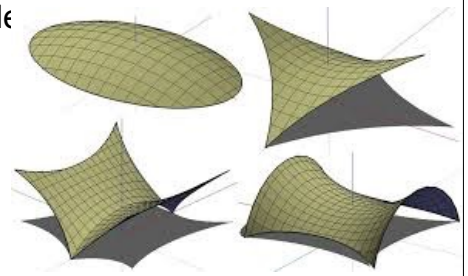
WHY IT IS INCORRECT:

- In the body, the skeletal components are in contact with one another.



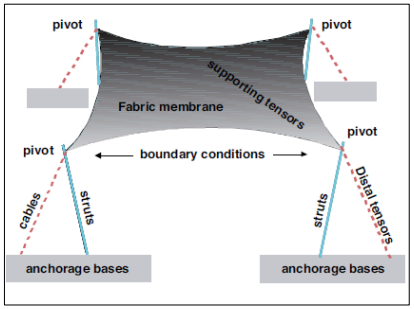
May the abdominal cavity be incluse in the *tensile structure* group?

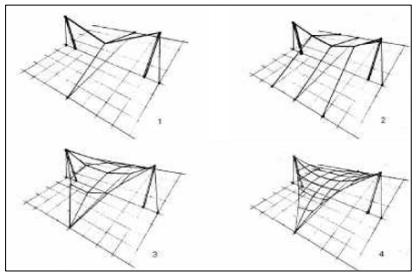
- A tensile structure is a lightweight fabric membrane with a supporting skeleton made up of tension cables suspended from lateral rigid structures
- The tensile structure are light, resistant and modifiable



The Tensor

- In a tensile structure you can have two types of tensors:
  - The **supporting tensors** that hold the membrane;
  - The **distal tensors** that work with the pivots, anchors to create the bondary conditions

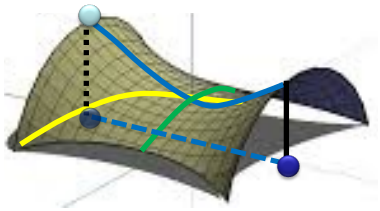




The Tensile Structure

EACH TENSOSTRUTTURE HAVE THREE MAJOR TENSORS (supporting tensors):

- ANTERO-POSTERIOR (A-P)
- LATERO-LATERAL (L-L)
- OBLIQUE (OB)

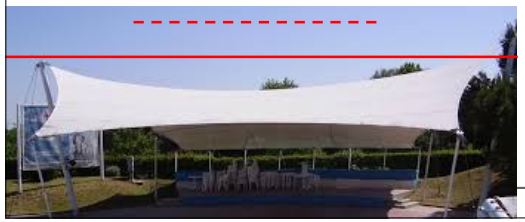


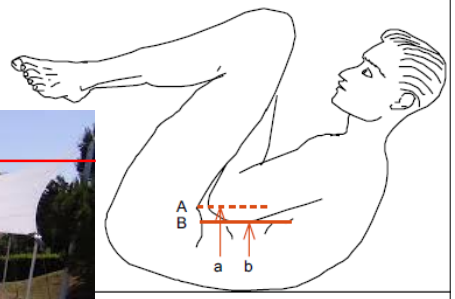
THE A-P TENSOR is formed by:

- **Anterior tensor (supporting tensor)** a layer of collagen fibers
- **Pivot points:** CCs and CFs
- **Posterior tensor**: a layer of parallel collagen fibers of fascia
- **Posterior anchorages:** CC and CFs.

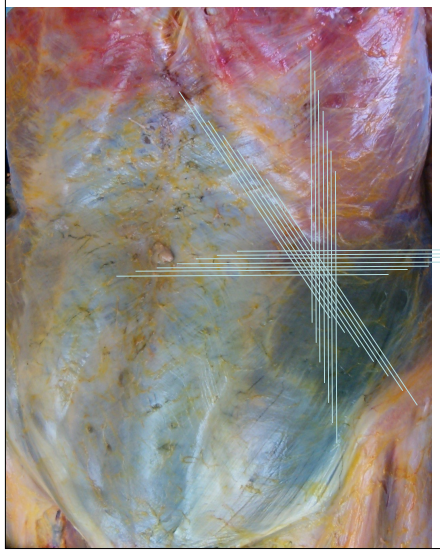
Body Tensile Structure Adattability

No compression of the abdominal contents occurs during voluntary muscle contractions thanks the boundary conditions (pubic bone, sternum…). The physiology of the tensile structures of the trunk conserve the space within the cavities during every movements.



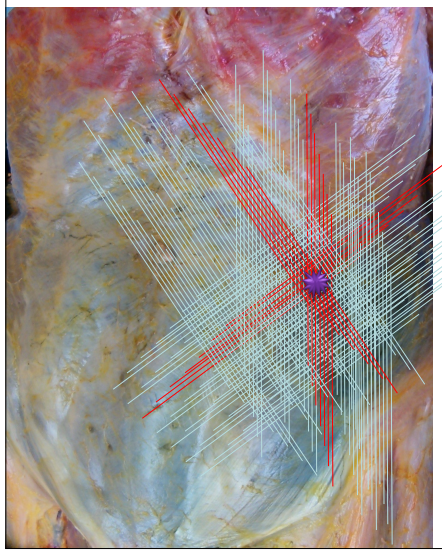


BALANCING TENSIONS BETWEEN SUPPORTING TENSORS OF A MEMBRANE



- The collagen layers of abdominal aponeurosis are composed of a multitude of supporting tensors
- The loose connective tissue allows the gliding between the three layers, maintaining the correct tension of the supporting tensors

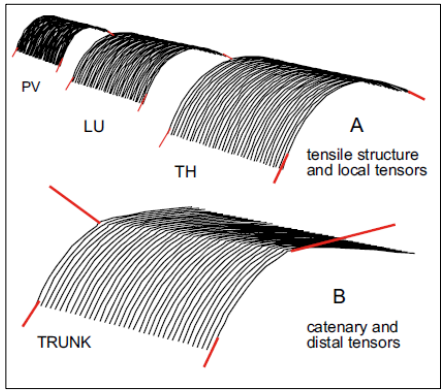
Densification = Dysfunction



- A densification between the layers (nodal point) generates stiff supporting tensors, creating a disequilibrium (dysfunctional)
- This determines a lack adaptability of the container.

The Tensile Structure of the Trunk

In the trunk we can recognize three tensile structures: thorax, lumbi, pelvi.

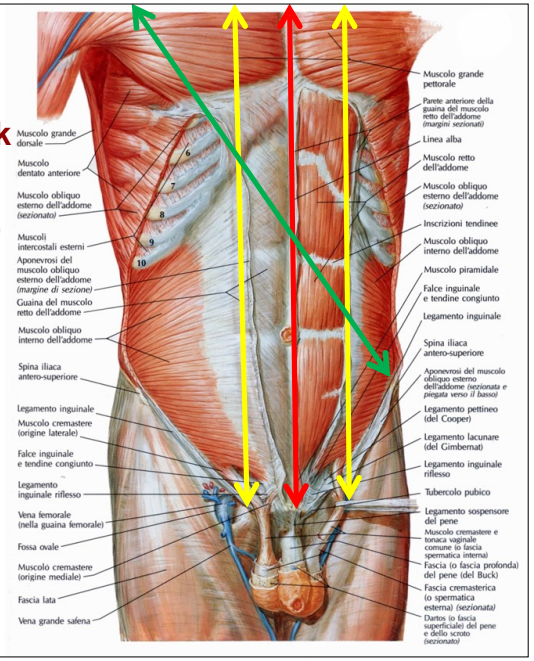


The supporting tensors of the tensile structures of the trunk : th+lu+pv

Antero-posterior tensor (linea alba and supraspinosus ligament),

•Latero-lateral tensors (fusion lines lateral to the rectus and erector spines sheets)

Oblique tensors (intercostal and oblique muscles).

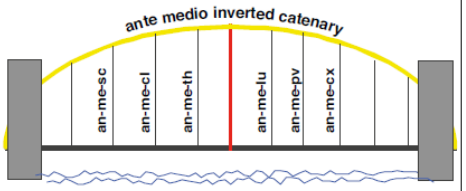


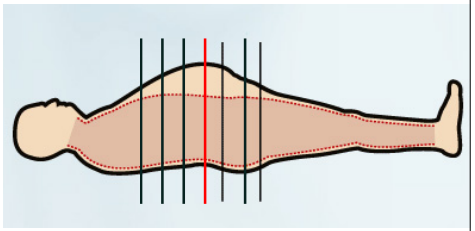
CATENARIES

- The supporting tensors in series of the three tensile structures of the trunk create the **catenaries**
- At the extremities, of the tensile structures, there are **distal tensors** that are connected with the catenaries over bone insertions (**pivots**) and in the extremities in the **anchorages.**

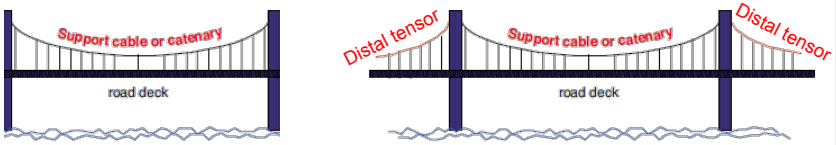
INVERTED CATENARY

- The anterior trunk wall, particularly in obese subjects, can be compared to an inverted catenary
- The tensor rods correspond to the Centres of Fusion (CF), which maintain the external membrane (trunk wall) in a neutral position.

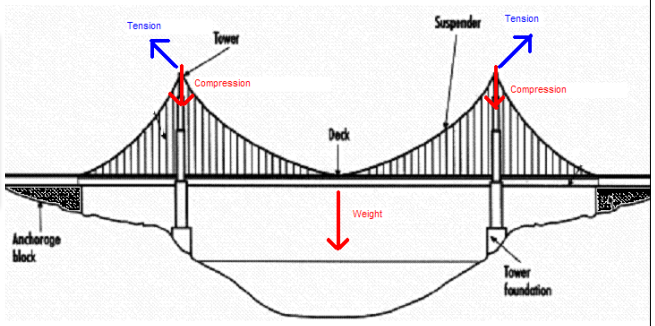




THE SUPPORTING TENSOR NEED DISTAL TENSORS



Without the distal tensors the suspension bridge can not load the desk

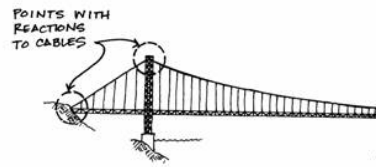


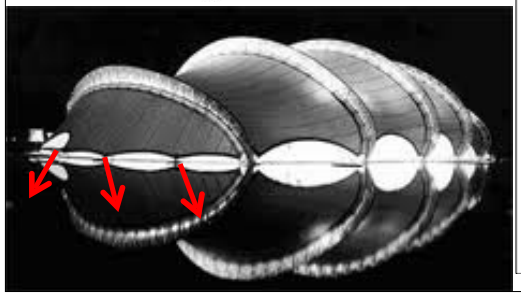
DISTAL TENSORS

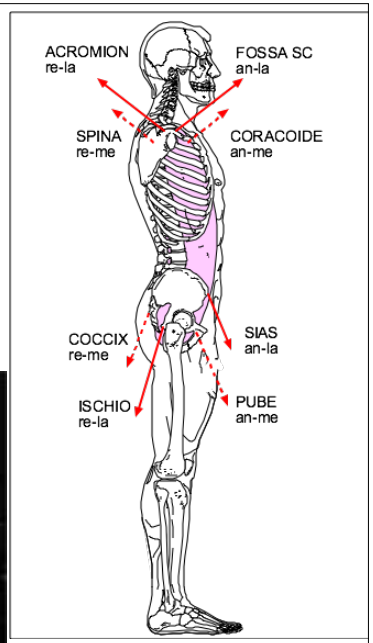
- The deep fasciae of the limbs, because are not elastic, are able to trasmit the forces distal-proximal and vice versa
- The fasciae of the trunk are more elastic and so they are able to adapt at the variation of the internal organs volume.

THE PIVOT POINTS

- The Pivot are points where appeared reaction at the catenaries.

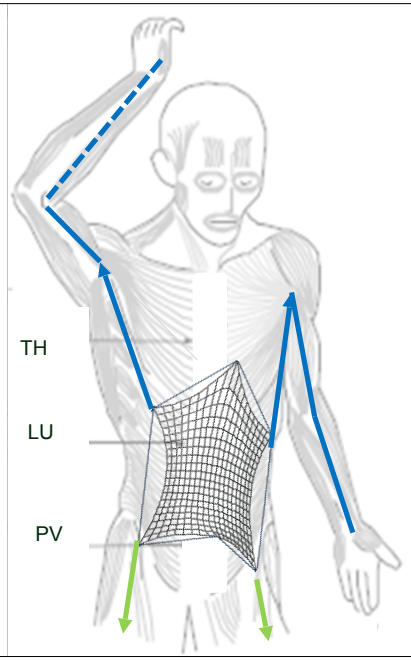




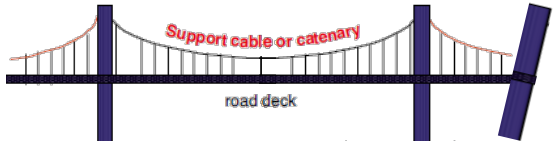


Balance

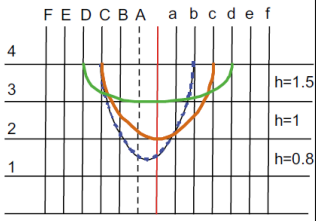
Only if the distal tensors (deep fasciae of the limbs) are in the correct tension, the tensile structure of the trunk is neutral and doesn't influence the mobility of the visceral organs



CATENARY DYSFUNCTION



In the human body, initially balanced conditions can also be subject to tensional variations. Chronic variations in one limb, for example, can cause the trunk catenaries to deviate slightly towards this limb, causing interference to the contents of the trunk.



The Anchors

The CFs of CA and TA are the anchors for the distal tensors of the trunk's tensile structure catenaries

CLINICAL IMPLICATIONS ??

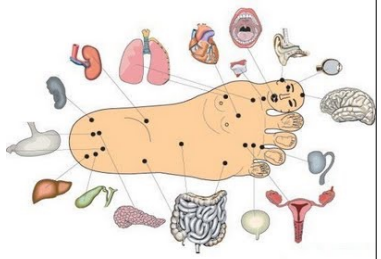
The tensions generated in the tensile structure are able to find compensations until the end points of the distal tensors.

The end of the distal tensors become areas where:

- the body shows the tensions
- we can work for decrease the tension of all tensile structure.

CLINICAL APPLICATIONS

The tensions of the trunk often are compensated along the limbs and most at the ending. This explains why, in the presence of an internal dysfunction, pain occurs often in the hands or feet



If there is an increasing of the abdominal tension, for example in a peritonitis, the limbs must bend on the trunk to reduce the tension of the trunk's wall.

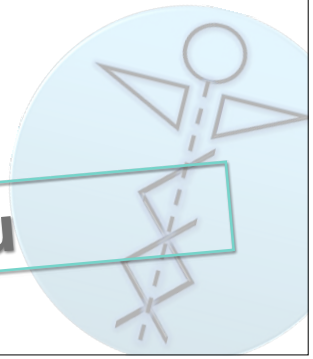
VICE VERSA… FROM THE LIMBS OT THE TRUNK

A chronic rigidity of the limbs fasciae can be compensated in the trunk

Outcomes of ankle sprain → Increase of the stiffness of the distal tension → Unbalance in the tensile structure of the trunk → Internal dysfunction

Look Inside with

Fascial Manipulation®



Thank you