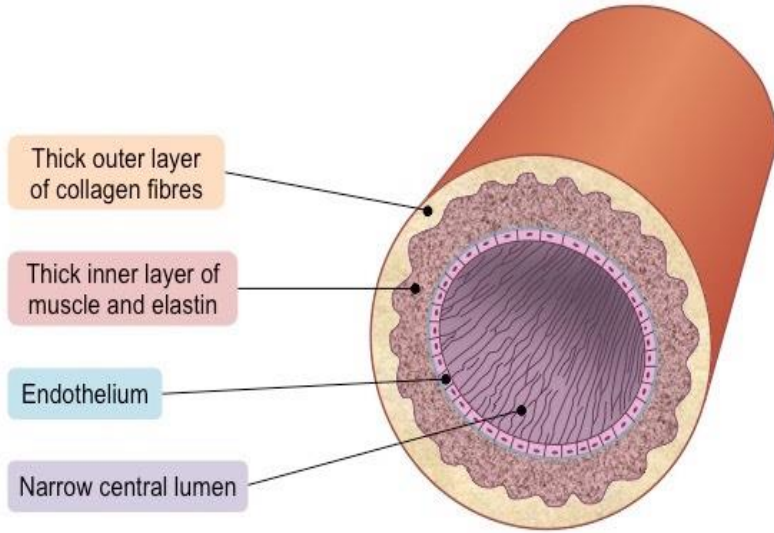


SIGNALING MOLECULE AND A LOCAL VASODILATOR



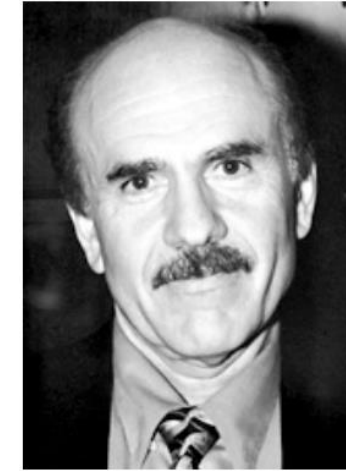
Rodent aortas:

spiral endothelial cut, immerse in saline,
and the aorta would constrict.
Without cut did not constrict.

The Nobel Prize in Physiology or Medicine 1998



Robert F. Furchgott
Prize share: 1/3
BIOCHEMIST



Louis J. Ignarro
Prize share: 1/3
PHARM.



Ferid Murad
Prize share: 1/3
MD PHARM.

The Nobel Prize in Physiology or Medicine 1998 was awarded jointly to Robert F. Furchgott, Louis J. Ignarro and Ferid Murad "for their discoveries concerning nitric oxide as a signalling molecule in the cardiovascular system".

Photos: Copyright © The Nobel Foundation

**Endothelium Derived
Relaxation Factor 1980s**

**...and is
Nitric
Oxide
1987**

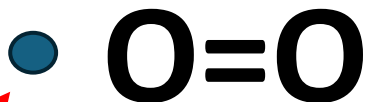
**NITROGLYCERIN
RELEASES N=O
FOR CORONARY
VASODILITATION
1970s**

NO is a free radical with an unpaired electron

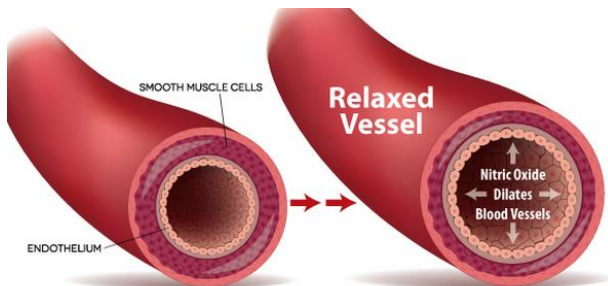
A NATURAL BIOLOGIC **ANTIOXIDANT**:



nitric oxide

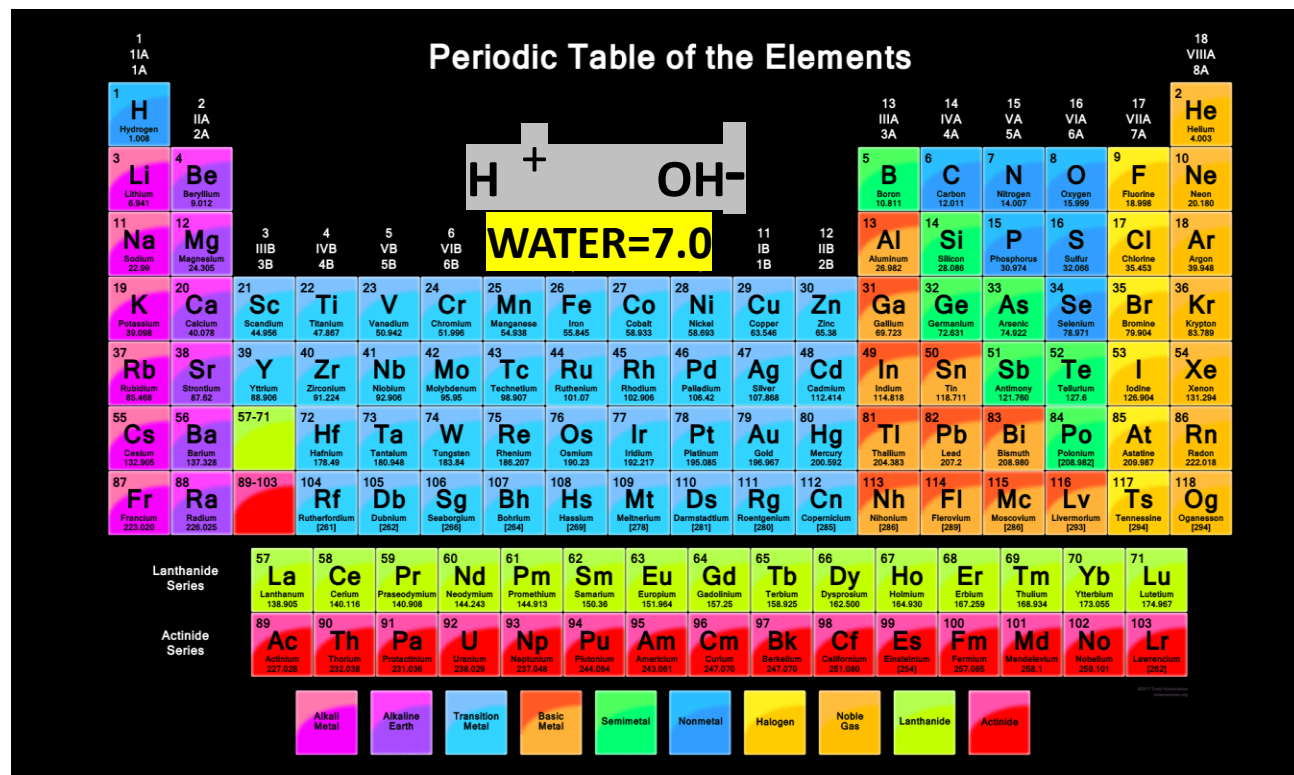


BINDS WITH THE UNPAIRED ELECTRON IN SUPEROXIDE IN OXIDATIVE STRESS



NEUTRALIZES THE EXTREMES

LIBERATED FROM VASCULAR ENDOTHELIUM,
IT IS A LOCAL **VASODILATOR**
AND IS
ANTI INFLAMMATORY



**HEALTH IS AT THE TIPPING POINT OF...
REDUCTION.....OXIDATION
ACID pH low..... <7.4>.....BASE pH high
sour bitter,soapy feel
WATER=7.0!
HOMEOSTASIS ACHIEVES THIS DYNAMIC BALANCE**



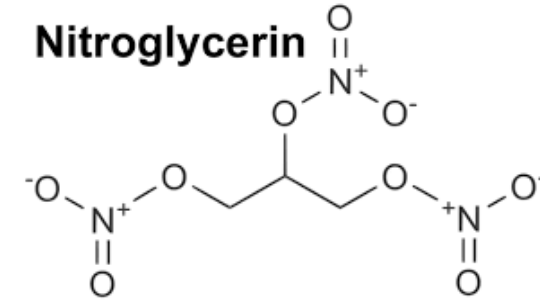
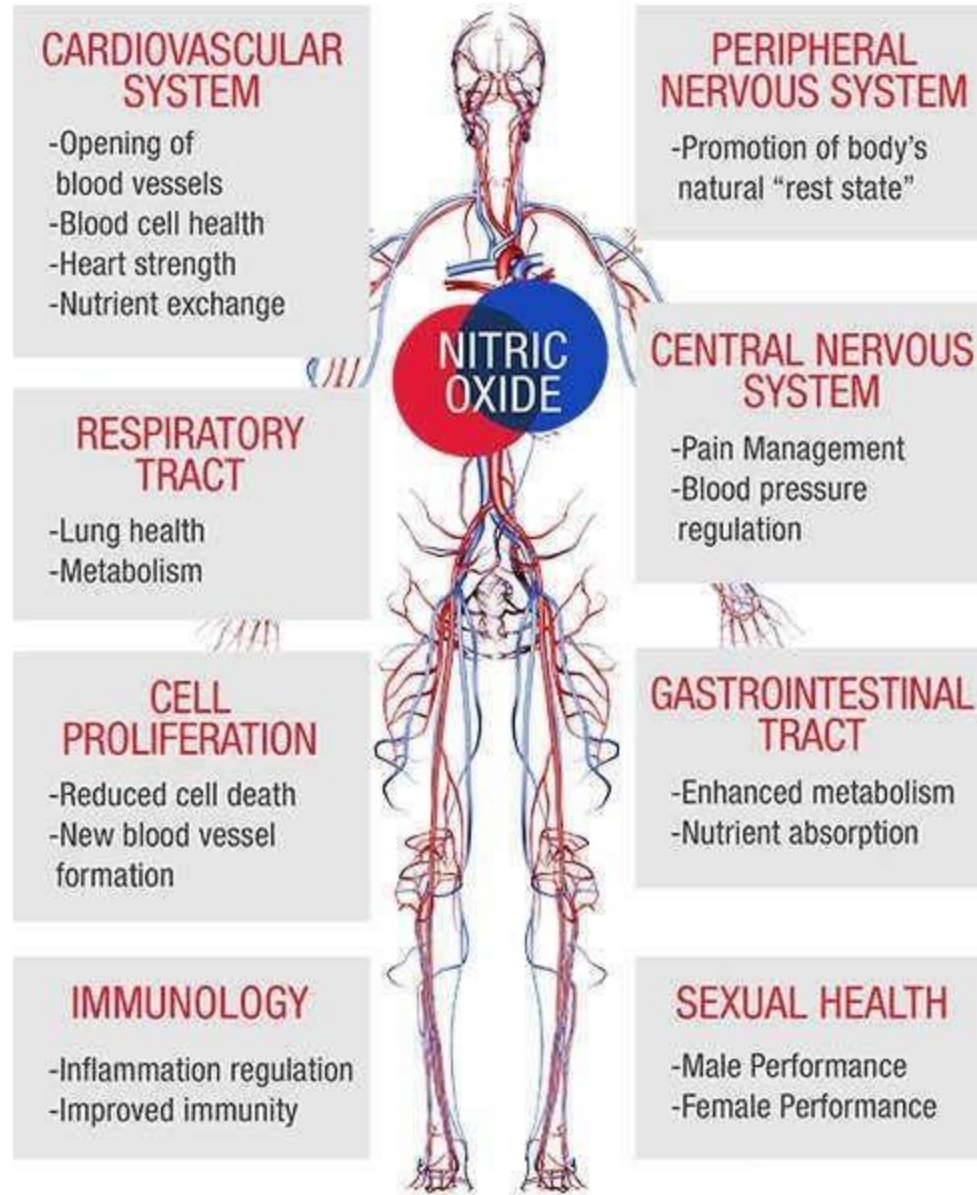
nitric oxide

SIGNALING MOLECULE

Hemoglobin and other
Proteins work better with
NO around

Needed for stem cell
Function and growth
And development in
general

Kills viruses and bacteria
On contact



Erectile vasodilatation
Of sexual arteries
Requires NO

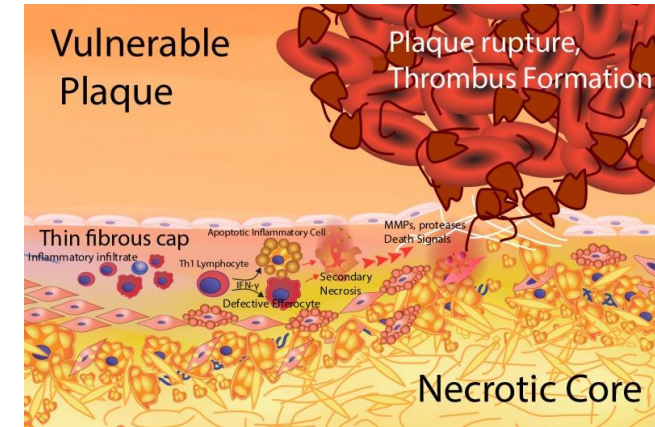
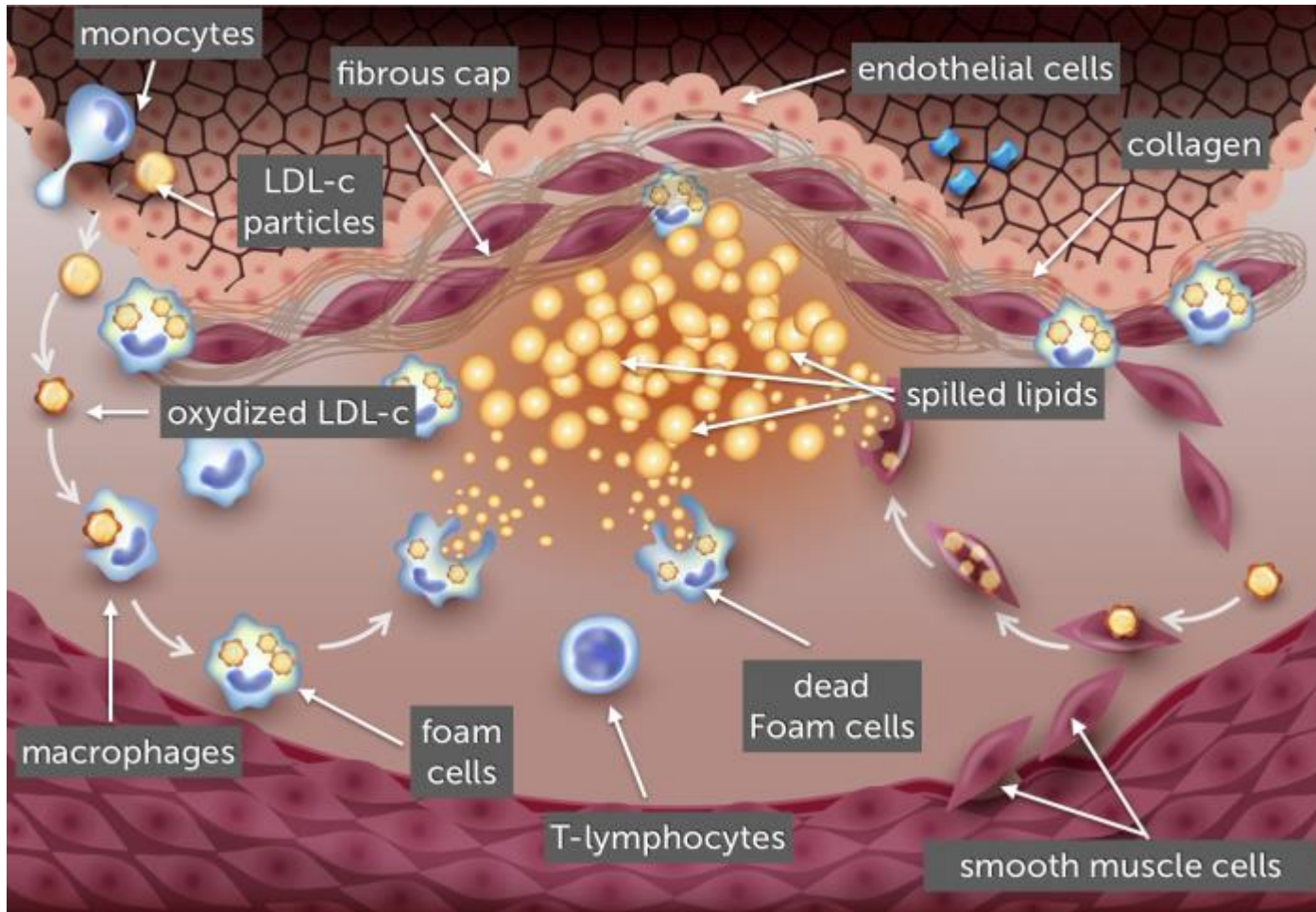
VIAGRA® (sildenafil citrate)



WHOLE PLANT BASED FOODS PREVENT HEART ATTACKS AND STROKES FROM THROMBOSIS (BLOOD CLOTS)

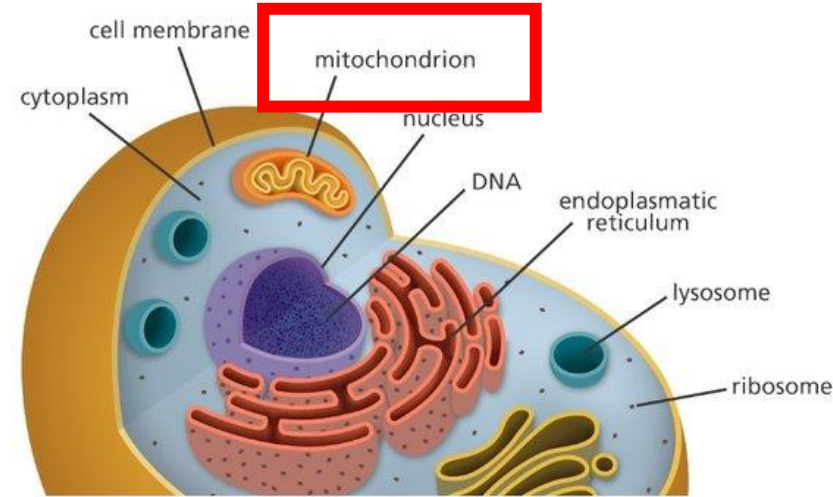
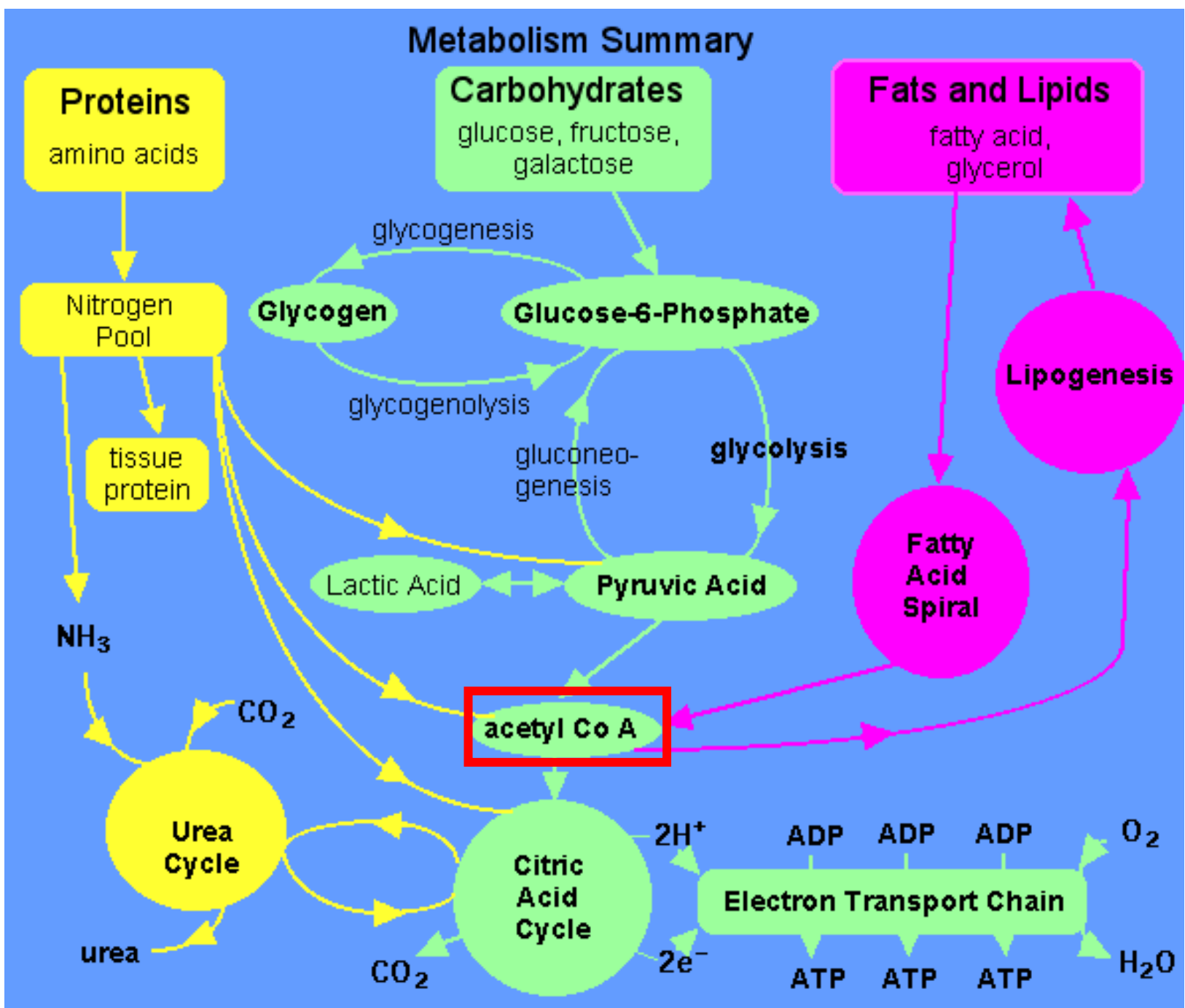


ENDOTHELIAL DYSFUNCTION: SMOKING, EXCESSIVE SUGARS (especially fructose), OILS AND SALT.



FOAM CELLS MANUFACTURE METALLOPROTEINASES THAT DIGEST THE CELL MEMBRANE AND RUPTURE THE PLAQUE.

PLATELETS ACCUMULATE CAUSING CORONARY OR CEREBRAL THROMBOSIS (HEART ATTACK OR STROKE)



Intermediary metabolism occurs in our mitochondria.

METABOLISM: BUILD IT UP AND KNOCK IT DOWN

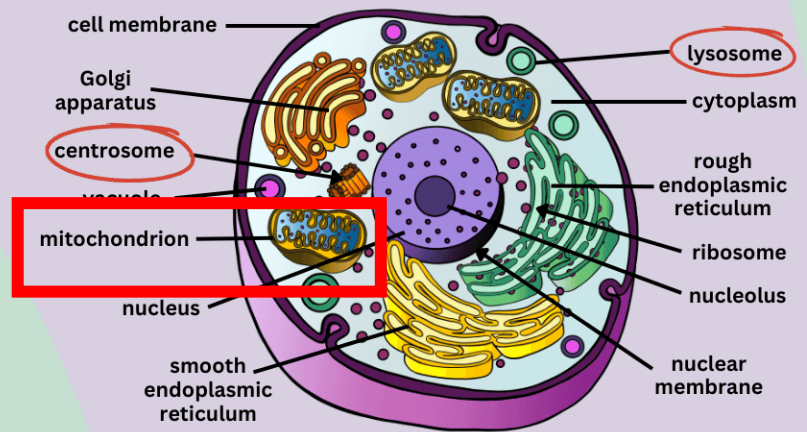
FUEL SHORTAGES: USE FAT, GLYCOGEN, PROTEIN STORES

FUEL EXCESS: HIGH BLOOD SUGAR, HIGH INSULIN TO STORE, FATTY LIVER, OXIDATIVE STRESS, LOW ATP ENERGY, METABOLIC SYNDROME...



PLANT CELL VS ANIMAL CELL

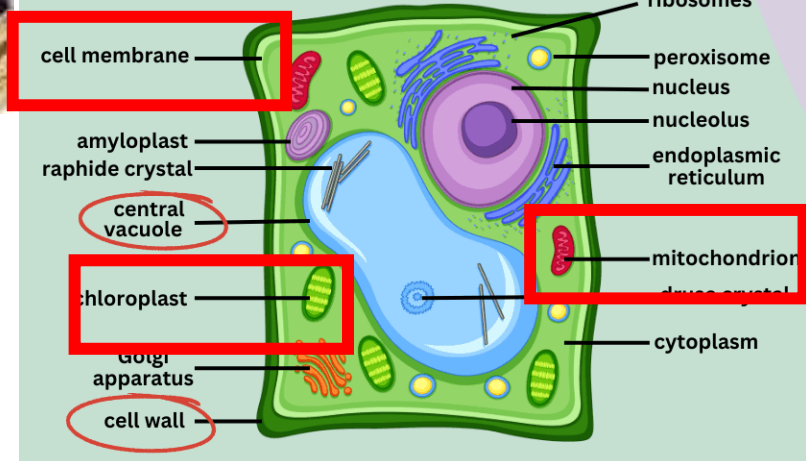
- Cell wall (rigid shape)
- Large central vacuole
- Chloroplasts (autotroph)
- Lack centrosomes
- Lack lysosomes



Animal Cell

- No cell wall (irregular shape)
- Numerous small vacuoles
- No chloroplasts (heterotroph)
- Centrioles / centrosomes
- Lysosomes

Plant Cell



Whole plant and animal cells with natural concentrations of sugars and fats and salt and minerals.

EAT ONLY THESE WHOLE CELLS (NO UPFs!) AND METABOLIC SYNDROME DISAPPEARS.

NOTE:

BOTH HAVE MITOCHONDRIA, WHICH BURN FAT TO MAKE ENERGY, ATP, A MOLECULAR BATTERY THAT PLUGS INTO THE ENZYMATIC MACHINERY DOING THE WORK OF LIVING