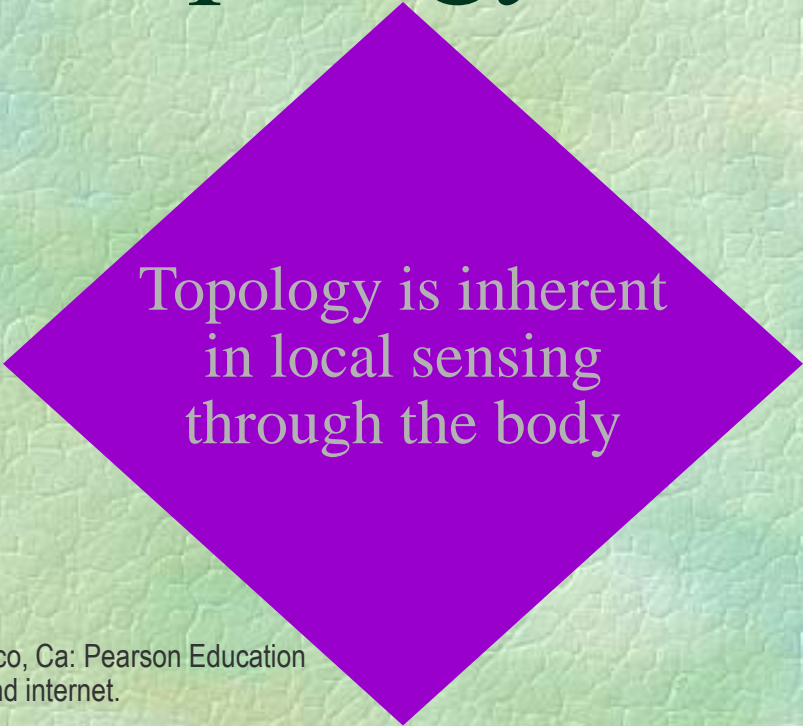


The body: modeling health & illness with non-'physical' topology



Topology is inherent
in local sensing
through the body

The biomedical body and the traditional body:

conventional perspectives
on normal and subnormal health
– modern & ancient –

Workings of the body: dynamics localised in the fluid medium 'water'

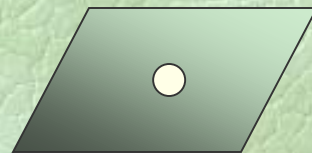
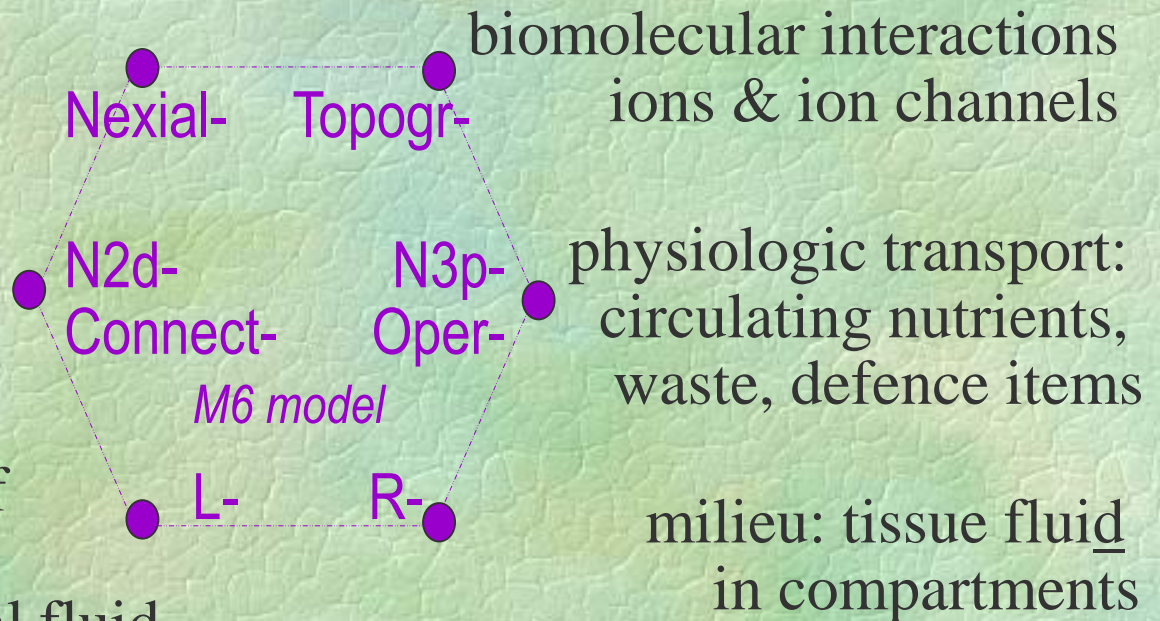
in illness and disease: swelling edema, inflammatory re-action, attack of 'not-self' or cleansing damaged body.

metabolic activity
gradients of osmosis

biochemical paths:
arterial, venous,
lymphatic

clear fluids: serum of
blood, saliva, tears,
lymph, cerebro-spinal fluid

Mysterious clear Water



*Ubiquitous milky serous
fluid, or secretions*

Lymphatic system: a complex network

- *lymph* as ‘clear water’:

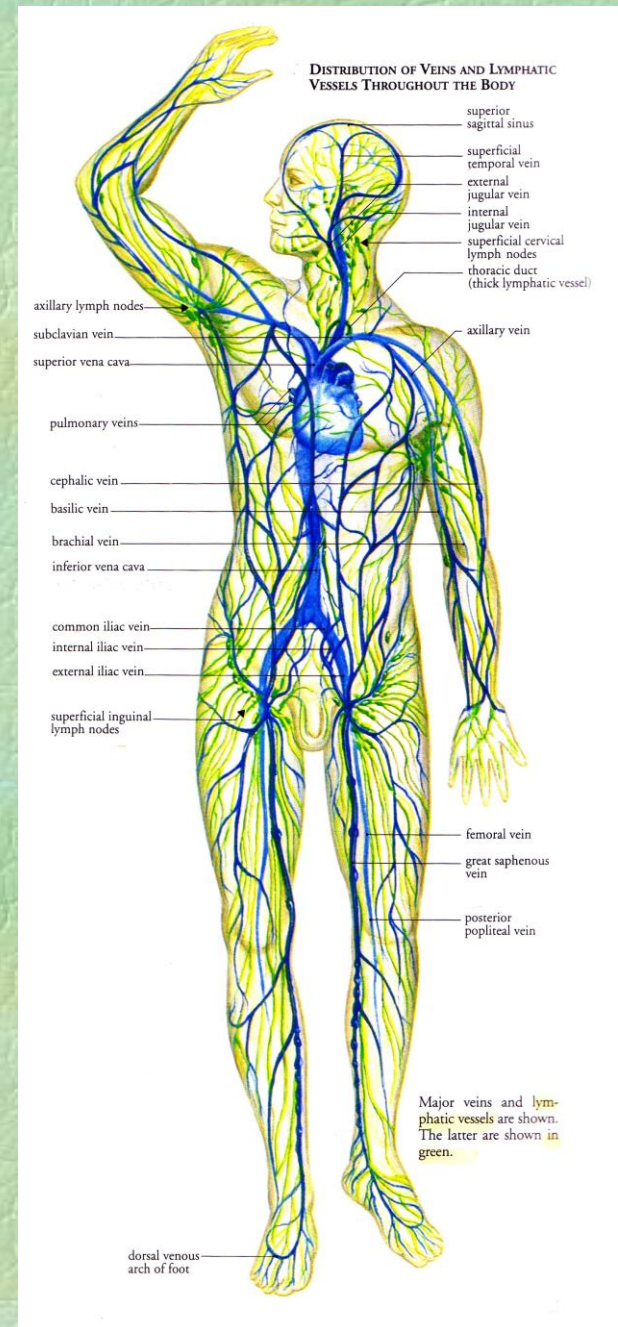
lymph vessels collect ‘slight excess’ of tissue fluid;

- *lymph* as ‘milk’:

lymph vessels carry ‘chyle’ (digestive nutrients), return proteins to the blood;

- ‘carry out immune defence’:

lymph as sewer carry (toxic ‘waste’); transport lymphocytes and activation of lymph nodes, tonsils, spleen, thymus, adenohypophysis (pituitary), mucosa associated lymphoid tissue in respiratory, digestive and reproductive tracts (e.g. small intestine, appendix).



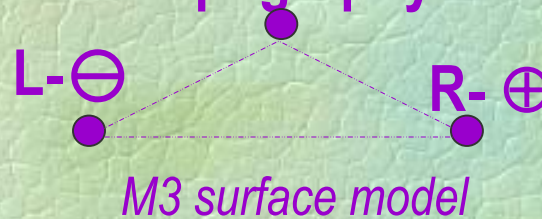
Anatomy: serous 'waters'

lymphatic vessels (river flow)
serous membranes (surfaces)
sinew, tendon sheaths (tubes)

topography

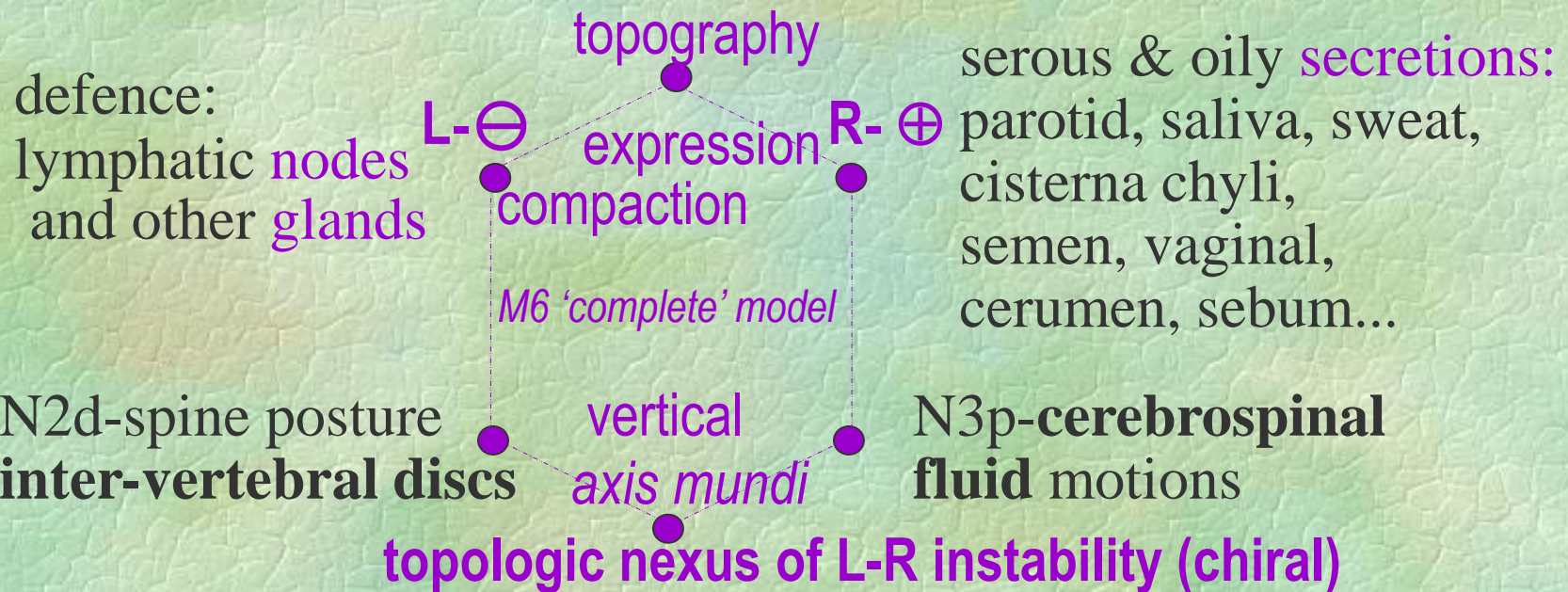
serous & oily secretions:
parotid, saliva, sweat,
cisterna chyli,
semen, vaginal,
cerumen, sebum...

Defence knots:
lymphatic nodes
and immune
system glands



Anatomy, 'above' & hidden 'below': The body system as a topologic space full of water

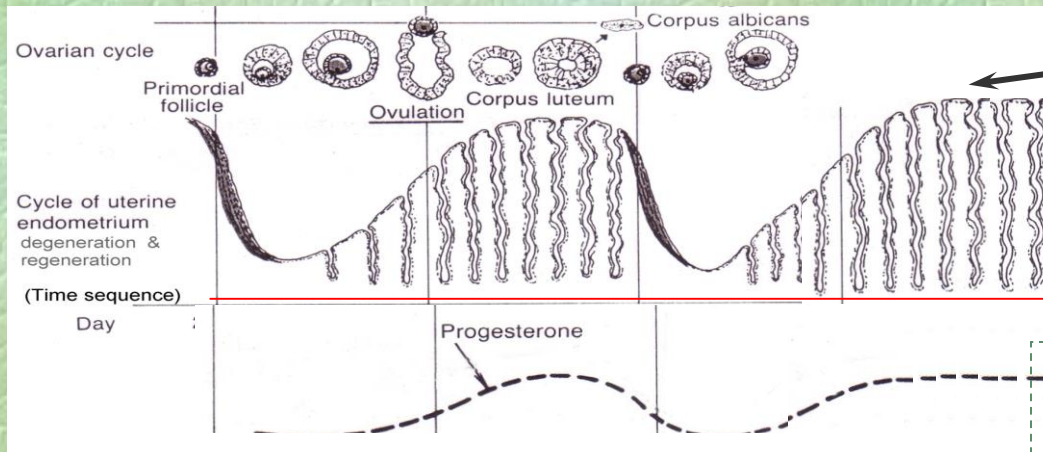
lymphatic vessels (river flow), serous membranes (surfaces),
tendon sheaths (tubes), bursae (hidden small spheres)



ruled by Sc-gravity & H-graveness, and Left-Right chiral shaping of
body & behaviour (including cognitive), but also the unstable ground
of individual-collective lifeworld ruled by periodic 'grav-waves'

A 'turn upside-down':

Female mountains & valleys



Progesterone: deemed 'pregnancy hormone' 'of growth'

Normal degeneration baseline in the view from 'Above'

'Above'

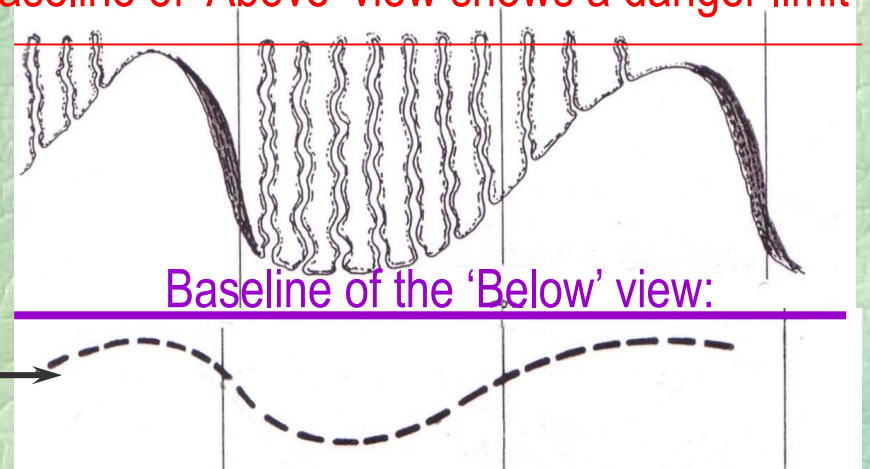
'Below':

'turn upside-down': inverting the baseline of 'Above' view shows a danger limit

Progesterone: its brain-driven lows correlate with activated cyclical degeneration

Why is it so low most of the time?

Progesterone curve low except in 'pregnant state': embryonic tissue cannot exist embedded in degenerating lining



The *chiral* nexus of instability:

colours of 'Element Water' and archaic embryology

*[Hidden: warmer & shrinking body,
alternate nostrils breathing or even mouth breathing*

'Above'

hot head, inflamed or
infected brain



swollen sphenoid &
frontal 'red spot'

Right: swelling
Red

Left: melting
Yellow

body falling apart, cold
extremities, yellowish eyes,
teeth, skin, secretions...

'Below':

body & lifeworld work the same way

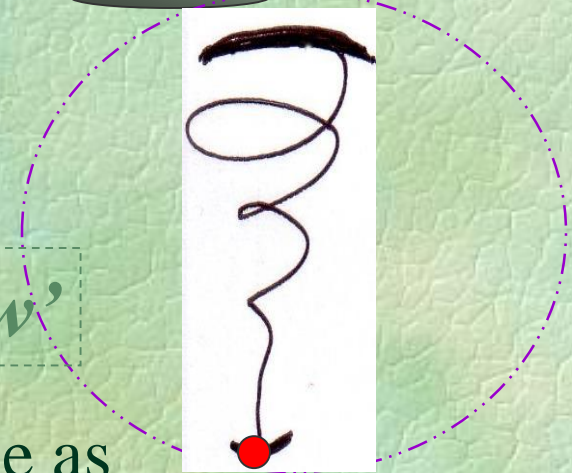
Female physical normalised baseline

High progesterone : ‘healthy ground’ of endometrium

Low progesterone: post-partum body-mind ‘damage’ & chaotic instability, ‘healthy’ monthly uterus degeneration

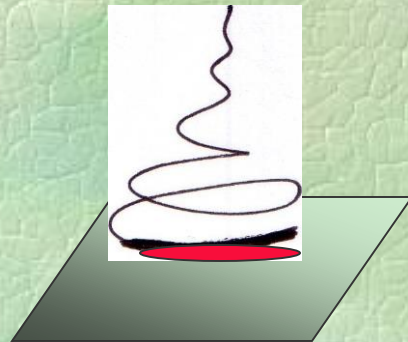
‘Above’

A water drop images a vertex-vortex critical state as normal baseline:



‘Below’

Baseline as a developing (‘spreading’) boundary condition of a global topologic space



‘Above’ normality

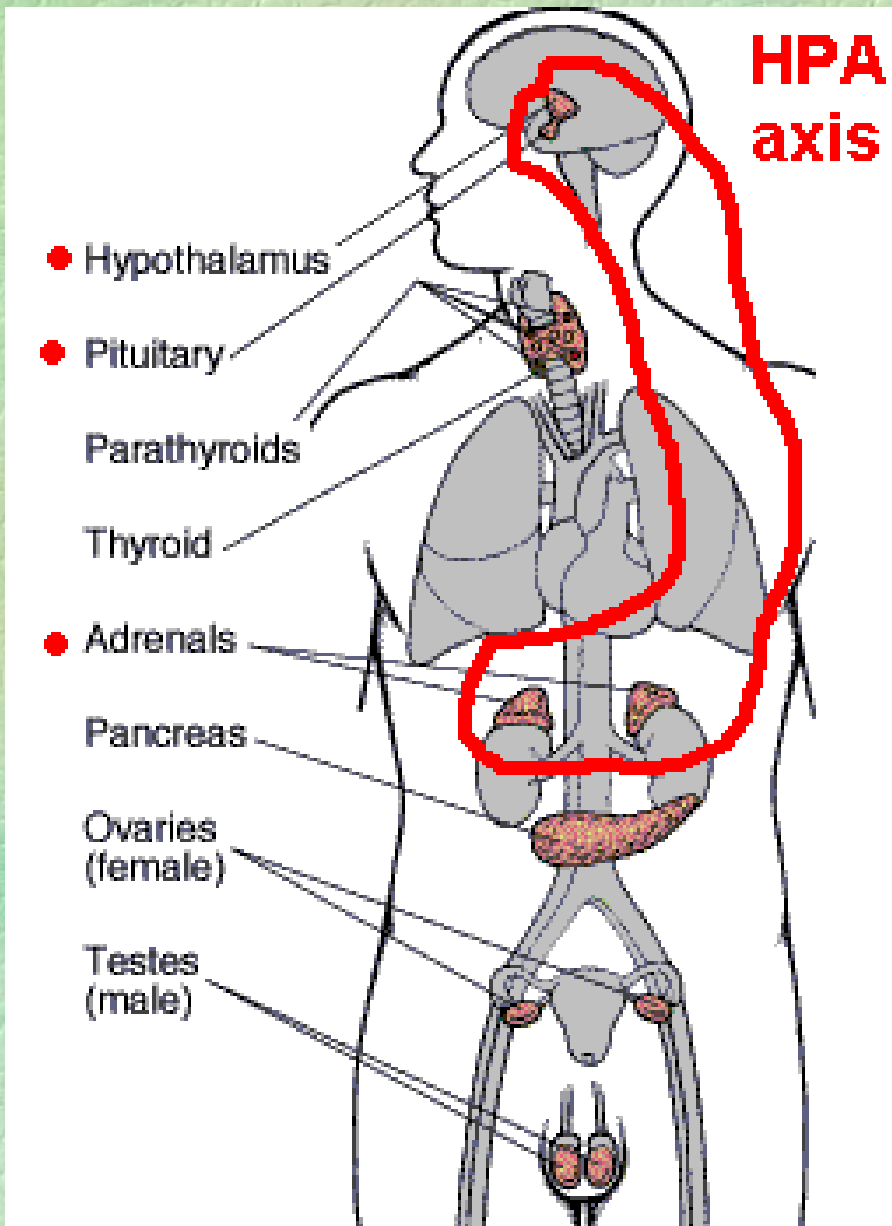
(directed and contained by boundaries;
‘passing boundary’ is mostly irreversible)

and

‘Below’ chirality:

vertical-projective instability

(chiral nexus is unstable, hits boundary conditions,
and cycles: mostly reversible)



Vertical Axis of projection:

Western biomedicine:
HPA axis

Eastern medicines:
chakras /tan tiens along spine

Alternative medicine:
the psycho-neuro-
[endocrino]-immunologic
connection to maintain
binding integrity

morbid stress & disease or focused power of healing

Fast growth, twist, and the heart

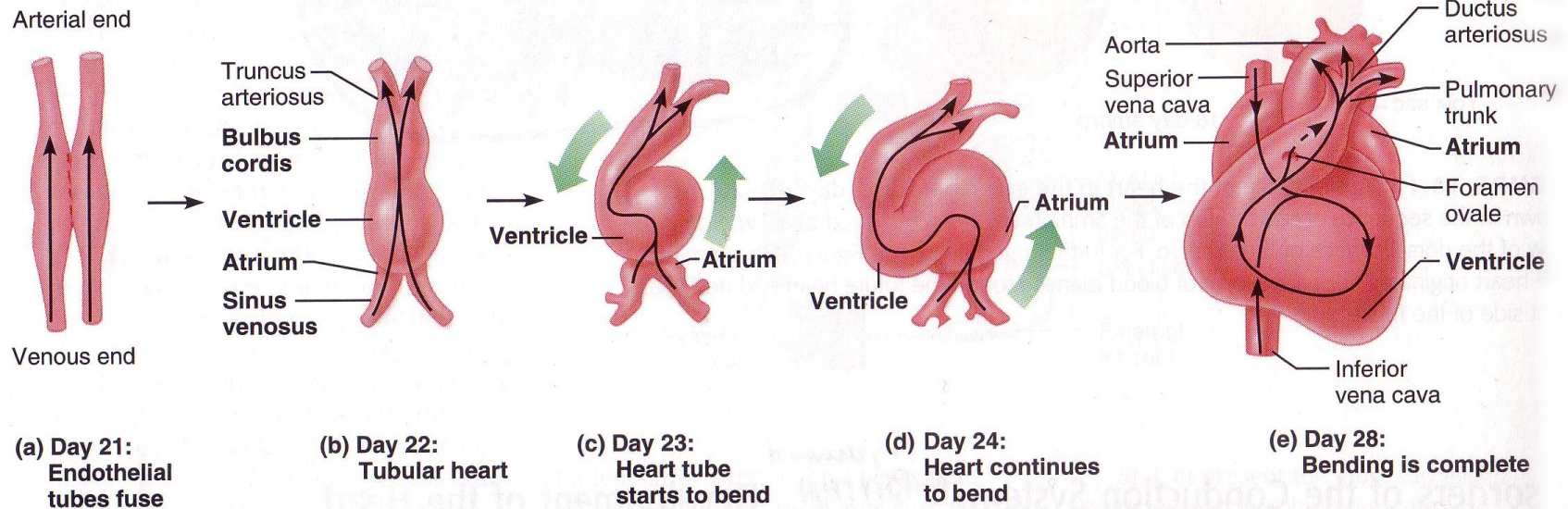


FIGURE 18.16 Stages in heart development during week 4 (a–e). As shown above in the orientation diagram of the 25-day embryo, parts (a) through (e) are all ventral views of the heart, with the cranial direction toward the top of the figures.

‘At the time these four chambers appear, the heart starts bending into an S shape... This bending occurs because the ventricle and bulbus cordis grow quickly and the heart is unable to accommodate elongation within the confines of the pericardial sac.’ (Marieb & Mallatt 2003 p.538)

Chest pain (angina) is the most common symptom, [...] is felt under the sternum (breast bone) and is characterized by a heavy or squeezing feeling, it is brought on by exertion or emotion’ (MedStar 2006)

The diaphragm:

in 'Above' frame:

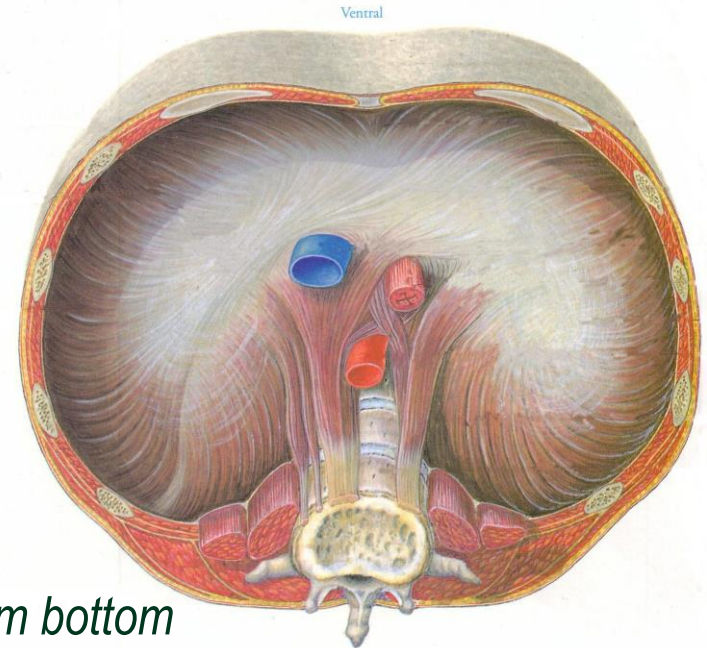
a muscle: contracting down,
relaxing up (in Yoga: can also
expand radially)

in 'Below' frame:

membrane spreading congestion
woman's rib pain; pain behind
sternum (heart): warning signals
less grave than normal
unannounced heart attack; Chinese
inner alchemy: woman's focus on
sternum 'between breasts'



view from top



view from bottom

Sensations of health:

The 'hidden' view of 'Below'
in archaic literature and
in female exPERIence:
a 'completed' prison
or
nexial-topologic sensation

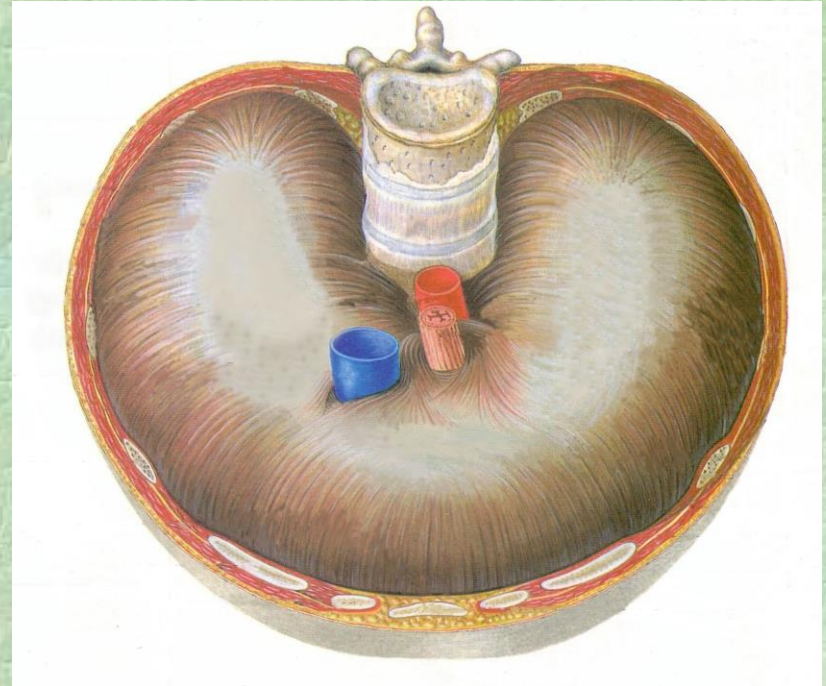
The diaphragm: can twist too

'Above' and 'Below':

a complex flat surface
for breath, subject to
spreading congestion

or

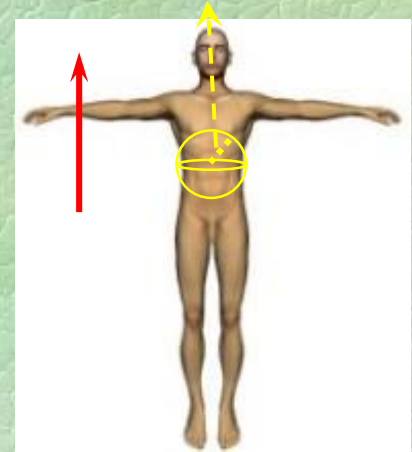
a bodily nexus of projecting activity, detecting
topologic 'twist' & 'orienting-at-boundary', and
able to keep physical E-W-S-N geo-orientation



Immune activation & projection

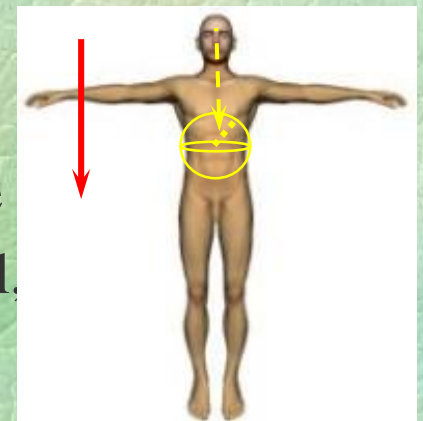
Up to the head: **attention, agitation, alert!**

- hot, swelling, congestion ('Red')
- inflammation: frontal red spot, face bones pain, sinusitis hot head & ears,
- **body 'talks to the brain-mind'** (drive, instinct, intuition, receipts...: induced behaviours)



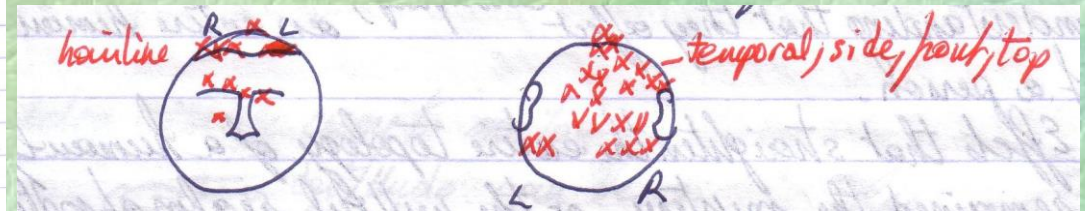
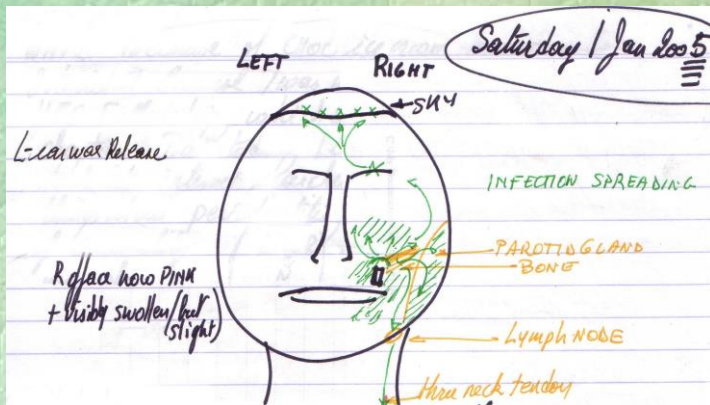
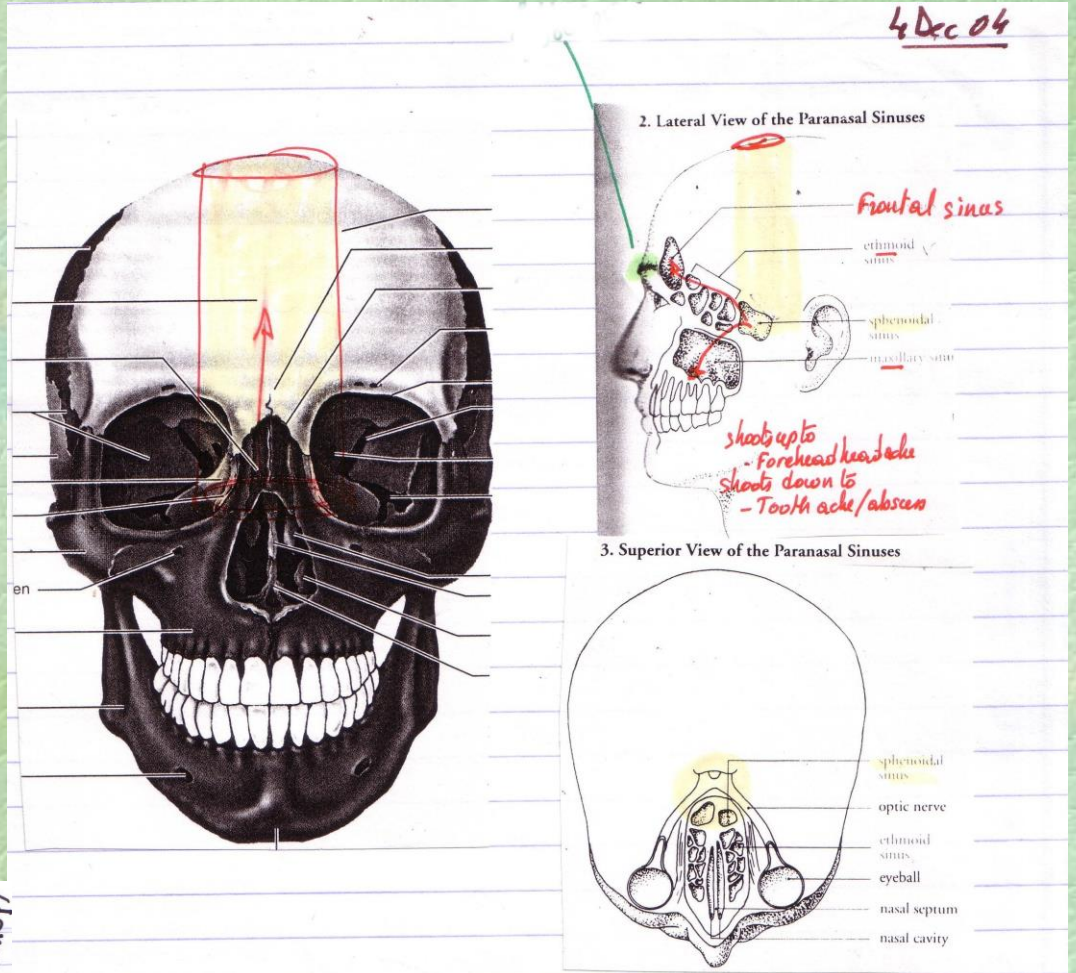
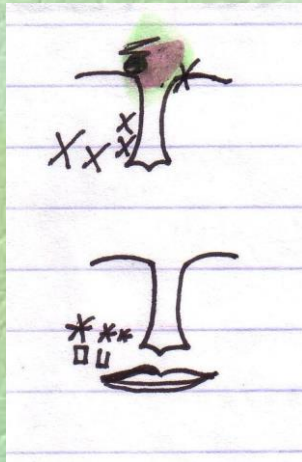
Down from the head: **response, retaliation**

- inflammation along spine: cytokines (pain), boils
- radially: diaphragm & rib or sternum pain
- localising down: neck, heart, hips, knees, big toe
- **mind 'talks to the body'** (control, intent, will, focus, evaluate, learn, analyse detail, generalise...)



'Brain Central Control': a topologic deployment & re-deployment.

Modeling sensations

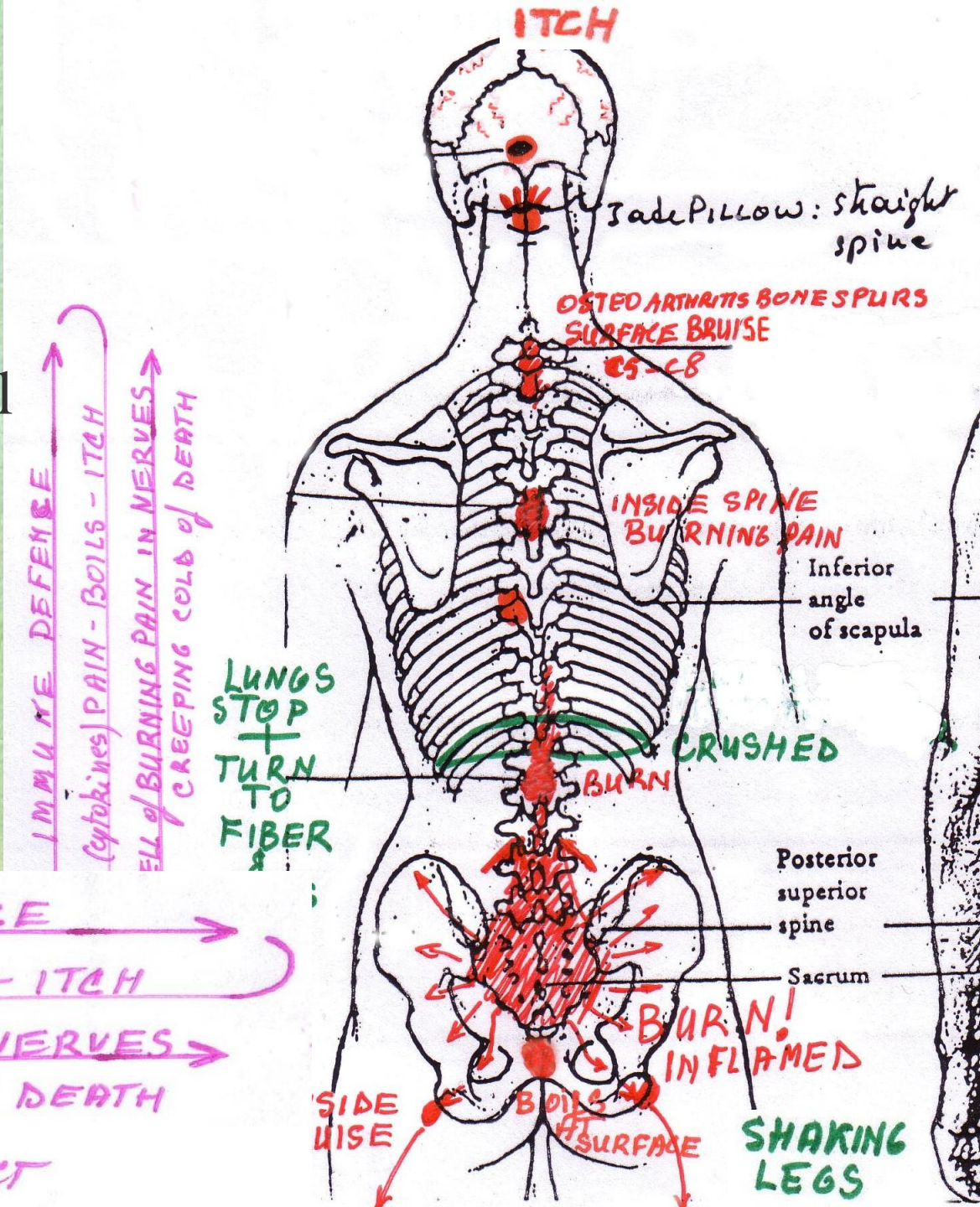


'Burning Fire'

(from June 2006)

'Red'-inflamed
'Hot burning'-pain hell

3rd- stage
inflammed
burning
auto-destruct
of nerves

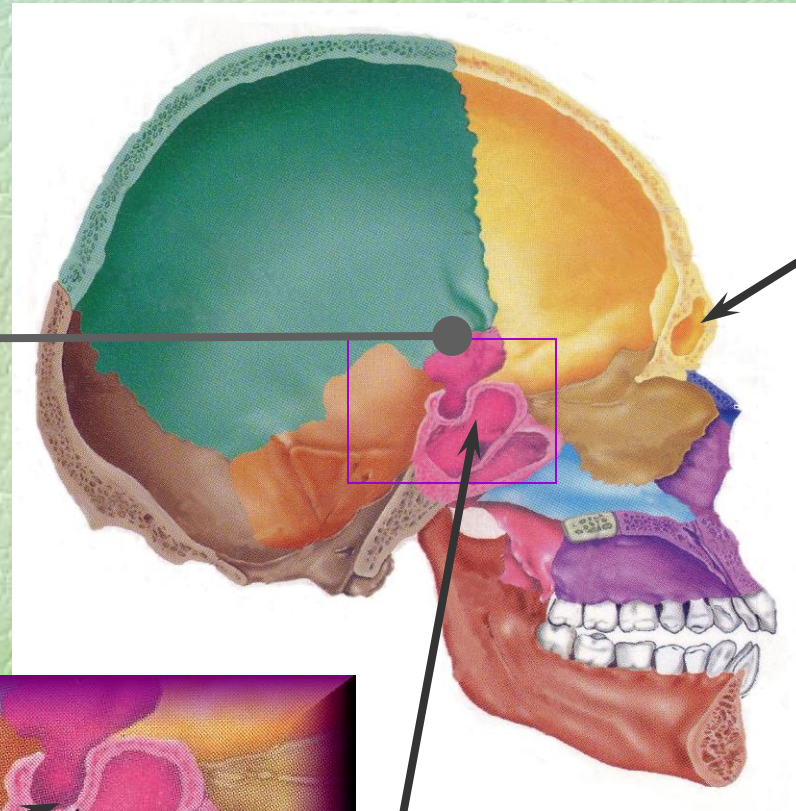


IMMUNE DEFENSE
← (cytokines) PAIN - BOILS - ITCH
HELL of BURNING PAIN IN NERVES
CREEPING COLO of DEATH
INFLAMED AUTO-DSTRUCT

Serous waters
'hidden'
in the body

Sphenoid bone: Core of the head

- spreading of swelling & inflammation -



third ventricle
(produces
cerebro-spinal fluid)

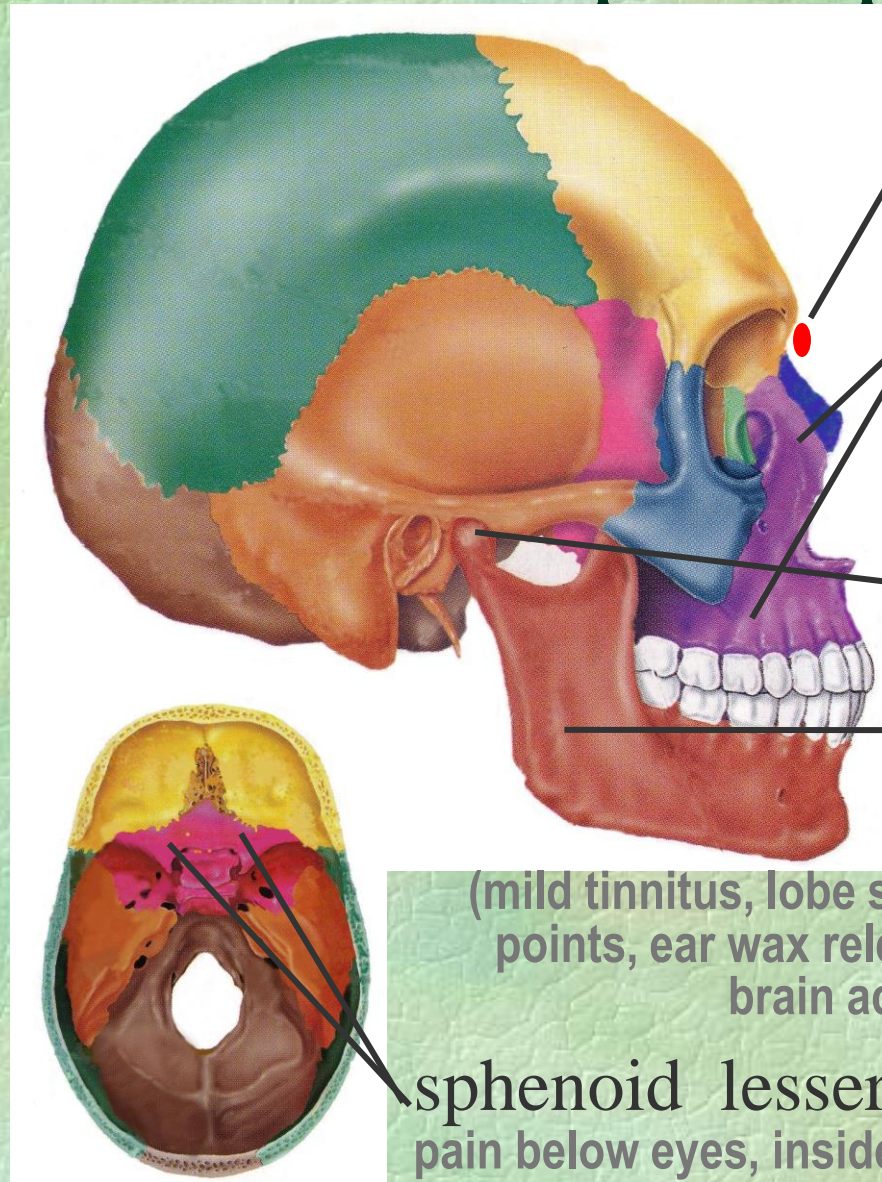
frontal
sinus

hypophyseal
fossa of
sphenoid bone
(seat of pituitary,
close to 3rd ventricle)

sphenoid sinuses
dry, swollen, sore,
up to sinusitis (common in women)



Diffuse pain spreading to:



frontal sinus

('red spot' on skin: mark on forehead, between eyebrows)

face bones & maxilla

(pain spreading in face bones around eyes, & nose, dry eyes & grit, losing night sight, top teeth: periodontitis holes in bones)

jaw joint (temporo-mandibular joint pain)

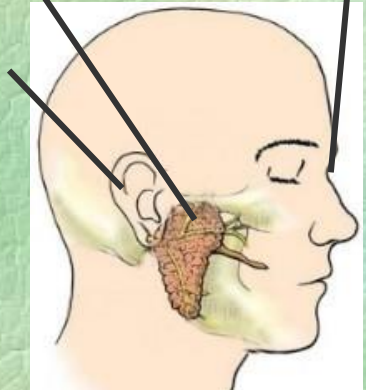
parotid gland (TMJaw tension)

face skin (blemishes, acne)

ear

(mild tinnitus, lobe skin itch: acupuncture points, ear wax release correlated to L-R brain activity, inner infection)

sphenoid lesser wing pain below eyes, inside the head



Cerebrospinal fluid

Headache: swollen, or dry & shrinking, with R-brain storm

veins

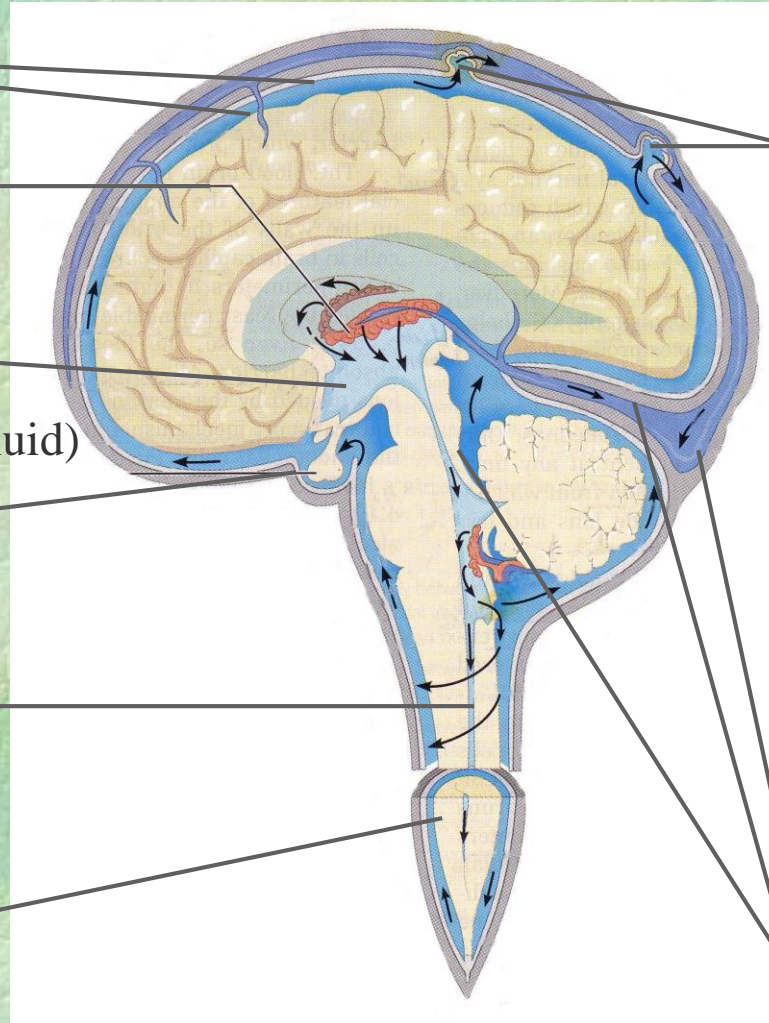
choroid plexus
(produces the fluid)

third ventricle
(produces cerebro-spinal fluid)

hypophyse
(pituitary gland)

central canal of
spinal cord

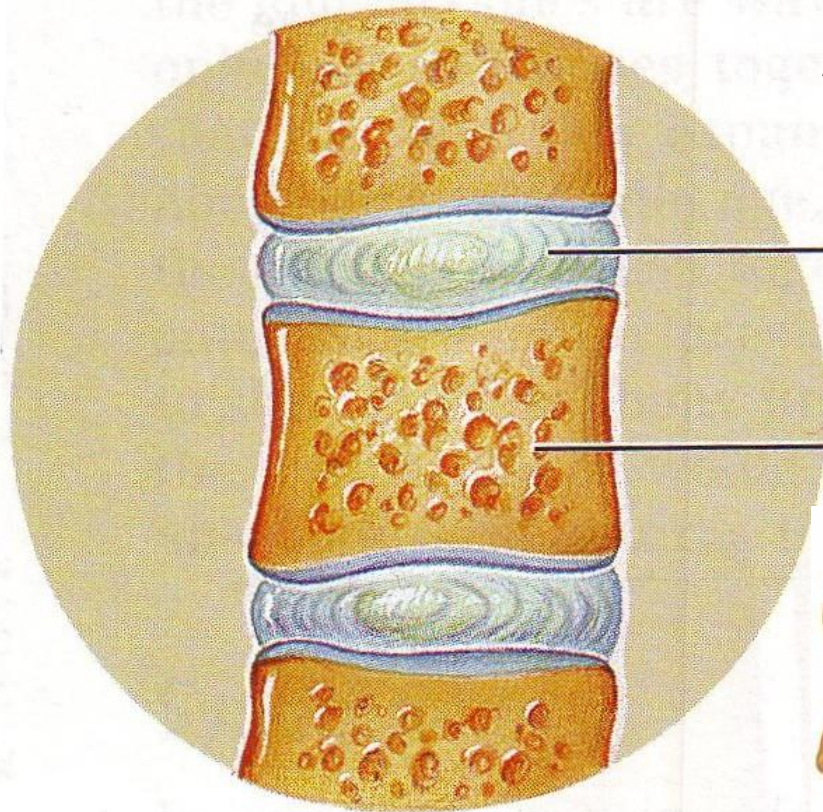
end of spinal cord



arachnoid
villus

The fluid circulates around brain, spine, and under the skull. It drains into sinuses and veins.

Spine: Intervertebral discs & posture

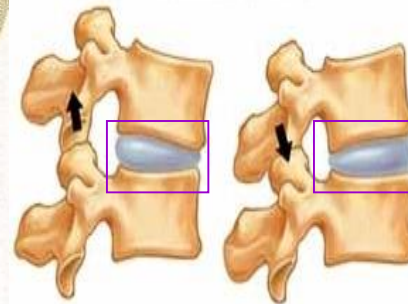
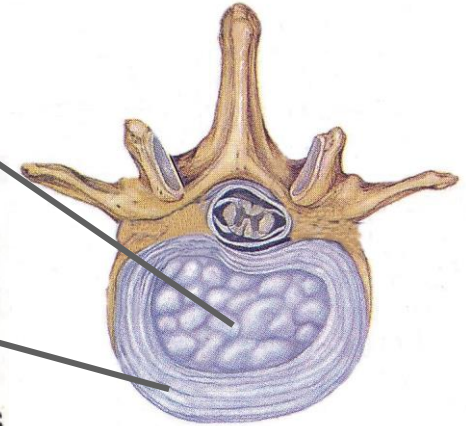


annucleus pulposus
a watery gelatine

Annulus fibrosus :
outer collar
of fibrous rings

Fibrocartilaginous
intervertebral
disc

Body of vertebra



*Dry crushed discs
cannot hold up the
spine, and require
muscular
compensation.*

*Inflammation and
degenerative bone
spurs are part of
'normal ageing'.*

joint bursae:

fibrous sacs of watery fluid

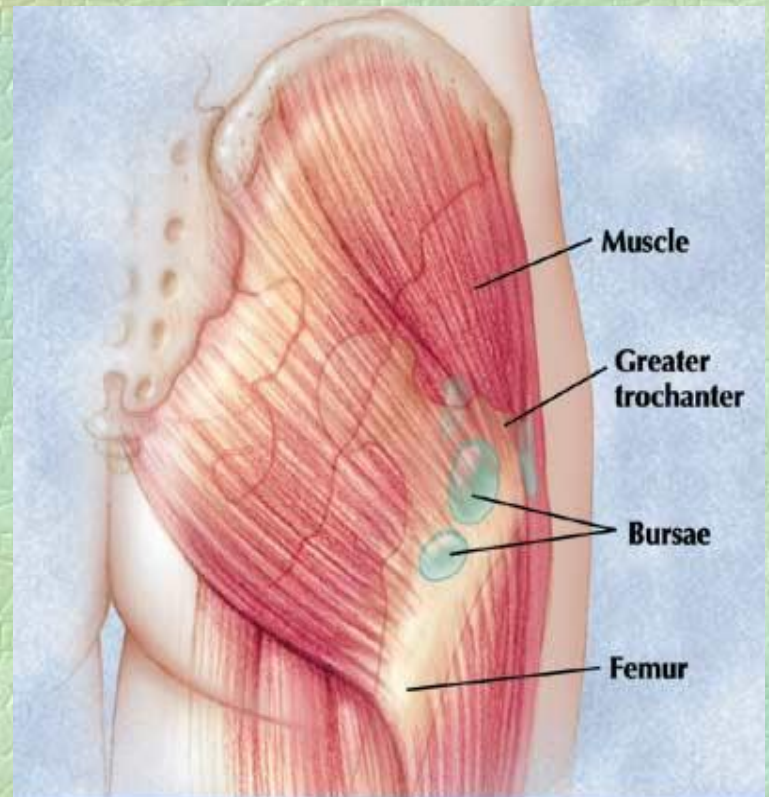
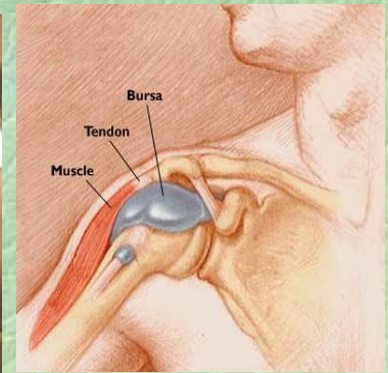
- unstable joint seals (cracking joints)
- swelling (morning & night: 'tired')
- pain
- '-itis': inflammation, arthritis, gout (e.g. elbow, heel, big toe)
- ischemia implicated

tendon sheaths

(dry sinew, stiff tendons)

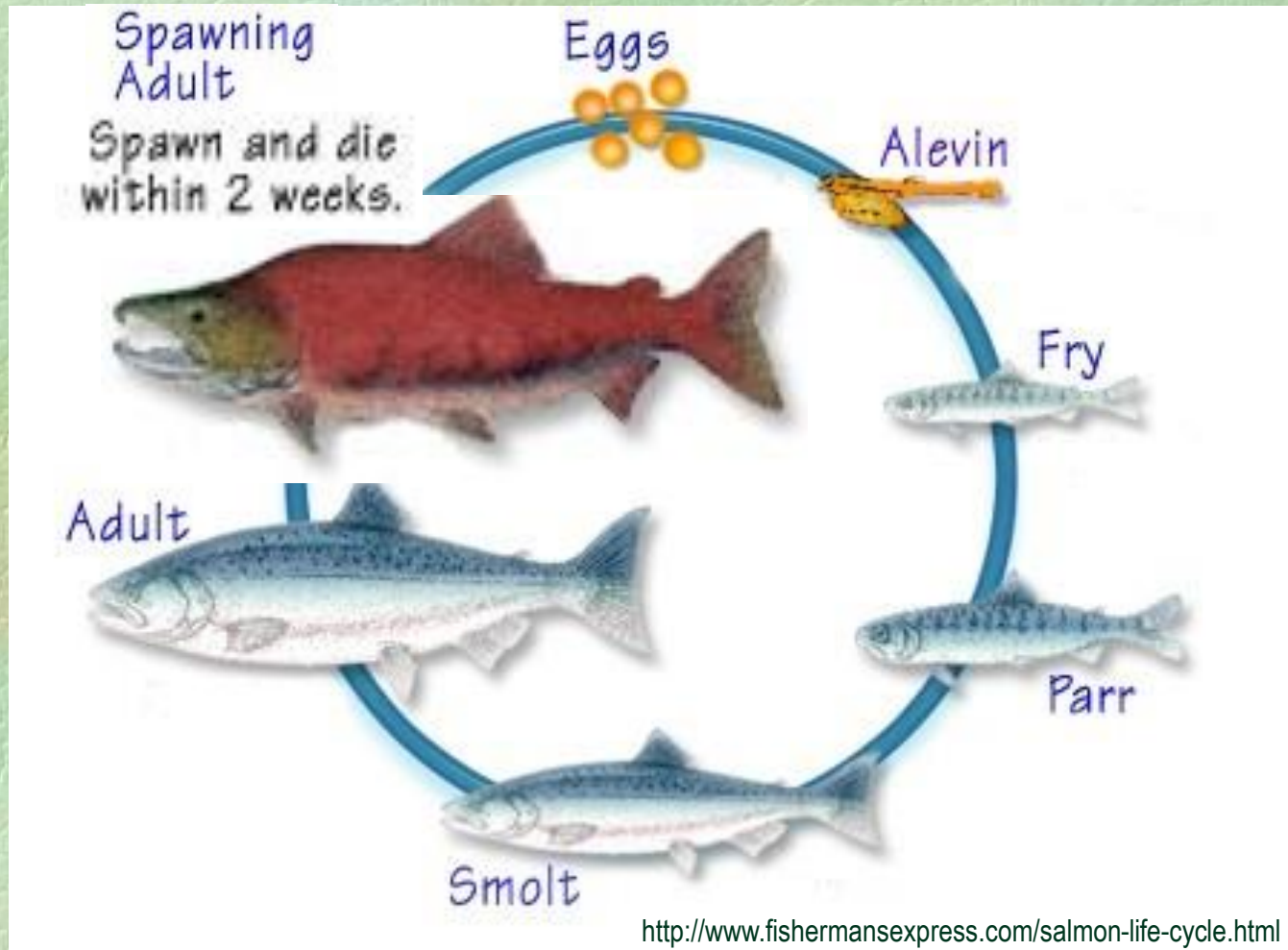
serous membranes

(stiff, sore muscles & spine)



Feeling like the
not 'Human'

Salmon life cycle: cortisol-driven dying



‘Human’ adapted/-tive living: just slower ‘in-dying’ damage

Mesoglea in jelly fish & hydrozoa:

- 95% water
- firm & gelatinous, substance between two cell layers : gel deemed 'amorphous'.
- dead and sealed from oxygen, it turns to dirty Yellow water.



‘Ground substance’ in humans: a similarity?
Hard work or thinking is often anaerobic.

Heat damage to ground substance: lost tissue integrity, dropping peripherals



Heat shock from my car exhaust: plant dropping leaves within a day.

Over-heated: displayed the same damage, although only after 1-3 weeks.

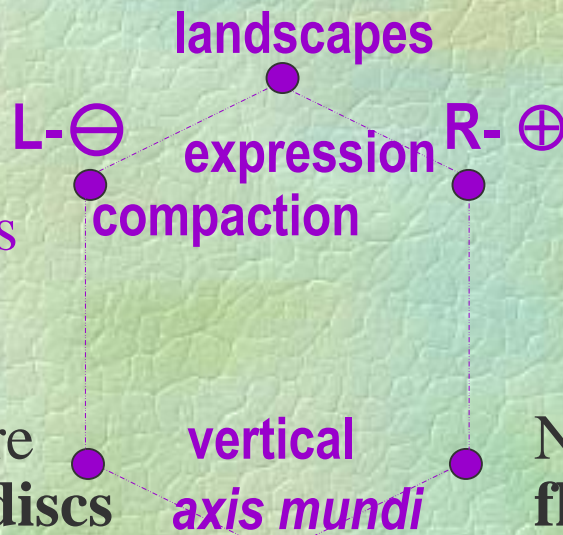
Loss of pigmentation and integrity: the damaged parts (translucid) tear upon touch.

Histidine's molecular structure is damaged by heat. The 'surViving' body 'Above' is $\sim 1^{\circ}\text{C}$ hotter (core & head) than 'Below'. Diabetics may loose eyes and feet. The aged loose eyes, ears, mind, walking ability...

Anatomy, physiology & the body as a topologic space 'like' water

lymphatic vessels (river flow), serous membranes (surfaces),
tendon sheaths (tubes), bursae (hidden small spheres)

defence:
lymphatic nodes
and other glands



serous & oily secretions:
cisterna chyli,
saliva, sweat,
semen, vaginal,
cerumen, parotid...

N2d-spine posture
inter-vertebral discs

N3p-cerebrospinal
fluid motions

nexus: achiral instability

integrity of lifeworld health-sanity

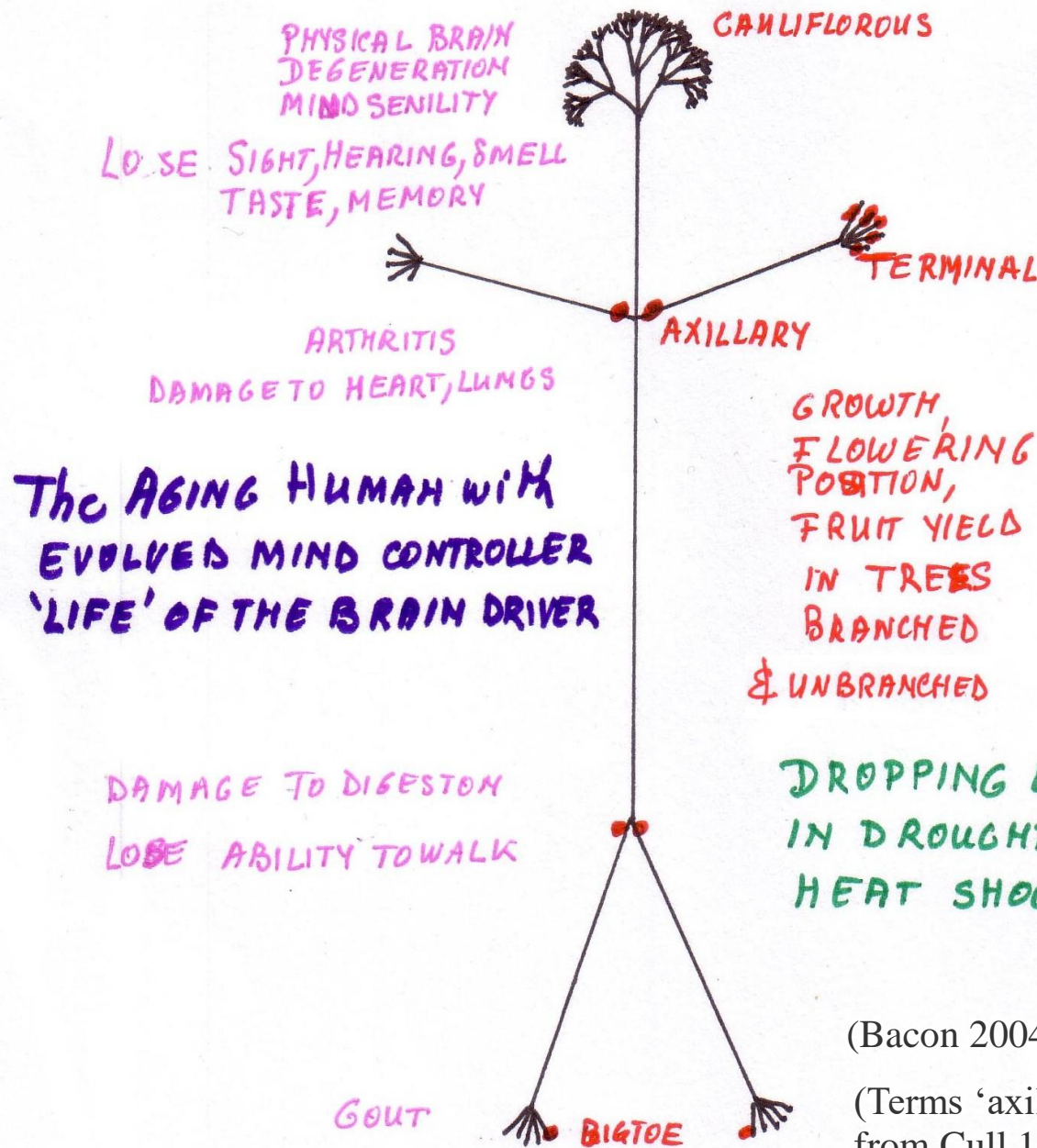
'ground substance'

(watery jelly in which other connective tissues of the body are embedded, usually presented as 'a substance soaking up water'.)

A 'well-watered' body is well-oxygenated and feels free of Sc-gravity and of H-graveness.

2 views

- Commanding Self-mind ‘above’ and Brain-central-controller of the physical system ‘below’ (‘body’).
- These are just refined distinctions about the head; the neocortex activity is a surface projection of compacted body-head bubble.



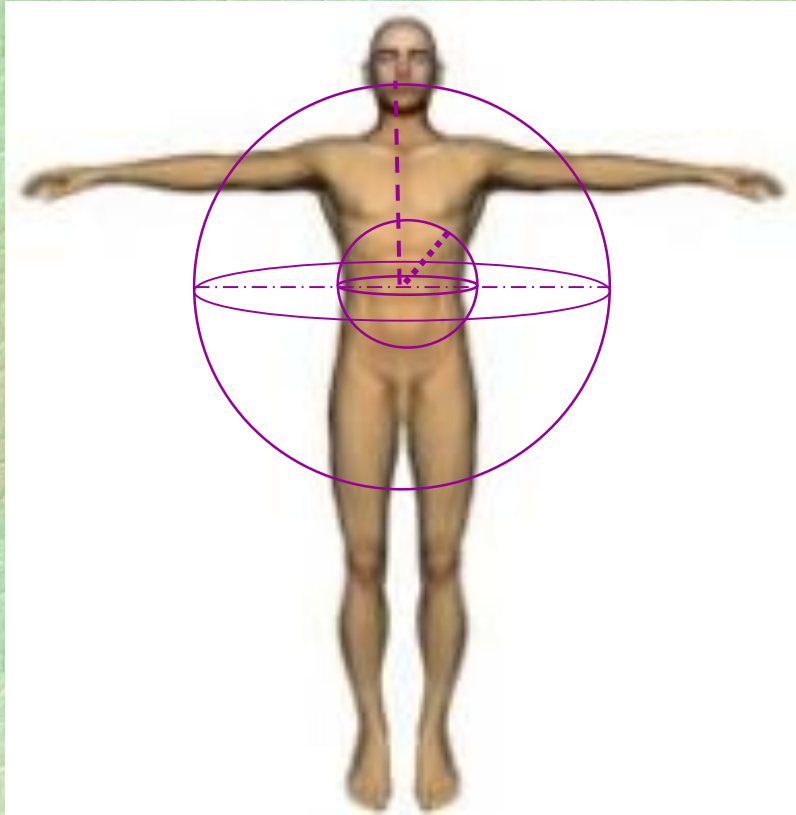
Ageing, disease:
Like dropping
peripheral leaves
in drought or cold
stress?

Do we take
advantage of
our 'hydraulic
architecture',
like plants?

(Bacon 2004, Water use efficiency in plant biology)

(Terms 'axillary', 'terminal' and cauliflorous' drawn
from Cull 1995: fruit growing in warm climates)

The brain as a peripheral, not centre, of the compacted body-head 'system'

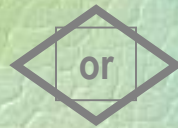


Head bones aching as a sensitive locale to detect signs & signals of 'passing' boundary ('swelling', 'red spot' & other projections such as ear wax release, acne) and its orienting (un-/enfolding tropism or refolding).

'Physical body-head': a 1st order topologic axis & compaction

One of the metabolic ‘choices’: fibroblasts

produce
scar tissue, fibrotic tissue

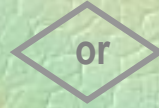


produce
ground substance

see also mast cells

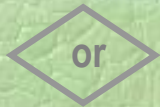
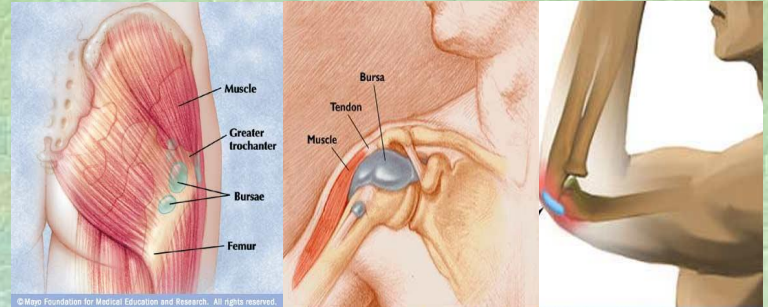
‘Choice’

[re]connective operations



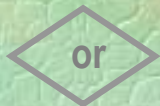
unbiased topology

unstable seals, swelling bursae, dry sinew, stiff tendons & spine, pain, inflammation, deposits ('turn to stone/wood' concretions in small balls: arthritis, gout, pain in tendons from proteinuria

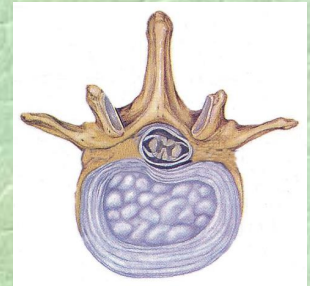


‘well-oiled’ body (oil locks moisture in)

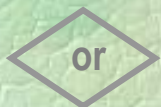
dry crushed discs cannot hold up the spine and become inflamed, fibrous (scared), degenerative



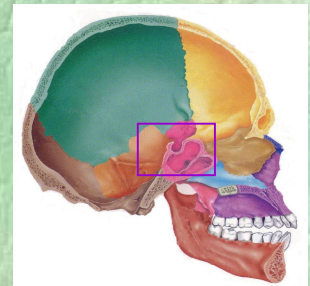
discs with high water pressure hold up easily, no heaviness, no compensation required or damage to repair chronically by immunity mechanisms



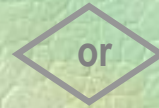
- dry nose in children ('nose picking'), stuffy nose in older men
- dry, swollen, sore sphenoid, up to sinusitis common in women
 - mouth breathing



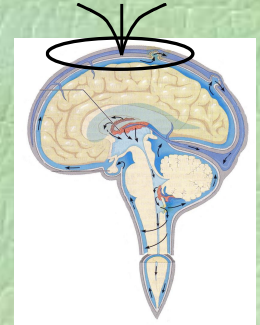
easy, even, nose breathing and no pain / tension



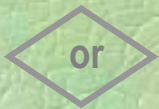
dry headache with R-brain storm
or swollen head ache



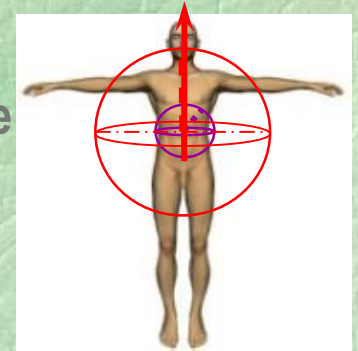
feeling the fluid move



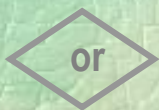
'Above': brain as central controller | the Self & social selves
'Below': brain as provider of urgent detail-integrative knowledge
spinal trigger of urgent corrective behaviour



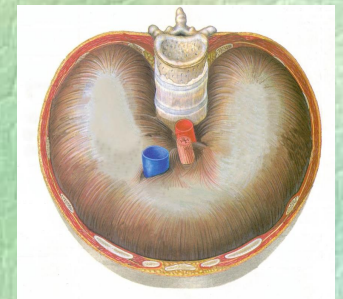
head, spine & body: just aspects of local apparatus
for acting & orienting, for observing global properties



Inflammation spreading in both *'Above'* & *'Below'* frames to
surfaces, tubes, spheres — *'Below'*: smoking to trigger breath



a nexus of local projection activity in the body,
sensing global 'orienting-at-boundary'



Topologic 'deployment' of a female archaic R-framework: 3 Tan Tiens

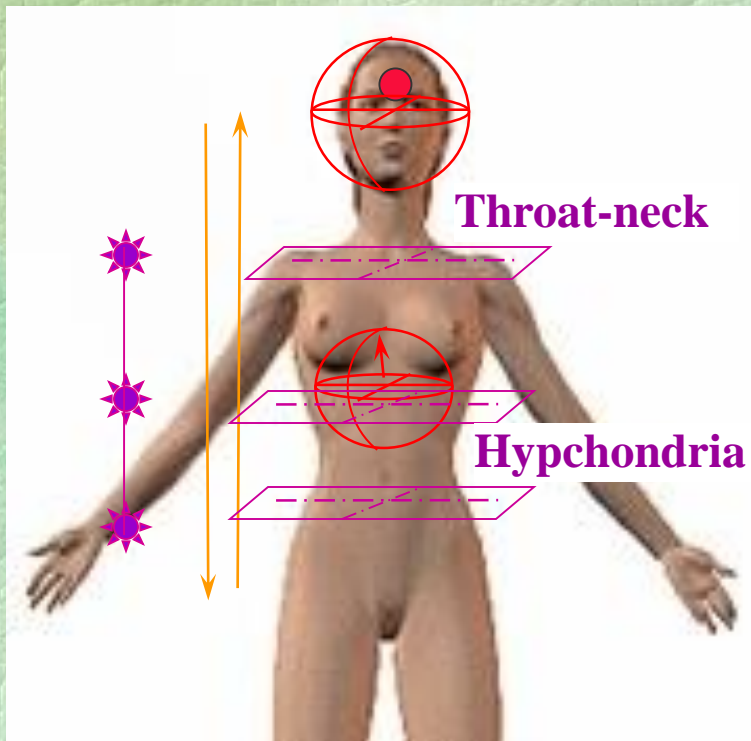
(chakras)

Up: immune activation & projection to head

- projection of heat to head, reducing digestive temperature, 'defense': swelling
- activation of spontaneous yoga & of mind (nexial & topographic imaging, alliteration [N2d-topographic 'Naming'], N3p-nexial number-models [skies & degrees], N2-N3 flat geometry)

Down: immune 'defense' & compensation

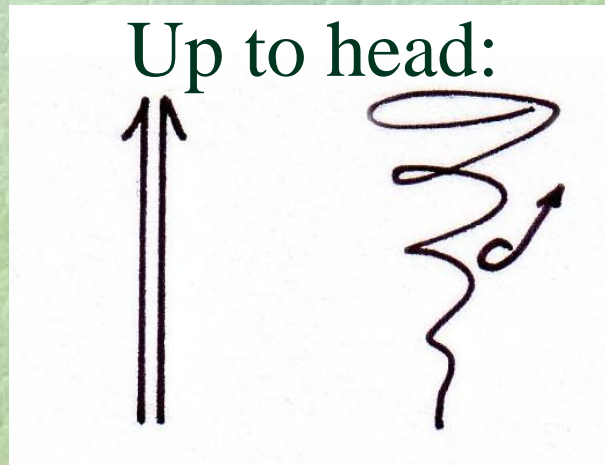
- **inflammation radiating from core at 2 levels:** increased core temperature, [spinal pain (cytokines) & inflammation spreading to core: heart]
- **sphenoid bone in head** to face pain, 'Red Spot' on forehead between eyebrows, and parotid gland, throat, thyroid, parathyroid
- **diaphragm** and its tendons, affecting breathing, and (on the right) to ribs, heart, sternum
→ **resulting in compensatory trigger:** neuro-endocrine carried at 3 levels ('tan tiens', chakras): **C6-C8** (scapular, shoulders, throat, but also 'cuts off' head from body (bent neck, impeding cerebro-spinal flow), **T5-12** (diaphragm, lungs, 'hypochondria', vital organs, solar plexus), **L2-L4** (sacro-illiac, pelvis, hips, legs)



Topologic 1-sided 'deployment' of an universal framework: 'Rise' to 'The Earth'

Intelligent-conscious & strong 'Human'... after puberty
Master of the Land & body... victim to 'Growth'

Hidden drift:
blemished babies
sick child
disease, ageing
'wasting' body & land



Vertical increase:
nerves
hormones
'immune' defence

General-relative or
covariant directing
of body-&-world system

Induced
generation
of body-&-world system

What the mind-brain-self cannot undo by choice or optimisation:

(as far as my observations showed)

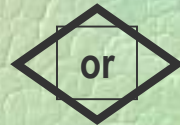
Activation of 'immune defense' does not appear to be undone by relaxing voluntarily or fitness reconditioning.

Is the spleen innervated by parasympathetic central nervous system and irrigated with anti-stress hormones?

Brain-mind, once a complete boundary of 'self' or 'We' or 'Human', cannot undo itself by choice, by activating its own will, or projecting its own attention.

3 Topologic deployments of health:

- Normal health... and killing disease ('Above')
boundary-contained (self/body), uni-directed: brain central control/balance ,
consciously chosen optimising practice & fine tuning (*'most' people, 'mostly'
healthy approximate standards, probabilistic disease risk,
loss of internal sensation*)
- Super-health... 'Life' of brain-mind ('advanced' Above)
miracle healing, the lucky 'unusually healthy' young... for a time
(*a 'spirited potential' of man and of post-menopausal woman*)
- Sub-health... 'Below': 'badly behaved', chiral
(*childhood illness until puberty, some women, and the sensitive-brained*)



Without 'deployment': 'Proto-health':

(*chronic/acute/puncturated growth-degeneration only as critical*)

Mostly: no 'induced', no conretions and projections, no periodically reexpressing 'grav-wave', vertical axis only for problem solving & recovery,

Non-physical topology models ‘Proto-health’

The innate animated *geometria situs* gauges the approach of local-global critical conditions, without drifting away from a ‘natural’ body-container of ‘Human’ \Leftrightarrow ‘Life’

Thank you

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