Bacteria, yeasts, viruses, parasites, spirochetes (Lyme) and other critters are commonly accepted as being a part of our environment, and as a common cause of illness. Just a little over 100 years ago, this concept was ridiculed!\(^{12}\)

The discovery of the microscope in the early 1800’s, and bacteria in the mid-to-late 1800’s (Pasteur and Lister), and antibiotics in the early 1900s (by Fleming) were probably the most revolutionary advances in medicine. They affected public health through sanitation, improved the survival rate of surgery (which was as low as 20-30% before antiseptics were used), and provided a useful model for understanding the propagation and treatment of disease. We have over-shot the target of using these applications to protect our children and society (a future article), as is evident with recent concerns about drug-resistant superbugs and potential harm in inoculating children starting within 24 hours of birth and totaling over 25 vaccines by age 18.

As a society, we still tend to both under and over blame and treat these critters for our health issues. For example, Marshall was awarded the Nobel Prize in 2005 for his discovery of H. Pylori as a cause of stomach ulcers. His idea was initially rejected by the medical establishment—he had to infect and then treat himself to prove the case (as have numerous medical scientists over the last 200 years). Currently, with Lyme, opposing groups argue that Lyme is both being over-diagnosed and under-diagnosed; probably both are occurring.

**Definition of “Stealth” and Infection (see diagram on page 2)**

“Infection” is usually defined by the presence of “objective” signs, such as fever, blood test (high white count), and x-rays (such as pneumonia). Therefore the organism is causing a measurable change in bodily functioning (physiology). In such a scenario, most would agree that an infection was present and needs treatment with antibiotics.

“Sub-clinical” infection is usually defined by the presence of subtle symptoms, such as low-grade fever, enlarged lymph nodes, fatigue, persistent cough, bladder symptoms, etc, which usually follows or precedes a full-blown infection. While there are soft signs of altered physiology, there is no evidence of a major battle. Most physicians would treat a persistent sub-clinical infection with a round of antibiotics.

The “Carrier” or “Colonized” state implies the presence of the organism (critter) that is not causing any alteration in physiology. In this state, the immune system is theoretically “managing” the organism, not allowing it to grow out of control (such as ground cover presenting weeds). However, if the immune system is weakened by stress, other medical conditions (surgery, trauma, HIV, allergy) or other factors (aging, toxicity, nutritional deficiency) the organism can proliferate and cause an “infection”. A common example of this is Shingles, where the Herpes Virus comes out of hiding and affects a nerve and its related skin territory. Another example is tuberculosis. We normally carry as many as 400 different organisms of varying virulence (potential for harm). In fact, if we count all of the cells that are contained in and on our bodies, we are only 10% and they are 90%!. The integrity of our psycho-neuro-endocrine-immune system determines how these organisms are managed. We rely on the good ones (such as when we take probiotics) to suppress the bad ones. We all know what can happen when we alter this ecology by the over-use of antibiotics, as well as other medications, and in some people birth-control pills and certain vaccines.

The “Stealth” level of presence is controversial. It implies that the organism is essentially undetectable by current methodology, as well as by the immune system. However, the organism is altering bodily function directly (see list), or can invite other organisms to proliferate (see diagram page 2). Commonly, there are both chronic and recurrent “acute” cycles of symptoms of varying severity. Visits to the doctor will occasionally reveal “objective” findings, but often not of magnitude or persistence (fluctuation of positive and negative findings on labs). Since the symptoms are subtle, changing and often atypical, as well as associated with sleep, digestive, hormonal, emotional and cognitive complaints, the patient is commonly diagnosed as having anxiety or depression, and is given medications to treat these symptoms (such as anti-epileptic medications for “nerve tingling”).

**How the Body Recognizes and Attacks Invaders**

Beginning with birth, the body’s immune system remembers each organism it encounters by developing a data-base of molecular fingerprints. These molecules are on the outside surface of the organism. Throughout evolution, there has been a cat-and-mouse game of finding the organism, and then the organism finding new ways to hide (see below). Once recognized, a very specific lock-and-key mechanism triggers a cascade of events that result in a defensive inflammatory reaction. This defense utilizes the classic four “ors” of inflammation: 1) calor=heat, 2) rubor=redness, 3) dolor=pain and 4) tumor= swelling. When things go right, this process is brief and time limited. We usually recover from our respiratory and skin infections in days to weeks. However, in the case of a SI, this response either does not occur, or is suppressed by several possible mechanisms. In such cases, there can be minimal if any
objective findings and often vague symptoms as discussed above.

How Organisms go Stealth

Understanding how organisms go stealth is a relatively new and growing science. Some concepts are accepted by mainstream medicine and science; some have not.

A Biofilm is like a coral reef, a structure which a colony of organisms build around themselves. Tooth plaque is an example. This structure, composed of calcium, other minerals (magnesium, iron), heavy metals, and other compounds enable the organisms to hide from detection, as well as resist attack by the body and by antibiotics.

Cell Wall Deficient Forms are forms of certain bacteria and other organisms that shed their outer coat, which contains the fingerprint molecules. Therefore they are not recognized by the immune system.

Coding via Genetics and borrowing from other organisms. Many organisms, such as Lyme, contain “plasmids” which are like a database of protective and disguising molecules that they can change based on their environment. Sometimes organisms of different species can share such information, like sharing a computer password.

Categories of Critters

The definitions of yeast, fungus, bacteria, spirochetes, parasites, bacteria etc. is not fixed, and changes from time to time. Some biologists think that the distinctions between these various biologic forms can be fluid, with some organisms using the above and other mechanisms to change the way they look, hide, and attack.

Testing for Stealth Infections

By definition, SIs are not detectable by usual direct means—trying to capture and grow the organism is close to impossible with current technology. Sometimes we can detect an immune system reaction (IgM and IgG levels, CRP, other lab tests). Usually it is a pattern of symptoms that come and go, or follow the use of antibiotics or other medical conditions without any other clear explanation. Sometimes “energy medicine” techniques, such as applied kinesiology, can be helpful in detection (strength or weakness of certain muscles in response to certain questions or challenges). Holistic medicine can move the diagnostic process forward using leading-edge testing not yet accepted by mainstream medicine.

Treating Stealth Infections

Once the boat is launched, the treatment of SIs requires completion to get to the other shore. This usually requires a series or combination of approaches, which can include probiotics, pre-biotics, digestive acid and enzymes, herbal immune boosters, herbal anti-biotics, pharmaceuticals, and newer biofilm products. This treatment can be coupled with detoxification (liver support, heavy metals), adrenal support, sleep support and support of other related systems that are overwhelmed by the process. Partnering with a knowledgeable practitioner is often essential, as one can get worse mid-stream, and an objective viewpoint is needed to navigate the numerous options that exist at each step.

Working on stress reduction, classic yoga and tai chi, acupuncture, journaling and spiritual work, good sleep, joy, comedy and music are often important to support the immune system, which ultimately must work optimally in order to achieve a healthy ecology.

IMPORTANT NOTE: This general information should not be used to make decisions about medical care without the involvement of a knowledgeable practitioner. The contents of this article are copyright 2012 by Michael Cheikin MD and may not be reproduced without express written permission.

Footnotes and Reading Materials

(Books followed by ISBN number)
1. See prior Yoga Livings and Dr. Cheikin’s website, cheikin.com. For related articles and expanded bibliographies.
2. In the mid 1800’s Ignaz Semmelweis discovered unseen bacteria as a cause of mothers’ death after delivery (child bed fever) but was ridiculed, persecuted, and ultimately died in a mad house.