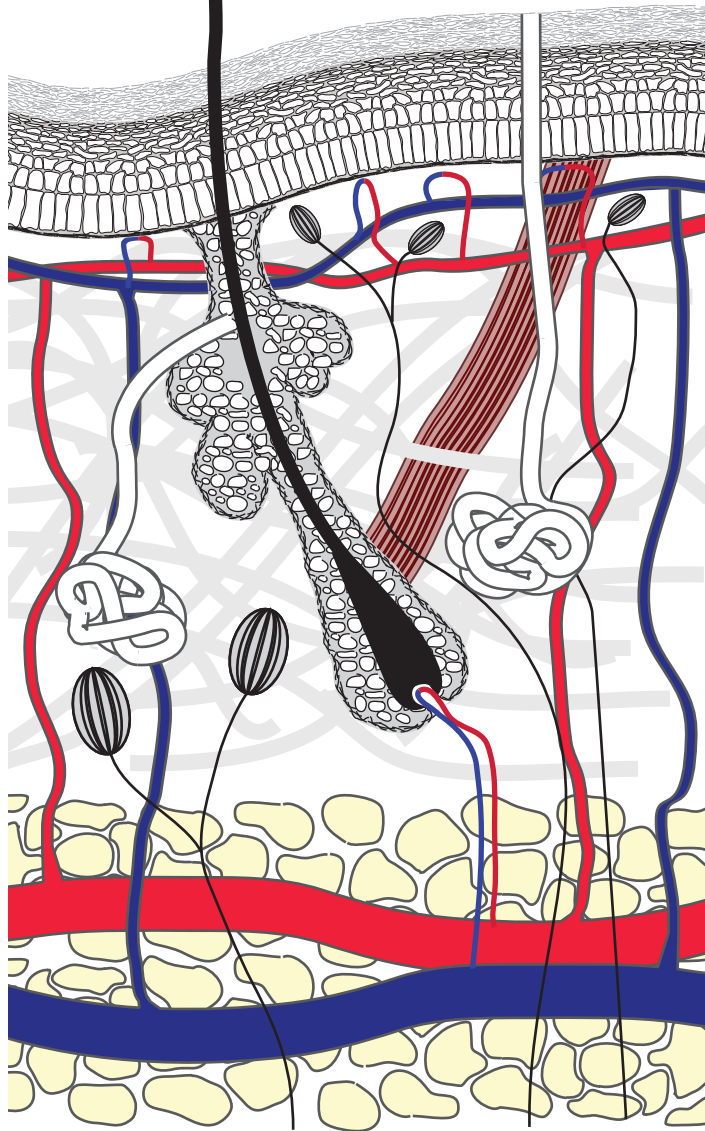


# Foundational Handouts for Wound Healing “Essay”



*By Noel Ways*

# Endospore Forming Anaerobic Bacteria

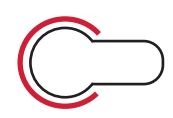
**Growth Potential**  
(Generation Time = 30 min)  
(24 hours)

0	1
0.5	2
1.0	4
1.5	8
2.0	16
2.5	32
3.0	64
3.5	128
4.0	256
4.5	512
5.0	1,024
5.5	2,048
6.0	4,096
6.5	8,192
7.0	16,384
7.5	32,768
8.0	65,536
8.5	131,072
9.0	262,144
9.5	524,288
10.0	1,048,576
10.5	2,097,152
11.0	4,194,304
11.5	8,388,608
12.0	16,777,216
12.5	33,554,432
13.0	67,108,864
13.5	134,217,728
14.0	268,435,456
14.5	536,870,912
15.0	1,073,741,824
15.5	2,147,483,648
16.0	4,294,967,296
16.5	8,589,934,592
17.0	17,179,869,184
17.5	34,359,738,368
18.0	68,719,476,736
18.5	137,438,953,472
19.0	274,877,906,944
19.5	549,755,813,888
20.0	1,099,511,627,776
20.5	2,199,023,255,552
21.0	4,398,046,511,104
21.5	8,796,093,022,208
22.0	17,592,186,044,416
22.5	35,184,372,088,832
23.0	70,368,744,177,664
23.5	140,737,488,355,328
24.0	281,474,976,710,656

Growth Potential Realized



Mature Bacterium



Favorable Environmental Conditions



"Step on Rusty Nail Scenario. Necrotic Wound"

Unfathomable numbers of airborne endospores

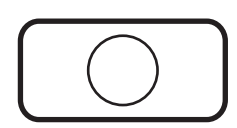
Release of Endospore



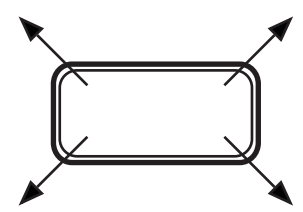
Disintegration of Cell Wall



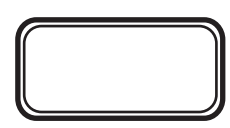
Endospore Coat Formation and Stabilization of Cytoplasm



Water Loss



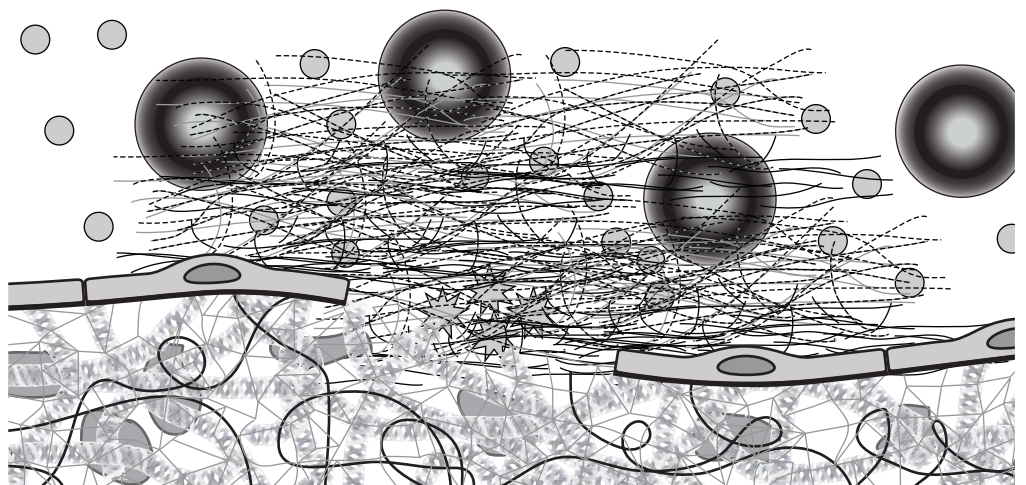
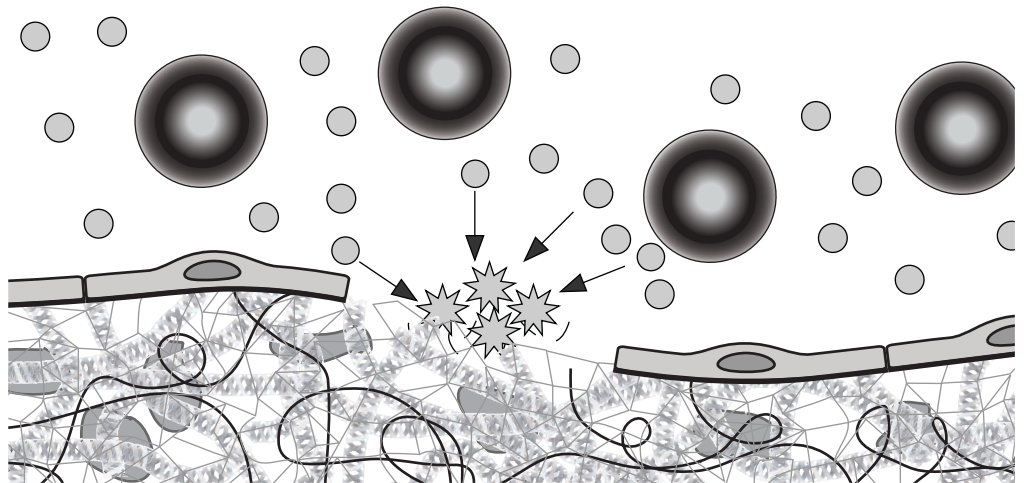
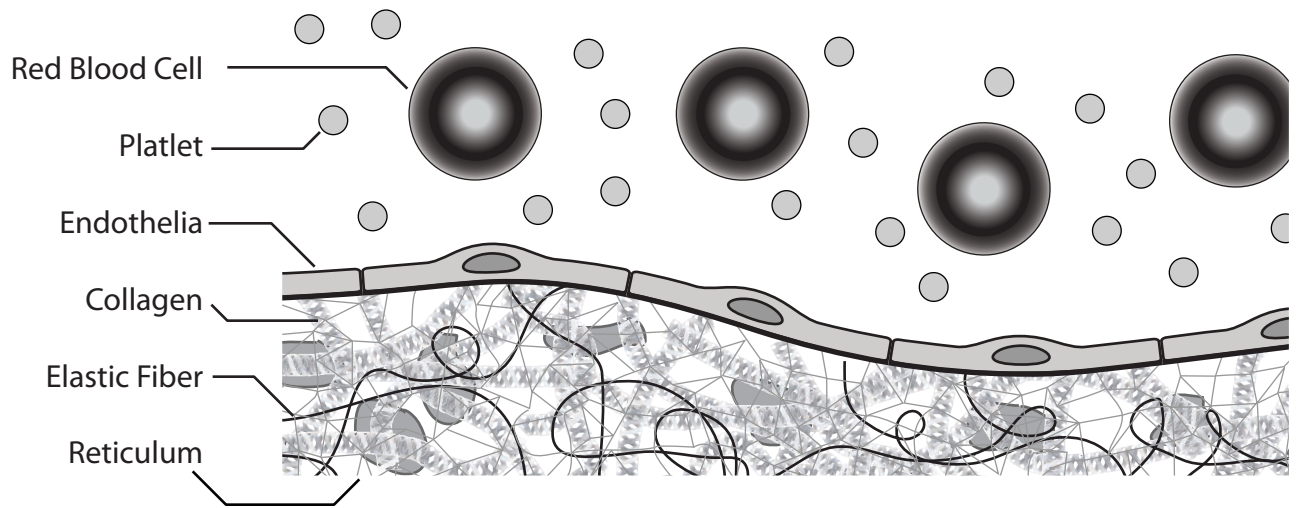
Environmental Stress



Endospores of *Clostridium tetani* have affinity for iron oxide

Neruo toxin Induced Paralysis

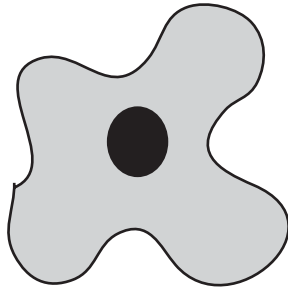




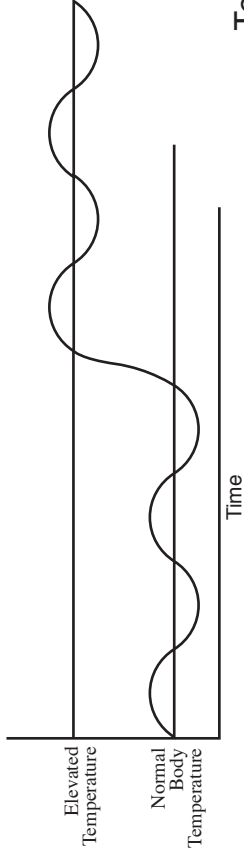
Interstitial Increase in Basal Metabolic Rate



Secretion of Pyrogen



Neutrophil



Elevated Temperature



Inhibits Pathogen Growth

Promotes Immune Responses

