

Art and Science of Embodied Breathing

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The Breathable Body

Two Precepts

1. Breathe through your mouth as often as you eat through your nose. Nose is for breathing – Mouth is for eating.
2. Pace your activity level to be able to continue using your nose for breathing.

Even When Exercising



Breath is a sacred journey into the present

No two breaths are ever a like

Each breath is a new creation and a dissolving of
the present moment

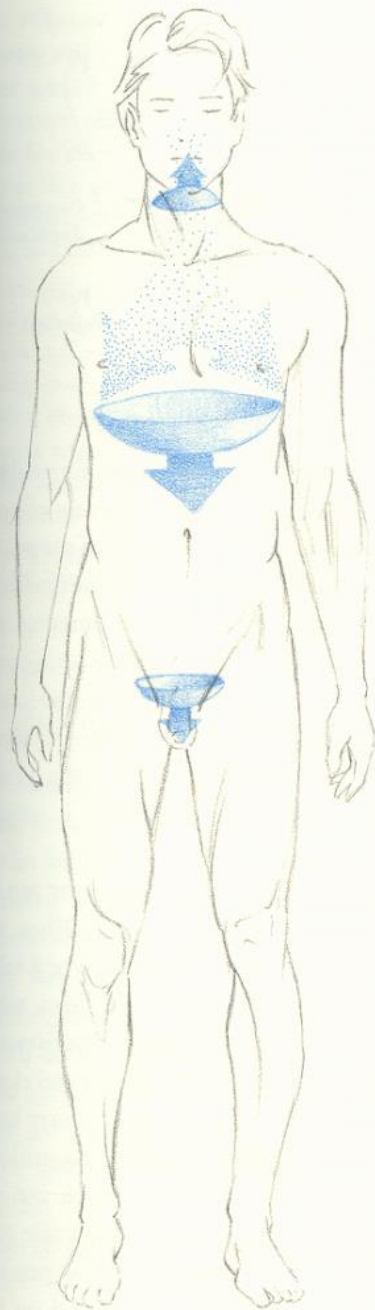
Breath teaches that everything comes and goes

Each cycle of breath is a fractal of life and death
We never know if there will be another breath
after the last one.

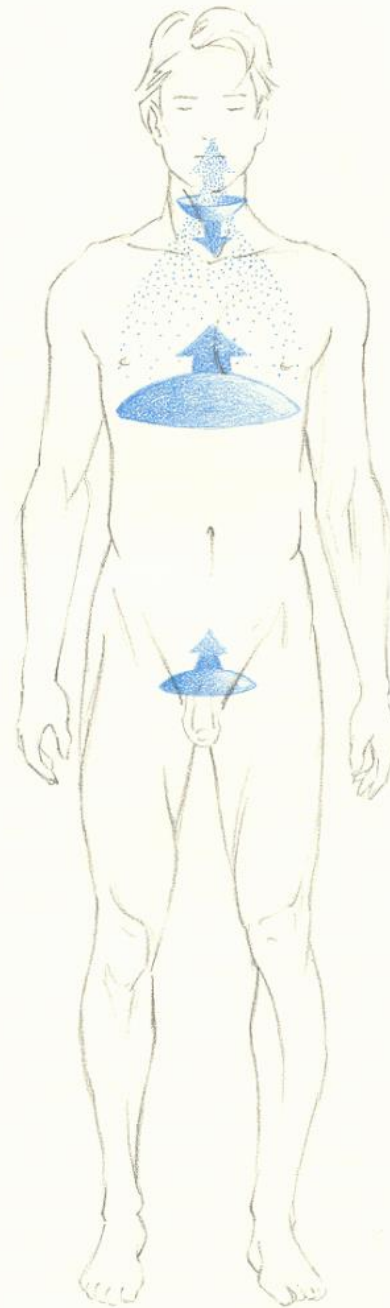
The Nose is the Guardian of the Lungs

- The nose filters particles .5 microns and above
 - Human hair is 50 microns
 - Does not filter smoke and unfortunately viruses
- Regulates temperature of the air to the lungs
- Regulates the humidity of the air for the lungs
- Produces anti-bacterial molecules
- Regulates gas exchange & Nitric Oxide production
- Gives the body a chance to innovate a response by presenting the invader to our defenses before it enters the lungs (personal opinion)

Nose Breathing gives greater
access to the use of diaphragm in
breathing and invites the
autonomic nervous system into
Rest and Settle



13. The three diaphragms on inhalation



14. The three diaphragms on exhalation

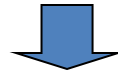
Mouth Breathing interferes with
cleaning the air on the inhale and
unbalancing respiratory gases on
the exhale

Hidden Hyperventilation

Mouth Breathing also triggers the
Fight and Flight response of the
autonomic nervous system.

**The Bohr effect means:
low carbon dioxide = less oxygen to tissues**

Triggers



Hyperventilation



**Low carbon dioxide
(Respiratory Alkalosis)**

**0
Acid**

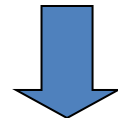
**7
Neutral**

7.4

**14
Alkaline**



Less oxygen is released to tissues



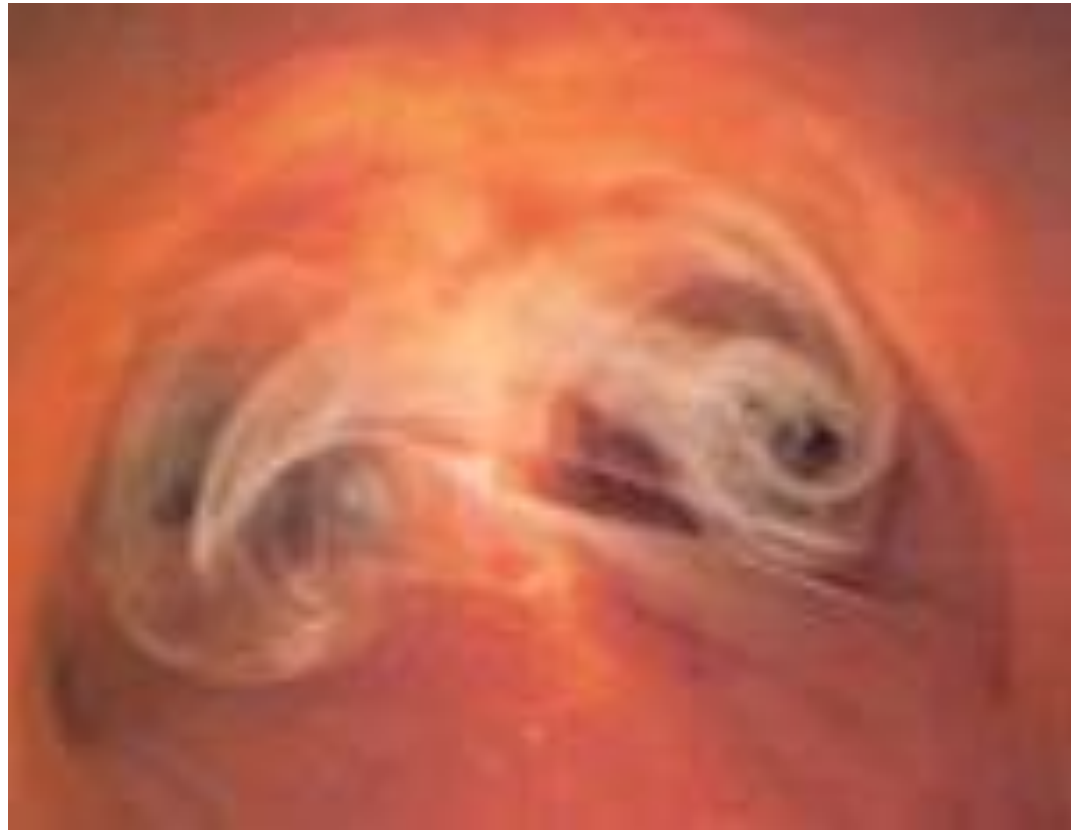
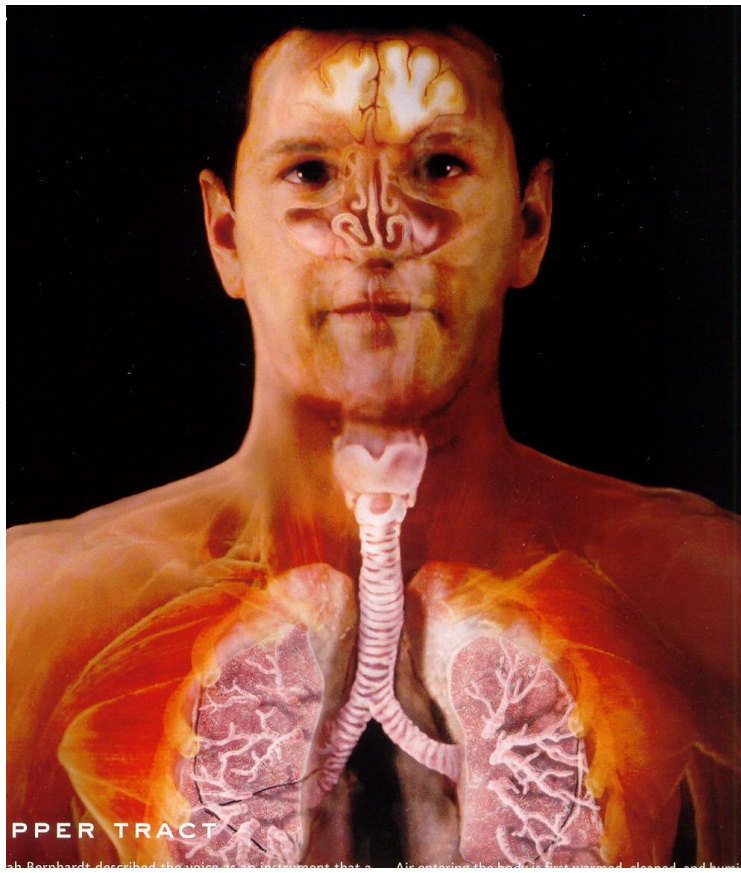
Increase in lactic acid

Mouth Breathing Is Detrimental to Your Health
Changing the habit of mouth breathing - Make a list...
WHEN I NOTICED I USED MY MOUTH TO BREATHE

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Talking and nose breathing.

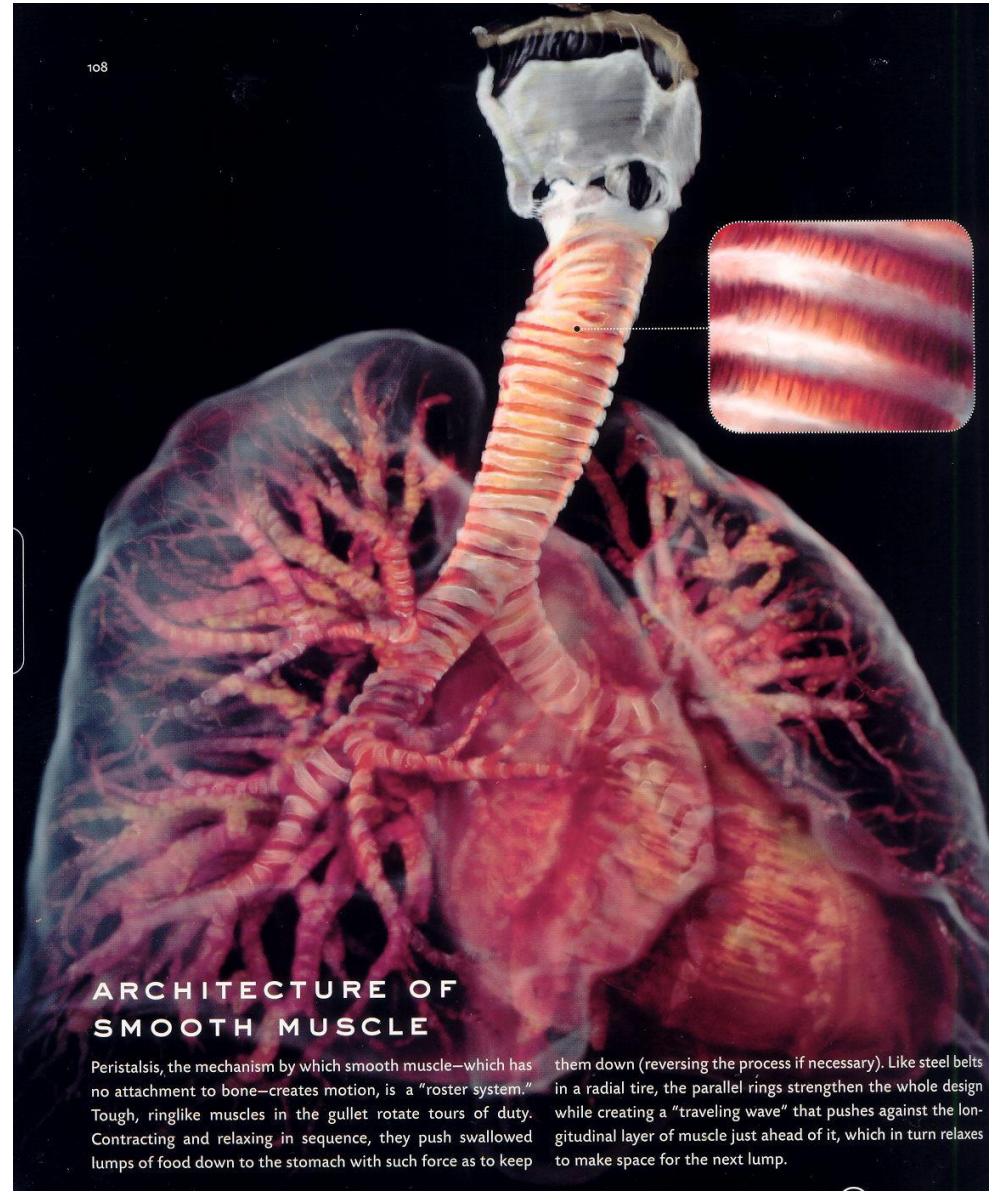
Peripheral vision and breathing



Re-Spiration

photos by
[Alexander Tsiaras](#) and [Barry Werth](#) and Jan Lindberg and Lennart Nilsson

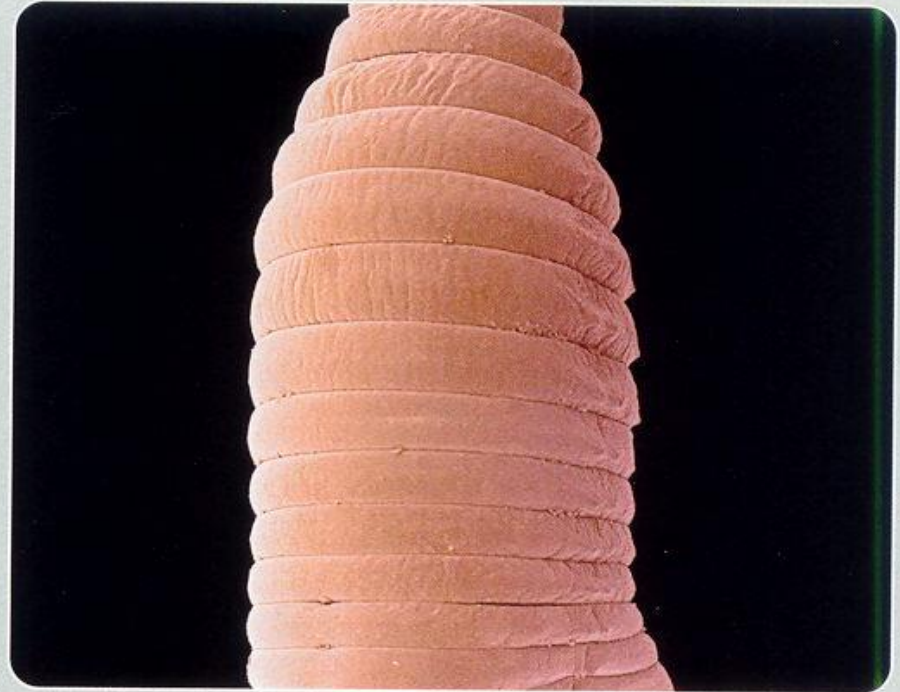
Airways as moving tentacles



Trachea and Earthworm – same movement

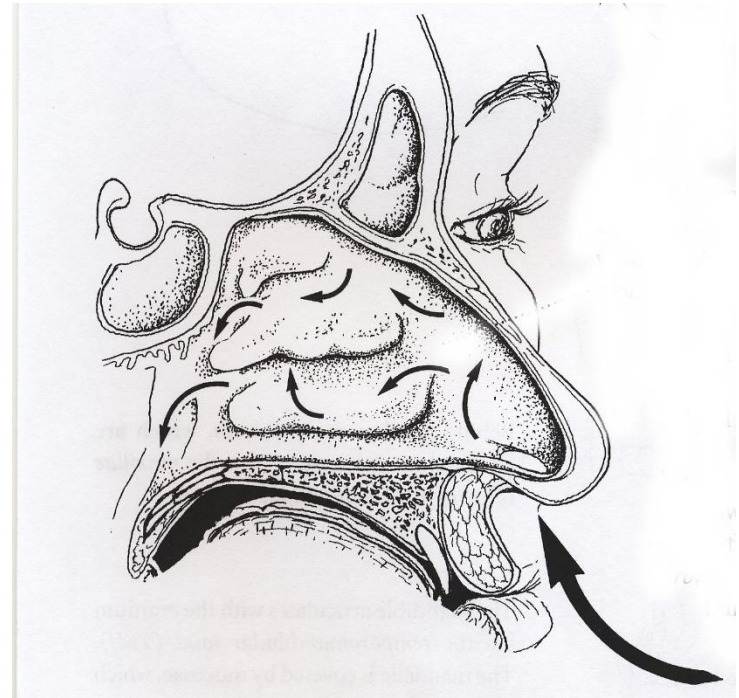
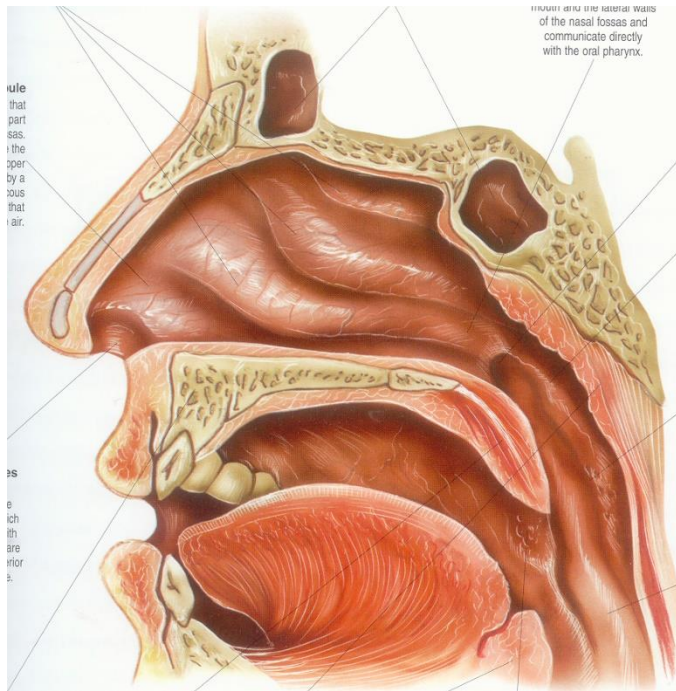


CARTILAGINOUS RINGS OF TRACHEA

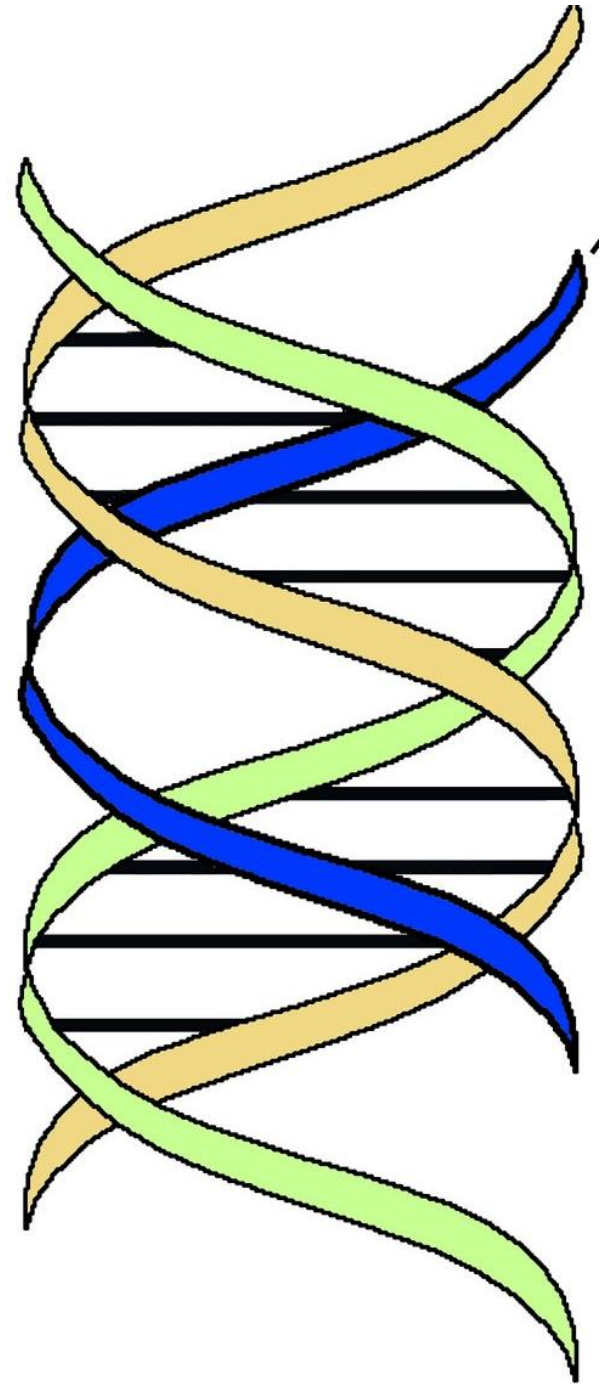


COMMON EARTHWORM

Air Flow through Turbinates



Spiraling relationship of
gravity – space & breath



Tuning your body, heart and mind

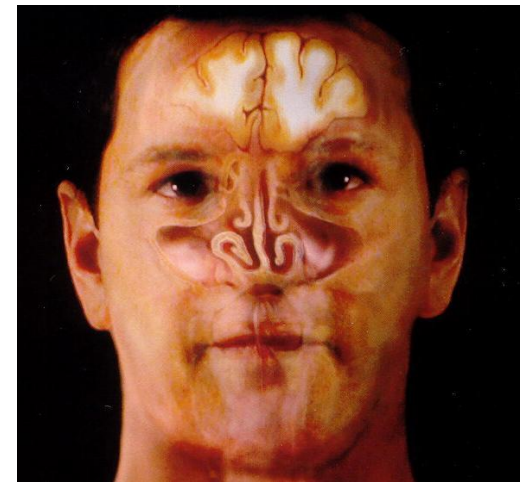
SA/HA to move from breathing your body to the body breathing you.

Think, (no sound) SA on the inhale and HA on the exhale.

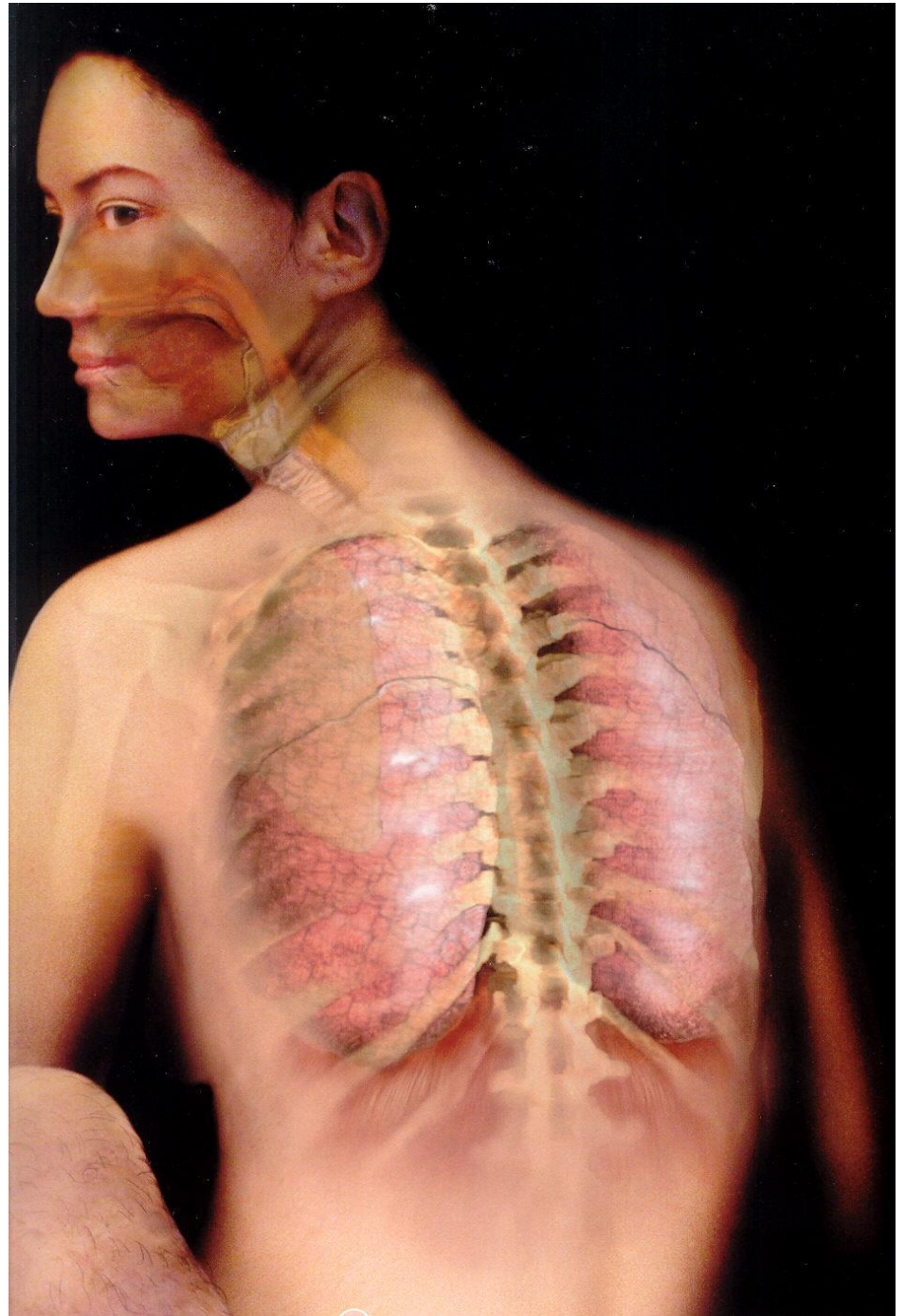
Let's try this together

Remember:

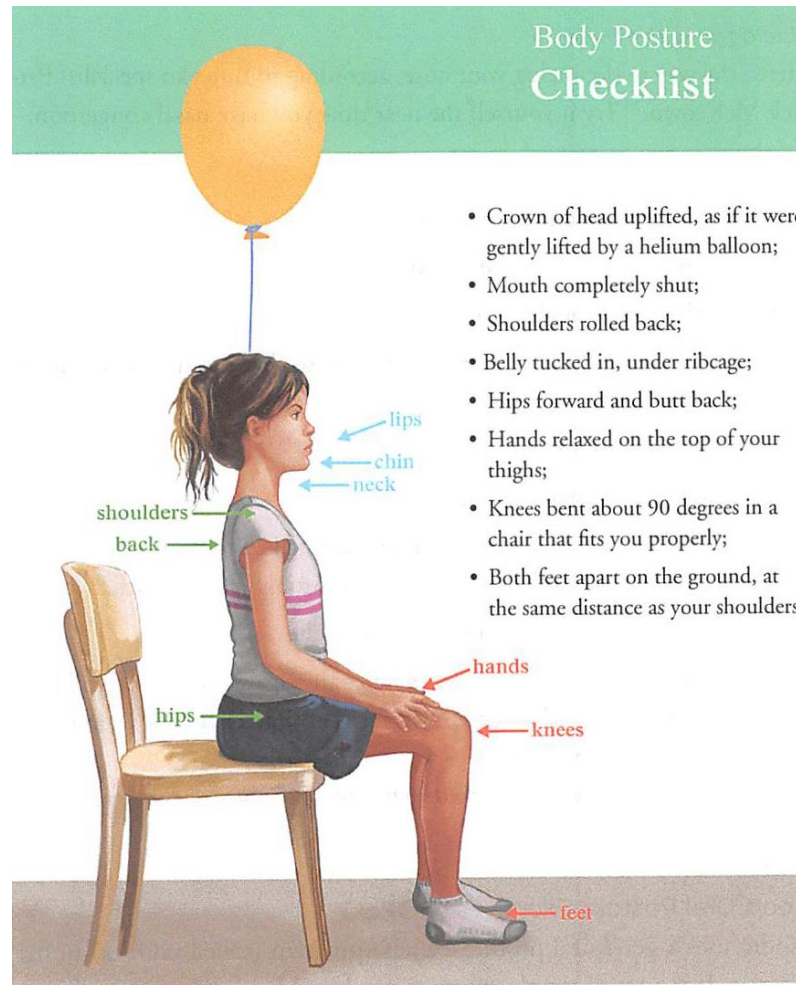
be interested in lung capacity and movement



Proning



Body Posture Checklist



- Crown of head uplifted, as if it were gently lifted by a helium balloon;
- Mouth completely shut;
- Shoulders rolled back;
- Belly tucked in, under ribcage;
- Hips forward and butt back;
- Hands relaxed on the top of your thighs;
- Knees bent about 90 degrees in a chair that fits you properly;
- Both feet apart on the ground, at the same distance as your shoulders.

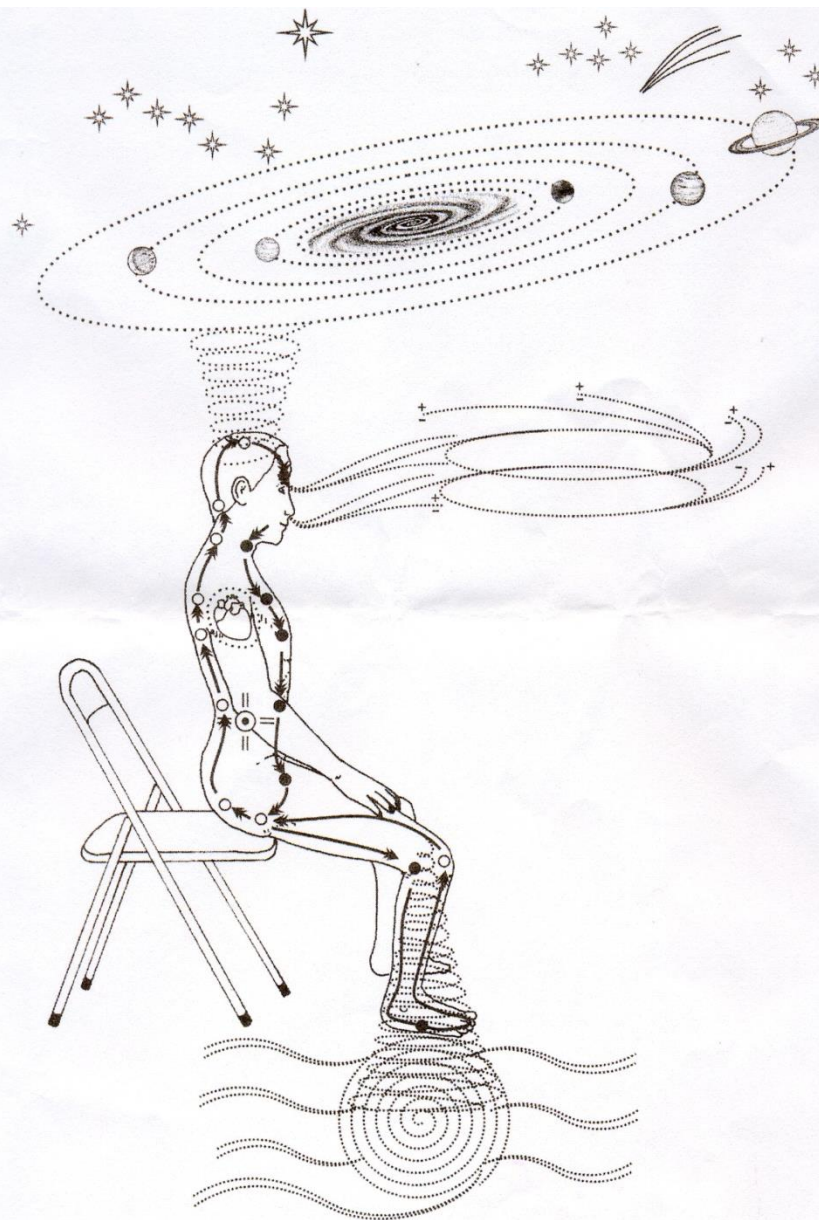
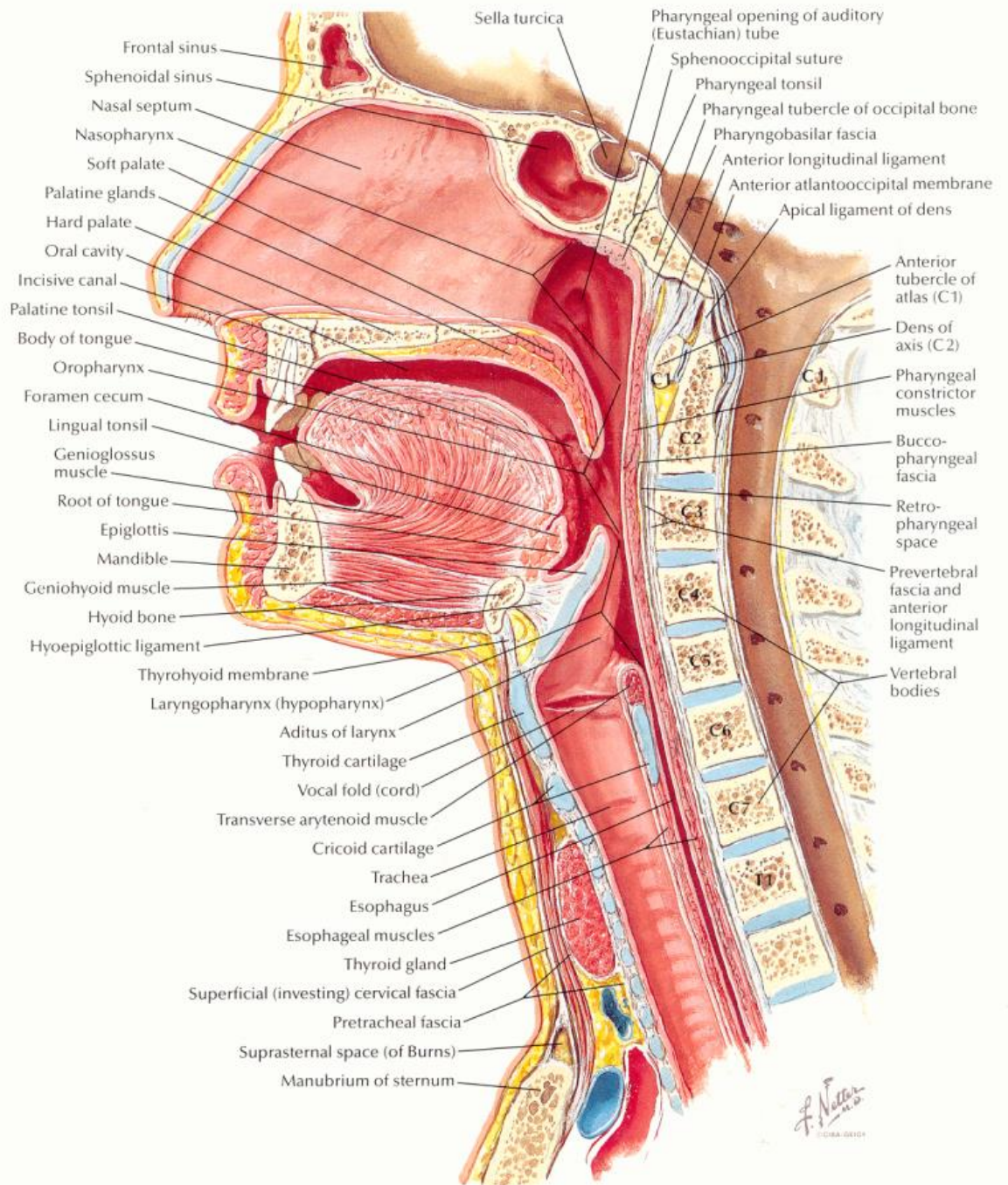


Fig. 8.7. Absorb chi through the major energy centers.

(Image from Healing Light of the Tao by Mantak Chia)
Microcosmic Orbit

Mewing

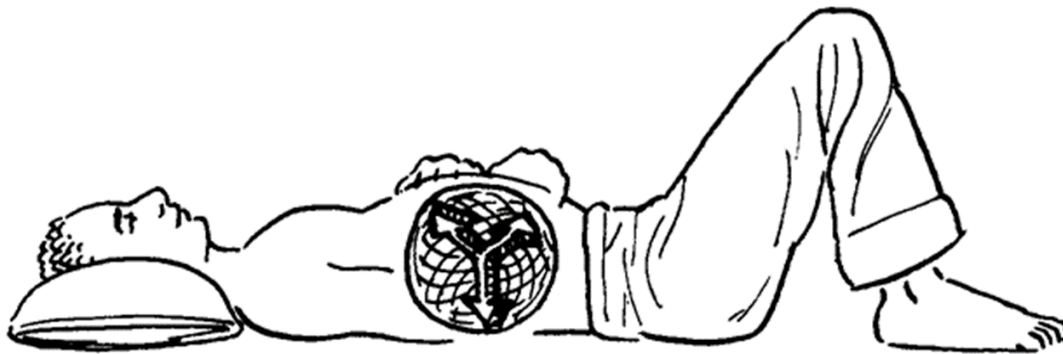


3 – Dimensional Movement of Breath

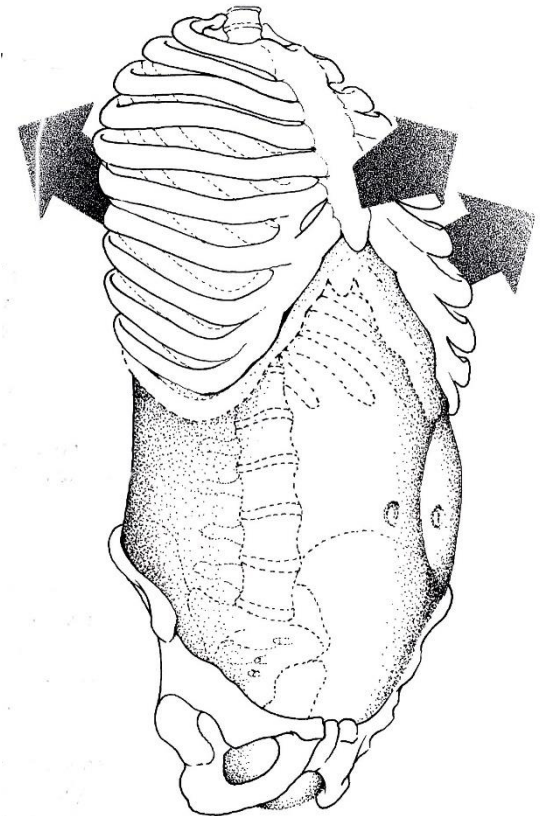
Diaphragm – top to bottom

Ribs – Side to Side

Sternum- Front to Back



6-1. THREE-DIMENSIONAL BREATHING



1. Tongue at the roof of the mouth
2. Lips
3. Teeth slightly touching
4. Practice 4-8 hours a day and resting on each other.

This completes the respiratory circuit and opens airway in the throat and lungs

Image 10. Proper oral posture: tongue resting on the palate, the lips sealed and the teeth in light contact between four and eight hours a day.

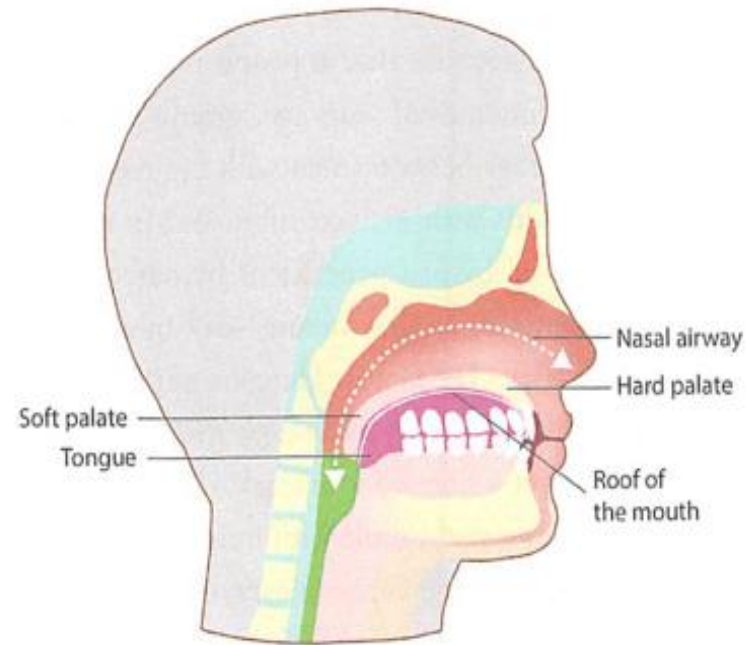
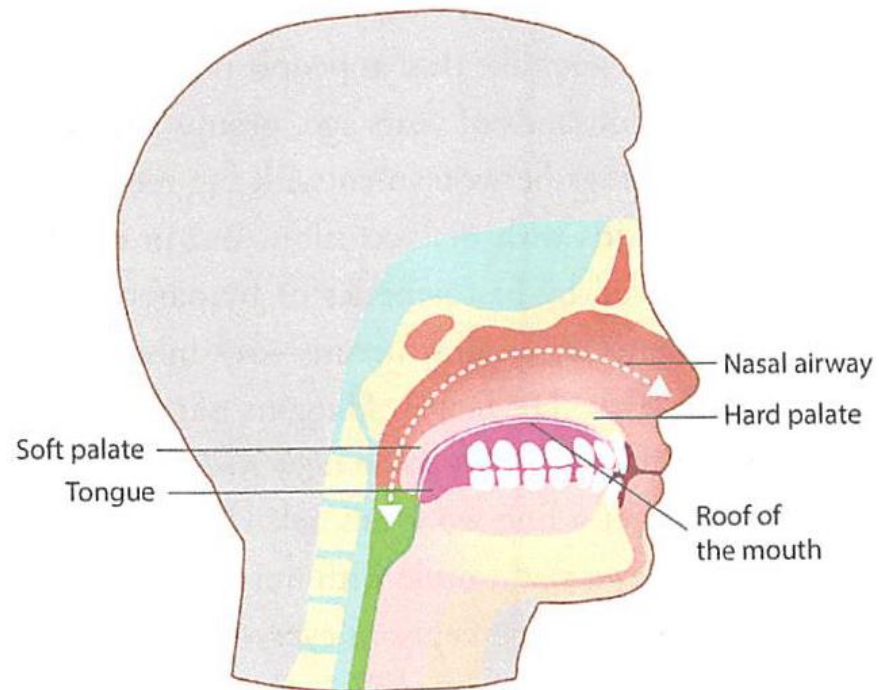
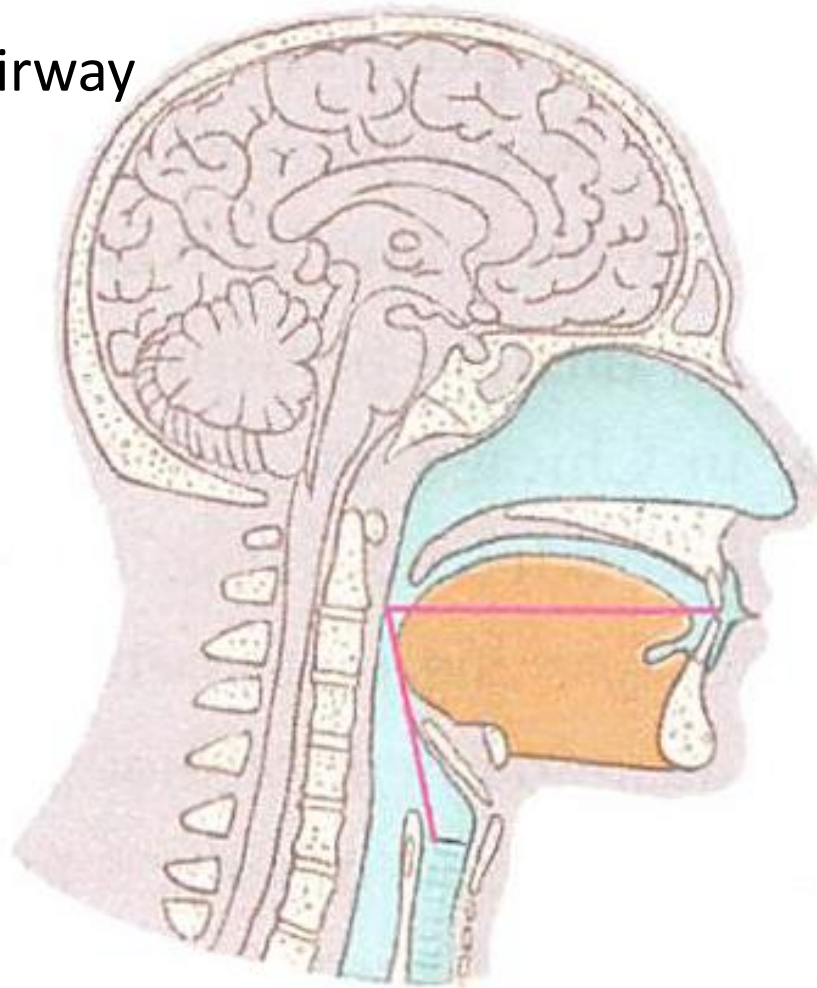


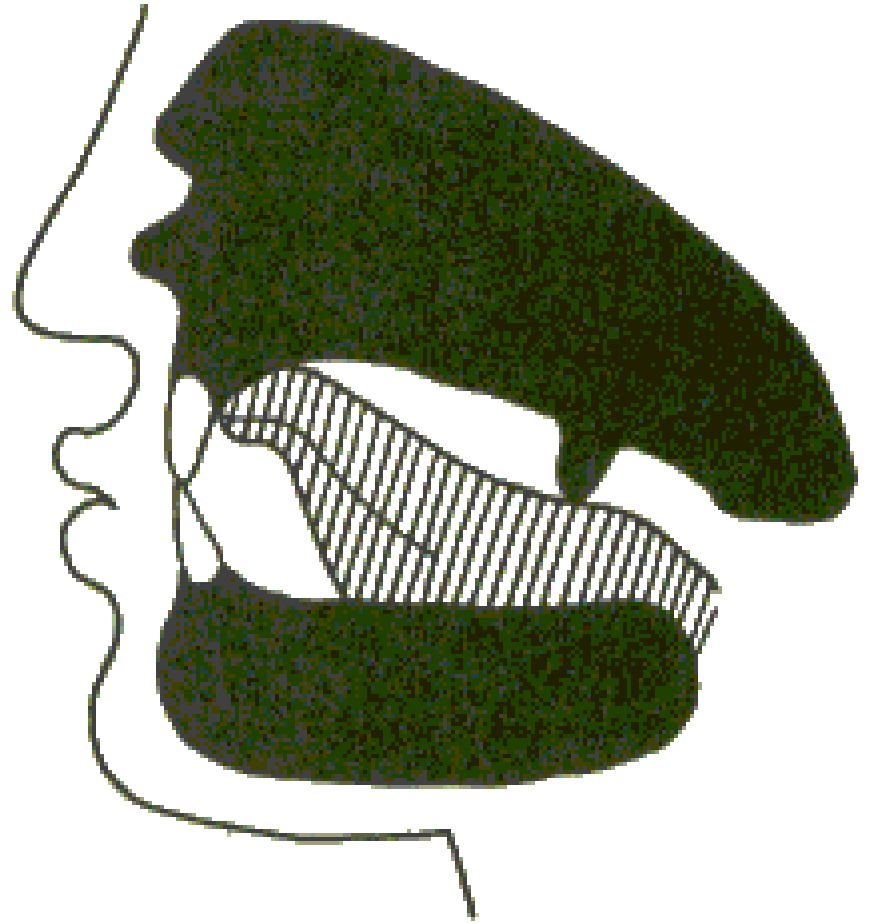
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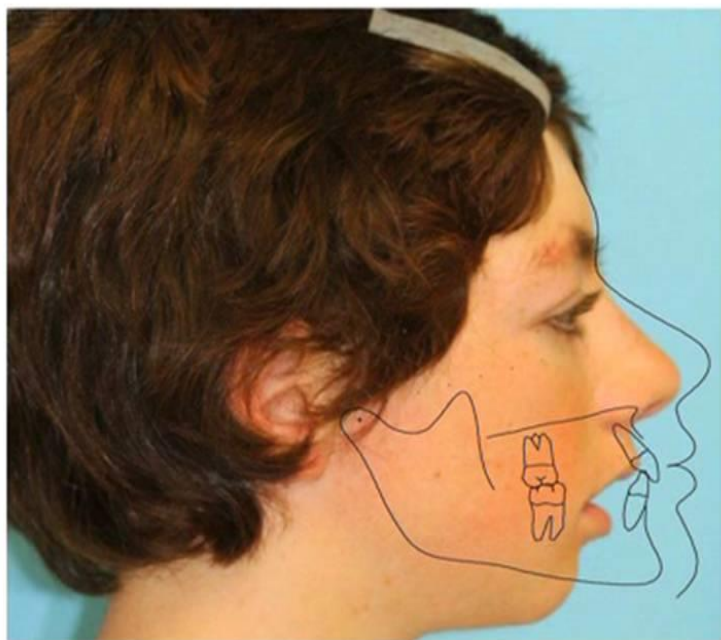


Impinged Airway



Tongue
right behind
front teeth on
first ridge.









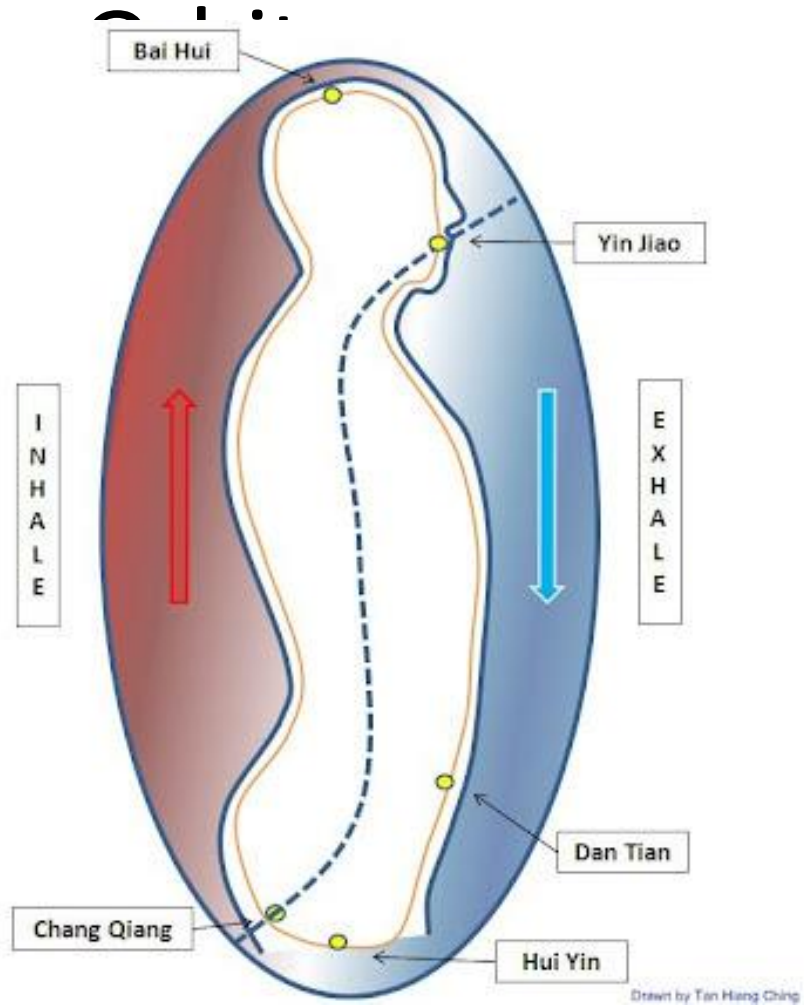
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Microcosmic





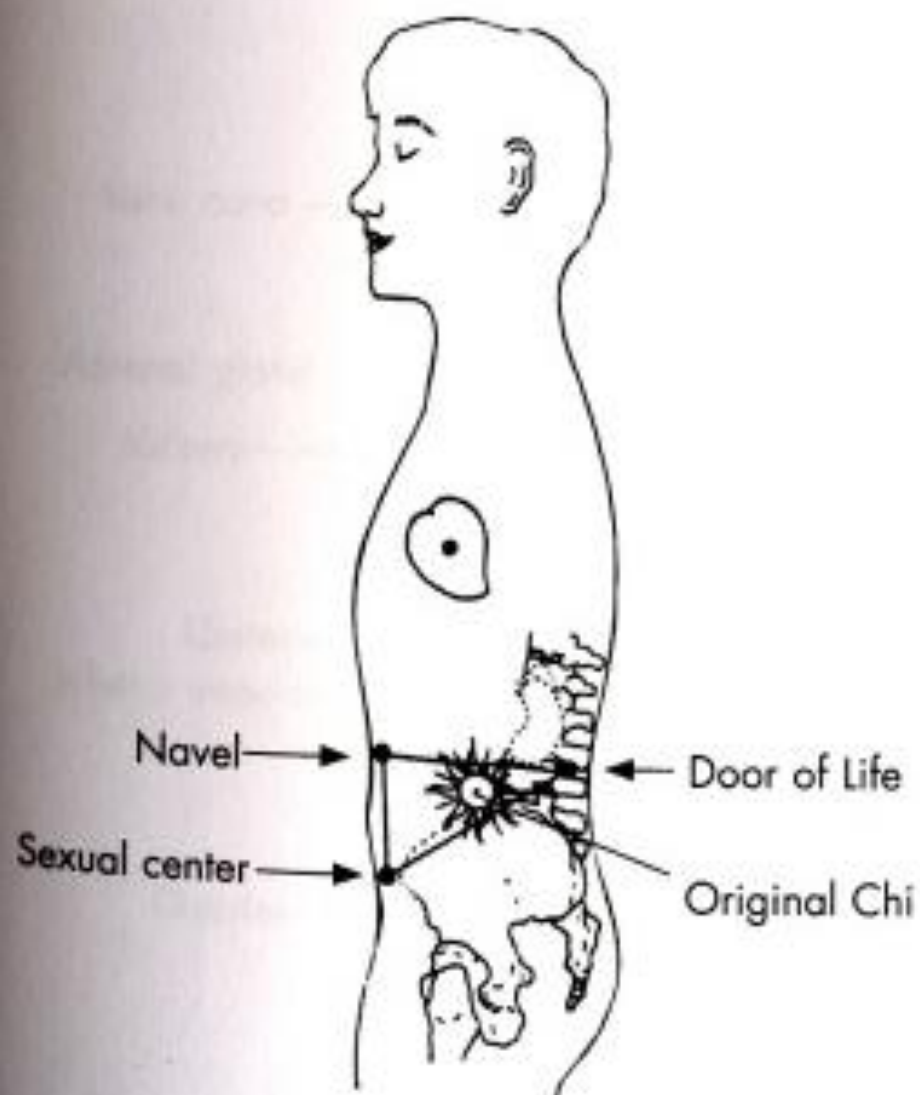


Fig. 5.11. The lower tan tien—
Original Chi

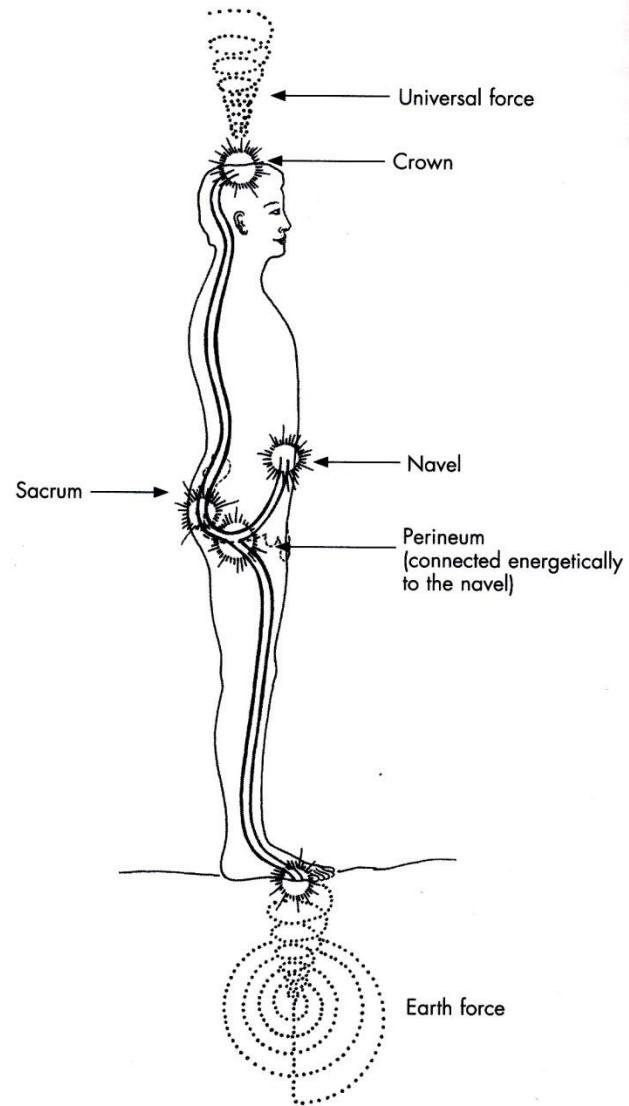
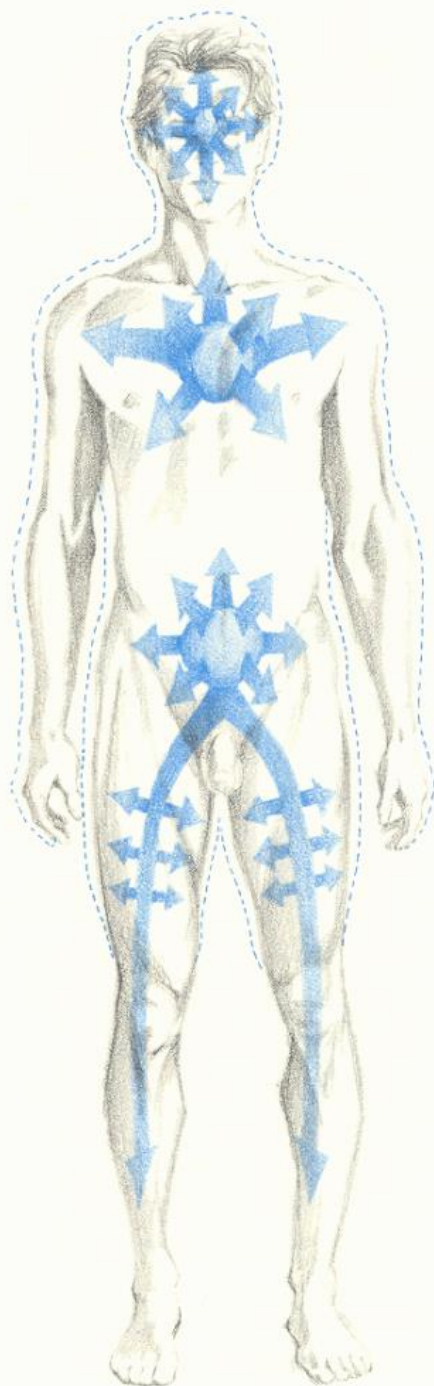
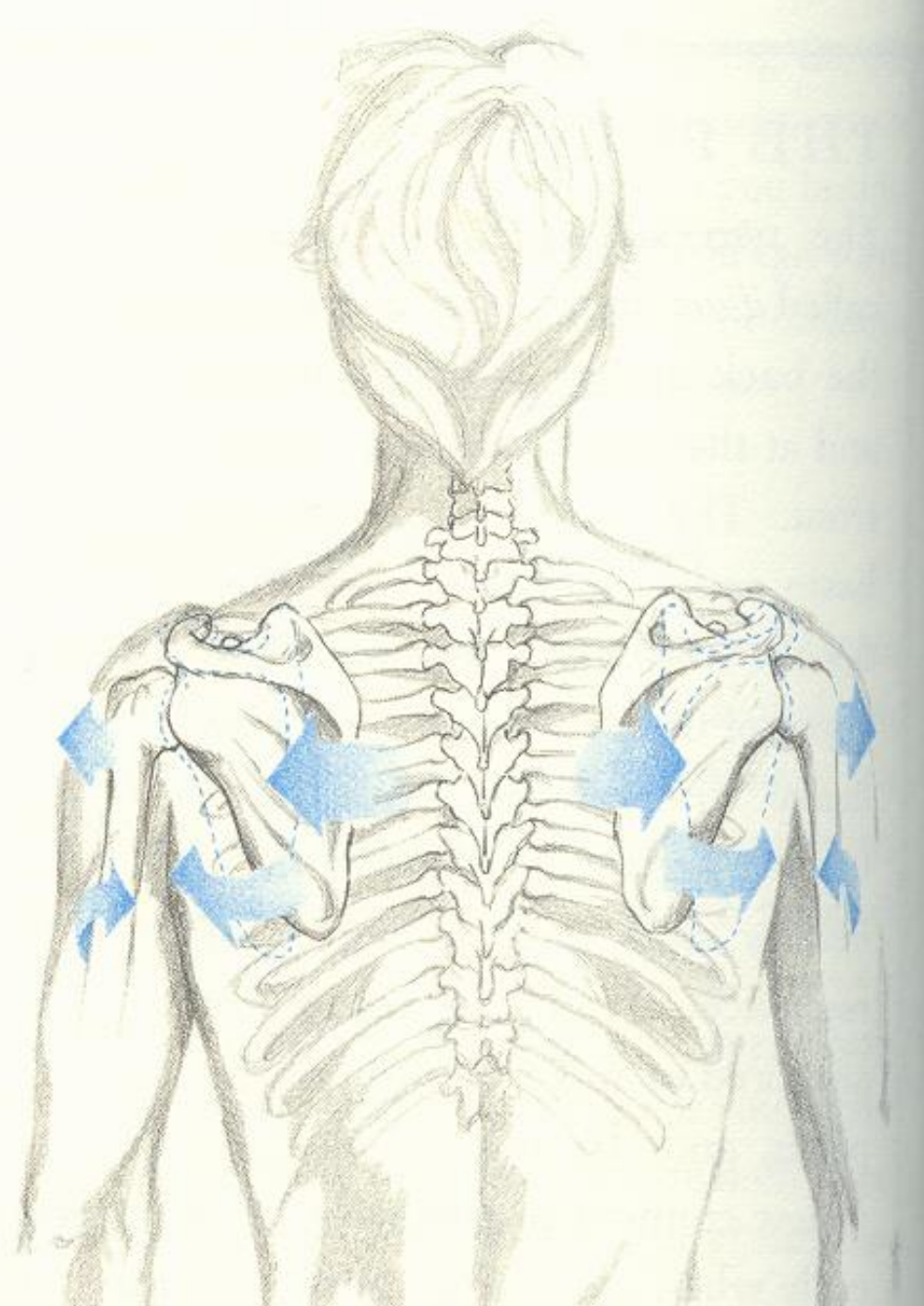
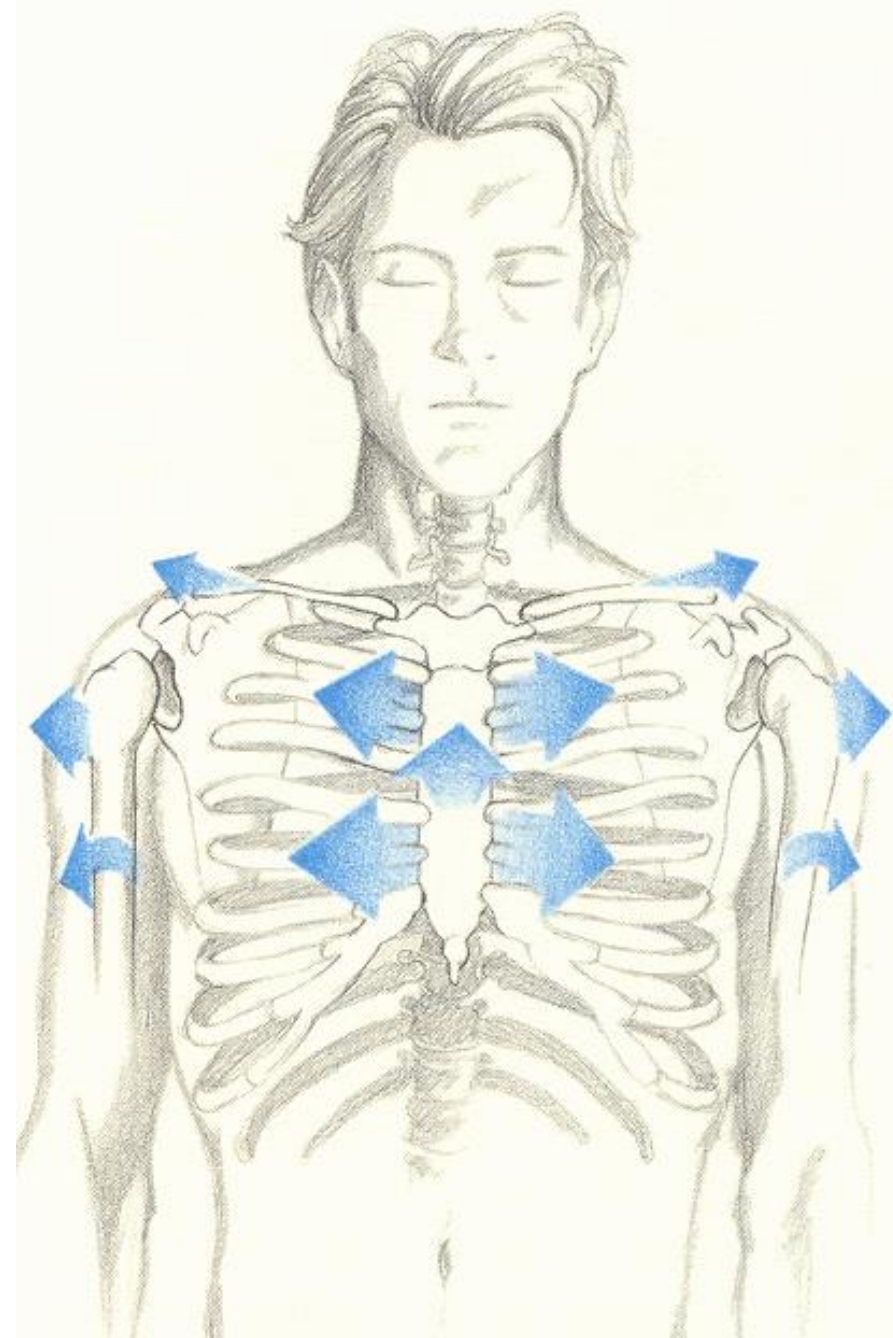
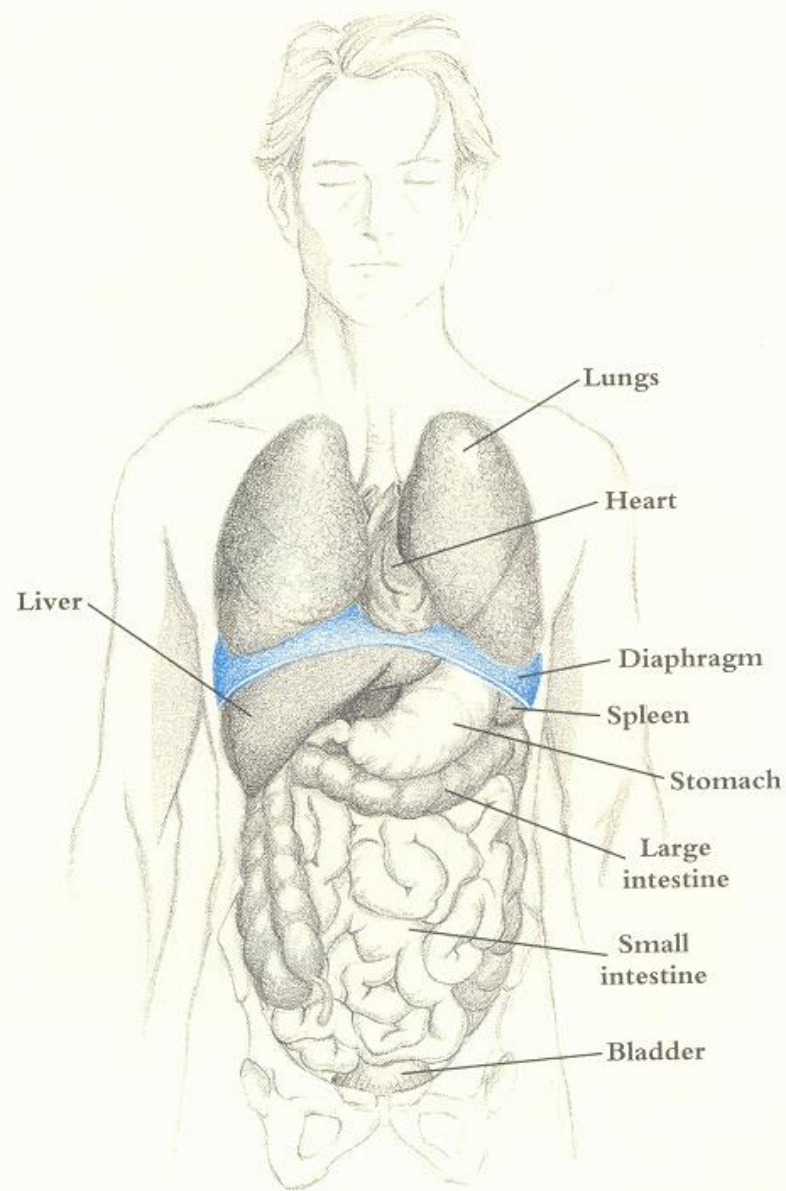


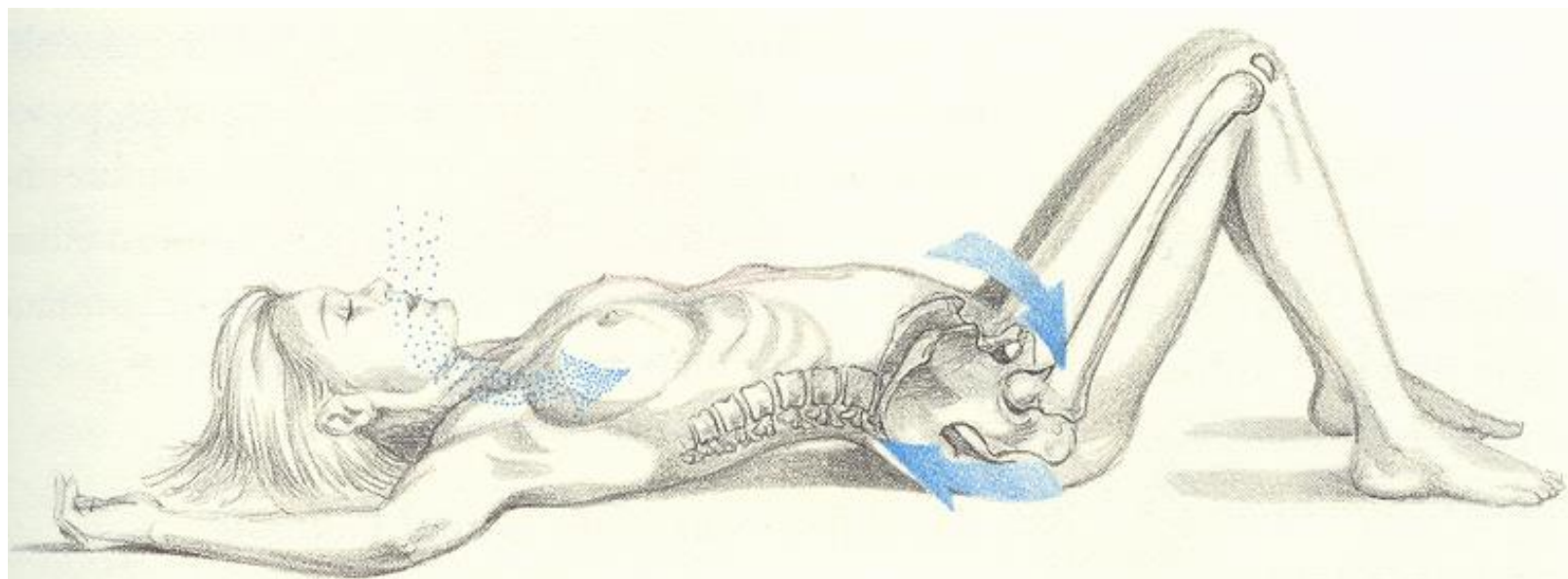
Fig. 4.7. Perineum connection



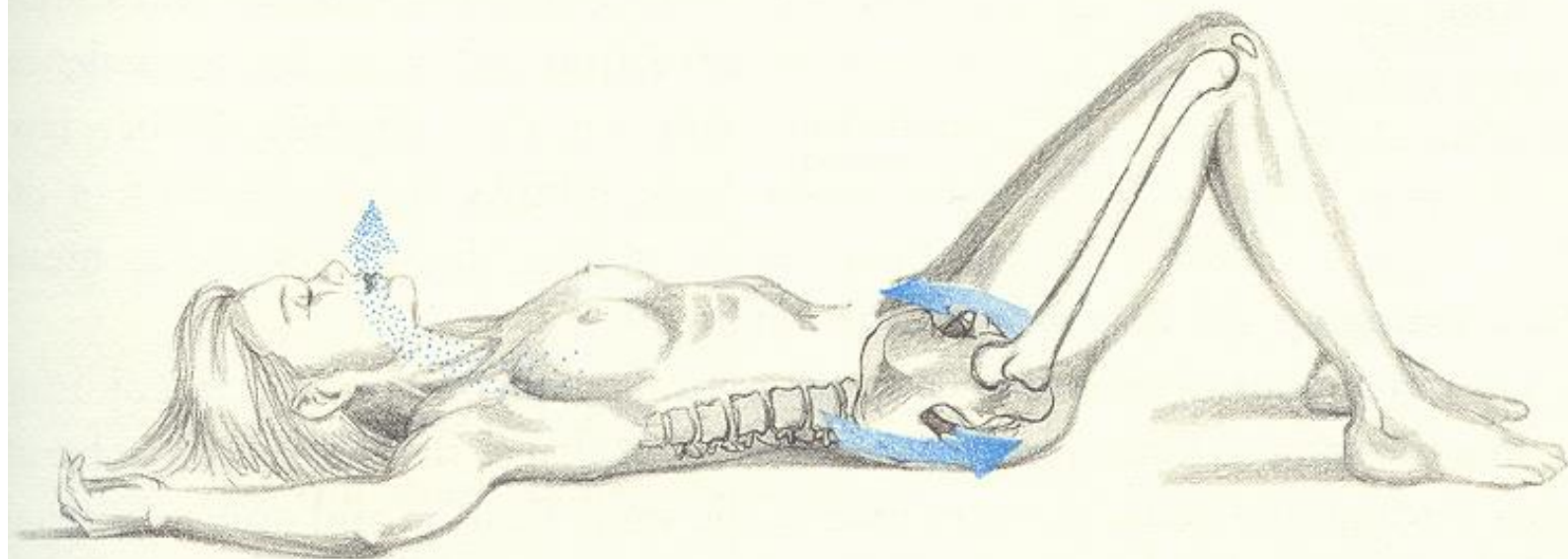




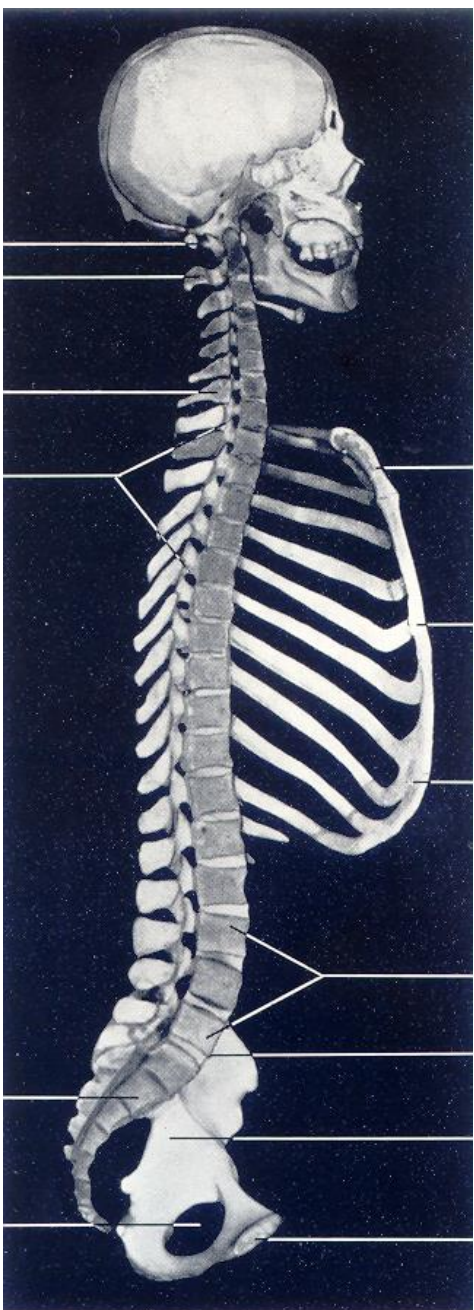
12. *The organs above and below the diaphragm*

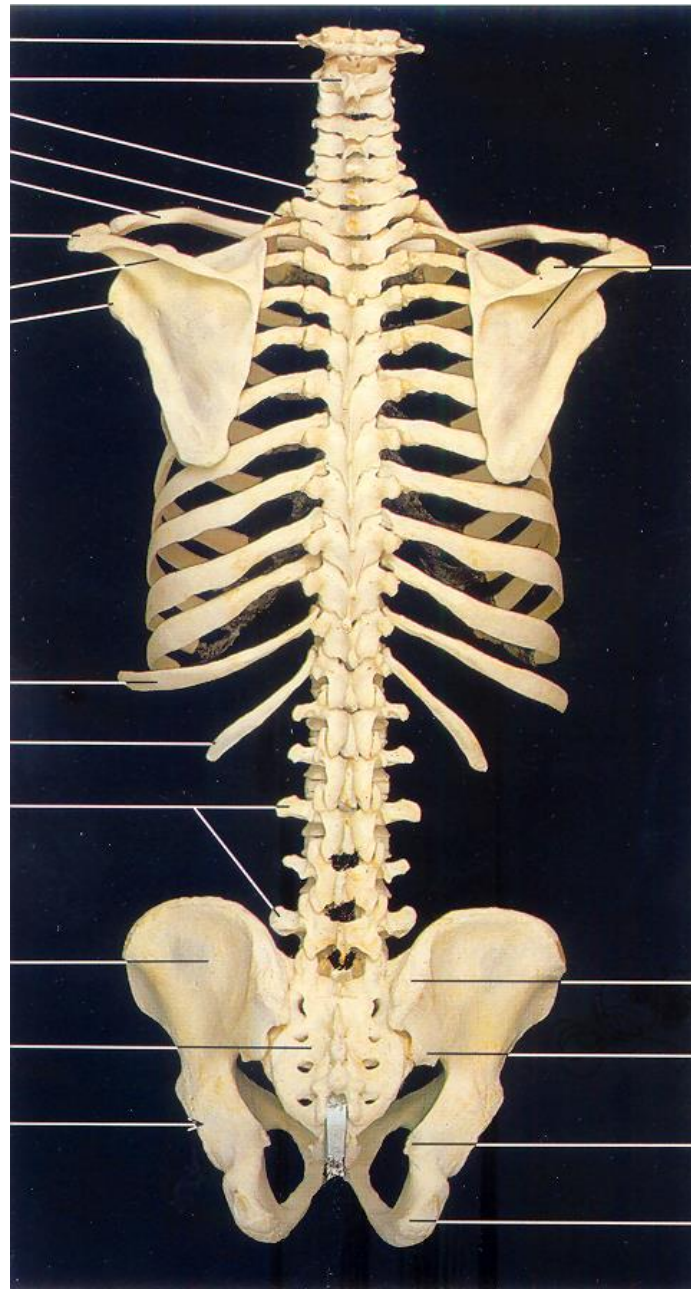


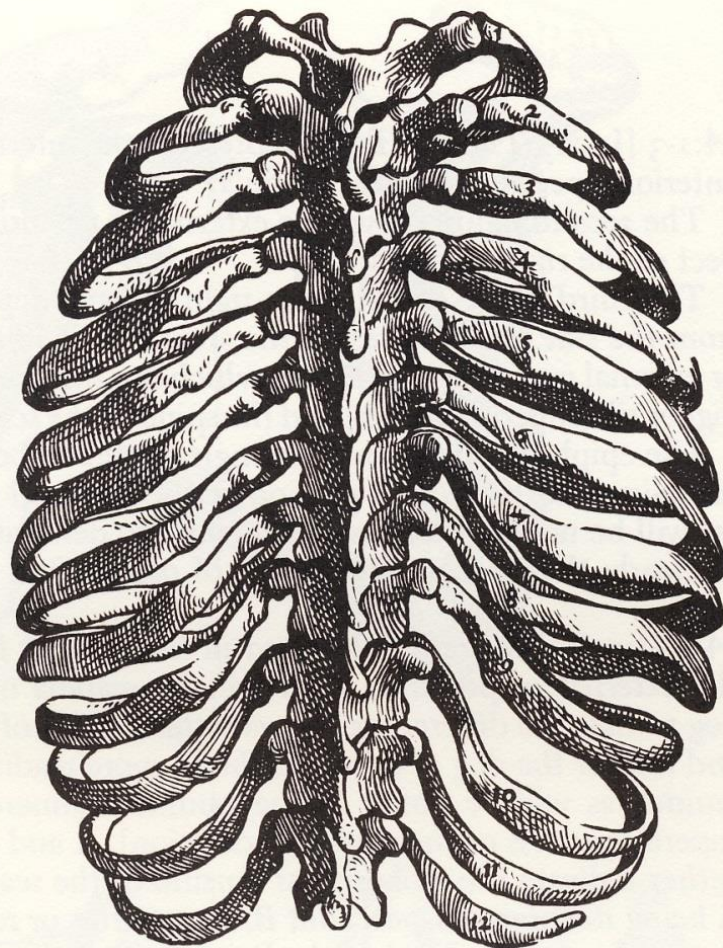
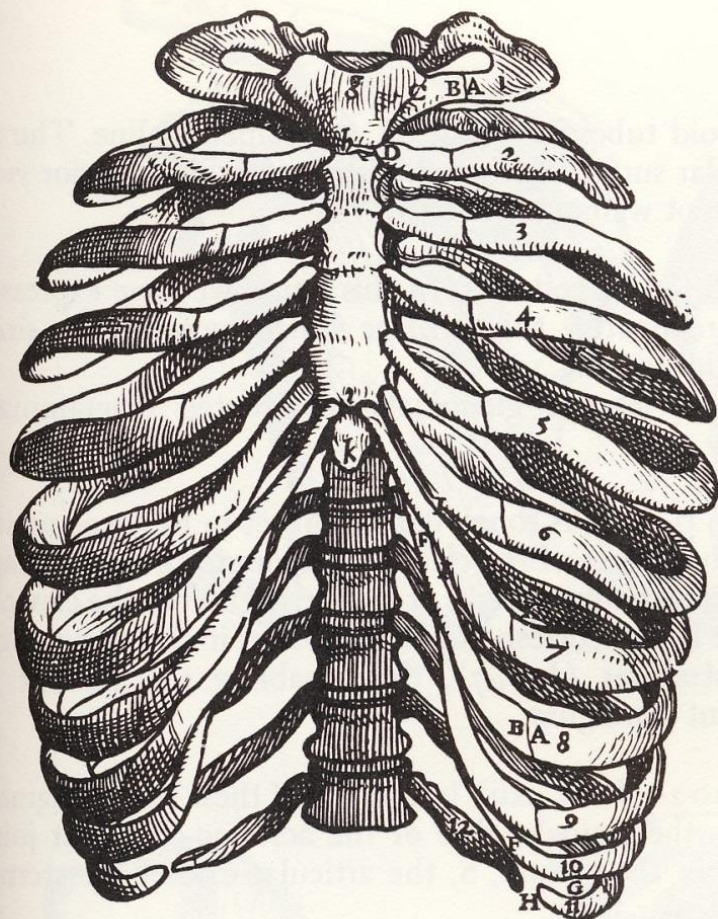
1. *Inhalation*

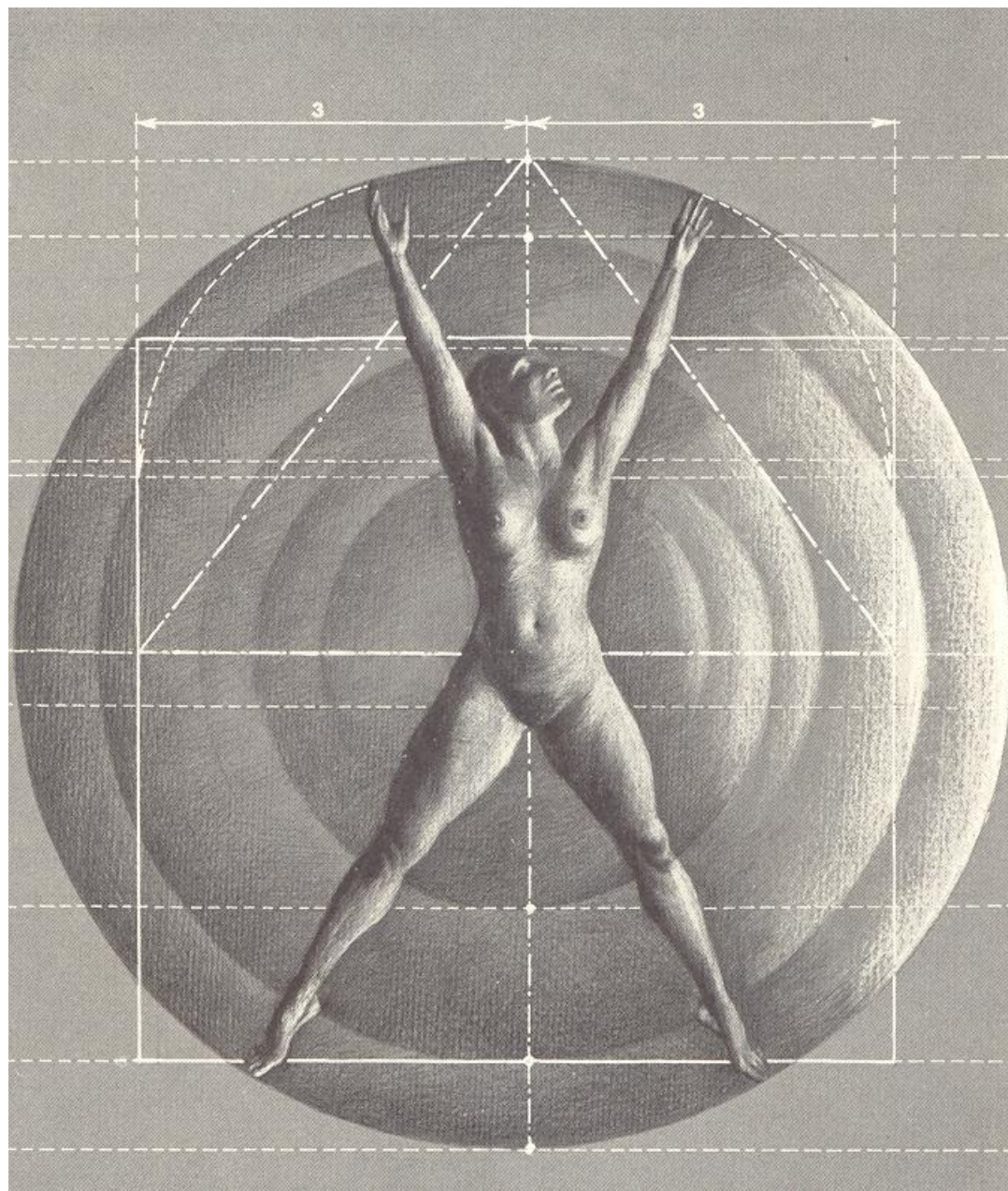


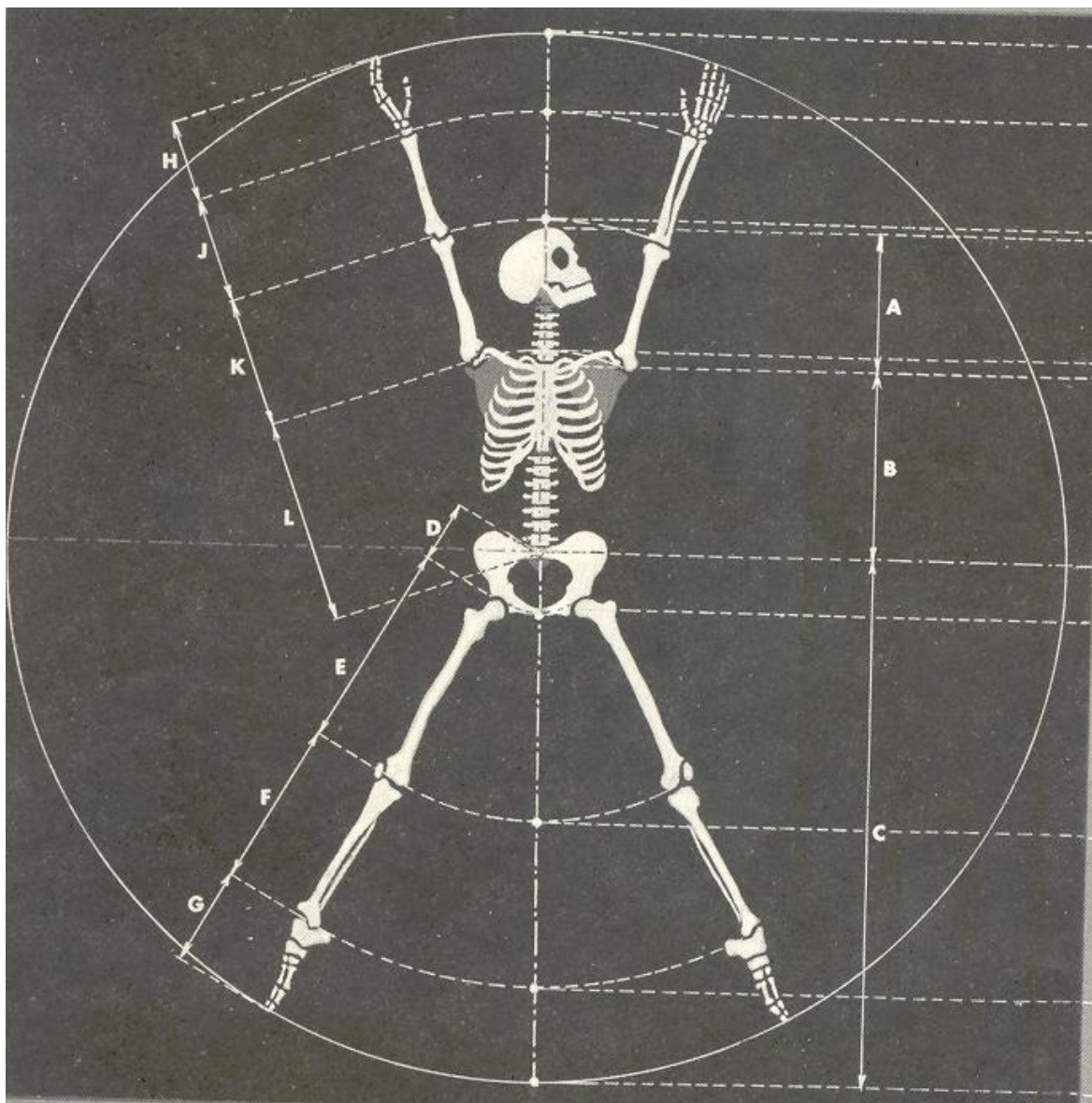
2. *Exhalation*

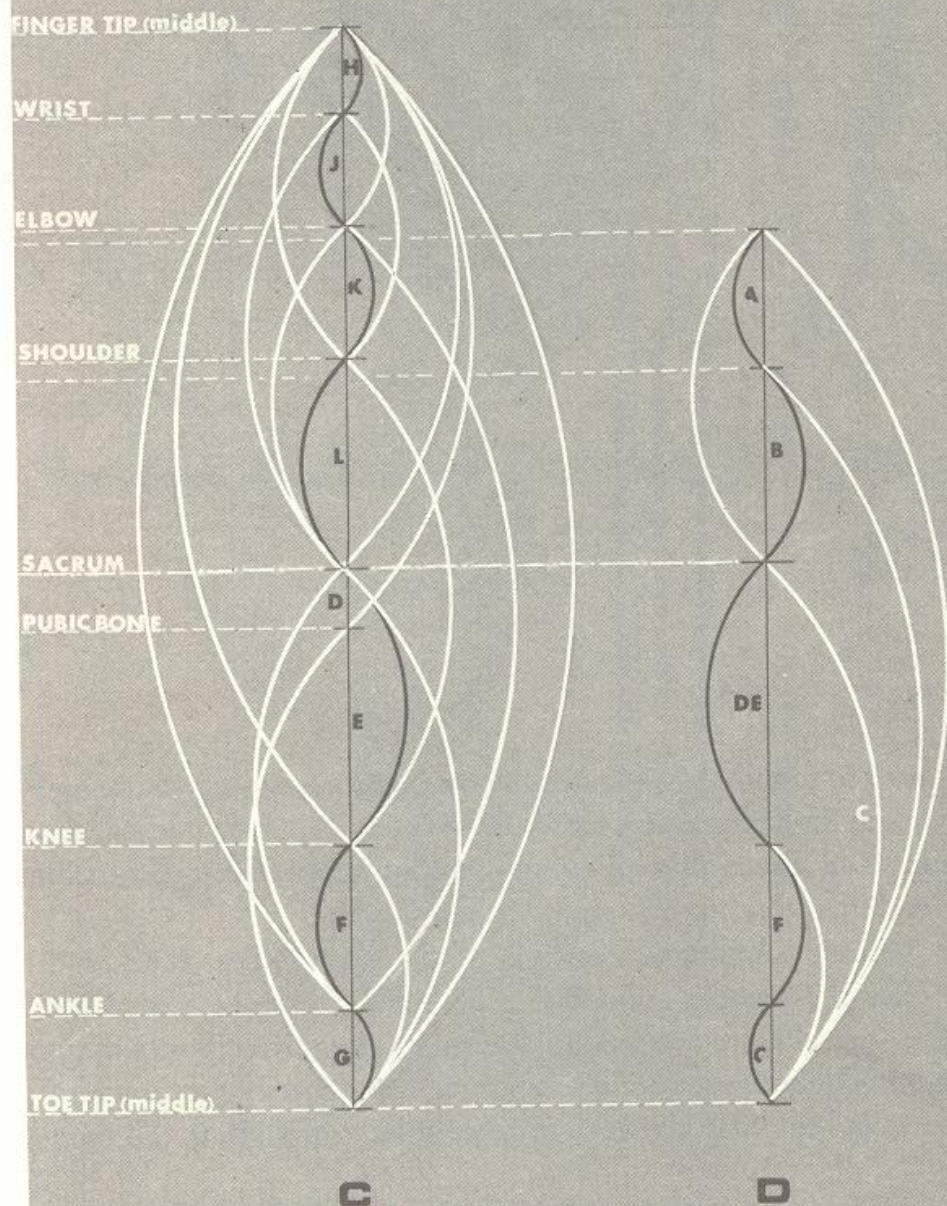






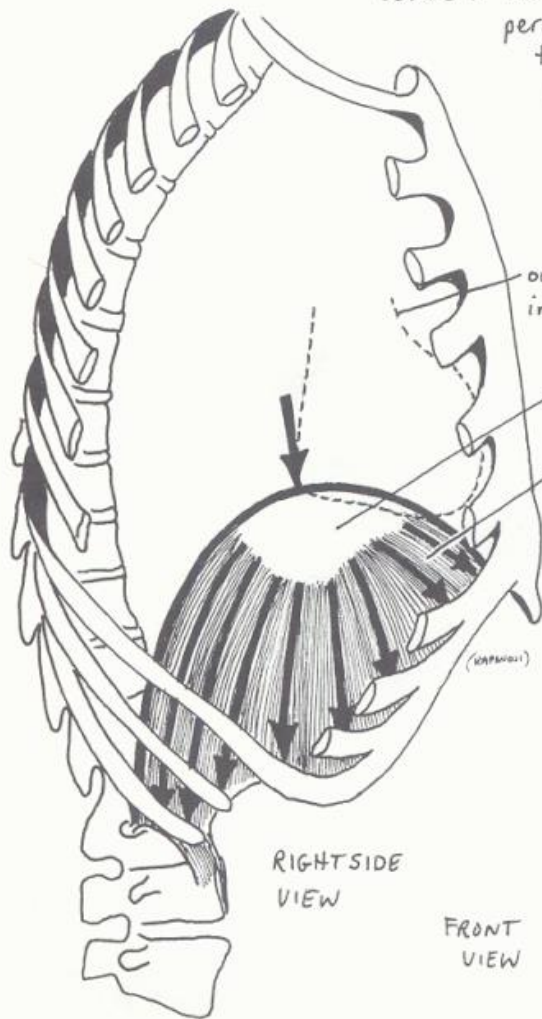






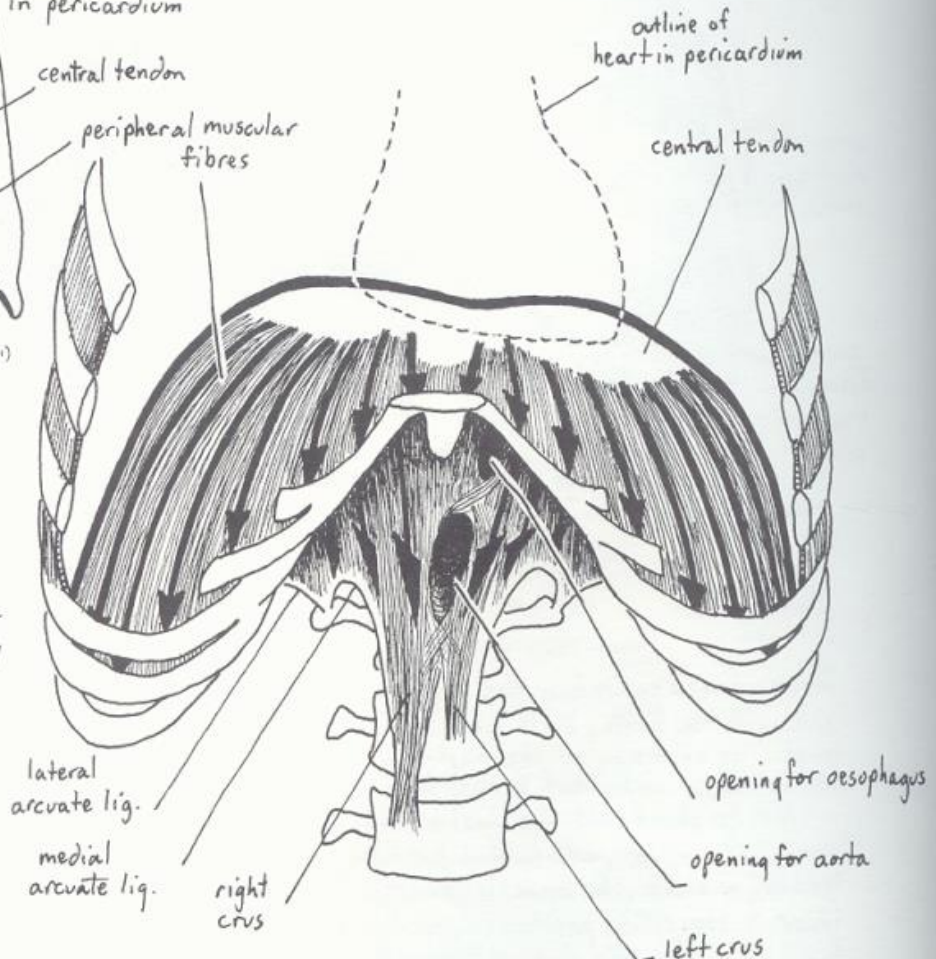
permitted by the extensibility of the abdominal wall, but the limit of this is soon reached. The central tendon, applied to the abdominal viscera, then becomes a fixed point for the action of the diaphragm, the effect of which is to elevate the lower ribs and through them to push forwards the body of the sternum and the upper ribs.

The right cupola of the diaphragm, lying on the liver, has greater resistance to overcome than the left which lies over the stomach.



RIGHTSIDE VIEW

FRONT VIEW



To compensate for this, the right crus and fibres of the right side are usually stronger than those of the left. The balance between descent of the diaphragm

