The Future of ACOI: Principle-centered Medicine

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October 2019

Disclosures

- I have no financial conflicts to disclose.
- Materials reflect the work of the ACOI Board.

Agenda

- Background
- The Evolving Osteopathic Ecosystem
- Recognizing Opportunity
- The Osteopathic Internist as a ‘Complexivist’
- The Foundation—Revisiting OPP
- The Framework for the ACOI of the Future
- Questions

Background

“We’re Listening.”

Your ACOI Member Survey

A Guide for Our Work

Your ACOI Member Survey Summary A Guide for Our Work

How medicine is practiced today

Burnout / “Losing heart”

Certification, recertification, and continuing medical education

How Medicine is Practiced Today

- The pressure
  - in a profit-driven healthcare industry, to handle high patient volumes with less time per patient
  - of consumer expectations
  - of an “expectation for care-on-demand”
  - arising from the “technological transformation of care” (Electronic Medical Records)
  - created by responding to a high volume of patient emails and messages, refills, etc., and
  - of dealing with health insurance companies

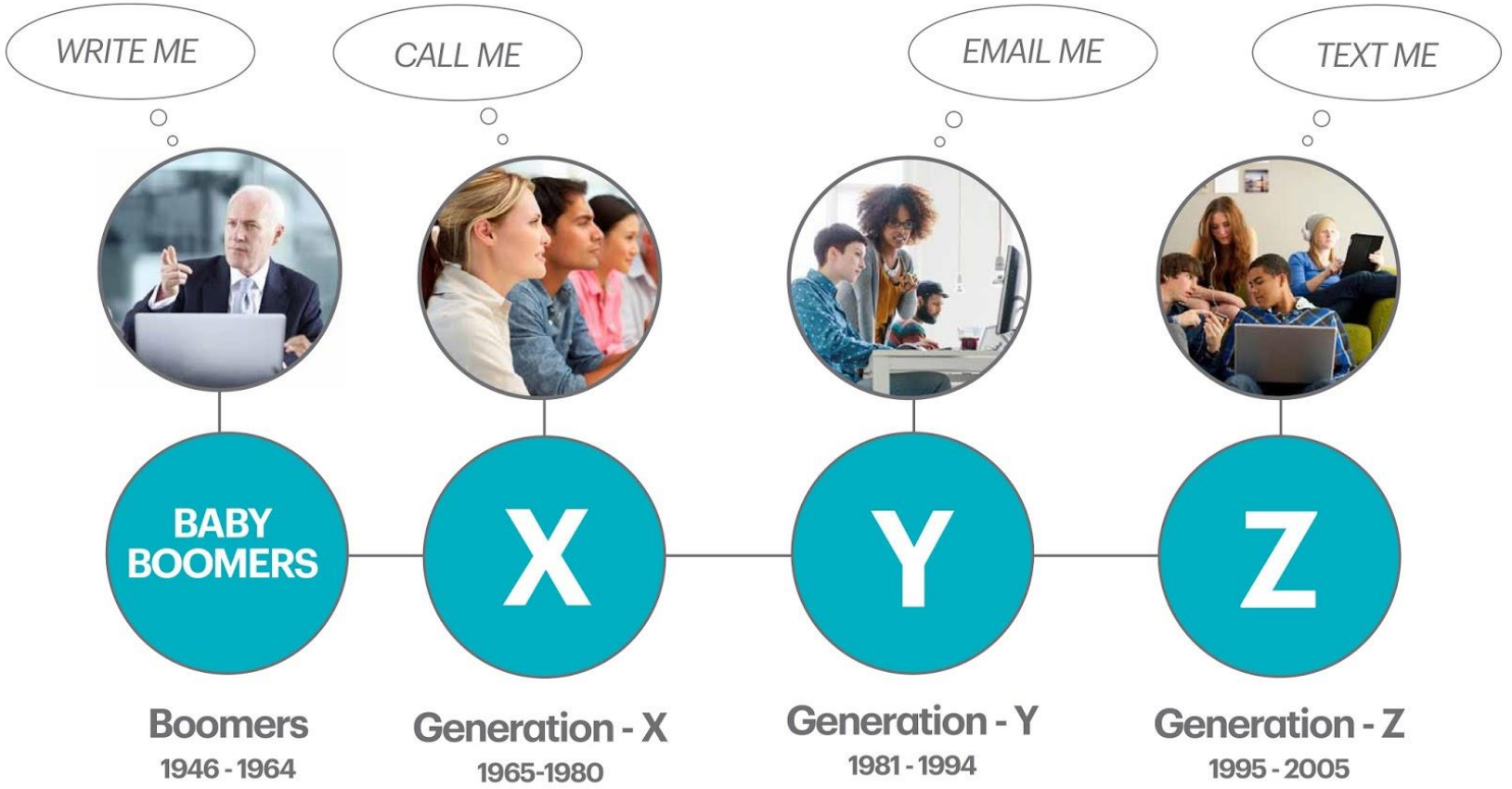
Burnout / “Losing Heart”

- Frustration, fatigue, a sense of disenchantment or demoralization, and pessimism
- Struggles to maintain “work/life balance” and personal physical and mental health

Certification, recertification, and continuing medical education

- Time and stress involved
- Confusion and uncertainty
- Relevancy and usefulness

FIVE GENERATIONS WORKING SIDE BY SIDE IN 2020



ACOI membership by the numbers:

Active,
Emeritus, and
Military

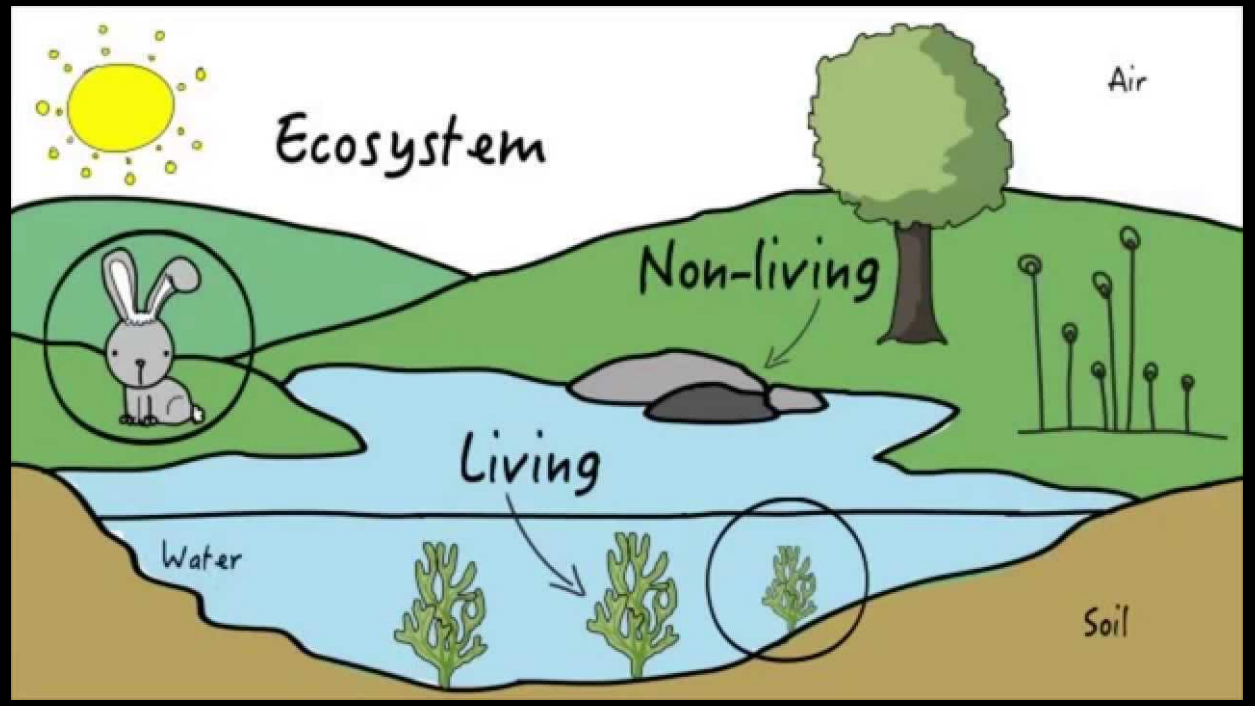
Silent 1928-1945		Baby Boomer 1946- 1964		Generation X 1965 - 1980		Millennials 1981 - 1996	
Year	Number	Year	Number	Year	Number	Year	Number
1928	2	1946	39	1965	65	1981	159
1929	2	1947	41	1966	74	1982	174
1930	2	1948	42	1967	74	1983	164
1931	5	1949	51	1968	84	1984	184
1932	4	1950	58	1969	100	1985	161
1933	3	1951	54	1970	107	1986	88
1934	12	1952	72	1971	104	1987	62
1935	7	1953	65	1972	96	1988	20
1936	4	1954	82	1973	108	1989	2
1937	13	1955	66	1974	91		
1938	17	1956	79	1975	108		
1939	6	1957	74	1976	110		
1940	6	1958	81	1977	118		
1941	21	1959	68	1978	118		
1942	20	1960	90	1979	130		
1943	24	1961	67	1980	161		
1944	23	1962	87				
1945	27	1963	73				
		1964	70				
Total	198		1,259		1,648		1,014

ACOI membership by the numbers:

Residents and Fellows

Baby Boomer 1946- 1964		Generation X 1965 - 1980		Millennials 1981 - 1996	
Year	Number	Year	Number	Year	Number
1958	1	1966	1	1981	47
1960	1	1967	3	1982	55
1961	2	1968	5	1983	78
1963	1	1969	3	1984	108
		1970	3	1985	196
		1971	3	1986	254
		1972	9	1987	300
		1973	9	1988	405
		1974	8	1989	396
		1975	7	1990	321
		1977	17	1991	201
		1978	24	1992	74
		1979	23	1993	10
		1980	32	1994	1
Total	**5**		**147**		**2,446**

The Evolving Osteopathic Ecosystem



An ECOSYSTEM is a community that functions as a single unit with self-sustaining structural and functional interaction between living and non-living components

The Osteopathic Ecosystem

Macro

- AACOM
- AOA / GME
- AOHA
- NBOME
- Specialty Colleges

Meso

- Osteopathic Hospitals
- State Societies
- COMs

Micro

- Osteopathic Physicians
- District Academies

Circa-1989

The Osteopathic Ecosystem

Today

Macro

- AACOM
- AOA / ~~GME~~
- ~~AOHA~~
- NBOME
- Specialty Colleges
- Other

Meso

- ~~Osteopathic Hospitals~~
- Teaching Institutions / Osteopathic Recognition
- State Societies
- OPTI
- COMs

Micro

- Osteopathic Physicians
- Allopathic Physicians
- District Academies

Convergence

Recognizing Opportunity

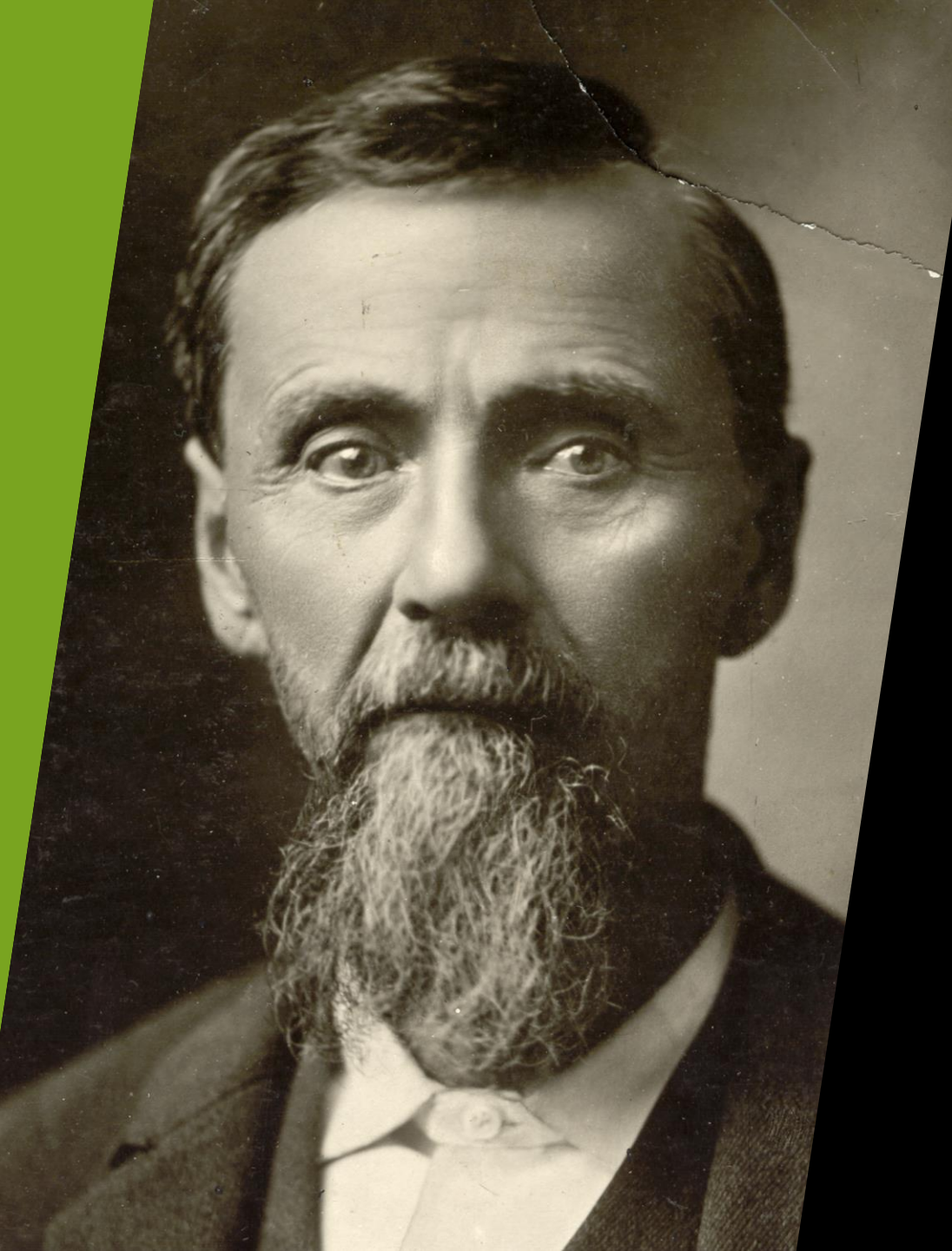
"I believe your organization has the potential to be a change agent in healthcare. You are not large enough to be the leaders of healthcare, but you have the critical mass and the right message to effect change through those who are."

Charles Scriven, PhD

President, Kettering College (retired)

Dayton, Ohio

Why?



"The object of this corporation is to establish a College of Osteopathy, the design of which is *to improve our present system of surgery, obstetrics, and treatment of diseases generally,* and place the same on a more rational and scientific basis."

From the legal charter issued by the State of Missouri to the American School of Osteopathy, 1892

The Complexivist

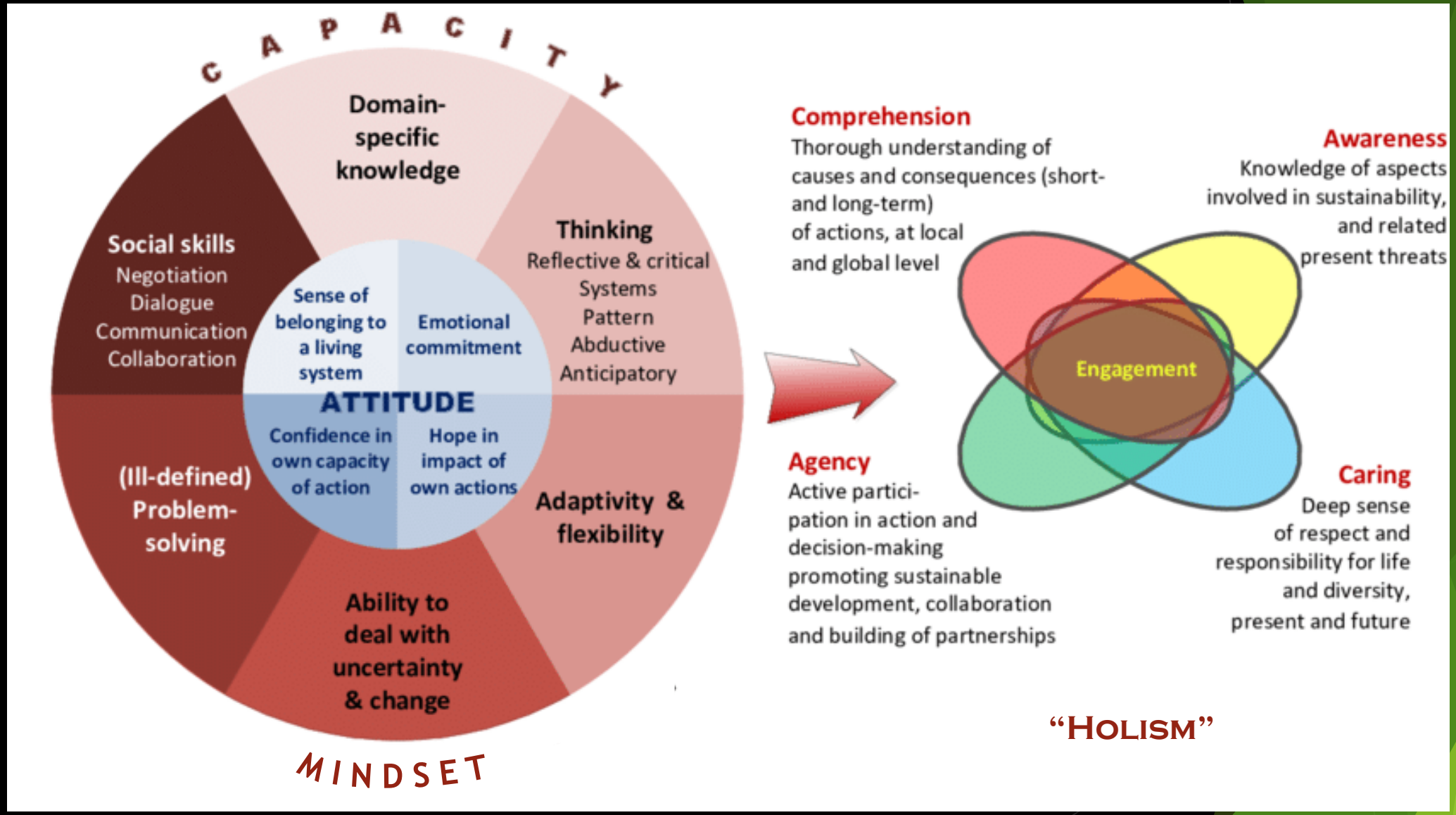
Today’s catchphrase is actually part of osteopathic medicine’s legacy

“We think differently.”

“We’re more holistic.”

What Helps to Describe Holistic Thinking?

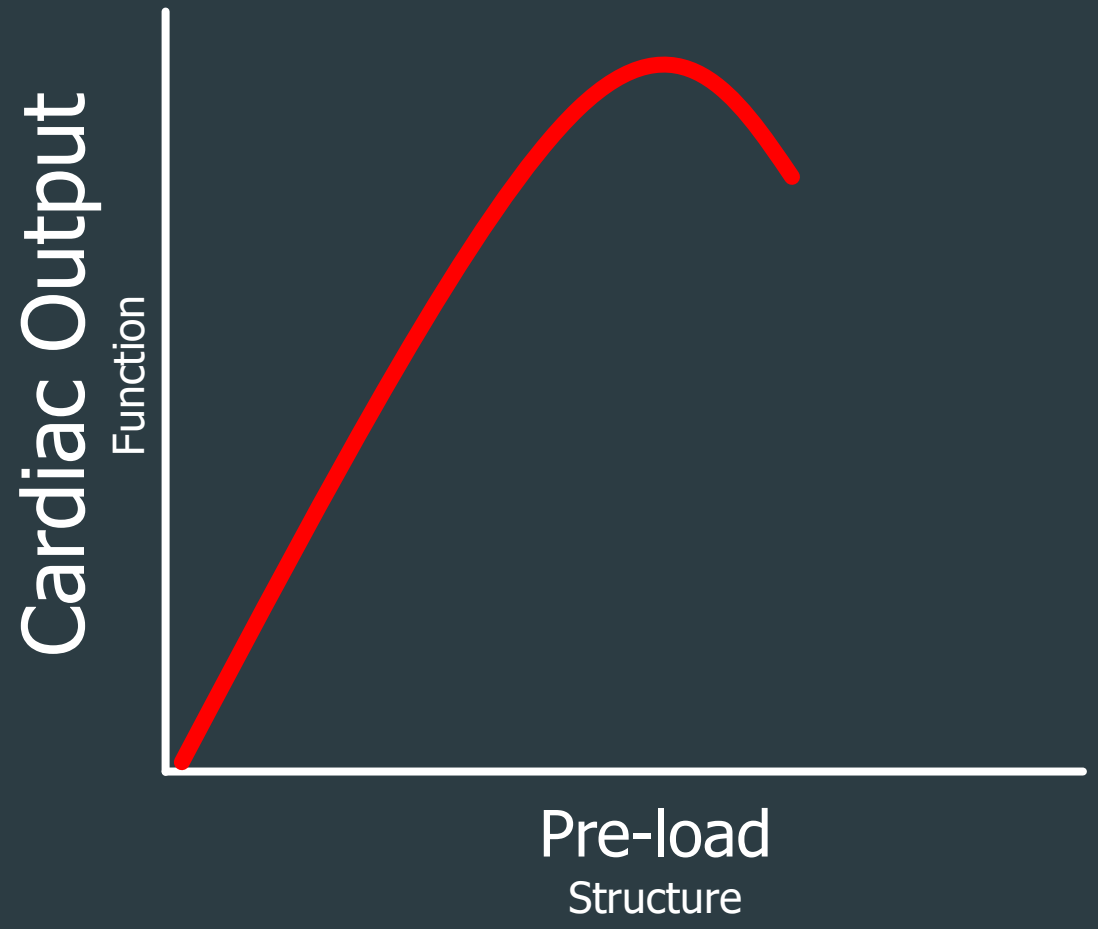
- Attitude
  - a settled way of thinking or feeling about someone or something, typically one that is reflected in a person's behavior
- Capacity
  - an individual's mental or physical ability or their potential for treating, experiencing, or appreciating
- Mindset
  - a set of assumptions, methods, or notions held by one or more people or groups of people



Adapted from Fabricatore, Carlo & Lopez, Ximena. (2015). Higher education in a complex world: nurturing "chaordic" influencers. 10.13140/RG.2.1.3943.4644/1.

Structure and Function are Interrelated

Frank-Starling Curve



Structure and Function are Interrelated

Adapted from *David and Goliath, Malcolm Gladwell*

The Foundation

Revisiting Osteopathic Principles and Practice

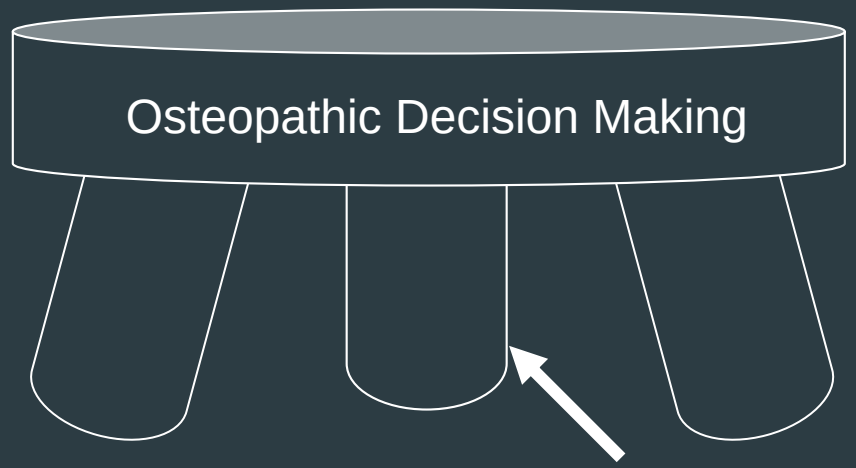
“A people without the knowledge of their past history, origin and culture is like a tree without roots.”

- Marcus Garvey

Optimizing Patient Care Through the Lens of Osteopathic Medicine

Osteopathic Medicine for the 21st Century

Revisiting our Tenets

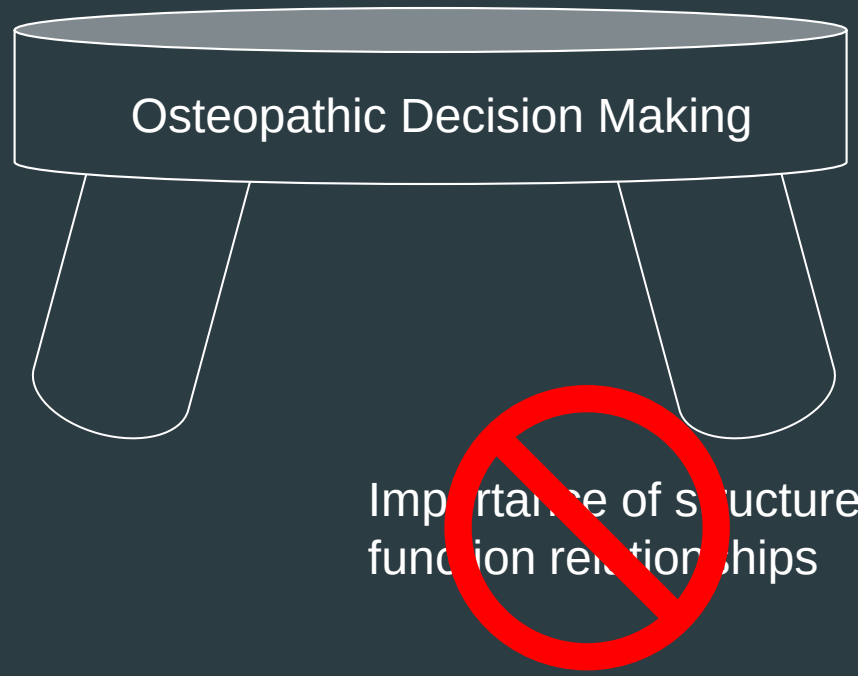


Unity of mind, body and spirit

Recognition of our inherent capacities[2]

Importance of structure-function relationships[1]

[1] At all levels of the human form; a healthy musculoskeletal system free of dysfunction supports overall health
[2] For self-healing, self-maintenance, and self-regulation



Unity of mind, body and spirit

Recognition of our inherent capacities

Importance of structure-function relationships

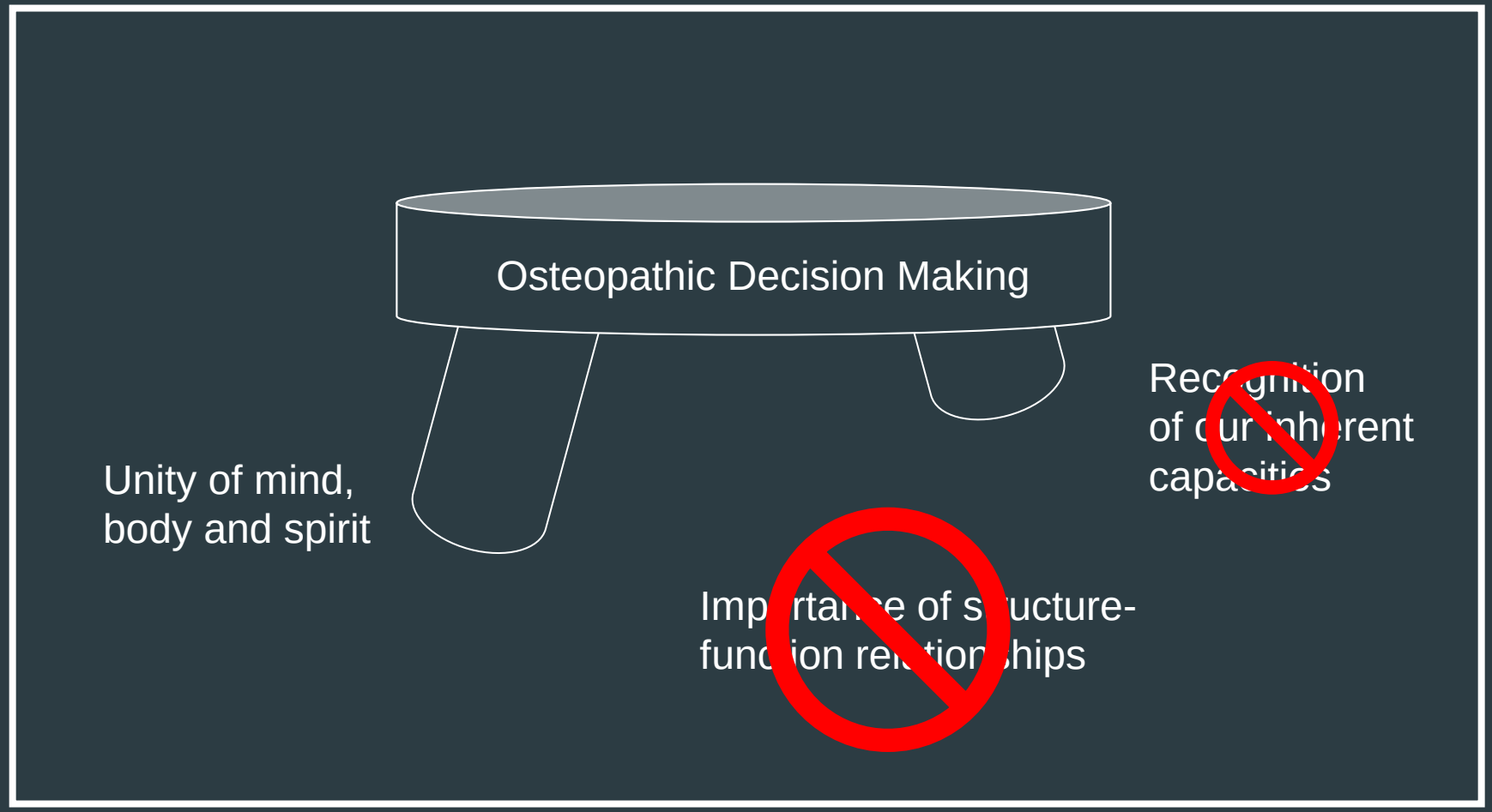
OMT/OMM

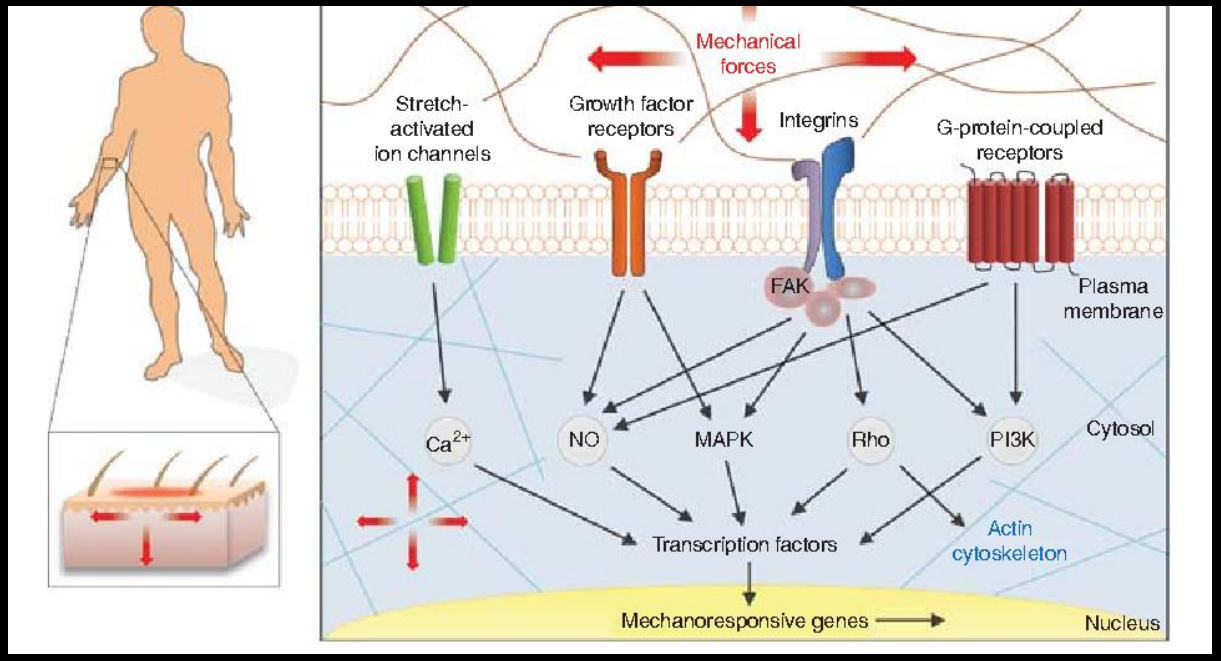
1890

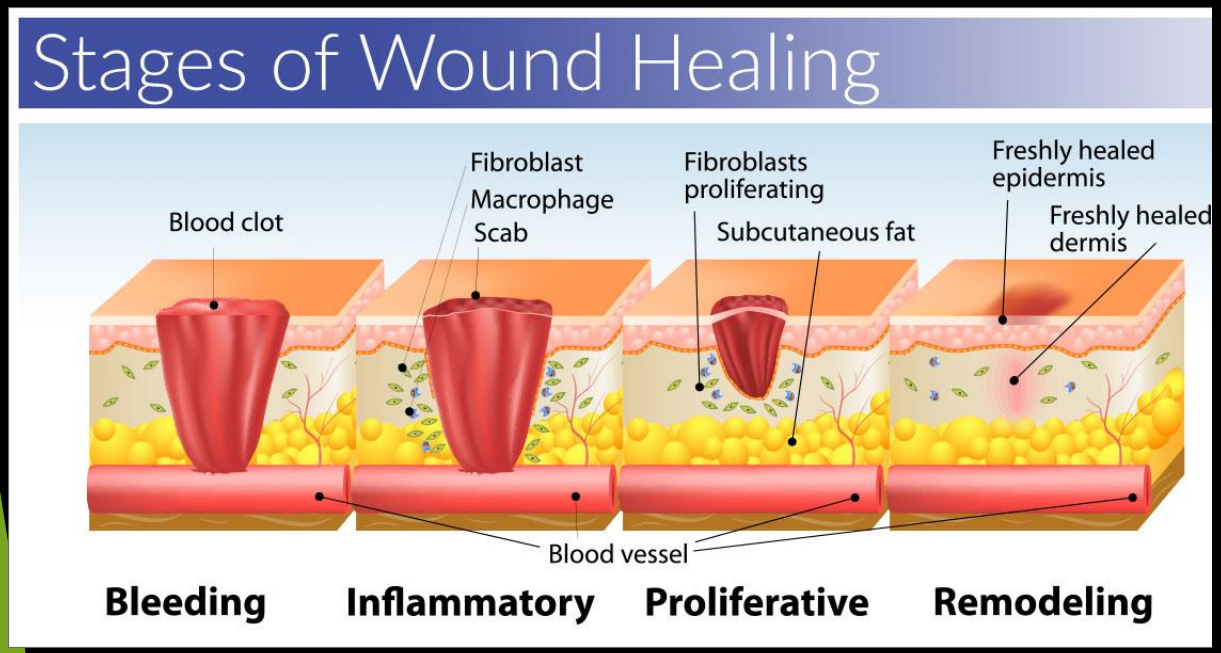
2019

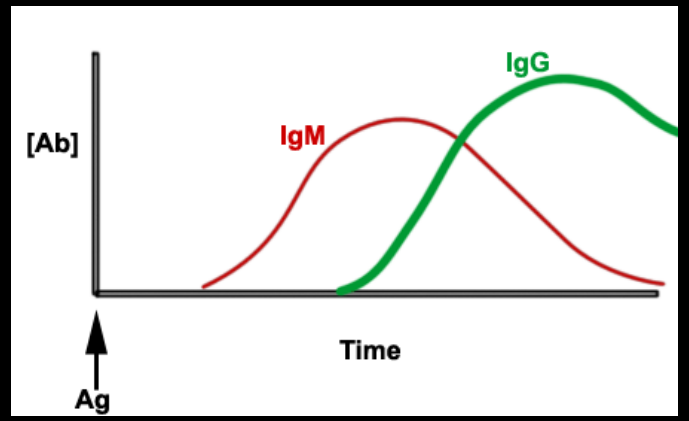
“Our conversation cannot only be about OMT/OMM,
but OMT/OMM cannot be absent from the conversation.”

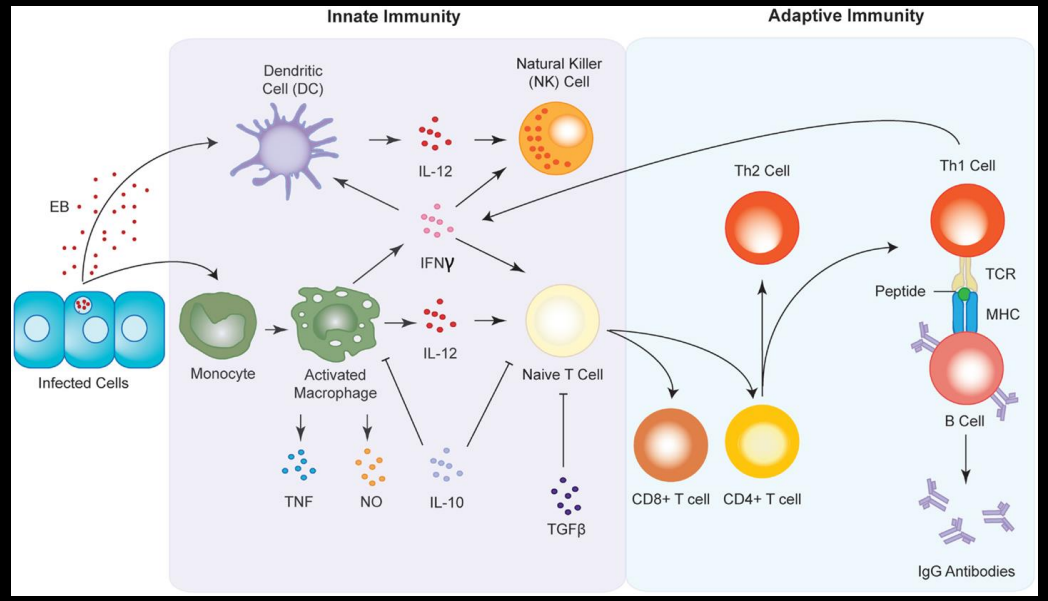
Precision Medicine

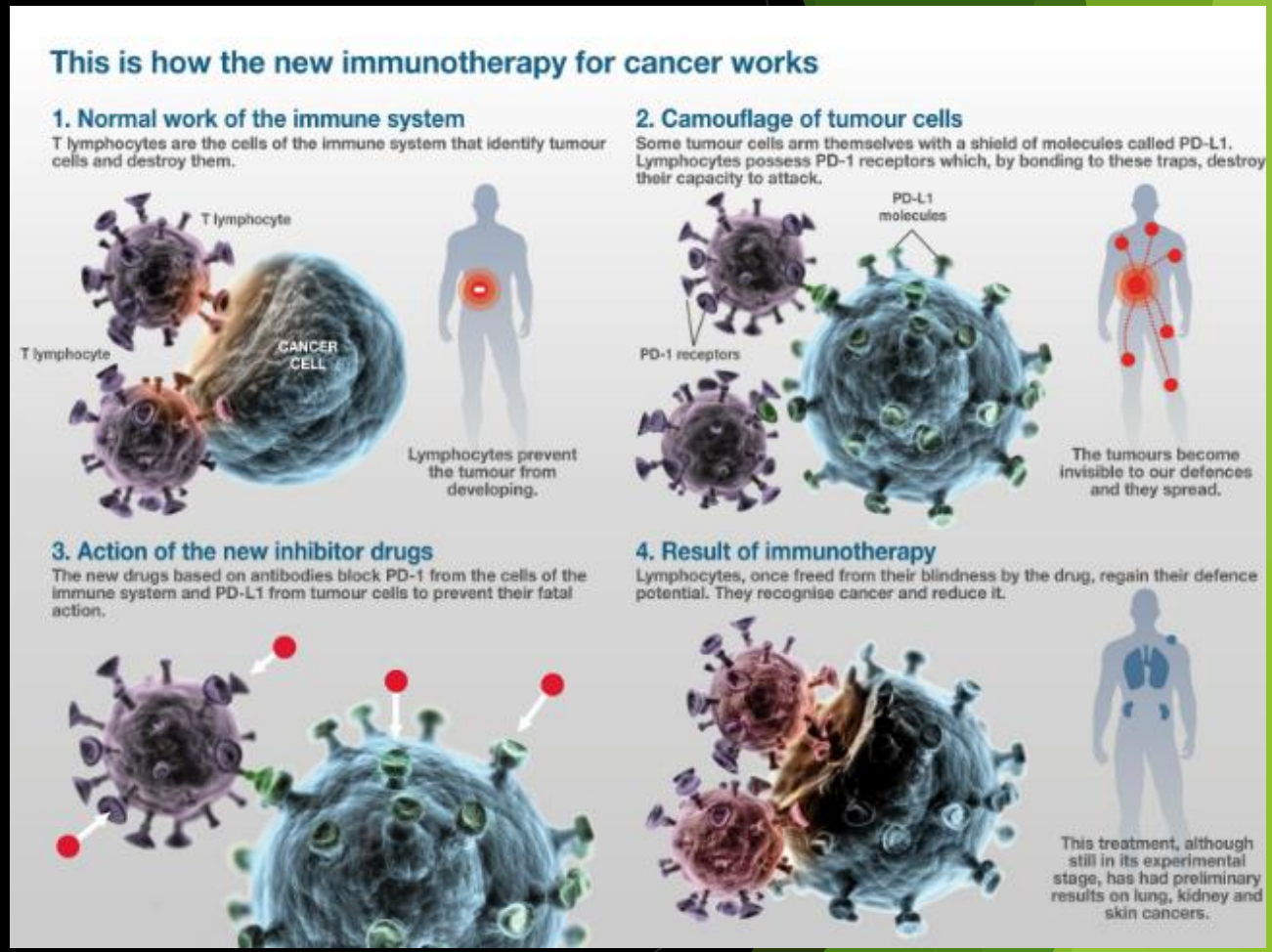

Osteopathic Decision Making
Unity of mind, body and spirit
Recognition of our inherent capacities
Importance of structure-function relationships


Mechanical forces
Stretch-activated ion channels
Growth factor receptors
Integrins
G-protein-coupled receptors
FAK
Plasma membrane
Ca2+
NO
MAPK
Rho
PI3K
Cytosol
Transcription factors
Actin cytoskeleton
Mechanoresponsive genes
Nucleus


Stages of Wound Healing
Blood clot
Fibroblast
Macrophage
Scab
Fibroblasts proliferating
Subcutaneous fat
Freshly healed epidermis
Freshly healed dermis
Blood vessel
Bleeding
Inflammatory
Proliferative
Remodeling


IgG
IgM
[Ab]
Time
Ag


Innate Immunity
Adaptive Immunity
Dendritic Cell (DC)
Natural Killer (NK) Cell
IL-12
EB
IFNγ
Th2 Cell
Th1 Cell
TCR
Peptide
MHC
Infected Cells
Monocyte
Activated Macrophage
IL-12
Naive T Cell
B Cell
TNF
NO
IL-10
TGFβ
CD8+ T cell
CD4+ T cell
IgG Antibodies


This is how the new immunotherapy for cancer works
1. Normal work of the immune system
T lymphocytes are the cells of the immune system that identify tumour cells and destroy them.
T lymphocyte
T lymphocyte
CANCER CELL
Lymphocytes prevent the tumour from developing.
2. Camouflage of tumour cells
Some tumour cells arm themselves with a shield of molecules called PD-L1. Lymphocytes possess PD-1 receptors which, by bonding to these traps, destroy their capacity to attack.
PD-L1 molecules
PD-1 receptors
The tumours become invisible to our defences and they spread.
3. Action of the new inhibitor drugs
The new drugs based on antibodies block PD-1 from the cells of the immune system and PD-L1 from tumour cells to prevent their fatal action.
4. Result of immunotherapy
Lymphocytes, once freed from their blindness by the drug, regain their defence potential. They recognise cancer and reduce it.
This treatment, although still in its experimental stage, has had preliminary results on lung, kidney and skin cancers.

Hamer J, Warner E. Lifestyle modifications for patients with breast cancer to improve prognosis and optimize overall health. CMAJ 2017; Feb 21; 189(7): E268–E274.

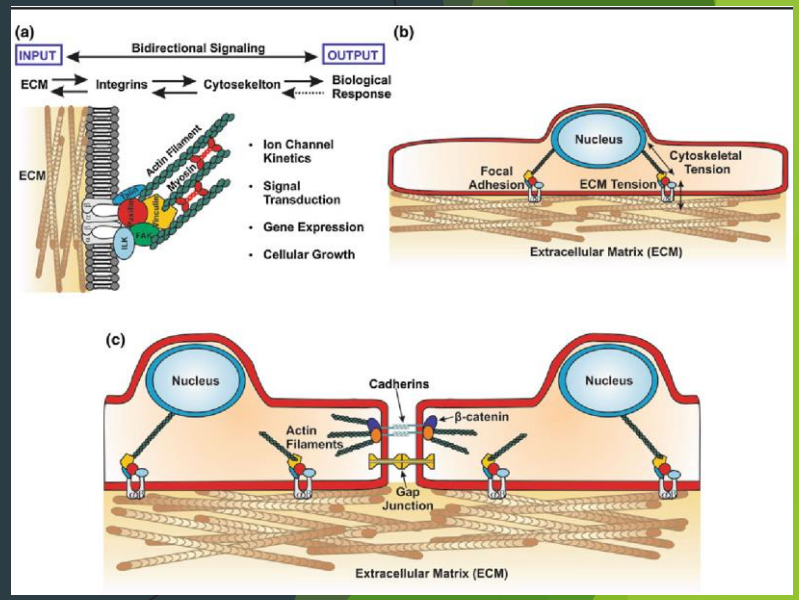
Rigby J, Morris J, Lavelle J, Stewart M, Gatrell A. Can physical trauma cause breast cancer? Eur J Cancer Prev. 2002 Jun;11(3):307-11.

Mechanotransduction Across the Cell Surface and Through the Cytoskeleton

Ning Wang, James P. Butler, Donald E. Ingber*

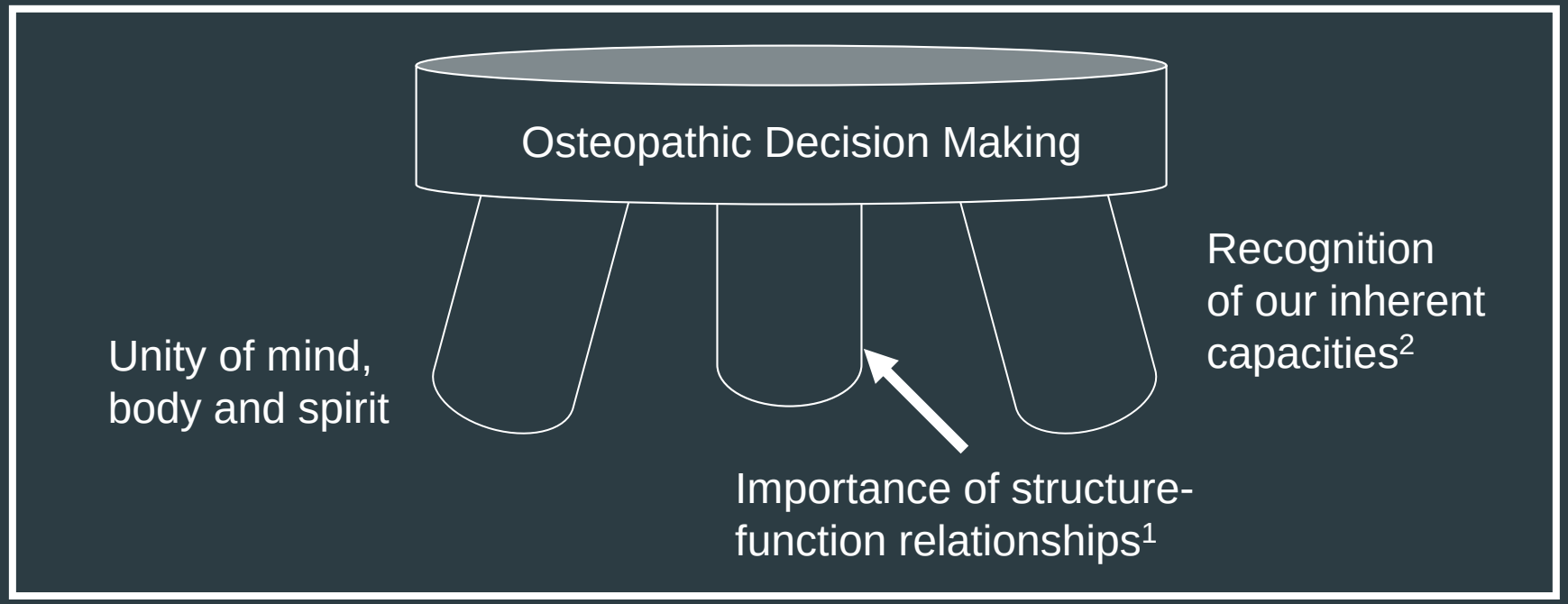
Mechanical stresses were applied directly to cell surface receptors with a magnetic twisting device. The extracellular matrix receptor, integrin β_1, induced focal adhesion formation and supported a force-dependent stiffening response, whereas nonadhesion receptors did not. The cytoskeletal stiffness (ratio of stress to strain) increased in direct proportion to the applied stress and required intact microtubules and intermediate filaments as well as microfilaments. Tensegrity models that incorporate mechanically interdependent struts and strings that reorient globally in response to a localized stress mimicked this response. These results suggest that integrins act as mechanoreceptors and transmit mechanical signals to the cytoskeleton. Mechanotransduction, in turn, may be mediated simultaneously at multiple locations inside the cell through force-induced rearrangements within a tensionally integrated cytoskeleton.

SCIENCE * VOL. 260 * 21 MAY 1993



Newton R, Galvão D. Accumulating evidence for physical activity and prostate cancer survival: time for a definitive trial of exercise medicine? Eur Urol 2016;70:586–7.

Together these describe a complexivist approach to decision making that is unique among physicians…



[1] At all levels of the human form; a healthy musculoskeletal system free of dysfunction supports overall health
[2] For self-healing, self-maintenance, and self-regulation

Honoring our past and Creating our future

The Framework for the ACOI of the Future

ACOI's Self-reflection

- **We must demonstrate courage**
- **We must tell our story and remember our roots**
- **The delivery of patient care should be guided by principles**
- The principles should place the patient at the center of the healthcare care system
- The practice of medicine should balance humanism and science
- The care experience should be meaningful to patient and provider
- The patient's narrative is the key to gaining true insight into the creation of a meaningful care experience
- Emotional intelligence and creative problem solving are important to leading change in healthcare
- We should demonstrate an obsession for new medical knowledge

W
N
S
E

"What difference would a clear vision of my principles, values, and ultimate objectives make in the way I spend my time?"

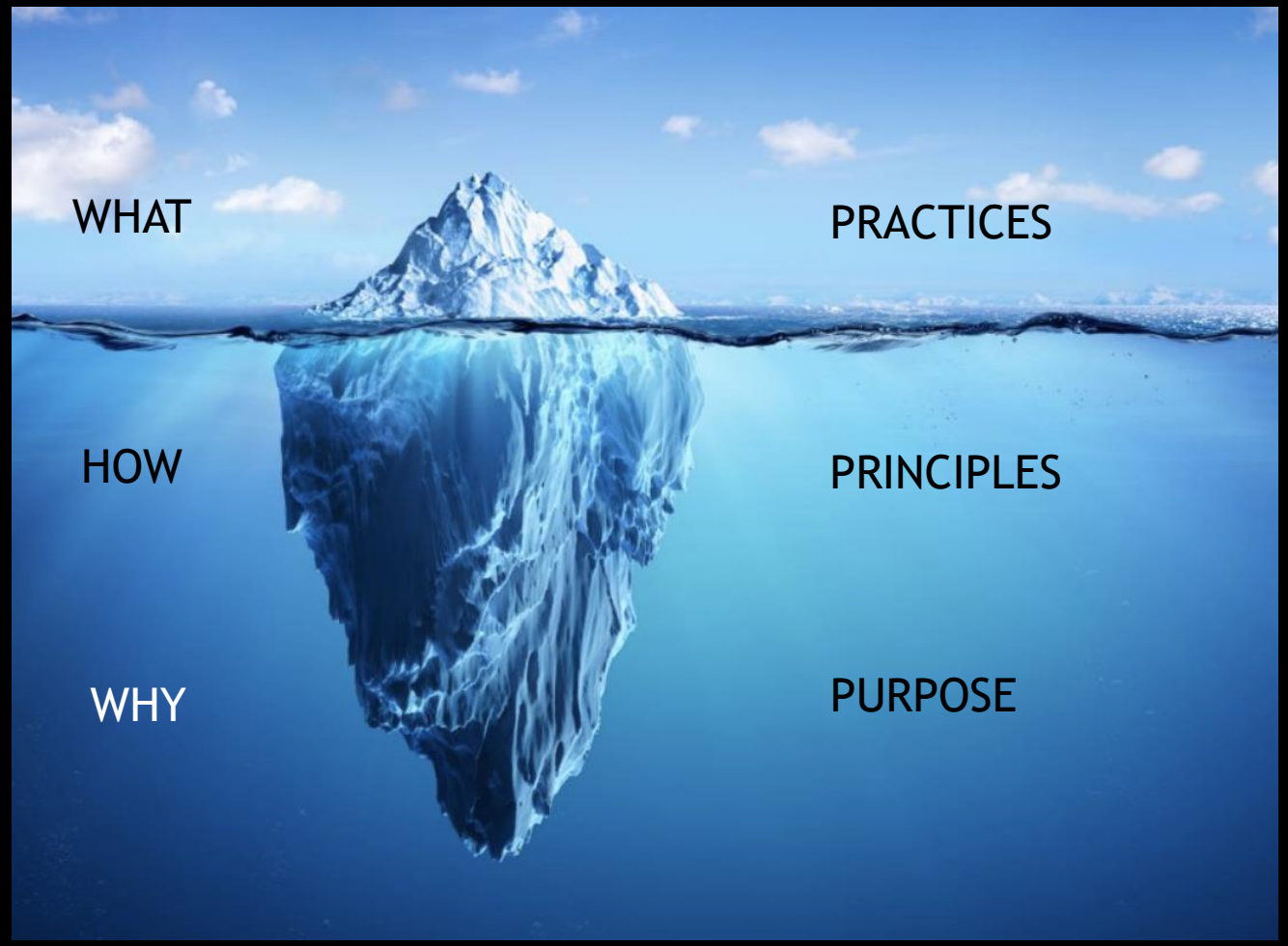
Stephen Covey

"The meaning to be found in life [one's profession] is not "out there" in life or in the world; it is inside each person."

Cassell *Nature of Suffering*

Meaning is driven by certain needs: the need for purpose, the need for values, the need to believe that one can make a difference, and the need to believe that one has self-worth

Baumeister RF and Vohs KD. 2002, *Handbook of Positive Psychology*


WHAT
PRACTICES
HOW
PRINCIPLES
WHY
PURPOSE

The Principles

FOCUS ON HEALTH AND WELLBEING

CREATE MEANINGFUL AND PERVASIVE RELATIONSHIPS

PRACTICE DEEP LISTENING

EMBRACE WHOLENESS

RECOGNIZE THE HEALTH POTENTIAL WITHIN US

ADDRESS COMPLEXITY

FIND AND MAINTAIN BALANCE

The Pillars

Health and Wellness	Discover the spirit of wellness
Education	Learn exactly what you need to know
Leadership	Realize your full potential
Community	Welcome home to where you belong

The Promise

We will strive to create a professional home for you where the science of care and the spirit of caring reside in harmony, providing a supportive community, influencing policy, and advocating for your interests and those of your patients.

We want to help you stay true to why you pursued medicine, so you can help them live well

John P. Kotter
Author of Leading Change

CREATE A SENSE OF URGENCY

SPEAK TO THE HEART

MOBILIZE A SMALL ARMY

Thank you!