It's too late... You've clicked on this page... Now you're surrounded...

## by a Cell Membrane!

(Biology Teachers: Please pardon the square corners.)

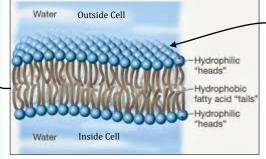
Soooo... What in the world does Farming have to do with Biology? The Connection between Your Health & Our Pasture.

Cells take in nutrients from **FOOD**. Cells convert these nutrients to **ENERGY**. Cells use this energy to perpetually rebuild - **YOU!** 

## Single Human Cell

A microscopic bag of water, (with a few other *kinda'* important things of course). We're here today to talk exclusively about the <u>Membrane!</u>

Phospholipid Bilayer (aka - Cell Membrane)





The heads and tails of the membrane bilayer work together deciding what and how nutrients and communication can pass thru as well as when and how wastes must be excreted. The Hydrophobic tails are comprised of fatty acids. In order to function properly the membrane requires the ability to change it's composition to adapt to varying temperatures and conditions. The membrane must be flexible (literally) in this regard in order to avoid cellular dysfunction.

The human body can manufacture all the fatty acids it needs except for two - Omega 6 and Omega 3. These two fatty acids MUST come from diet - hence they are *essential*. Omega 6's are comprised from the oils found in grains. Omega 3's are comprised of the chloroplast's of green leaves or algae. Humans evolved on a diet in which the ratio of 06 to 03 was 1:1. Since the advent of Industrial Agriculture the ratio is now 17:1. Diets with an excess of 06 yet deficient of 03 have occurred because the diet of conventional livestock is devoid of green pastures. Heavy reliance on grain feeding creates meats which are overly high in omega 6 with almost no measurable omega 3. This is of course coupled with excessive consumption of simple carbohydrates and unhealthy oils.

Because the standard diet has excessive omega 6 yet devoid of omega 3's, by default, these tails are constructed with the omega 6 chain.

Omega 6 chains are rigid. Omega 3's are flexible. Because the cell bilayer cannot properly adapt without this flexibility, cellular communication and respiration are subject to errors potentially leading to cellular dysfunction.

phospholipid hydrophilic head hydrophobic tail

**Implications**: (As if hearing "cellular dysfunction" were not enough?) The current excess of omega 6 fatty acids is the pathogenesis for cancer, cardiovascular disease, autoimmune diseases - all instigated by inflammation. Science demonstrates that increasing dietary omega 3 intake suppresses this inflammation. As the O6:O3 ratio moves closer to our evolutionary 1:1 ratio, the implications transcend the positive effects of suppressive cure, actively working to prevent disease (aka...cellular dysfunction).

More yet: Both of these essential fatty acids are the exclusive raw materials for making ALL of the prostanoid hormones - substances that carry cellular communications for short distances from cell-to-cell.

Finally - a reason to participate in Pasture-based Farming that has nothing to do with Saving the World!

## This one's all about YOU baby!

(Warning: Taking personal responsibility towards preventing disease will reduce the high costs of Healthcare. Consequently, some may still label you as a Do-Gooder!)

Published 2016 by Steve Heyer Solar Harvest Farm Waterford WI www.solarharvestfarm.com