APPENDIX F--- FLEMING UNIFIED THEORY OF VASCULAR DISEASE (THE INFLAMMATION AND HEART DISEASE THEORY) EXPLAINS CRS & INCREASED BLOOD CLOTTING

EXPLAINING WHY COVID-19 IS ASSOCIATED WITH INCREASED INFLAMMATORY DAMAGE AND THROMBOSIS.

https://rmfmd71.wixsite.com/fhhi-omnific/cytokine-release-sydrome-crs

The human body is designed to protect people from damage caused by something entering and harming the body. Three relatively common examples include:

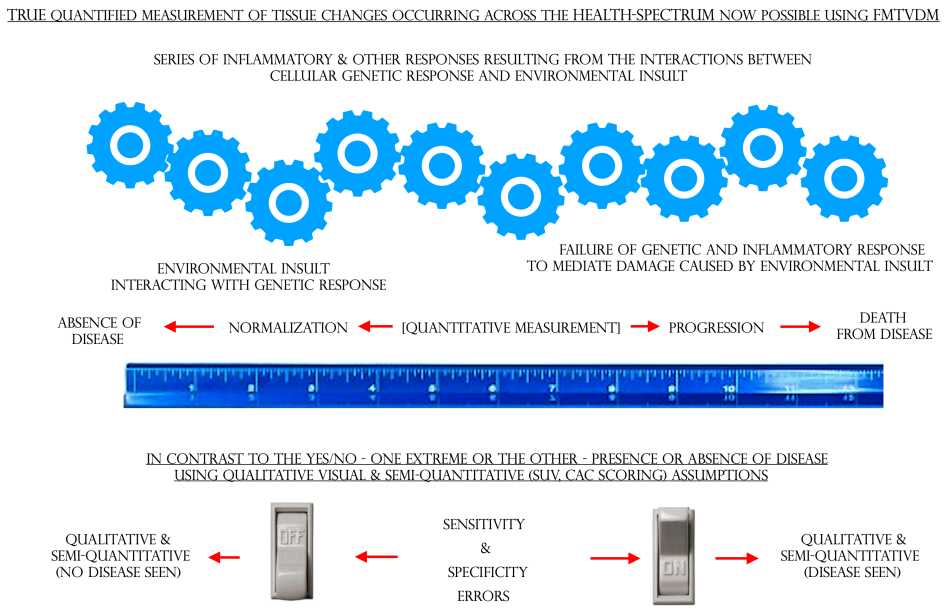
1) The introduction or ingestion of something into the body, which harms the body.

Damage occurring within your body caused by poor diets (too much saturated fat and too many calories - producing heart disease, and disease in other blood vessels causing strokes, claudication, impotence, etc.), chemicals (carcinogens - substances that cause cancer), pollution (air, water, land - e.g. fertilizers), smoking (chemicals you voluntarily put into your body), et cetera.

2) Cancer.

Changes occurring within your body, causing your cells to become abnormal and no longer function properly. These cells then threaten to take over the body.

It is the ability to measure changes in tissue metabolism and regional blood flow, using FMTVDM that allows us to measure both the extent and severity of Wuhan CoVid-19 infections before and after treatment to determine if a treatment is working or needs to be changed.

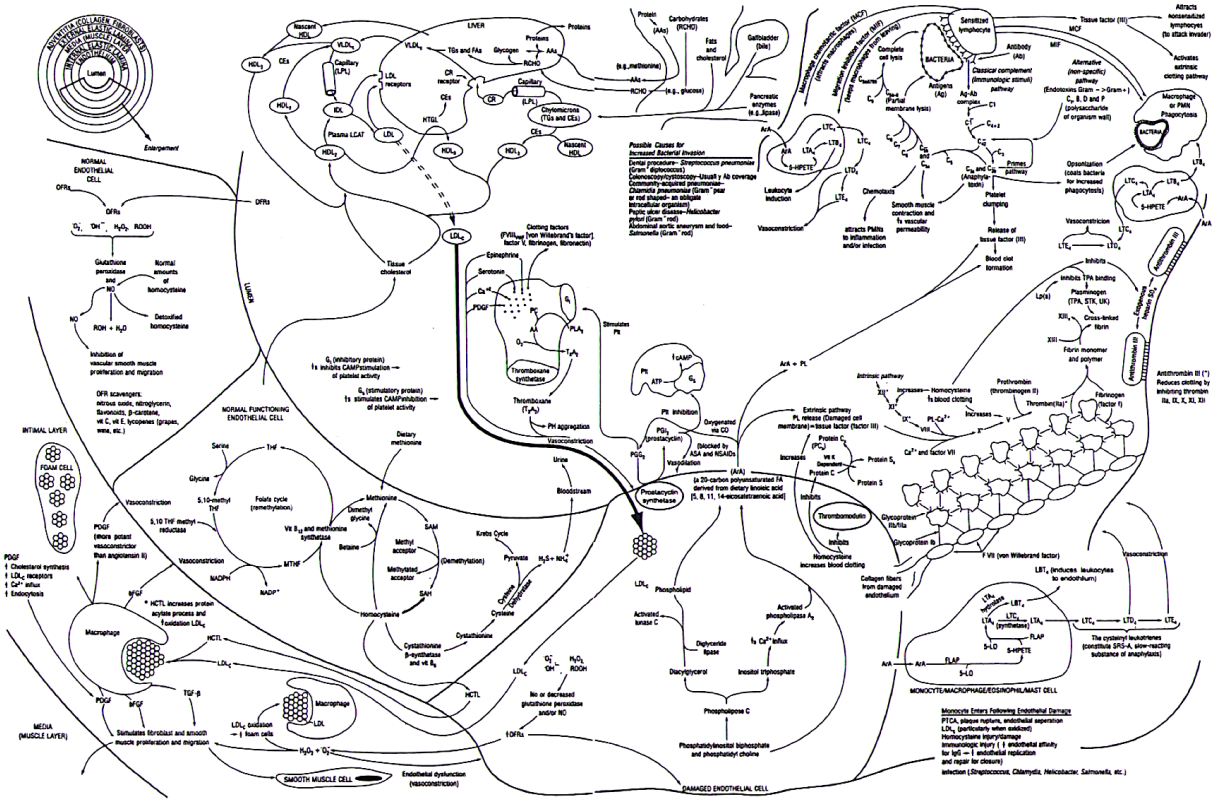


3) Infection.

This includes, among other things, fungal, protozoan, sexually transmitted diseases, bacteria, and viruses, like **CoVid-19**. These infectious organisms then try to live off your body so they can thrive and reproduce themselves at your expense.

To protect you, your body has the ability to fight against this damage using your immune system. These special cells talk to each other using chemical messengers called interleukins (e.g. IL-6) or cytokines.

The "Inflammation and Heart Disease[24]" Theory first discussed in 1995,then later published in the Cardiology Textbook [reference #3 on page 13] in 1999, was briefly discussed during a 20/20[25] segment in 2004, shows how the immune system is involved in this.



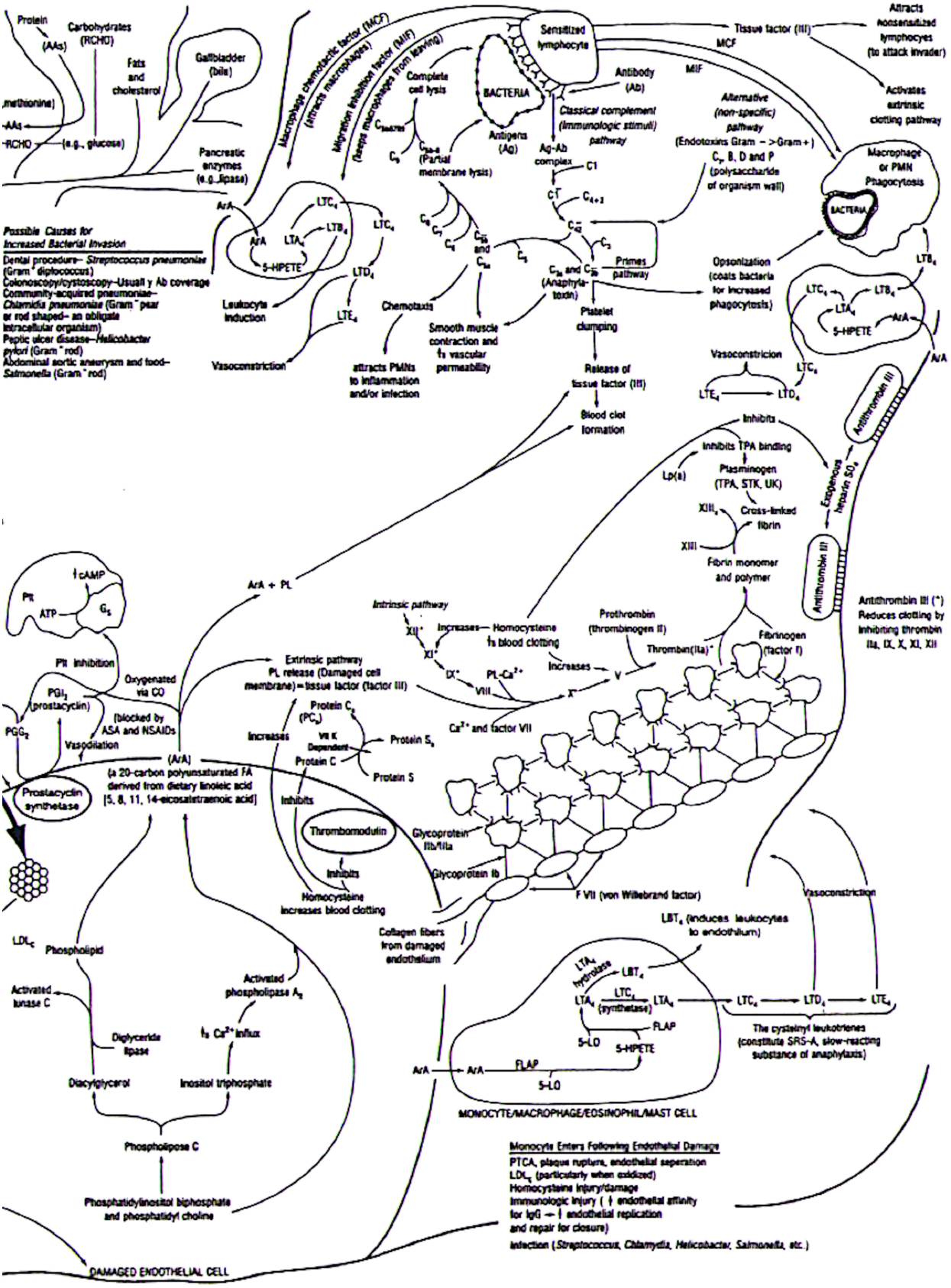
[24] Fleming-Harrington Redistribution Wash-in Washout (FHRWW) including stress-stress detection of inflammatory coronary artery disease. 1-655815511. Started 9-1-2011. Effective 9-16-2011, #TX 7-446-683.

[25] https://www.youtube.com/watch?v=Hvb_Ced7KyA&t=22s

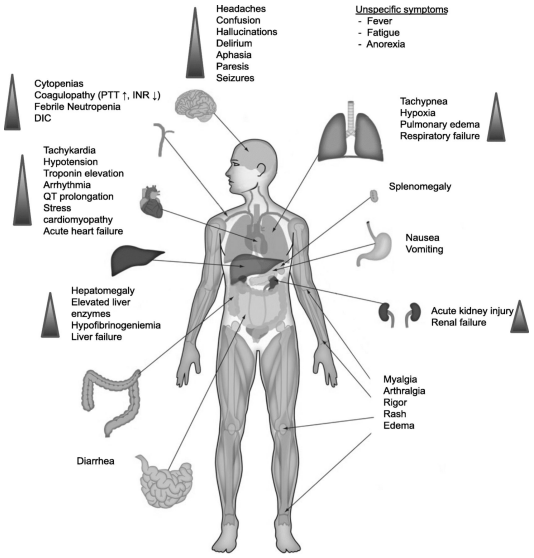
While there is a lot of information present in this one figure, if we look only at the right half of the figure (on the next page – p. 63) you can see how these infections, the chemical messengers used by your immune system and the compliment clotting cascade (chemicals in your body designed to recognize a problem and form blood clots), all work together to try to remove this harm and restore your body.

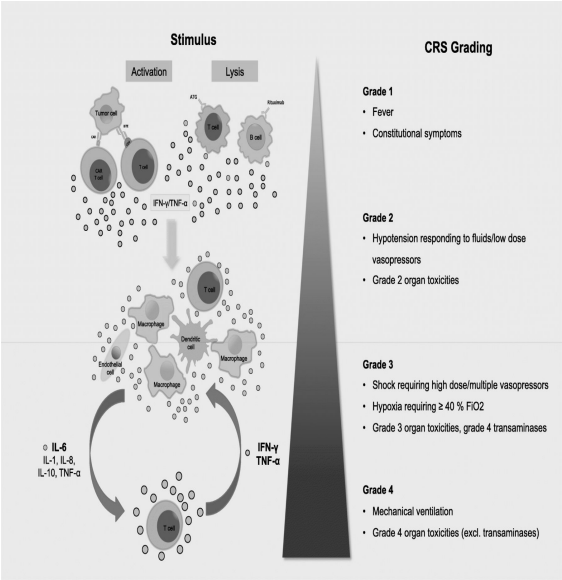
If the reaction to the damage - including that caused by the Wuhan CoVid-19 Virus - is too little, the body cannot heal itself. If however, the reaction is too much (for a variety of reasons including the presentation of a virus which your body has never seen before), then the very process designed to protect the body can actually cause harm to the body.

Much like dropping a nuclear weapon on a city. It will wipe out the enemy, but there will be nothing left in its wake and you won't be able to send troops in because the area is toxic and will only harm your troops.


Protein
(AAs)
Carbohydrates
(RCHO)
Fats
and
cholesterol
Gallbladder
(bile)
Pancreatic
enzymes
(e.g., lipase)
(e.g., glucose)
Possible Causes for
Increased Bacterial Invasion
Dental procedure– Streptococcus pneumoniae
(Gram + diplococcus)
Colonoscopy/cystoscopy–Usually Ab coverage
Community-acquired pneumoniae–
Chlamidia pneumoniae (Gram – pear
or rod shaped– an obligate
intracellular organism)
Peptic ulcer disease–Helicobacter
pylori (Gram – rod)
Abdominal aortic aneurysm and food–
Salmonella (Gram – rod)
Macrophage chemotactic factor (MCF)
(attracts macrophages)
Migration inhibition factor (MIF)
(keeps macrophages from leaving)
Sensitized
lymphocyte
Tissue factor (III)
MCF
MIF
Attracts
nonsensitized
lymphocytes
(to attack invader)
Activates
extrinsic
clotting pathway
Complete
cell lysis
BACTERIA
Antibody
(Ab)
Classical complement
(immunologic stimuli)
pathway
Antigens
(Ag)
Ag-Ab
complex
C1
Alternative
(non-specific)
pathway
(Endotoxins Gram – >Gram +)
(polysaccharide
of organism wall)
(Partial
membrane lysis)
Macrophage
or PMN
Phagocytosis
BACTERIA
AA
5-HPETE
Leukocyte
induction
Chemotaxis
Vasoconstriction
attracts PMNs
to inflammation
and/or infection
Smooth muscle
contraction and
vascular
permeability
Platelet
clumping
Release of
tissue factor (III)
Blood clot
formation
Primes
pathway
(Anaphyla-
toxin)
Opsonization
(coats bacteria
for increased
phagocytosis)
Vasoconstricion
Inhibits
Inhibits TPA binding
Plasminogen
(TPA, STK, UK)
Lp(a)
Cross-linked
fibrin
Fibrin monomer
and polymer
Exogenous
heparin
Antithrombin III
Antithrombin III (*)
Reduces clotting by
inhibiting thrombin
IIa, IX, X, XI, XII
cAMP
PIt
ATP
PIt inhibition
Oxygenated
via CO
(blocked by
ASA and NSAIDs
Vasodilation
Prostacyclin
synthetase
(A/A)
(a 20-carbon polyunsaturated FA
derived from dietary linoleic acid
[5, 8, 11, 14-eicosatetraenoic acid])
A/A + PL
Intrinsic pathway
Increases
Homocysteine
blood clotting
Prothrombin
(thrombinogen II)
Thrombin(IIa)
Fibrinogen
(factor I)
Extrinsic pathway
PL release (Damaged cell
membrane) = tissue factor (factor III)
Increases
Protein C
(PC)
Protein S
Protein C
Inhibits
Thrombomodulin
Glycoprotein
IIb/IIIa
Glycoprotein Ib
F VII (von Willebrand factor)
Homocysteine
increases blood clotting
Collagen fibers
from damaged
endothelium
Vasoconstriction
LBT (induces leukocytes
to endothelium)
LDL
Phospholipid
Activated
lunase C
Activated
phospholipase A
Diglyceride
lipase
Ca influx
Diacylglycerol
Inositol triphosphate
Phospholipase C
Phosphatidylinositol biphosphate
and phosphatidyl choline
DAMAGED ENDOTHELIAL CELL
FLAP
5-LO
5-HPETE
The cysteinyl leukotrienes
(constitute SRS-A, slow-reacting
substance of anaphylaxis)
MONOCYTE/MACROPHAGE/EOSINOPHIL/MAST CELL
Monocyte Enters Following Endothelial Damage
PTCA, plaque rupture, endothelial seperation
LDL (particularly when oxidized)
Homocysteine injury/damage
Immunologic injury (endothelial affinity
for IgG — endothelial replication
and repair for closure)
Infection (Streptococcus, Chlamydia, Helicobacter, Salmonella, etc.)

This excess is exactly what is talked about in the "Inflammation and Heart Disease" Theory and what accounts for the CoVid-19 problems (ARDS, strokes, blood clots, skin lesions, etc.)





Blindly treating CoVid-19 without measuring what is happening at the tissue level, is asking for trouble. Not addressing Cytokine Release Syndrome (CRS) or clotting[26] problems (pulmonary emboli, deep venous thrombosis, etc.) is asking for problems. Not treating patients with Acute Respiratory Distress Syndrome (ARDS) accordingly, has arguably lead to many ventilator deaths.

That is why NCT04349410 not only includes a treatment arm to address CRS, but requires FMTVDM measurement of what the treatments are actually doing to the CoVid-19.

As detailed in the “Inflammation and Heart Disease” Theory, viruses and the immunologic response to viruses, result in an inflammatory reaction that causes the release of cytokines and clotting. This reaction has both a local and systemic effect, which must be addressed to successfully treat the patient. There is the expectation that the presentation of a virus like CoVid-19, which has not previously been seen by the patient, may result in an intensified reaction as the immune system attempts to address the infecting organism.

Without FMTVDM measurement to objectively show clinicians what the treatment is doing to the virus, we are only guessing.

[26] All patients without contraindications should be placed on Heparin 5,000 units SQ BID if they are immobilized or confined to bed. Further treatment should be provided as clinically indicated.

appendix G. Fleming FMTVDM Treatment Protocol effective 4 July 2020

FMTVDM Directed CoViD Proposed Treatment Guideline NCT04349410

Pre-hospitalization	Hospitalization and Evaluation of CoViD Severity on Day 1.	Acute Innate Cytoxic Immune Response Treatment on Day 1.	Oxygenation Begin on Day 1.	Evaluate Treatment Response FMTVDM Day 3.	Delayed Adaptive Humoral Immune Treatment. Day 3 immediately after FMTVDM.
Pre-hospitalization	FMTVDM measurement of CoViD.	Initiate Additional Treatment	Use incentive spirometry for Rx and measure of respiratory strength.	FMTVDM measurement to determine Rx effect.	Adjust Rx given FMTVDM results.
For symptomatic individuals begin HCQ, AZT and/ or alternative inhibitors of viral transcription or protein translation.	Begin pre-hospitalization Rx if not already started.	Bronchodilatory Beta-2 agonsit Rx.	With any compromise in ventilatory status begin PRONE positioning of patient.	(1) Improved. Cont Rx. (2) Stable. Add next level of Rx. (3) Deterioration. Change Rx.	Initiate Remdesivir if not already started.
	ECG and Rx any prolongation of QTc with Esmolol, K, Ca, & Mg.	Consider adding Primaquine 200 mg one dose.	Consider BiPAP		Initiate methylprednisolone.
Begin Immune supportive Rx including Zn.	Measure inflammatory & thrombotic markers and treat accordingly to address and prevent clotting and further uncontrolled inflammation.	Initiate Tocilizumab.	Prepare for VV or VA ECMO support.		Continue to aggressively address inflammatory and clotting disorders including efforts to get patient out of bed (chair, ambulate, etc.) to avoid further thromobotic episodes.
Consider combination administration of interferon alpha 2 beta treatment with other agents.	Do NOT merely leave patient in bed (chair, ambulate, etc.).	Initiate interferon alpha 2 beta. Consider Remdesivir.	If other measures fail consider ventilatory support with VT not to exceed 5 cc/kg IDBW.		Consider passive immunity with plasma with attention directed to potential associated clotting potential.